

PV Module String Sizing for Solectria Renewables PVI 13KW & PVI 15KW grid tied inverters.

See bottom for step-by-step instructions

Note that these are suggested configurations only. Verify all the actual site temperature extremes and conditions will yield voltages and power levels within the specifications of the inverter and other components used in the system.

See bottom of chart for weblink to temperature data in your area. The Voc & Vmp values given in the tables use module manufacturers' ratings. Cell temp rise above ambient do not include effects of roofs or voltage drop through your wiring.

Note that inverter's maximum continuous AC power is limited to its 13.2 kW AC or 15.0 kW AC output rating. Also, refer to the inverter AC output power versus input voltage and current in the Technical Data section of the Installation and Operation Manual.

Manual local: http://www.solren.com/customer/manuals.html
CEC, PTC AC system power ratings are based on PV module PTC power rating and PTC efficiencies of the PVI 13KW and PVI 15KW inverters. PTC ratings are based on the 480VAC versions (208VAC versions are 0.5% lower).

Last updated: 9/14/2009

Table for PVI 13KW inverter, Module Manufacturer Aleo Solar, aleo S 18 | 230. Includes columns for Voltage @ MPT (STC), Current @ MPT (STC), and various temperature conditions (OCV @ -25 deg C cells, OCV @ coldest temp, etc.).

For Vmpt @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK, orange is acceptable but should be avoided where possible (inverter will hold at 225VDC), purple is OK but indicates inverter will limit to 15 kW AC continuous output, pink is acceptable but should be avoided where possible (inverter will not run above 450VDC).

Table for PVI 15KW inverter, Module Manufacturer Aleo Solar, aleo S 18 | 225. Includes columns for Voltage @ MPT (STC), Current @ MPT (STC), and various temperature conditions.

For Vmpt @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK, orange is acceptable but should be avoided where possible (inverter will hold at 225VDC), purple is OK but indicates inverter will limit to 15 kW AC continuous output, pink is acceptable but should be avoided where possible (inverter will not run above 450VDC).

Table for PVI 15KW inverter, Module Manufacturer Aleo Solar, aleo S 18 | 220. Includes columns for Voltage @ MPT (STC), Current @ MPT (STC), and various temperature conditions.

For Vmpt @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK, orange is acceptable but should be avoided where possible (inverter will hold at 225VDC), purple is OK but indicates inverter will limit to 15 kW AC continuous output, pink is acceptable but should be avoided where possible (inverter will not run above 450VDC).

Table for PVI 15KW inverter, Module Manufacturer Aleo Solar, aleo S 18 | 215. Includes columns for Voltage @ MPT (STC), Current @ MPT (STC), and various temperature conditions.

For Vmpt @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK, orange is acceptable but should be avoided where possible (inverter will hold at 225VDC), purple is OK but indicates inverter will limit to 15 kW AC continuous output, pink is acceptable but should be avoided where possible (inverter will not run above 450VDC).

Table for PVI 15KW inverter, Module Manufacturer Aleo Solar, aleo S 18 | 210. Includes columns for Voltage @ MPT (STC), Current @ MPT (STC), and various temperature conditions.

For Vmpt @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK, orange is acceptable but should be avoided where possible (inverter will hold at 225VDC), purple is OK but indicates inverter will limit to 15 kW AC continuous output, pink is acceptable but should be avoided where possible (inverter will not run above 450VDC).

Module Manufacturer: BP Solar, Module Model: SX 3175, Voltage @ MPT (STC): 36.1 VDC, Current @ MPT (STC): 4.85 ADC, Current, short circuit: 5.3 ADC, OCV @ 25 deg C cells: 43.6 VDC. Power @ MPT: 175.0 W, PTC Power Rating: 155.2 W, Temp Coeff of Vmp: 0.16 V/degC, Temp Coeff of Voc: 0.16 V/degC, NOCT (nom. cell temp): 47 deg C. For Vmpt @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK, orange is acceptable but should be avoided where possible (inverter will hold at 225VDC), purple is OK but indicates inverter will limit to 15 kW AC continuous output, pink is acceptable but should be avoided where possible (inverter will not run above 450VDC).

Module Manufacturer: BP Solar, Module Model: BP 175 I, Voltage @ MPT (STC): 35.8 VDC, Current @ MPT (STC): 4.9 ADC, Current, short circuit: 5.4 ADC, OCV @ 25 deg C cells: 44.2 VDC. Power @ MPT: 175 W, PTC Power Rating: 155.2 W, Temp Coeff of Vmp: 0.16 V/degC, Temp Coeff of Voc: 0.16 V/degC, NOCT (nom. cell temp): 47 deg C. For Vmpt @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK, orange is acceptable but should be avoided where possible (inverter will hold at 225VDC), purple is OK but indicates inverter will limit to 15 kW AC continuous output, pink is acceptable but should be avoided where possible (inverter will not run above 450VDC).

Module Manufacturer: BP Solar, Module Model: BP 4175, Voltage @ MPT (STC): 35.7 VDC, Current @ MPT (STC): 4.9 ADC, Current, short circuit: 5.4 ADC, OCV @ 25 deg C cells: 44 VDC. Power @ MPT: 175.0 W, PTC Power Rating: 155.2 W, Temp Coeff of Vmp: 0.16 V/degC, Temp Coeff of Voc: 0.16 V/degC, NOCT (nom. cell temp): 47 deg C. For Vmpt @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK, orange is acceptable but should be avoided where possible (inverter will hold at 225VDC), purple is OK but indicates inverter will limit to 15 kW AC continuous output, pink is acceptable but should be avoided where possible (inverter will not run above 450VDC).

Module Manufacturer: BP Solar, Module Model: SX 170B, Voltage @ MPT (STC): 35.4 VDC, Current @ MPT (STC): 4.8 ADC, Current, short circuit: 5 ADC, OCV @ 25 deg C cells: 44.2 VDC. Power @ MPT: 170.0 W, PTC Power Rating: 157.0 W, Temp Coeff of Vmp: 0.16 V/degC, Temp Coeff of Voc: 0.16 V/degC, NOCT (nom. cell temp): 47 deg C. For Vmpt @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK, orange is acceptable but should be avoided where possible (inverter will hold at 225VDC), purple is OK but indicates inverter will limit to 15 kW AC continuous output, pink is acceptable but should be avoided where possible (inverter will not run above 450VDC).

Module Manufacturer: BP Solar, Module Model: BP 4170, Voltage @ MPT (STC): 35.6 VDC, Current @ MPT (STC): 4.78 ADC, Current, short circuit: 5.1 ADC, OCV @ 25 deg C cells: 44.4 VDC. Power @ MPT: 170.0 W, PTC Power Rating: 157.0 W, Temp Coeff of Vmp: 0.16 V/degC, Temp Coeff of Voc: 0.16 V/degC, NOCT (nom. cell temp): 47 deg C. For Vmpt @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK, orange is acceptable but should be avoided where possible (inverter will hold at 225VDC), purple is OK but indicates inverter will limit to 15 kW AC continuous output, pink is acceptable but should be avoided where possible (inverter will not run above 450VDC).

Module Manufacturer	CEEG											Power @ MPT	185.0 W											For Vmpt @ max amb temp and OCV @ coldest temperature	green is OK, red is not OK										
Module Model	SST 185-72M											PTC Power Rating	158.5 W											orange is acceptable but should be avoided where possible (inverter will hold at 225VDC),											
Voltage @ MPT (STC)	35.8 VDC											Temp Coeff of Vmpt	0.134 V/degC (Vmpt)											purple is OK but indicates inverter will limit to 15 kW AC continuous output											
Current @ MPT (STC)	5.17 ADC											Temp Coeff of Voc	0.134 V/degC (Voc)											pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)											
Current, short circuit	5.48 ADC											NOCT (nom. cell temp)	47 deg C																						
OCV @ 25 deg C cells	44.8 VDC																																		
Modules total in array	56	64	72	80	88	96	104	54	63	72	81	90	99	108																					
Modules per string	8	8	8	8	8	8	8	8	9	9	9	9	9	9																					
Strings in Parallel	7	8	9	10	11	12	13	6	7	8	9	10	11	12																					
Voltage @ MPT (STC)	286.4	286.4	286.4	286.4	286.4	286.4	286.4	322.2	322.2	322.2	322.2	322.2	322.2	322.2																					
Vmpt @ max amb temp (30C, 96F amb)	252.1	252.1	252.1	252.1	252.1	252.1	252.1	283.6	283.6	283.6	283.6	283.6	283.6	283.6																					
Vmpt @ max amb temp (35C, 95F amb)	246.7	246.7	246.7	246.7	246.7	246.7	246.7	277.6	277.6	277.6	277.6	277.6	277.6	277.6																					
Vmpt @ max amb temp (40C, 104F amb)	241.4	241.4	241.4	241.4	241.4	241.4	241.4	271.5	271.5	271.5	271.5	271.5	271.5	271.5																					
Vmpt @ max amb temp (45C, 113F amb)	236.0	236.0	236.0	236.0	236.0	236.0	236.0	265.5	265.5	265.5	265.5	265.5	265.5	265.5																					
Vmpt @ max amb temp (50C, 122F amb)	230.7	230.7	230.7	230.7	230.7	230.7	230.7	259.5	259.5	259.5	259.5	259.5	259.5	259.5																					
OCV @ 25 deg C cells	358.4	358.4	358.4	358.4	358.4	358.4	358.4	403.2	403.2	403.2	403.2	403.2	403.2	403.2																					
OCV @ coldest temp (-40C, -40F amb)	428.1	428.1	428.1	428.1	428.1	428.1	428.1	481.6	481.6	481.6	481.6	481.6	481.6	481.6																					
OCV @ coldest temp (-30C, -22F amb)	417.4	417.4	417.4	417.4	417.4	417.4	417.4	469.5	469.5	469.5	469.5	469.5	469.5	469.5																					
OCV @ coldest temp (-20C, -4F amb)	406.6	406.6	406.6	406.6	406.6	406.6	406.6	457.5	457.5	457.5	457.5	457.5	457.5	457.5																					
OCV @ coldest temp (-10C, 14F amb)	395.9	395.9	395.9	395.9	395.9	395.9	395.9	445.4	445.4	445.4	445.4	445.4	445.4	445.4																					
OCV @ coldest temp (0C, 32F amb)	385.2	385.2	385.2	385.2	385.2	385.2	385.2	433.4	433.4	433.4	433.4	433.4	433.4	433.4																					
Power @ MPT (STC)	10360	11840	13320	14800	16280	17760	19240	9990	11655	13320	14985	16650	18315	19980																					
PTC AC system power rating	8388	9598	10784	11983	13181	14379	15577	8068	9436	10794	12132	13490	14848	16177																					
Suggested Inverter	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	PVI 15KW																				

Module Manufacturer	CEEG											Power @ MPT	180.0 W											For Vmpt @ max amb temp and OCV @ coldest temperature	green is OK, red is not OK										
Module Model	SST 180-72M											PTC Power Rating	154.1 W											orange is acceptable but should be avoided where possible (inverter will hold at 225VDC),											
Voltage @ MPT (STC)	35.4 VDC											Temp Coeff of Vmpt	0.134 V/degC (Vmpt)											purple is OK but indicates inverter will limit to 15 kW AC continuous output											
Current @ MPT (STC)	5.09 ADC											Temp Coeff of Voc	0.134 V/degC (Voc)											pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)											
Current, short circuit	5.4 ADC											NOCT (nom. cell temp)	47 deg C																						
OCV @ 25 deg C cells	44.6 VDC																																		
Modules total in array	56	64	72	80	88	96	104	54	63	72	81	90	99	108																					
Modules per string	8	8	8	8	8	8	8	8	9	9	9	9	9	9																					
Strings in Parallel	7	8	9	10	11	12	13	6	7	8	9	10	11	12																					
Voltage @ MPT (STC)	283.2	283.2	283.2	283.2	283.2	283.2	283.2	318.6	318.6	318.6	318.6	318.6	318.6	318.6																					
Vmpt @ max amb temp (30C, 96F amb)	248.9	248.9	248.9	248.9	248.9	248.9	248.9	280.0	280.0	280.0	280.0	280.0	280.0	280.0																					
Vmpt @ max amb temp (35C, 95F amb)	243.5	243.5	243.5	243.5	243.5	243.5	243.5	274.0	274.0	274.0	274.0	274.0	274.0	274.0																					
Vmpt @ max amb temp (40C, 104F amb)	238.2	238.2	238.2	238.2	238.2	238.2	238.2	267.9	267.9	267.9	267.9	267.9	267.9	267.9																					
Vmpt @ max amb temp (45C, 113F amb)	232.8	232.8	232.8	232.8	232.8	232.8	232.8	261.9	261.9	261.9	261.9	261.9	261.9	261.9																					
Vmpt @ max amb temp (50C, 122F amb)	227.5	227.5	227.5	227.5	227.5	227.5	227.5	255.9	255.9	255.9	255.9	255.9	255.9	255.9																					
OCV @ 25 deg C cells	356.8	356.8	356.8	356.8	356.8	356.8	356.8	401.4	401.4	401.4	401.4	401.4	401.4	401.4																					
OCV @ coldest temp (-40C, -40F amb)	426.5	426.5	426.5	426.5	426.5	426.5	426.5	479.8	479.8	479.8	479.8	479.8	479.8	479.8																					
OCV @ coldest temp (-30C, -22F amb)	415.8	415.8	415.8	415.8	415.8	415.8	415.8	467.7	467.7	467.7	467.7	467.7	467.7	467.7																					
OCV @ coldest temp (-20C, -4F amb)	405.0	405.0	405.0	405.0	405.0	405.0	405.0	455.7	455.7	455.7	455.7	455.7	455.7	455.7																					
OCV @ coldest temp (-10C, 14F amb)	394.3	394.3	394.3	394.3	394.3	394.3	394.3	443.6	443.6	443.6	443.6	443.6	443.6	443.6																					
OCV @ coldest temp (0C, 32F amb)	383.6	383.6	383.6	383.6	383.6	383.6	383.6	431.6	431.6	431.6	431.6	431.6	431.6	431.6																					
Power @ MPT (STC)	10080	11520	12960	14400	15840	17280	18720	9720	11340	12960	14580	16200	17820	19440																					
PTC AC system power rating	8148	9320	10495	11650	12815	13980	15145	7864	9174	10485	11796	13106	14417	15727																					
Suggested Inverter	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	PVI 15KW																				

Module Manufacturer	CEEG											Power @ MPT	170.0 W											For Vmpt @ max amb temp and OCV @ coldest temperature	green is OK, red is not OK										
Module Model	SST 170-72M											PTC Power Rating	154.3 W											orange is acceptable but should be avoided where possible (inverter will hold at 225VDC),											
Voltage @ MPT (STC)	35.2 VDC											Temp Coeff of Vmpt	0.164 V/degC (Vmpt)											purple is OK but indicates inverter will limit to 15 kW AC continuous output											
Current @ MPT (STC)	4.83 ADC											Temp Coeff of Voc	0.164 V/degC (Voc)											pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)											
Current, short circuit	5.29 ADC											NOCT (nom. cell temp)	51 deg C																						
OCV @ 25 deg C cells	44.4 VDC																																		
Modules total in array	56	64	72	80	88	96	104	112	54	63	72	81	90	99	108																				
Modules per string	8	8	8	8	8	8	8	8	8	9	9	9	9	9																					
Strings in Parallel	7	8	9	10	11	12	13	6	7	8	9	10	11	12																					
Voltage @ MPT (STC)	281.6	281.6	281.6	281.6	281.6	281.6	281.6	316.8	316.8	316.8	316.8	316.8	316.8	316.8																					
Vmpt @ max amb temp (30C, 96F amb)	234.4	234.4	234.4	234.4	234.4	234.4	234.4	263.7	263.7	263.7	263.7	263.7	263.7	263.7																					
Vmpt @ max amb temp (35C, 95F amb)	227.8	227.8	227.8	227.8	227.8	227.8	227.8	256.3	256.3	256.3	256.3	256.3	256.3	256.3																					
Vmpt @ max amb temp (40C, 104F amb)	221.2	221.2	221.2	221.2	221.2	221.2	221.2	248.9	248.9	248.9	248.9	248.9	248.9	248.9																					
Vmpt @ max amb temp (45C, 113F amb)	214.7	214.7	214.7	214.7	214.7	214.7	214.7	241.5	241.5	241.5	241.5	241.5	241.5	241.5																					
Vmpt @ max amb temp (50C, 122F amb)	208.1	208.1	208.1	208.1	208.1	208.1	208.1	234.1	234.1	234.1	234.1	234.1	234.1	234.1																					
OCV @ 25 deg C cells	355.2	355.2	355.2	355.2	355.2	355.2	355.2	399.6	399.6	399.6	399.6	399.6	399.6	399.6																					
OCV @ coldest temp (-40C, -40F amb)	440.5	440.5	440.5	440.5	440.5	440.5	440.5	495.5	495.5	495.5	495.5	495.5	495.5	495.5																					
OCV @ coldest temp (-30C, -22F amb)	427.4	427.4	427.4	427.4	427.4	427.4	427.4	480.8	480.8	480.8	480.8	480.8	480.8	480.8																					
OCV @ coldest temp (-20C, -4F amb)	414.2	414.2	414.2	414.2	414.2	414.2	414.2	466.0	466.0	466.0	466.0	466.0	466.0	466.0																					
OCV @ coldest temp (-10C, 14F amb)	401.1	401.1	401.1	401.1	401.1	401.1	401.1	451.3	451.3	451.3	451.3	451.3	451.3	451.3																					
OCV @ coldest temp (0C, 32F amb)	388.0	388.0	388.0	388.0	388.0	388.0	388.0	436.5	436.5	436.5	436.5	436.5	436.5	436.5																					
Power @ MPT (STC)	9520	10880	12240	13600	14960	16320	17680	18040	9180	10710	12240	13770	15300	16830																					
PTC AC system power rating	7644	8768	9898	10998	12098	13182	14280	15378	7415	8608	9806	11022	12358	13694																					
Suggested Inverter	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	PVI 15KW																				

Module Manufacturer	Centennial Solar											Power @ MPT	230.0 W											For Vmpt @ max amb temp and OCV @ coldest temperature	green is OK, red is not OK										
Module Model	CS 230											PTC Power Rating	0.0 W											orange is acceptable but should be avoided where possible (inverter will hold at 225VDC),											
Voltage @ MPT (STC)	36.1 VDC											Temp Coeff of Vmpt	0.138 V/degC (Vmpt)											purple is OK but indicates inverter will limit to 15 kW AC continuous output											
Current @ MPT (STC)	7.64 ADC											Temp Coeff of Voc	0.138 V/degC (Voc)											pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)											
Current, short circuit	8.48 ADC											NOCT (nom. cell temp)	45 deg C																						
OCV @ 25 deg C cells	36.3 VDC																																		
Modules total in array	54	63	72	81	90	60	70	55	66	77																									
Modules per string	9	9	9	9	9	10	10	10	11	11																									
Strings in Parallel	6	7	8	9	5	6	7	5	6	7																									
Voltage @ MPT (STC)	270.9	270.9	270.9	270.9	270.9	301.0	301.0	301.0	331.1	331.1																									
Vmpt @ max amb temp (30C, 96F amb)	233.6	233.6	233.6	233.6	233.6	259.6	259.6	259.6	285.6	285.6																									
Vmpt @ max amb temp (35C, 95F amb)	227.4	227.4	227.4	227.4	227.4	252.7	252.7	252.7	278.0	278.0																									
Vmpt @ max amb temp (40C, 104F amb)	221.2	221.2	221.2	221.2	221.2	245.8	245.8	245.8	270.4	270.4																									
Vmpt @ max amb temp (45C, 113F amb)	215.0	215.0	215.0	215.0	215.0	238.9	238.9	238.9	262.8	262.8																									
Vmpt @ max amb temp (50C, 122F amb)	208.8	208.8	208.8	208.8	208.8	232.0	232.0	232.0	255.2	255.2																									
OCV @ 25 deg C cells	326.7	326.7	326.7	326.7	326.7	363.0	363.0	363.0	399.3	399.3																									
OCV @ coldest temp (-40C, -40F amb)	407.4	407.4	407.4	407.4	407.4	457.7	457.7	457.7	498.0	498.0																									
OCV @ coldest temp (-30C, -																																			

Module Manufacturer: Centennial Solar, Module Model: CS 130, Voltage @ MPT (STC): 17.89 VDC, Current @ MPT (STC): 7.27 ADC, Power @ MPT: 130.0 W, Temp Coeff of Voc: 0.0726 V/degC, NOCT: 46 deg C, For Vmpt @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK, orange is acceptable but should be avoided where possible (inverter will hold at 225VDC), purple is OK but indicates inverter will limit to 15 kW AC continuous output, pink is acceptable but should be avoided where possible (inverter will not run above 450VDC).

Module Manufacturer: Centron Solar, Module Model: CS-P-280-DJ, Voltage @ MPT (STC): 35.3 VDC, Current @ MPT (STC): 7.93 ADC, Power @ MPT: 280.0 W, Temp Coeff of Voc: 0.153 V/degC, NOCT: 48 deg C, For Vmpt @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK, orange is acceptable but should be avoided where possible (inverter will hold at 225VDC), purple is OK but indicates inverter will limit to 15 kW AC continuous output, pink is acceptable but should be avoided where possible (inverter will not run above 450VDC).

Module Manufacturer: Centron Solar, Module Model: CS-S-180-DJ, Voltage @ MPT (STC): 36.2 VDC, Current @ MPT (STC): 4.97 ADC, Power @ MPT: 180.0 W, Temp Coeff of Voc: 0.15 V/degC, NOCT: 48 deg C, For Vmpt @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK, orange is acceptable but should be avoided where possible (inverter will hold at 225VDC), purple is OK but indicates inverter will limit to 15 kW AC continuous output, pink is acceptable but should be avoided where possible (inverter will not run above 450VDC).

Module Manufacturer: Centron Solar, Module Model: CS-S-175-DJ, Voltage @ MPT (STC): 35.8 VDC, Current @ MPT (STC): 4.89 ADC, Power @ MPT: 175.0 W, Temp Coeff of Voc: 0.15 V/degC, NOCT: 48 deg C, For Vmpt @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK, orange is acceptable but should be avoided where possible (inverter will hold at 225VDC), purple is OK but indicates inverter will limit to 15 kW AC continuous output, pink is acceptable but should be avoided where possible (inverter will not run above 450VDC).

Module Manufacturer: Day4 Energy, Module Model: 48MC 180W, Voltage @ MPT (STC): 23.7 VDC, Current @ MPT (STC): 7.6 ADC, Power @ MPT: 180.0 W, Temp Coeff of Voc: 0.11 V/degC, NOCT: 46 deg C, For Vmpt @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK, orange is acceptable but should be avoided where possible (inverter will hold at 225VDC), purple is OK but indicates inverter will limit to 15 kW AC continuous output, pink is acceptable but should be avoided where possible (inverter will not run above 450VDC).

Module Manufacturer		Day4 Energy		Power @ MPT		175.0 W															
Module Model		48M		PTC Power Rating		15.0 W															
Voltage @ MPT (STC)		23.4 VDC		Temp Coeff of Vmp		0.11 V/dgC (Vmp)															
Current @ MPT (STC)		7.48 ADC		Temp Coeff of Voc		0.11 V/dgC (Voc)															
Current, short circuit		8.05 ADC		NOCT (nom. cell temp)		46 deg C															
OCV @ 25 deg C cells		29.2 VDC				114.8 deg F															
Modules total in array		48	60	72	84	96	108	52	65	78	91	104	56	70	84	98	112				
Modules per string		12	12	12	12	12	12	13	13	13	13	13	14	14	14	14	14				
Strings in Parallel		4	5	6	7	8	9	4	5	6	7	8	4	5	6	7	8				
Voltage @ MPT (STC)		260.8	280.8	280.8	280.8	280.8	280.8	304.2	304.2	304.2	304.2	327.6	327.6	327.6	327.6	327.6	327.6				
Vmpt @ max amb temp (30C, 96F amb)		239.9	239.9	239.9	239.9	239.9	239.9	259.9	259.9	259.9	259.9	279.9	279.9	279.9	279.9	279.9	279.9				
Vmpt @ max amb temp (35C, 95F amb)		233.3	233.3	233.3	233.3	233.3	233.3	252.7	252.7	252.7	252.7	272.2	272.2	272.2	272.2	272.2	272.2				
Vmpt @ max amb temp (40C, 104F amb)		226.7	226.7	226.7	226.7	226.7	226.7	245.6	245.6	245.6	245.6	264.5	264.5	264.5	264.5	264.5	264.5				
Vmpt @ max amb temp (45C, 113F amb)		220.1	220.1	220.1	220.1	220.1	220.1	238.4	238.4	238.4	238.4	256.8	256.8	256.8	256.8	256.8	256.8				
Vmpt @ max amb temp (50C, 122F amb)		213.5	213.5	213.5	213.5	213.5	213.5	231.3	231.3	231.3	231.3	249.1	249.1	249.1	249.1	249.1	249.1				
OCV @ 25 deg C cells		350.0	350.4	350.4	350.4	350.4	350.4	379.6	379.6	379.6	379.6	408.8	408.8	408.8	408.8	408.8	408.8				
OCV @ coldest temp (-40C, -40F amb)		436.2	436.2	436.2	436.2	436.2	436.2	451.2	451.2	451.2	451.2	508.9	508.9	508.9	508.9	508.9	508.9				
OCV @ coldest temp (-30C, -22F amb)		423.0	423.0	423.0	423.0	423.0	423.0	458.3	458.3	458.3	458.3	493.5	493.5	493.5	493.5	493.5	493.5				
OCV @ coldest temp (-20C, -4F amb)		409.8	409.8	409.8	409.8	409.8	409.8	444.0	444.0	444.0	444.0	478.1	478.1	478.1	478.1	478.1	478.1				
OCV @ coldest temp (-10C, 14F amb)		396.6	396.6	396.6	396.6	396.6	396.6	429.7	429.7	429.7	429.7	462.7	462.7	462.7	462.7	462.7	462.7				
OCV @ coldest temp (0C, 32F amb)		383.4	383.4	383.4	383.4	383.4	383.4	415.4	415.4	415.4	415.4	447.3	447.3	447.3	447.3	447.3	447.3				
Power @ MPT (STC)		8400	10500	12600	14700	16800	18900	9100	11375	13650	15925	18200	9800	12250	14700	17150	19600				
PTC AC system power rating		7075	8945	10814	12683	14552	16421	7666	9562	11459	13356	15253	8256	10319	12383	14447	16511				
Suggested Inverter		PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	PVI 15KW	PVI 15KW	PVI 15KW	PVI 15KW	PVI 15KW	PVI 15KW	PVI 15KW	PVI 15KW	PVI 15KW	PVI 13KW	PVI 15KW	PVI 15KW				

For Vmpt @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK, orange is acceptable but should be avoided where possible (inverter will hold at 225VDC), purple is OK but indicates inverter will limit to 15 kW AC continuous output, pink is acceptable but should be avoided where possible (inverter will not run above 450VDC), *NOTC is estimated

Module Manufacturer		Day4 Energy		Power @ MPT		170.0 W															
Module Model		48M		PTC Power Rating		15.1 W															
Voltage @ MPT (STC)		23.04 VDC		Temp Coeff of Vmp		0.11 V/dgC (Vmp)															
Current @ MPT (STC)		7.38 ADC		Temp Coeff of Voc		0.11 V/dgC (Voc)															
Current, short circuit		7.9 ADC		NOCT (nom. cell temp)		46 deg C															
OCV @ 25 deg C cells		28.8 VDC				114.8 deg F															
Modules total in array		48	60	72	84	96	108	52	65	78	91	104	56	70	84	98	112				
Modules per string		12	12	12	12	12	12	13	13	13	13	13	14	14	14	14	14				
Strings in Parallel		4	5	6	7	8	9	4	5	6	7	8	4	5	6	7	8				
Voltage @ MPT (STC)		276.5	276.5	276.5	276.5	276.5	276.5	299.5	299.5	299.5	299.5	322.56	322.56	322.56	322.56	322.56	322.56				
Vmpt @ max amb temp (30C, 86F amb)		235.6	235.6	235.6	235.6	235.6	235.6	255.2	255.2	255.2	255.2	274.8	274.8	274.8	274.8	274.8	274.8				
Vmpt @ max amb temp (35C, 95F amb)		229.0	229.0	229.0	229.0	229.0	229.0	248.0	248.0	248.0	248.0	267.1	267.1	267.1	267.1	267.1	267.1				
Vmpt @ max amb temp (40C, 104F amb)		222.4	222.4	222.4	222.4	222.4	222.4	240.9	240.9	240.9	240.9	259.4	259.4	259.4	259.4	259.4	259.4				
Vmpt @ max amb temp (45C, 113F amb)		215.8	215.8	215.8	215.8	215.8	215.8	233.7	233.7	233.7	233.7	251.7	251.7	251.7	251.7	251.7	251.7				
Vmpt @ max amb temp (50C, 122F amb)		209.2	209.2	209.2	209.2	209.2	209.2	226.6	226.6	226.6	226.6	244.0	244.0	244.0	244.0	244.0	244.0				
OCV @ 25 deg C cells		345.6	345.6	345.6	345.6	345.6	345.6	374.4	374.4	374.4	374.4	403.2	403.2	403.2	403.2	403.2	403.2				
OCV @ coldest temp (-40C, -40F amb)		431.4	431.4	431.4	431.4	431.4	431.4	451.2	451.2	451.2	451.2	503.3	503.3	503.3	503.3	503.3	503.3				
OCV @ coldest temp (-30C, -22F amb)		418.2	418.2	418.2	418.2	418.2	418.2	453.1	453.1	453.1	453.1	487.9	487.9	487.9	487.9	487.9	487.9				
OCV @ coldest temp (-20C, -4F amb)		405.0	405.0	405.0	405.0	405.0	405.0	438.8	438.8	438.8	438.8	472.5	472.5	472.5	472.5	472.5	472.5				
OCV @ coldest temp (-10C, 14F amb)		391.8	391.8	391.8	391.8	391.8	391.8	424.5	424.5	424.5	424.5	457.1	457.1	457.1	457.1	457.1	457.1				
OCV @ coldest temp (0C, 32F amb)		378.6	378.6	378.6	378.6	378.6	378.6	410.2	410.2	410.2	410.2	441.7	441.7	441.7	441.7	441.7	441.7				
Power @ MPT (STC)		8160	10200	12240	14280	16320	18360	8940	11050	13260	15470	17680	9520	11900	14280	16660	19040				
PTC AC system power rating		6888	8584	10301	12018	13735	15452	7440	9300	11160	13020	14880	8012	10015	12018	14021	16024				
Suggested Inverter		PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	PVI 15KW	PVI 15KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	PVI 15KW	PVI 15KW	PVI 15KW	PVI 15KW				

For Vmpt @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK, orange is acceptable but should be avoided where possible (inverter will hold at 225VDC), purple is OK but indicates inverter will limit to 15 kW AC continuous output, pink is acceptable but should be avoided where possible (inverter will not run above 450VDC), *NOTC is estimated

Module Manufacturer		EPV Solar		Power @ MPT		50.0 W															
Module Model		EPV-50		PTC Power Rating		47.8 W															
Voltage @ MPT (STC)		45 VDC		Temp Coeff of Vmp		0.168 V/dgC (Vmp)															
Current @ MPT (STC)		1.12 ADC		Temp Coeff of Voc		0.168 V/dgC (Voc)															
Current, short circuit		1.41 ADC		NOCT (nom. cell temp)		44.4 deg C															
OCV @ 25 deg C cells		60 VDC				111.92 deg F															
Modules total in array		120	150	180	210	240	270	300	330	105	140	175	210	245	280	315	350				
Modules per string		6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7				
Strings in Parallel		20	25	30	35	40	45	50	55	15	20	25	30	35	40	45	50				
Voltage @ MPT (STC)		270.0	270.0	270.0	270.0	270.0	270.0	270.0	270.0	315.0	315.0	315.0	315.0	315	315	315	315				
Vmpt @ max amb temp (30C, 86F amb)		240.4	240.4	240.4	240.4	240.4	240.4	240.4	240.4	280.4	280.4	280.4	280.4	280.4	280.4	280.4	280.4				
Vmpt @ max amb temp (35C, 95F amb)		235.3	235.3	235.3	235.3	235.3	235.3	235.3	235.3	274.5	274.5	274.5	274.5	274.5	274.5	274.5	274.5				
Vmpt @ max amb temp (40C, 104F amb)		230.3	230.3	230.3	230.3	230.3	230.3	230.3	230.3	268.7	268.7	268.7	268.7	268.7	268.7	268.7	268.7				
Vmpt @ max amb temp (45C, 113F amb)		225.2	225.2	225.2	225.2	225.2	225.2	225.2	225.2	262.8	262.8	262.8	262.8	262.8	262.8	262.8	262.8				
Vmpt @ max amb temp (50C, 122F amb)		220.2	220.2	220.2	220.2	220.2	220.2	220.2	220.2	256.9	256.9	256.9	256.9	256.9	256.9	256.9	256.9				
OCV @ 25 deg C cells		360.0	360.0	360.0	360.0	360.0	360.0	360.0	360.0	420.0	420.0	420.0	420.0	420.0	420.0	420.0	420.0				
OCV @ coldest temp (-40C, -40F amb)		425.5	425.5	425.5	425.5	425.5	425.5	425.5	425.5	486.4	486.4	486.4	486.4	486.4	486.4	486.4	486.4				
OCV @ coldest temp (-30C, -22F amb)		415.4	415.4	415.4	415.4	415.4	415.4	415.4	415.4	484.7	484.7	484.7	484.68	484.68	484.68	484.68	484.68				
OCV @ coldest temp (-20C, -4F amb)		405.4	405.4	405.4	405.4	405.4	405.4	405.4	405.4	472.9	472.9	472.9	472.92	472.92	472.92	472.92	472.92				
OCV @ coldest temp (-10C, 14F amb)		395.3	395.3	395.3	395.3	395.3	395.3	395.3	395.3	461.2	461.2	461.2	461.16	461.16	461.16	461.16	461.16				
OCV @ coldest temp (0C, 32F amb)		385.2	385.2	385.2	385.2	385.2	385.2	385.2	385.2	449.4	449.4	449.4	449.4	449.4	449.4	449.4	449.4				
Power @ MPT (STC)		6000	7500	9000	10500	12000	13500	15000	16500	5250	7000	8750	10500	12250	14000	15750	17500				
PTC AC system power rating		5421	6776	8131	9486	10841	12196	13551	14906	4743	6324	7905	9486	11067	12648	14229	15810				
Suggested Inverter		PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	PVI 15KW	PVI 15KW	PVI 15KW	PVI 15KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	PVI 15KW	PVI 15KW	PVI 15KW				

For Vmpt @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK, orange is acceptable but should be avoided where possible (inverter will hold at 225VDC), purple is OK but indicates inverter will limit to 15 kW AC continuous output, pink is acceptable but should be avoided where possible (inverter will not run above 450VDC), *NOTC is estimated

Module Manufacturer		EPV		Power @ MPT		53.0 W															
Module Model		EPV-53		PTC Power Rating		51.1 W															
Voltage @ MPT (STC)		45 VDC		Temp Coeff of Vmp		0.168 V/dgC (Vmp)															
Current @ MPT (STC)		1.18 ADC		Temp Coeff of Voc		0.168 V/dgC (Voc)															
Current, short circuit		1.47 ADC		NOCT (nom. cell temp)		45 deg C															
OCV @ 25 deg C cells		60 VDC				113 deg F															
Modules total in array		120	150	180	210	240	270	300	330	105	140	175	210	245	280	315	350				
Modules per string		6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7				
Strings in Parallel		20	25	30	35	40	45	50	55	15	20	25	30	35	40	45	50				
Voltage @ MPT (STC)																					

Module Manufacturer		ET Solar													
Module Model		ET-M572165													
Voltage @ MPT (STC)	35.8 VDC	Power @ MPT													
Current @ MPT (STC)	4.6 ADC	PTC Power Rating													
Current, short circuit	5.19 ADC	Temp Coeff of Vmp													
OCV @ 25 deg C cells	44.1 VDC	Temp Coeff of Voc													
		NOCT (nom. cell temp)													
		11.92 deg F													
Modules total in array		56	64	72	80	88	96	104	54	63	72	81	90	99	108
Modules per string		8	8	8	8	8	8	8	9	9	9	9	9	9	9
Strings in Parallel		7	8	9	10	11	12	13	6	7	8	9	10	11	12
Voltage @ MPT (STC)		286.4	286.4	286.4	286.4	286.4	286.4	286.4	322.2	322.2	322.2	322.2	322.2	322.2	322.2
Vmp @ max amb temp (30C, 96F amb)		245.2	245.2	245.2	245.2	245.2	245.2	245.2	275.9	275.9	275.9	275.9	275.9	275.9	275.9
Vmp @ max amb temp (35C, 95F amb)		238.2	238.2	238.2	238.2	238.2	238.2	238.2	268.0	268.0	268.0	268.0	268.0	268.0	268.0
Vmp @ max amb temp (40C, 104F amb)		231.2	231.2	231.2	231.2	231.2	231.2	231.2	260.1	260.1	260.1	260.1	260.1	260.1	260.1
Vmp @ max amb temp (45C, 113F amb)		224.2	224.2	224.2	224.2	224.2	224.2	224.2	252.3	252.3	252.3	252.3	252.3	252.3	252.3
Vmp @ max amb temp (50C, 122F amb)		217.2	217.2	217.2	217.2	217.2	217.2	217.2	244.4	244.4	244.4	244.4	244.4	244.4	244.4
OCV @ 25 deg C cells		352.8	352.8	352.8	352.8	352.8	352.8	352.8	396.9	396.9	396.9	396.9	396.9	396.9	396.9
OCV @ coldest temp (-40C, -40F amb)		443.8	443.8	443.8	443.8	443.8	443.8	443.8	499.3	499.3	499.3	499.3	499.3	499.3	499.3
OCV @ coldest temp (-30C, -22F amb)		429.8	429.8	429.8	429.8	429.8	429.8	429.8	483.5	483.5	483.5	483.5	483.5	483.5	483.5
OCV @ coldest temp (-20C, -4F amb)		415.8	415.8	415.8	415.8	415.8	415.8	415.8	467.8	467.8	467.8	467.8	467.8	467.8	467.8
OCV @ coldest temp (-10C, 14F amb)		401.8	401.8	401.8	401.8	401.8	401.8	401.8	452.0	452.0	452.0	452.0	452.0	452.0	452.0
OCV @ coldest temp (0C, 32F amb)		387.8	387.8	387.8	387.8	387.8	387.8	387.8	436.3	436.3	436.3	436.3	436.3	436.3	436.3
Power @ MPT (STC)		9240	10560	11880	13200	14520	15840	17160	8910	10395	11880	13365	14850	16335	17820
PTC AC system power rating		449 ADC	0	0	0	0	0	0	0	0	0	0	0	0	0
Suggested Inverter		PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW

Module Manufacturer		ET Solar													
Module Model		ET-M572160													
Voltage @ MPT (STC)	35.6 VDC	Power @ MPT													
Current @ MPT (STC)	4.49 ADC	PTC Power Rating													
Current, short circuit	5.07 ADC	Temp Coeff of Vmp													
OCV @ 25 deg C cells	43.9 VDC	Temp Coeff of Voc													
		NOCT (nom. cell temp)													
		11.92 deg F													
Modules total in array		56	64	72	80	88	96	104	54	63	72	81	90	99	108
Modules per string		8	8	8	8	8	8	8	9	9	9	9	9	9	9
Strings in Parallel		7	8	9	10	11	12	13	6	7	8	9	10	11	12
Voltage @ MPT (STC)		284.8	284.8	284.8	284.8	284.8	284.8	284.8	320.4	320.4	320.4	320.4	320.4	320.4	320.4
Vmp @ max amb temp (30C, 96F amb)		243.9	243.9	243.9	243.9	243.9	243.9	243.9	274.4	274.4	274.4	274.4	274.4	274.4	274.4
Vmp @ max amb temp (35C, 95F amb)		236.9	236.9	236.9	236.9	236.9	236.9	236.9	266.5	266.5	266.5	266.5	266.5	266.5	266.5
Vmp @ max amb temp (40C, 104F amb)		230.0	230.0	230.0	230.0	230.0	230.0	230.0	258.7	258.7	258.7	258.7	258.7	258.7	258.7
Vmp @ max amb temp (45C, 113F amb)		223.0	223.0	223.0	223.0	223.0	223.0	223.0	250.9	250.9	250.9	250.9	250.9	250.9	250.9
Vmp @ max amb temp (50C, 122F amb)		216.0	216.0	216.0	216.0	216.0	216.0	216.0	243.0	243.0	243.0	243.0	243.0	243.0	243.0
OCV @ 25 deg C cells		351.2	351.2	351.2	351.2	351.2	351.2	351.2	395.1	395.1	395.1	395.1	395.1	395.1	395.1
OCV @ coldest temp (-40C, -40F amb)		441.7	441.7	441.7	441.7	441.7	441.7	441.7	496.9	496.9	496.9	496.9	496.9	496.9	496.9
OCV @ coldest temp (-30C, -22F amb)		427.8	427.8	427.8	427.8	427.8	427.8	427.8	481.2	481.2	481.2	481.2	481.2	481.2	481.2
OCV @ coldest temp (-20C, -4F amb)		413.8	413.8	413.8	413.8	413.8	413.8	413.8	465.6	465.6	465.6	465.6	465.6	465.6	465.6
OCV @ coldest temp (-10C, 14F amb)		399.9	399.9	399.9	399.9	399.9	399.9	399.9	449.9	449.9	449.9	449.9	449.9	449.9	449.9
OCV @ coldest temp (0C, 32F amb)		386.0	386.0	386.0	386.0	386.0	386.0	386.0	434.3	434.3	434.3	434.3	434.3	434.3	434.3
Power @ MPT (STC)		8960	10240	11520	12800	14080	15360	16640	8640	10080	11520	12960	14400	15840	17280
PTC AC system power rating		449 ADC	0	0	0	0	0	0	0	0	0	0	0	0	0
Suggested Inverter		PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW

Module Manufacturer		ET Solar													
Module Model		ET-M572155													
Voltage @ MPT (STC)	35.2 VDC	Power @ MPT													
Current @ MPT (STC)	4.4 ADC	PTC Power Rating													
Current, short circuit	4.98 ADC	Temp Coeff of Vmp													
OCV @ 25 deg C cells	43.3 VDC	Temp Coeff of Voc													
		NOCT (nom. cell temp)													
		11.92 deg F													
Modules total in array		56	64	72	80	88	96	104	54	63	72	81	90	99	108
Modules per string		8	8	8	8	8	8	8	9	9	9	9	9	9	9
Strings in Parallel		7	8	9	10	11	12	13	6	7	8	9	10	11	12
Voltage @ MPT (STC)		281.6	281.6	281.6	281.6	281.6	281.6	281.6	316.8	316.8	316.8	316.8	316.8	316.8	316.8
Vmp @ max amb temp (30C, 96F amb)		241.1	241.1	241.1	241.1	241.1	241.1	241.1	271.3	271.3	271.3	271.3	271.3	271.3	271.3
Vmp @ max amb temp (35C, 95F amb)		234.3	234.3	234.3	234.3	234.3	234.3	234.3	263.5	263.5	263.5	263.5	263.5	263.5	263.5
Vmp @ max amb temp (40C, 104F amb)		227.4	227.4	227.4	227.4	227.4	227.4	227.4	255.8	255.8	255.8	255.8	255.8	255.8	255.8
Vmp @ max amb temp (45C, 113F amb)		220.5	220.5	220.5	220.5	220.5	220.5	220.5	248.1	248.1	248.1	248.1	248.1	248.1	248.1
Vmp @ max amb temp (50C, 122F amb)		213.6	213.6	213.6	213.6	213.6	213.6	213.6	240.3	240.3	240.3	240.3	240.3	240.3	240.3
OCV @ 25 deg C cells		346.4	346.4	346.4	346.4	346.4	346.4	346.4	389.7	389.7	389.7	389.7	389.7	389.7	389.7
OCV @ coldest temp (-40C, -40F amb)		435.8	435.8	435.8	435.8	435.8	435.8	435.8	490.3	490.3	490.3	490.3	490.3	490.3	490.3
OCV @ coldest temp (-30C, -22F amb)		422.1	422.1	422.1	422.1	422.1	422.1	422.1	474.8	474.8	474.8	474.8	474.8	474.8	474.8
OCV @ coldest temp (-20C, -4F amb)		408.3	408.3	408.3	408.3	408.3	408.3	408.3	459.4	459.4	459.4	459.4	459.4	459.4	459.4
OCV @ coldest temp (-10C, 14F amb)		394.6	394.6	394.6	394.6	394.6	394.6	394.6	443.9	443.9	443.9	443.9	443.9	443.9	443.9
OCV @ coldest temp (0C, 32F amb)		380.8	380.8	380.8	380.8	380.8	380.8	380.8	428.4	428.4	428.4	428.4	428.4	428.4	428.4
Power @ MPT (STC)		8680	9920	11160	12400	13640	14880	16120	8370	9765	11160	12555	13950	15345	16740
PTC AC system power rating		449 ADC	0	0	0	0	0	0	0	0	0	0	0	0	0
Suggested Inverter		PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW

Module Manufacturer		ET Solar													
Module Model		ET-M53685													
Voltage @ MPT (STC)	18.95 VDC	Power @ MPT													
Current @ MPT (STC)	4.71 ADC	PTC Power Rating													
Current, short circuit	5.29 ADC	Temp Coeff of Vmp													
OCV @ 25 deg C cells	21.94 VDC	Temp Coeff of Voc													
		NOCT (nom. cell temp)													
		11.92 deg F													
Modules total in array		160	176	192	208	170	187	204	221	180	198	216	180	198	216
Modules per string		16	16	16	16	17	17	17	17	18	18	18	18	18	18
Strings in Parallel		11	11	12	13	14	14	14	14	13	14	15	14	14	15
Voltage @ MPT (STC)		288.8	288.8	288.8	288.8	306.9	306.9	306.9	306.9	324.9	324.9	324.9	324.9	324.9	324.9
Vmp @ max amb temp (30C, 96F amb)		247.9	247.9	247.9	247.9	263.4	263.4	263.4	263.4	278.9	278.9	278.9	278.9	278.9	278.9
Vmp @ max amb temp (35C, 95F amb)		240.9	240.9	240.9	240.9	256.0	256.0	256.0	256.0	271.0	271.0	271.0	271.0	271.0	271.0
Vmp @ max amb temp (40C, 104F amb)		234.0	234.0	234.0	234.0	248.6	248.6	248.6	248.6	263.2	263.2	263.2	263.2	263.2	263.2
Vmp @ max amb temp (45C, 113F amb)		227.0	227.0	227.0	227.0	241.2	241.2	241.2	241.2	255.4	255.4	255.4	255.4	255.4	255.4
Vmp @ max amb temp (50C, 122F amb)		220.0	220.0	220.0	220.0	233.8	233.8	233.8	233.8	247.5	247.5	247.5	247.5	247.5	247.5
OCV @ 25 deg C cells		351.0	351.0	351.0	351.0	373.0	373.0	373.0	373.0	394.9	394.9	394.9	394.9	394.9	394.9
OCV @ coldest temp (-40C, -40F amb)		441.5	441.5	441.5	441.5	458.1	458.1	458.1	458.1	496.7	496.7	496.7	496.7	496.7	496.7
OCV @ coldest temp (-30C, -22F amb)		427.6	427.6	427.6	427.6	454.3	454.3	454.3	454.3	481.1	481.1	481.1	481.1	481.1	481.1
OCV @ coldest temp (-20C, -4F amb)		413.7	413.7	413.7	413.7	439.5	439.5	439.5	439.5	465.4	465.4	465.4	465.4	465.4	465.4
OCV @ coldest temp (-10C, 14F amb)		399.8	399.8	399.8	399.8	424.7	424.7	424.7	424.7	449.7	449.7	449.7	449.7	449.7	449.7
OCV @ coldest temp (0C, 32F amb)		385.8	385.8	385.8	385.8	410.0	410.0	410.0	410.0	434.1	434.1	434.1	434.1	434.1	434.1

Module Manufacturer: ET Solar, ET-M53675. Voltage @ MPT (STC): 17.4 VDC. Power @ MPT: 75.0 W. PTIC Power Rating: 0.0 W. For Vmpt @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK. Orange is acceptable but should be avoided where possible (inverter will hold at 225VDC).

Modules total in array	176	192	208	224	187	204	221	238	198	216	234
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Module Manufacturer: ET Solar, ET-M53670. Voltage @ MPT (STC): 16.9 VDC. Power @ MPT: 70.0 W. PTIC Power Rating: 0.0 W. For Vmpt @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK. Orange is acceptable but should be avoided where possible (inverter will hold at 225VDC).

Modules total in array	192	208	224	240	204	221	238	255	216	234	252
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Module Manufacturer: ET Solar, ET-P672280. Voltage @ MPT (STC): 36.72 VDC. Power @ MPT: 280.0 W. PTIC Power Rating: 250.5 W. For Vmpt @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK. Orange is acceptable but should be avoided where possible (inverter will hold at 225VDC).

Modules total in array	32	40	48	56	64	36	45	54	63	72
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Module Manufacturer: ET Solar, ET-P672275. Voltage @ MPT (STC): 36.72 VDC. Power @ MPT: 275.0 W. PTIC Power Rating: 245.9 W. For Vmpt @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK. Orange is acceptable but should be avoided where possible (inverter will hold at 225VDC).

Modules total in array	32	40	48	56	64	72	36	45	54	63	72
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Module Manufacturer: ET Solar, ET-P672270. Voltage @ MPT (STC): 36.4 VDC. Power @ MPT: 270.0 W. PTIC Power Rating: 241.4 W. For Vmpt @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK. Orange is acceptable but should be avoided where possible (inverter will hold at 225VDC).

Modules total in array	32	40	48	56	64	72	36	45	54	63	72
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Module Manufacturer ET Solar ET-P672265 Power @ MPT 265.0 W For Vmpt @ max amb temp and OCV @ coldest temperature green is OK, red is not OK orange is acceptable but should be avoided where possible (inverter will hold at 225VDC), purple is OK but indicates inverter will limit to 15 kW AC continuous output pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)

Module Manufacturer ET Solar ET-P672260 Power @ MPT 260.0 W For Vmpt @ max amb temp and OCV @ coldest temperature green is OK, red is not OK orange is acceptable but should be avoided where possible (inverter will hold at 225VDC), purple is OK but indicates inverter will limit to 15 kW AC continuous output pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)

Module Manufacturer ET Solar ET-P672255 Power @ MPT 255.0 W For Vmpt @ max amb temp and OCV @ coldest temperature green is OK, red is not OK orange is acceptable but should be avoided where possible (inverter will hold at 225VDC), purple is OK but indicates inverter will limit to 15 kW AC continuous output pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)

Module Manufacturer ET Solar ET-P672250 Power @ MPT 250.0 W For Vmpt @ max amb temp and OCV @ coldest temperature green is OK, red is not OK orange is acceptable but should be avoided where possible (inverter will hold at 225VDC), purple is OK but indicates inverter will limit to 15 kW AC continuous output pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)

Module Manufacturer ET Solar ET-P672245 Power @ MPT 245.0 W For Vmpt @ max amb temp and OCV @ coldest temperature green is OK, red is not OK orange is acceptable but should be avoided where possible (inverter will hold at 225VDC), purple is OK but indicates inverter will limit to 15 kW AC continuous output pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)

Module Manufacturer: ET Solar ET-P672240. Module Model: ET-P672240. Voltage @ MPT (STC): 34.95 VDC. Current @ MPT (STC): 6.88 ADC. Current, short circuit: 7.63 ADC. OCV @ 25 deg C cells: 43.85 VDC. Power @ MPT (STC): 240.0 W. PTIC Power Rating: 218.5 W. Temp Coeff of Vmp: 0.152 V/degC (Vmp). Temp Coeff of Voc: 0.152 V/degC (Voc). NOCT (nom. cell temp): 45.3 deg C. For Vmp @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK, orange is acceptable but should be avoided where possible (inverter will hold at 225VDC), purple is OK but indicates inverter will limit to 15 kW AC continuous output, pink is acceptable but should be avoided where possible (inverter will not run above 450VDC). Modules total in array: 32 40 48 56 64 72 80 36 45 54 63 72 81. Includes PTIC AC system power rating and Suggested Inverter: PVI 13KW PVI 13KW PVI 15KW PVI 15KW PVI 15KW PVI 15KW PVI 15KW PVI 13KW PVI 13KW PVI 15KW PVI 15KW PVI 15KW PVI 15KW.

Module Manufacturer: ET Solar ET-P660240. Module Model: ET-P660240. Voltage @ MPP (STC): 29.4 VDC. Current @ MPP (STC): 8.16 ADC. Current, short circuit: 8.55 ADC. OCV @ 25 deg C cells: 36.5 VDC. Power @ MPP (STC): 240.0 W. PTIC Power Rating: 0.0 W. Temp Coeff of Vmp: 0.126 V/degC (Vmp). Temp Coeff of Voc: 0.126 V/degC (Voc). NOCT (nom. cell temp): 45.3 deg C. For Vmp @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK, orange is acceptable but should be avoided where possible (inverter will hold at 225VDC), purple is OK but indicates inverter will limit to 15 kW AC continuous output, pink is acceptable but should be avoided where possible (inverter will not run above 450VDC). Modules total in array: 40 50 60 70 80 90 44 55 66 77 88 99. Includes PTIC AC system power rating and Suggested Inverter: PVI 13KW PVI 13KW PVI 15KW PVI 15KW PVI 15KW PVI 15KW PVI 15KW PVI 13KW PVI 13KW PVI 15KW PVI 15KW PVI 15KW PVI 15KW.

Module Manufacturer: ET Solar ET-P660235. Module Model: ET-P660235. Voltage @ MPP (STC): 29.4 VDC. Current @ MPP (STC): 7.99 ADC. Current, short circuit: 8.3 ADC. OCV @ 25 deg C cells: 36.5 VDC. Power @ MPP (STC): 235.0 W. PTIC Power Rating: 0.0 W. Temp Coeff of Vmp: 0.126 V/degC (Vmp). Temp Coeff of Voc: 0.126 V/degC (Voc). NOCT (nom. cell temp): 45.3 deg C. For Vmp @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK, orange is acceptable but should be avoided where possible (inverter will hold at 225VDC), purple is OK but indicates inverter will limit to 15 kW AC continuous output, pink is acceptable but should be avoided where possible (inverter will not run above 450VDC). Modules total in array: 50 60 70 80 90 100 44 55 66 77 88 99. Includes PTIC AC system power rating and Suggested Inverter: PVI 13KW PVI 13KW PVI 15KW PVI 15KW PVI 15KW PVI 15KW PVI 15KW PVI 13KW PVI 13KW PVI 15KW PVI 15KW PVI 15KW PVI 15KW.

Module Manufacturer: ET Solar ET-P660230. Module Model: ET-P660230. Voltage @ MPP (STC): 29.4 VDC. Current @ MPP (STC): 7.82 ADC. Current, short circuit: 8.3 ADC. OCV @ 25 deg C cells: 36.5 VDC. Power @ MPP (STC): 230.0 W. PTIC Power Rating: 0.0 W. Temp Coeff of Vmp: 0.126 V/degC (Vmp). Temp Coeff of Voc: 0.126 V/degC (Voc). NOCT (nom. cell temp): 45.3 deg C. For Vmp @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK, orange is acceptable but should be avoided where possible (inverter will hold at 225VDC), purple is OK but indicates inverter will limit to 15 kW AC continuous output, pink is acceptable but should be avoided where possible (inverter will not run above 450VDC). Modules total in array: 50 60 70 80 90 100 44 55 66 77 88 99. Includes PTIC AC system power rating and Suggested Inverter: PVI 13KW PVI 13KW PVI 15KW PVI 15KW PVI 15KW PVI 15KW PVI 15KW PVI 13KW PVI 13KW PVI 15KW PVI 15KW PVI 15KW PVI 15KW.

Module Manufacturer: ET Solar ET-P660225. Module Model: ET-P660225. Voltage @ MPP (STC): 29 VDC. Current @ MPP (STC): 7.75 ADC. Current, short circuit: 8.1 ADC. OCV @ 25 deg C cells: 36.3 VDC. Power @ MPP (STC): 225.0 W. PTIC Power Rating: 0.0 W. Temp Coeff of Vmp: 0.126 V/degC (Vmp). Temp Coeff of Voc: 0.126 V/degC (Voc). NOCT (nom. cell temp): 45.3 deg C. For Vmp @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK, orange is acceptable but should be avoided where possible (inverter will hold at 225VDC), purple is OK but indicates inverter will limit to 15 kW AC continuous output, pink is acceptable but should be avoided where possible (inverter will not run above 450VDC). Modules total in array: 50 60 70 80 90 100 55 66 77 88 99 110. Includes PTIC AC system power rating and Suggested Inverter: PVI 13KW PVI 13KW PVI 15KW PVI 15KW PVI 15KW PVI 15KW PVI 15KW PVI 13KW PVI 13KW PVI 15KW PVI 15KW PVI 15KW PVI 15KW.

Module Manufacturer		ET Solar											Power @ MPT											190.0 W				For Vmp @ max amb temp and OCV @ coldest temperature	
Module Model		ET-P654190											PTC Power Rating											165.0 W				orange is acceptable but should be avoided where possible (inverter will hold at 225VDC).	
Voltage @ MPT (STC)		26.78 VDC											Temp Coeff of Vmp											0.112 V/degC				purple is OK but indicates inverter will limit to 15 kW AC continuous output	
Current @ MPT (STC)		7.1 A DC											Temp Coeff of Voc											0.112 V/degC				pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)	
Current, short circuit		7.72 ADC											NOCT (nom. cell temp)											45.3 deg C				113.54 deg F	
OCV @ 25 deg C cells		32.5 VDC																											
Modules total in array	44	55	66	77	88	99	36	48	60	72	84	96																	
Modules per string	11	11	11	11	11	11	12	12	12	12	12	12																	
Strings in Parallel	4	5	6	7	8	9	3	4	5	6	7	8																	
Voltage @ MPT (STC)	294.6	294.6	294.6	294.6	294.6	294.6	321.4	321.4	321.4	321.4	321.4	321.4																	
Vmpt @ max amb temp (30C, 96F amb)	257.3	257.3	257.3	257.3	257.3	257.3	280.6	280.6	280.6	280.6	280.6	280.6																	
Vmpt @ max amb temp (35C, 95F amb)	251.1	251.1	251.1	251.1	251.1	251.1	273.9	273.9	273.9	273.9	273.9	273.9																	
Vmpt @ max amb temp (40C, 104F amb)	244.9	244.9	244.9	244.9	244.9	244.9	267.2	267.2	267.2	267.2	267.2	267.2																	
Vmpt @ max amb temp (45C, 113F amb)	238.8	238.8	238.8	238.8	238.8	238.8	260.5	260.5	260.5	260.5	260.5	260.5																	
Vmpt @ max amb temp (50C, 122F amb)	232.6	232.6	232.6	232.6	232.6	232.6	253.8	253.8	253.8	253.8	253.8	253.8																	
OCV @ 25 deg C cells	337.5	337.5	337.5	337.5	337.5	337.5	390.0	390.0	390.0	390.0	390.0	390.0																	
OCV @ coldest temp (-40C, -40F amb)	437.6	437.6	437.6	437.6	437.6	437.6	477.4	477.4	477.4	477.4	477.4	477.4																	
OCV @ coldest temp (-30C, -22F amb)	425.3	425.3	425.3	425.3	425.3	425.3	463.9	463.9	463.9	463.9	463.9	463.9																	
OCV @ coldest temp (-20C, -4F amb)	412.9	412.9	412.9	412.9	412.9	412.9	450.5	450.5	450.5	450.5	450.5	450.5																	
OCV @ coldest temp (-10C, 14F amb)	400.6	400.6	400.6	400.6	400.6	400.6	437.0	437.0	437.0	437.0	437.0	437.0																	
OCV @ coldest temp (0C, 32F amb)	388.3	388.3	388.3	388.3	388.3	388.3	423.6	423.6	423.6	423.6	423.6	423.6																	
Power @ MPT (STC)	3360	10450	12540	14630	16720	18810	6340	9120	11400	13680	15960	18240																	
PTC AC system power rating	7048	8910	10572	12334	14096	15858	3766	7689	9611	11533	13455	15377																	
Suggested Inverter	PVI 13kW	PVI 13kW	PVI 15kW	PVI 15kW	PVI 15kW	PVI 15kW	PVI 13kW	PVI 13kW	PVI 13kW	PVI 13kW	PVI 13kW	PVI 15kW																	

Module Manufacturer		ET Solar											Power @ MPT											185.0 W				For Vmp @ max amb temp and OCV @ coldest temperature	
Module Model		ET-P654185											PTC Power Rating											165.0 W				orange is acceptable but should be avoided where possible (inverter will hold at 225VDC).	
Voltage @ MPT (STC)		26.45 VDC											Temp Coeff of Vmp											0.112 V/degC				purple is OK but indicates inverter will limit to 15 kW AC continuous output	
Current @ MPT (STC)		6.99 ADC											Temp Coeff of Voc											0.112 V/degC				pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)	
Current, short circuit		7.7 ADC											NOCT (nom. cell temp)											45.3 deg C				113.54 deg F	
OCV @ 25 deg C cells		32.3 VDC																											
Modules total in array	44	55	66	77	88	99	36	48	60	72	84	96																	
Modules per string	11	11	11	11	11	11	12	12	12	12	12	12																	
Strings in Parallel	4	5	6	7	8	9	3	4	5	6	7	8																	
Voltage @ MPT (STC)	291.0	291.0	291.0	291.0	291.0	291.0	317.4	317.4	317.4	317.4	317.4	317.4																	
Vmpt @ max amb temp (30C, 96F amb)	253.6	253.6	253.6	253.6	253.6	253.6	276.7	276.7	276.7	276.7	276.7	276.7																	
Vmpt @ max amb temp (35C, 95F amb)	247.5	247.5	247.5	247.5	247.5	247.5	270.0	270.0	270.0	270.0	270.0	270.0																	
Vmpt @ max amb temp (40C, 104F amb)	241.3	241.3	241.3	241.3	241.3	241.3	263.2	263.2	263.2	263.2	263.2	263.2																	
Vmpt @ max amb temp (45C, 113F amb)	235.1	235.1	235.1	235.1	235.1	235.1	256.5	256.5	256.5	256.5	256.5	256.5																	
Vmpt @ max amb temp (50C, 122F amb)	229.0	229.0	229.0	229.0	229.0	229.0	249.8	249.8	249.8	249.8	249.8	249.8																	
OCV @ 25 deg C cells	355.3	355.3	355.3	355.3	355.3	355.3	387.6	387.6	387.6	387.6	387.6	387.6																	
OCV @ coldest temp (-40C, -40F amb)	435.4	435.4	435.4	435.4	435.4	435.4	475.0	475.0	475.0	475.0	475.0	475.0																	
OCV @ coldest temp (-30C, -22F amb)	423.1	423.1	423.1	423.1	423.1	423.1	461.5	461.5	461.5	461.5	461.5	461.5																	
OCV @ coldest temp (-20C, -4F amb)	410.7	410.7	410.7	410.7	410.7	410.7	448.1	448.1	448.1	448.1	448.1	448.1																	
OCV @ coldest temp (-10C, 14F amb)	398.4	398.4	398.4	398.4	398.4	398.4	434.6	434.6	434.6	434.6	434.6	434.6																	
OCV @ coldest temp (0C, 32F amb)	386.1	386.1	386.1	386.1	386.1	386.1	421.2	421.2	421.2	421.2	421.2	421.2																	
Power @ MPT (STC)	8140	10175	12210	14245	16280	18315	6060	8580	11100	13320	15540	17760																	
PTC AC system power rating	6861	8576	10291	12006	13721	15437	5613	7484	9356	11227	13098	14969																	
Suggested Inverter	PVI 13kW	PVI 13kW	PVI 15kW	PVI 15kW	PVI 15kW	PVI 15kW	PVI 13kW	PVI 13kW	PVI 13kW	PVI 13kW	PVI 13kW	PVI 15kW																	

Module Manufacturer		ET Solar											Power @ MPT											160.0 W				For Vmp @ max amb temp and OCV @ coldest temperature	
Module Model		ET-P654180											PTC Power Rating											160.0 W				orange is acceptable but should be avoided where possible (inverter will hold at 225VDC).	
Voltage @ MPT (STC)		26.45 VDC											Temp Coeff of Vmp											0.112 V/degC				purple is OK but indicates inverter will limit to 15 kW AC continuous output	
Current @ MPT (STC)		6.81 ADC											Temp Coeff of Voc											0.112 V/degC				pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)	
Current, short circuit		7.6 ADC											NOCT (nom. cell temp)											45.3 deg C				113.54 deg F	
OCV @ 25 deg C cells		32.35 VDC																											
Modules total in array	44	55	66	77	88	99	36	48	60	72	84	96																	
Modules per string	11	11	11	11	11	11	12	12	12	12	12	12																	
Strings in Parallel	4	5	6	7	8	9	3	4	5	6	7	8																	
Voltage @ MPT (STC)	291.0	291.0	291.0	291.0	291.0	291.0	317.4	317.4	317.4	317.4	317.4	317.4																	
Vmpt @ max amb temp (30C, 96F amb)	253.6	253.6	253.6	253.6	253.6	253.6	276.7	276.7	276.7	276.7	276.7	276.7																	
Vmpt @ max amb temp (35C, 95F amb)	247.5	247.5	247.5	247.5	247.5	247.5	270.0	270.0	270.0	270.0	270.0	270.0																	
Vmpt @ max amb temp (40C, 104F amb)	241.3	241.3	241.3	241.3	241.3	241.3	263.2	263.2	263.2	263.2	263.2	263.2																	
Vmpt @ max amb temp (45C, 113F amb)	235.1	235.1	235.1	235.1	235.1	235.1	256.5	256.5	256.5	256.5	256.5	256.5																	
Vmpt @ max amb temp (50C, 122F amb)	229.0	229.0	229.0	229.0	229.0	229.0	249.8	249.8	249.8	249.8	249.8	249.8																	
OCV @ 25 deg C cells	355.9	355.9	355.9	355.9	355.9	355.9	388.2	388.2	388.2	388.2	388.2	388.2																	
OCV @ coldest temp (-40C, -40F amb)	435.9	435.9	435.9	435.9	435.9	435.9	475.6	475.6	475.6	475.6	475.6	475.6																	
OCV @ coldest temp (-30C, -22F amb)	423.6	423.6	423.6	423.6	423.6	423.6	462.1	462.1	462.1	462.1	462.1	462.1																	
OCV @ coldest temp (-20C, -4F amb)	411.3	411.3	411.3	411.3	411.3	411.3	448.7	448.7	448.7	448.7	448.7	448.7																	
OCV @ coldest temp (-10C, 14F amb)	399.0	399.0	399.0	399.0	399.0	399.0	435.2	435.2	435.2	435.2	435.2	435.2																	
OCV @ coldest temp (0C, 32F amb)	386.7	386.7	386.7	386.7	386.7	386.7	421.8	421.8	421.8	421.8	421.8	421.8																	
Power @ MPT (STC)	7920	9900	11880	13860	15840	17820	6180	8640	10800	12960	15120	17280																	
PTC AC system power rating	6669	8337	10004	11672	13340	15006	5457	7300	9050	10914	12733	14551																	
Suggested Inverter	PVI 13kW	PVI 13kW	PVI 15kW	PVI 15kW	PVI 15kW	PVI 15kW	PVI 13kW	PVI 13kW	PVI 13kW	PVI 13kW	PVI 13kW	PVI 15kW																	

Module Manufacturer		ET Solar											Power @ MPT											195.0 W				For Vmp @ max amb temp and OCV @ coldest temperature					
Module Model		ET-P648195											PTC Power Rating											0.0 W				estimated					
Voltage @ MPT (STC)		23.5 VDC											Temp Coeff of Vmp											0.101 V/degC				purple is OK but indicates inverter will limit to 15 kW AC continuous output					
Current @ MPT (STC)		8.29 ADC											Temp Coeff of Voc											0.101 V/degC				pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)					
Current, short circuit		8.5 ADC											NOCT (nom. cell temp)											45.3 deg C				113.54 deg F					
OCV @ 25 deg C cells		29.2 VDC																															
Modules total in array	48	60	72	84	96	108	52	65	78	91	104	56	70	84	98	112																	
Modules per string	12	12	12	12	12	12	13	13	13	13	13	14	14	14	14	14																	
Strings in Parallel	4	5	6	7	8	9	4	5	6	7	8	4	5	6	7	8																	
Voltage @ MPT (STC)	282.0	282.0	282.0	282.0	282.0	282.0	305.5	305.5	305.5	305.5	305.5	329	329	329	329	329																	
Vmpt @ max amb temp (30C, 96F amb)	245.3	245.3	245.3	245.3	245.3	245.3	265.7	265.7	265.7	265.7	265.7	286.2	286.2	286.2	286.2	286.2																	
Vmpt @ max amb temp (35C, 95F amb)	239.2	239.2	239.2	239.2	239.2	239.2	259.2	259.2	259.2	259.2	259.2	279.1	279.1	279.1	279.1	279.1																	
Vmpt @ max amb temp (40C, 104F amb)	233.2	233.2	233.2	233.2	233.2	233.2	252.6	252.6	252.6	252.6	252.6	272.0	272.0	272.0	272.0	272.0																	

Module Manufacturer	ET Solar			Power @ MPT			1300 W			For Vmpt @ max amb temp and OCV @ coldest temperature green is OK, red is not OK		
Module Model	ET-P636130			PTC Power Rating			0.0 W			orange is acceptable but should be avoided where possible (inverter will hold at 225VDC), purple is OK but indicates inverter will limit to 15 kW AC continuous output		
Voltage @ MPT (STC)	17.4 VDC			Temp Coeff of Vmpt			0.075 V/dgC (Vmpt)			pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)		
Current @ MPT (STC)	7.47 ADC			Temp Coeff of Voc			0.075 V/dgC (Voc)					
Current, short circuit	8.1 ADC			NOCT (nom. cell temp)			45.3 deg C					
OCV @ 25 deg C cells	21.75 VDC						113.54 deg F					
Modules total in array	80	96	112	128	144	160	176	192	208	224	240	256
Modules per string	16	16	16	16	16	16	16	16	16	16	16	16
Strings in Parallel	5	6	7	8	9	10	11	12	13	14	15	16
Voltage @ MPT (STC)	278.4	278.4	278.4	278.4	295.8	295.8	295.8	295.8	313.2	313.2	313.2	
Vmpt @ max amb temp (30C, 96F amb)	242.0	242.0	242.0	242.0	257.2	257.2	257.2	257.2	272.3	272.3	272.3	
Vmpt @ max amb temp (35C, 95F amb)	236.0	236.0	236.0	236.0	250.8	250.8	250.8	250.8	265.5	265.5	265.5	
Vmpt @ max amb temp (40C, 104F amb)	230.0	230.0	230.0	230.0	244.4	244.4	244.4	244.4	258.8	258.8	258.8	
Vmpt @ max amb temp (45C, 113F amb)	224.0	224.0	224.0	224.0	238.0	238.0	238.0	238.0	252.0	252.0	252.0	
Vmpt @ max amb temp (50C, 122F amb)	218.0	218.0	218.0	218.0	231.7	231.7	231.7	231.7	245.3	245.3	245.3	
OCV @ 25 deg C cells	348.0	348.0	348.0	348.0	369.8	369.8	369.8	369.8	391.5	391.5	391.5	
OCV @ coldest temp (-40C, -40F amb)	426.0	426.0	426.0	426.0	452.5	452.5	452.5	452.5	479.3	479.3	479.3	
OCV @ coldest temp (-30C, -22F amb)	414.0	414.0	414.0	414.0	439.9	439.9	439.9	439.9	465.8	465.8	465.8	
OCV @ coldest temp (-20C, -4F amb)	402.0	402.0	402.0	402.0	427.1	427.1	427.1	427.1	452.3	452.3	452.3	
OCV @ coldest temp (-10C, 14F amb)	390.0	390.0	390.0	390.0	414.4	414.4	414.4	414.4	438.8	438.8	438.8	
OCV @ coldest temp (0C, 32F amb)	378.0	378.0	378.0	378.0	401.6	401.6	401.6	401.6	425.3	425.3	425.3	
Power @ MPT (STC)	10400	12480	14560	16640	18720	20800	22880	24960	27040	29120	31200	
PTC AC system power rating	7148 ADC											
Suggested Inverter	PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW

Module Manufacturer	ET Solar			Power @ MPT			1250 W			For Vmpt @ max amb temp and OCV @ coldest temperature green is OK, red is not OK		
Module Model	ET-P636125			PTC Power Rating			0.0 W			orange is acceptable but should be avoided where possible (inverter will hold at 225VDC), purple is OK but indicates inverter will limit to 15 kW AC continuous output		
Voltage @ MPT (STC)	17.4 VDC			Temp Coeff of Vmpt			0.075 V/dgC (Vmpt)			pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)		
Current @ MPT (STC)	7.18 ADC			Temp Coeff of Voc			0.075 V/dgC (Voc)					
Current, short circuit	7.8 ADC			NOCT (nom. cell temp)			45.3 deg C					
OCV @ 25 deg C cells	21.75 VDC						113.54 deg F					
Modules total in array	96	112	128	144	160	176	192	208	224	240	256	272
Modules per string	16	16	16	16	16	16	16	16	16	16	16	16
Strings in Parallel	6	7	8	9	10	11	12	13	14	15	16	17
Voltage @ MPT (STC)	278.4	278.4	278.4	278.4	295.8	295.8	295.8	295.8	313.2	313.2	313.2	
Vmpt @ max amb temp (30C, 86F amb)	242.0	242.0	242.0	242.0	257.2	257.2	257.2	257.2	272.3	272.3	272.3	
Vmpt @ max amb temp (35C, 95F amb)	236.0	236.0	236.0	236.0	250.8	250.8	250.8	250.8	265.5	265.5	265.5	
Vmpt @ max amb temp (40C, 104F amb)	230.0	230.0	230.0	230.0	244.4	244.4	244.4	244.4	258.8	258.8	258.8	
Vmpt @ max amb temp (45C, 113F amb)	224.0	224.0	224.0	224.0	238.0	238.0	238.0	238.0	252.0	252.0	252.0	
Vmpt @ max amb temp (50C, 122F amb)	218.0	218.0	218.0	218.0	231.7	231.7	231.7	231.7	245.3	245.3	245.3	
OCV @ 25 deg C cells	348.0	348.0	348.0	348.0	369.8	369.8	369.8	369.8	391.5	391.5	391.5	
OCV @ coldest temp (-40C, -40F amb)	426.0	426.0	426.0	426.0	452.5	452.5	452.5	452.5	479.3	479.3	479.3	
OCV @ coldest temp (-30C, -22F amb)	414.0	414.0	414.0	414.0	439.9	439.9	439.9	439.9	465.8	465.8	465.8	
OCV @ coldest temp (-20C, -4F amb)	402.0	402.0	402.0	402.0	427.1	427.1	427.1	427.1	452.3	452.3	452.3	
OCV @ coldest temp (-10C, 14F amb)	390.0	390.0	390.0	390.0	414.4	414.4	414.4	414.4	438.8	438.8	438.8	
OCV @ coldest temp (0C, 32F amb)	378.0	378.0	378.0	378.0	401.6	401.6	401.6	401.6	425.3	425.3	425.3	
Power @ MPT (STC)	12000	14000	16000	18000	20000	22000	24000	26000	28000	30000	32000	
PTC AC system power rating	8400 ADC											
Suggested Inverter	PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW

Module Manufacturer	ET Solar			Power @ MPT			1200 W			For Vmpt @ max amb temp and OCV @ coldest temperature green is OK, red is not OK		
Module Model	ET-P636120			PTC Power Rating			0.0 W			orange is acceptable but should be avoided where possible (inverter will hold at 225VDC), purple is OK but indicates inverter will limit to 15 kW AC continuous output		
Voltage @ MPT (STC)	17.4 VDC			Temp Coeff of Vmpt			0.075 V/dgC (Vmpt)			pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)		
Current @ MPT (STC)	6.89 ADC			Temp Coeff of Voc			0.075 V/dgC (Voc)					
Current, short circuit	7.63 ADC			NOCT (nom. cell temp)			45.3 deg C					
OCV @ 25 deg C cells	21.75 VDC						113.54 deg F					
Modules total in array	96	112	128	144	160	176	192	208	224	240	256	272
Modules per string	16	16	16	16	16	16	16	16	16	16	16	16
Strings in Parallel	6	7	8	9	10	11	12	13	14	15	16	17
Voltage @ MPT (STC)	278.4	278.4	278.4	278.4	295.8	295.8	295.8	295.8	313.2	313.2	313.2	
Vmpt @ max amb temp (30C, 86F amb)	242.0	242.0	242.0	242.0	257.2	257.2	257.2	257.2	272.3	272.3	272.3	
Vmpt @ max amb temp (35C, 95F amb)	236.0	236.0	236.0	236.0	250.8	250.8	250.8	250.8	265.5	265.5	265.5	
Vmpt @ max amb temp (40C, 104F amb)	230.0	230.0	230.0	230.0	244.4	244.4	244.4	244.4	258.8	258.8	258.8	
Vmpt @ max amb temp (45C, 113F amb)	224.0	224.0	224.0	224.0	238.0	238.0	238.0	238.0	252.0	252.0	252.0	
Vmpt @ max amb temp (50C, 122F amb)	218.0	218.0	218.0	218.0	231.7	231.7	231.7	231.7	245.3	245.3	245.3	
OCV @ 25 deg C cells	348.0	348.0	348.0	348.0	369.8	369.8	369.8	369.8	391.5	391.5	391.5	
OCV @ coldest temp (-40C, -40F amb)	426.0	426.0	426.0	426.0	452.5	452.5	452.5	452.5	479.3	479.3	479.3	
OCV @ coldest temp (-30C, -22F amb)	414.0	414.0	414.0	414.0	439.9	439.9	439.9	439.9	465.8	465.8	465.8	
OCV @ coldest temp (-20C, -4F amb)	402.0	402.0	402.0	402.0	427.1	427.1	427.1	427.1	452.3	452.3	452.3	
OCV @ coldest temp (-10C, 14F amb)	390.0	390.0	390.0	390.0	414.4	414.4	414.4	414.4	438.8	438.8	438.8	
OCV @ coldest temp (0C, 32F amb)	378.0	378.0	378.0	378.0	401.6	401.6	401.6	401.6	425.3	425.3	425.3	
Power @ MPT (STC)	11520	13440	15360	17280	19200	21120	23040	24960	26880	28800	30720	
PTC AC system power rating	8100 ADC											
Suggested Inverter	PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW

Module Manufacturer	ET Solar			Power @ MPT			1150 W			For Vmpt @ max amb temp and OCV @ coldest temperature green is OK, red is not OK		
Module Model	ET-P636115			PTC Power Rating			0.0 W			orange is acceptable but should be avoided where possible (inverter will hold at 225VDC), purple is OK but indicates inverter will limit to 15 kW AC continuous output		
Voltage @ MPT (STC)	17.2 VDC			Temp Coeff of Vmpt			0.075 V/dgC (Vmpt)			pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)		
Current @ MPT (STC)	6.68 ADC			Temp Coeff of Voc			0.075 V/dgC (Voc)					
Current, short circuit	7.55 ADC			NOCT (nom. cell temp)			45.3 deg C					
OCV @ 25 deg C cells	21.75 VDC						113.54 deg F					
Modules total in array	112	128	144	160	176	192	208	224	240	256	272	288
Modules per string	16	16	16	16	16	16	16	16	16	16	16	16
Strings in Parallel	7	8	9	10	11	12	13	14	15	16	17	18
Voltage @ MPT (STC)	275.2	275.2	275.2	292.4	292.4	292.4	292.4	292.4	309.6	309.6	309.6	
Vmpt @ max amb temp (30C, 86F amb)	238.8	238.8	238.8	238.8	253.8	253.8	253.8	253.8	268.7	268.7	268.7	
Vmpt @ max amb temp (35C, 95F amb)	232.8	232.8	232.8	232.8	247.4	247.4	247.4	247.4	261.9	261.9	261.9	
Vmpt @ max amb temp (40C, 104F amb)	226.8	226.8	226.8	226.8	241.0	241.0	241.0	241.0	255.2	255.2	255.2	
Vmpt @ max amb temp (45C, 113F amb)	220.8	220.8	220.8	220.8	234.6	234.6	234.6	234.6	248.4	248.4	248.4	
Vmpt @ max amb temp (50C, 122F amb)	214.8	214.8	214.8	214.8	228.3	228.3	228.3	228.3	241.7	241.7	241.7	
OCV @ 25 deg C cells	348.0	348.0	348.0	348.0	369.8	369.8	369.8	369.8	391.5	391.5	391.5	
OCV @ coldest temp (-40C, -40F amb)	426.0	426.0	426.0	426.0	452.5	452.5	452.5	452.5	479.3	479.3	479.3	
OCV @ coldest temp (-30C, -22F amb)	414.0	414.0	414.0	414.0	439.9	439.9	439.9	439.9	465.8	465.8	465.8	
OCV @ coldest temp (-20C, -4F amb)	402.0	402.0	402.0	402.0	427.1	427.1	427.1	427.1	452.3	452.3	452.3	
OCV @ coldest temp (-10C, 14F amb)	390.0	390.0	390.0	390.0	414.4	414.4	414.4	414.4	438.8	438.8	438.8	
OCV @ coldest temp (0C, 32F amb)	378.0	378.0	378.0	378.0	401.6	401.6	401.6	401.6	425.3	425.3	425.3	
Power @ MPT (STC)	12860	14720	16580	18440	20300	22160	24020	25880	27740	29600	31460	
PTC AC system power rating	9000 ADC											
Suggested Inverter	PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW

Module Manufacturer	Evergreen			Power @ MPT			2180 W			For Vmpt @ max amb temp and OCV @ coldest temperature green is OK, red is not OK		
Module Model	ES-A-210			PTC Power Rating			0.0 W			orange is acceptable but should be avoided where possible (inverter will hold at 225VDC), purple is OK but indicates inverter will limit to 15 kW AC continuous output		
Voltage @ MPT (STC)	18.7 VDC			Temp Coeff of Vmpt			0.08 V/dgC (Vmpt)			pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)		
Current @ MPT (STC)	11.23 ADC			Temp Coeff of Voc			0.074 V/dgC (Voc)					
Current, short circuit	12.2 ADC			NOCT (nom. cell temp)			44.8 deg C					
OCV @ 25 deg C cells	23.1 VDC						112.64 deg F					
Modules total in array	45	60	75	90	105	120	135	150	165	180		

Module Manufacturer	Evergreen			Power @ MPT				190.0 W				For Vmpt @ max amb temp and OCV @ coldest temperature green is OK, red is not OK orange is acceptable but should be avoided where possible (inverter will hold at 225VDC), purple is OK but indicates inverter will limit to 15 kW AC continuous output pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)			
Module Model	ES-190-RL			PTC Power Rating				168.8 W				orange is acceptable but should be avoided where possible (inverter will hold at 225VDC), purple is OK but indicates inverter will limit to 15 kW AC continuous output pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)			
Voltage @ MPT (STC)	26.7 VDC			Temp Coeff of Vmpt				0.125 V/dgC (V/mpt)							
Current @ MPT (STC)	7.12 ADC			Temp Coeff of Voc				0.112 V/dgC (Voc)							
Current, short circuit	8.05 ADC			NOCT (nom. cell temp)				45.9 deg C				114.62 deg F			
OCV @ 25 deg C cells	32.8 VDC														
Modules total in array	44	55	66	77	88	99	36	48	60	72	84	96			
Modules per string	11	11	11	11	11	11	12	12	12	12	12	12			
Strings in Parallel	4	5	6	7	8	9	3	4	5	6	7	8			
Voltage @ MPT (STC)	293.7	293.7	293.7	293.7	293.7	293.7	320.4	320.4	320.4	320.4	320.4	320.4			
Vmpt @ max amb temp (30C, 96F amb)	251.2	251.2	251.2	251.2	251.2	251.2	274.1	274.1	274.1	274.1	274.1	274.1			
Vmpt @ max amb temp (35C, 95F amb)	244.3	244.3	244.3	244.3	244.3	244.3	266.6	266.6	266.6	266.6	266.6	266.6			
Vmpt @ max amb temp (40C, 104F amb)	237.5	237.5	237.5	237.5	237.5	237.5	259.1	259.1	259.1	259.1	259.1	259.1			
Vmpt @ max amb temp (45C, 113F amb)	230.6	230.6	230.6	230.6	230.6	230.6	251.6	251.6	251.6	251.6	251.6	251.6			
Vmpt @ max amb temp (50C, 122F amb)	223.7	223.7	223.7	223.7	223.7	223.7	244.1	244.1	244.1	244.1	244.1	244.1			
OCV @ 25 deg C cells	360.8	360.8	360.8	360.8	360.8	360.8	393.6	393.6	393.6	393.6	393.6	393.6			
OCV @ coldest temp (-40C, -40F amb)	440.9	440.9	440.9	440.9	440.9	440.9	481.0	481.0	481.0	481.0	481.0	481.0			
OCV @ coldest temp (-30C, -22F amb)	428.6	428.6	428.6	428.6	428.6	428.6	467.5	467.5	467.5	467.5	467.5	467.5			
OCV @ coldest temp (-20C, -4F amb)	416.2	416.2	416.2	416.2	416.2	416.2	454.1	454.1	454.1	454.1	454.1	454.1			
OCV @ coldest temp (-10C, 14F amb)	403.9	403.9	403.9	403.9	403.9	403.9	440.6	440.6	440.6	440.6	440.6	440.6			
OCV @ coldest temp (0C, 32F amb)	391.6	391.6	391.6	391.6	391.6	391.6	427.2	427.2	427.2	427.2	427.2	427.2			
Power @ MPT (STC)	6360	10490	12540	14630	16720	18810	6940	9120	11400	13680	16240	18240			
PTC AC system power rating	7019	876	1058	1283	1403	1592	3743	4957	6571	8571	11399	15314			
Suggested Inverter	PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	PVI 15KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	PVI 15KW			

Module Manufacturer	Evergreen			Power @ MPT				180.0 W				For Vmpt @ max amb temp and OCV @ coldest temperature green is OK, red is not OK orange is acceptable but should be avoided where possible (inverter will hold at 225VDC), purple is OK but indicates inverter will limit to 15 kW AC continuous output pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)			
Module Model	ES-180-RL			PTC Power Rating				150.6 W				orange is acceptable but should be avoided where possible (inverter will hold at 225VDC), purple is OK but indicates inverter will limit to 15 kW AC continuous output pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)			
Voltage @ MPT (STC)	25.9 VDC			Temp Coeff of Vmpt				0.122 V/dgC (V/mpt)							
Current @ MPT (STC)	6.95 ADC			Temp Coeff of Voc				0.111 V/dgC (Voc)							
Current, short circuit	7.78 ADC			NOCT (nom. cell temp)				45.9 deg C				114.62 deg F			
OCV @ 25 deg C cells	32.6 VDC														
Modules total in array	44	55	66	77	88	99	36	48	60	72	84	96			
Modules per string	11	11	11	11	11	11	12	12	12	12	12	12			
Strings in Parallel	4	5	6	7	8	9	3	4	5	6	7	8			
Voltage @ MPT (STC)	284.9	284.9	284.9	284.9	284.9	284.9	310.8	310.8	310.8	310.8	310.8	310.8			
Vmpt @ max amb temp (30C, 86F amb)	243.4	243.4	243.4	243.4	243.4	243.4	265.6	265.6	265.6	265.6	265.6	265.6			
Vmpt @ max amb temp (35C, 95F amb)	236.7	236.7	236.7	236.7	236.7	236.7	258.2	258.2	258.2	258.2	258.2	258.2			
Vmpt @ max amb temp (40C, 104F amb)	230.0	230.0	230.0	230.0	230.0	230.0	250.9	250.9	250.9	250.9	250.9	250.9			
Vmpt @ max amb temp (45C, 113F amb)	223.3	223.3	223.3	223.3	223.3	223.3	243.6	243.6	243.6	243.6	243.6	243.6			
Vmpt @ max amb temp (50C, 122F amb)	216.6	216.6	216.6	216.6	216.6	216.6	236.3	236.3	236.3	236.3	236.3	236.3			
OCV @ 25 deg C cells	358.6	358.6	358.6	358.6	358.6	358.6	391.2	391.2	391.2	391.2	391.2	391.2			
OCV @ coldest temp (-40C, -40F amb)	438.0	438.0	438.0	438.0	438.0	438.0	477.8	477.8	477.8	477.8	477.8	477.8			
OCV @ coldest temp (-30C, -22F amb)	425.8	425.8	425.8	425.8	425.8	425.8	464.5	464.5	464.5	464.5	464.5	464.5			
OCV @ coldest temp (-20C, -4F amb)	413.5	413.5	413.5	413.5	413.5	413.5	451.1	451.1	451.1	451.1	451.1	451.1			
OCV @ coldest temp (-10C, 14F amb)	401.3	401.3	401.3	401.3	401.3	401.3	437.8	437.8	437.8	437.8	437.8	437.8			
OCV @ coldest temp (0C, 32F amb)	389.1	389.1	389.1	389.1	389.1	389.1	424.5	424.5	424.5	424.5	424.5	424.5			
Power @ MPT (STC)	7920	9900	11880	13860	15840	17820	6480	8640	10800	12960	15120	17280			
PTC AC system power rating	8540	8300	9960	11621	13281	14941	5433	7244	9055	10866	12677	14488			
Suggested Inverter	PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	PVI 15KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	PVI 15KW			

Module Manufacturer	Evergreen			Power @ MPT				170.0 W				For Vmpt @ max amb temp and OCV @ coldest temperature green is OK, red is not OK orange is acceptable but should be avoided where possible (inverter will hold at 225VDC), purple is OK but indicates inverter will limit to 15 kW AC continuous output pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)			
Module Model	ES-170-RL			PTC Power Rating				150.6 W				orange is acceptable but should be avoided where possible (inverter will hold at 225VDC), purple is OK but indicates inverter will limit to 15 kW AC continuous output pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)			
Voltage @ MPT (STC)	25.3 VDC			Temp Coeff of Vmpt				0.119 V/dgC (V/mpt)							
Current @ MPT (STC)	6.72 ADC			Temp Coeff of Voc				0.111 V/dgC (Voc)							
Current, short circuit	7.55 ADC			NOCT (nom. cell temp)				45.9 deg C				114.62 deg F			
OCV @ 25 deg C cells	32.4 VDC														
Modules total in array	44	55	66	77	88	99	110	36	48	60	72	84	96	108	
Modules per string	11	11	11	11	11	11	11	12	12	12	12	12	12	12	
Strings in Parallel	4	5	6	7	8	9	9	3	4	5	6	7	8	9	
Voltage @ MPT (STC)	278.3	278.3	278.3	278.3	278.3	278.3	303.6	303.6	303.6	303.6	303.6	303.6	303.6	303.6	
Vmpt @ max amb temp (30C, 86F amb)	237.9	237.9	237.9	237.9	237.9	237.9	259.5	259.5	259.5	259.5	259.5	259.5	259.5	259.5	
Vmpt @ max amb temp (35C, 95F amb)	231.3	231.3	231.3	231.3	231.3	231.3	252.3	252.3	252.3	252.3	252.3	252.3	252.3	252.3	
Vmpt @ max amb temp (40C, 104F amb)	224.8	224.8	224.8	224.8	224.8	224.8	245.2	245.2	245.2	245.2	245.2	245.2	245.2	245.2	
Vmpt @ max amb temp (45C, 113F amb)	218.2	218.2	218.2	218.2	218.2	218.2	238.1	238.1	238.1	238.1	238.1	238.1	238.1	238.1	
Vmpt @ max amb temp (50C, 122F amb)	211.7	211.7	211.7	211.7	211.7	211.7	231.0	231.0	231.0	231.0	231.0	231.0	231.0	231.0	
OCV @ 25 deg C cells	356.4	356.4	356.4	356.4	356.4	356.4	388.8	388.8	388.8	388.8	388.8	388.8	388.8	388.8	
OCV @ coldest temp (-40C, -40F amb)	435.1	435.1	435.1	435.1	435.1	435.1	472.8	472.8	472.8	472.8	472.8	472.8	472.8	472.8	
OCV @ coldest temp (-30C, -22F amb)	423.0	423.0	423.0	423.0	423.0	423.0	461.4	461.4	461.4	461.4	461.4	461.4	461.4	461.4	
OCV @ coldest temp (-20C, -4F amb)	410.9	410.9	410.9	410.9	410.9	410.9	448.2	448.2	448.2	448.2	448.2	448.2	448.2	448.2	
OCV @ coldest temp (-10C, 14F amb)	398.8	398.8	398.8	398.8	398.8	398.8	435.0	435.0	435.0	435.0	435.0	435.0	435.0	435.0	
OCV @ coldest temp (0C, 32F amb)	386.7	386.7	386.7	386.7	386.7	386.7	421.8	421.8	421.8	421.8	421.8	421.8	421.8	421.8	
Power @ MPT (STC)	7480	9350	11220	13090	14960	16830	6120	8160	10200	12240	14280	16320	18360	20400	
PTC AC system power rating	8242	7827	9393	10959	12524	14089	15653	17217	18781	20345	21909	23473	25037	26601	
Suggested Inverter	PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	PVI 15KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	PVI 15KW	PVI 15KW	PVI 15KW	

Module Manufacturer	Evergreen			Power @ MPT				120.0 W				For Vmpt @ max amb temp and OCV @ coldest temperature green is OK, red is not OK orange is acceptable but should be avoided where possible (inverter will hold at 225VDC), purple is OK but indicates inverter will limit to 15 kW AC continuous output pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)			
Module Model	EC-120-GL			PTC Power Rating				107.5 W				orange is acceptable but should be avoided where possible (inverter will hold at 225VDC), purple is OK but indicates inverter will limit to 15 kW AC continuous output pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)			
Voltage @ MPT (STC)	17.6 VDC			Temp Coeff of Vmpt				0.093 V/dgC (V/mpt)							
Current @ MPT (STC)	6.82 ADC			Temp Coeff of Voc				0.088 V/dgC (Voc)							
Current, short circuit	7.68 ADC			NOCT (nom. cell temp)				44 deg C				111.2 deg F			
OCV @ 25 deg C cells	21.3 VDC														
Modules total in array	80	96	112	128	144	160	192	240	288	336	384	432	480	528	
Modules per string	16	16	16	16	16	16	17	17	17	17	17	17	17	17	
Strings in Parallel	5	6	7	8	9	10	5	6	7	8	9	10	11	12	
Voltage @ MPT (STC)	281.6	281.6	281.6	281.6	281.6	281.6	299.2	299.2	299.2	299.2	299.2	299.2	299.2	299.2	
Vmpt @ max amb temp (30C, 86F amb)	238.4	238.4	238.4	238.4	238.4	238.4	253.4	253.4	253.4	253.4	253.4	253.4	253.4	253.4	
Vmpt @ max amb temp (35C, 95F amb)	231.0	231.0	231.0	231.0	231.0	231.0	245.4	245.4	245.4	245.4	245.4	245.4	245.4	245.4	
Vmpt @ max amb temp (40C, 104F amb)	223.6	223.6	223.6	223.6	223.6	223.6	237.5	237.5	237.5	237.5	237.5	237.5	237.5	237.5	
Vmpt @ max amb temp (45C, 113F amb)	216.2	216.2	216.2	216.2	216.2	216.2	229.6	229.6	229.6	229.6	229.6	229.6	229.6	229.6	
Vmpt @ max amb temp (50C, 122F amb)	208.7	208.7	208.7	208.7	208.7	208.7	221.7	221.7	221.7	221.7	221.7	221.7	221.7	221.7	
OCV @ 25 deg C cells	344.0	344.0	344.0	344.0	344.0	344.0	365.5	365.5	365.5	365.5	365.5	365.5	365.5	365.5	
OCV @ coldest temp (-40C, -40F amb)	435.5	435.5	435.5	435.5	435.5	435.5	462.7	462.7	462.7	462.7	462.7	462.7	462.7	462.7	
OCV @ coldest temp (-30C, -22F amb)	421.4	421.4	421.4	421.4	421.4	421.4	447.8	447.8	447.8	447.8	447.8	447.8	447.8	447.8	
OCV @ coldest temp (-20C, -4F amb)	407.4	407.4	407.4</												

Module Manufacturer	Mitsubishi										Power @ MPT		175.0 W		For Vmpt @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK		
Module Model	PV-MF175 UD5										PTC Power Rating		155.6 W		orange is acceptable but should be avoided where possible (inverter will hold at 225VDC).		
Voltage @ MPT (STC)	23.9 VDC										Temp Coeff of Vmpt		0.083 V/degC (Vmpt)		purple is OK but indicates inverter will limit to 15 kW AC continuous output		
Current @ MPT (STC)	7.32 ADC										Temp Coeff of Voc		0.104 V/degC (Voc)		pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)		
Current, short circuit	7.93 ADC										NOCT (nom. cell temp)		47.5 deg C				
OCV @ 25 deg C cells	30.2 VDC																
Modules total in array	48	60	72	84	96	108	52	65	78	91	104						
Modules per string	12	12	12	12	12	12	13	13	13	13	13						
Strings in Parallel	4	5	6	7	8	9	4	5	6	7	8						
Voltage @ MPT (STC)	286.8	286.8	286.8	286.8	286.8	286.8	310.7	310.7	310.7	310.7	310.7						
Vmpt @ max amb temp (30C, 96F amb)	254.4	254.4	254.4	254.4	254.4	254.4	275.6	275.6	275.6	275.6	275.6						
Vmpt @ max amb temp (35C, 95F amb)	249.5	249.5	249.5	249.5	249.5	249.5	270.2	270.2	270.2	270.2	270.2						
Vmpt @ max amb temp (40C, 104F amb)	244.5	244.5	244.5	244.5	244.5	244.5	264.8	264.8	264.8	264.8	264.8						
Vmpt @ max amb temp (45C, 113F amb)	239.5	239.5	239.5	239.5	239.5	239.5	259.4	259.4	259.4	259.4	259.4						
Vmpt @ max amb temp (50C, 122F amb)	234.5	234.5	234.5	234.5	234.5	234.5	254.1	254.1	254.1	254.1	254.1						
OCV @ 25 deg C cells	362.4	362.4	362.4	362.4	362.4	362.4	392.6	392.6	392.6	392.6	392.6						
OCV @ coldest temp (-40C, -40F amb)	443.5	443.5	443.5	443.5	443.5	443.5	480.5	480.5	480.5	480.5	480.5						
OCV @ coldest temp (-30C, -22F amb)	431.0	431.0	431.0	431.0	431.0	431.0	467.0	467.0	467.0	467.0	467.0						
OCV @ coldest temp (-20C, -4F amb)	418.6	418.6	418.6	418.6	418.6	418.6	453.4	453.4	453.4	453.4	453.4						
OCV @ coldest temp (-10C, 14F amb)	406.1	406.1	406.1	406.1	406.1	406.1	439.9	439.9	439.9	439.9	439.9						
OCV @ coldest temp (0C, 32F amb)	393.6	393.6	393.6	393.6	393.6	393.6	426.4	426.4	426.4	426.4	426.4						
Power @ MPT (STC)	8400	10500	12600	14700	16800	18900	9100	11375	13650	15925	18200						
PTC AC system power rating	7058	8923	10887	12852	14816	15881	7646	9559	11469	13381	15292						
Suggested Inverter	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	PVI 15KW	PVI 15KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW						

Module Manufacturer	Mitsubishi										Power @ MPT		175.0 W		For Vmpt @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK		
Module Model	PV-MF175 UD4										PTC Power Rating		154.5 W		orange is acceptable but should be avoided where possible (inverter will hold at 225VDC).		
Voltage @ MPT (STC)	23.9 VDC										Temp Coeff of Vmpt		0.083 V/degC (Vmpt)		purple is OK but indicates inverter will limit to 15 kW AC continuous output		
Current @ MPT (STC)	7.32 ADC										Temp Coeff of Voc		0.104 V/degC (Voc)		pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)		
Current, short circuit	7.93 ADC										NOCT (nom. cell temp)		46.6 deg C				
OCV @ 25 deg C cells	30.2 VDC																
Modules total in array	48	60	72	84	96	108	52	65	78	91	104						
Modules per string	12	12	12	12	12	12	13	13	13	13	13						
Strings in Parallel	4	5	6	7	8	9	4	5	6	7	8						
Voltage @ MPT (STC)	286.8	286.8	286.8	286.8	286.8	286.8	310.7	310.7	310.7	310.7	310.7						
Vmpt @ max amb temp (30C, 96F amb)	255.3	255.3	255.3	255.3	255.3	255.3	276.6	276.6	276.6	276.6	276.6						
Vmpt @ max amb temp (35C, 95F amb)	250.3	250.3	250.3	250.3	250.3	250.3	271.2	271.2	271.2	271.2	271.2						
Vmpt @ max amb temp (40C, 104F amb)	245.4	245.4	245.4	245.4	245.4	245.4	265.8	265.8	265.8	265.8	265.8						
Vmpt @ max amb temp (45C, 113F amb)	240.4	240.4	240.4	240.4	240.4	240.4	260.4	260.4	260.4	260.4	260.4						
Vmpt @ max amb temp (50C, 122F amb)	235.4	235.4	235.4	235.4	235.4	235.4	255.0	255.0	255.0	255.0	255.0						
OCV @ 25 deg C cells	362.4	362.4	362.4	362.4	362.4	362.4	392.6	392.6	392.6	392.6	392.6						
OCV @ coldest temp (-40C, -40F amb)	443.5	443.5	443.5	443.5	443.5	443.5	480.5	480.5	480.5	480.5	480.5						
OCV @ coldest temp (-30C, -22F amb)	431.0	431.0	431.0	431.0	431.0	431.0	467.0	467.0	467.0	467.0	467.0						
OCV @ coldest temp (-20C, -4F amb)	418.6	418.6	418.6	418.6	418.6	418.6	453.4	453.4	453.4	453.4	453.4						
OCV @ coldest temp (-10C, 14F amb)	406.1	406.1	406.1	406.1	406.1	406.1	439.9	439.9	439.9	439.9	439.9						
OCV @ coldest temp (0C, 32F amb)	393.6	393.6	393.6	393.6	393.6	393.6	426.4	426.4	426.4	426.4	426.4						
Power @ MPT (STC)	8400	10500	12600	14700	16800	18900	9100	11375	13650	15925	18200						
PTC AC system power rating	7058	8923	10887	12852	14816	15881	7646	9559	11469	13381	15292						
Suggested Inverter	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	PVI 15KW	PVI 15KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW						

Module Manufacturer	Mitsubishi										Power @ MPT		170.0 W		For Vmpt @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK		
Module Model	PV-MF170 UD4										PTC Power Rating		149.9 W		orange is acceptable but should be avoided where possible (inverter will hold at 225VDC).		
Voltage @ MPT (STC)	23.7 VDC										Temp Coeff of Vmpt		0.084 V/degC (Vmpt)		purple is OK but indicates inverter will limit to 15 kW AC continuous output		
Current @ MPT (STC)	7.19 ADC										Temp Coeff of Voc		0.105 V/degC (Voc)		pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)		
Current, short circuit	7.83 ADC										NOCT (nom. cell temp)		46.6 deg C				
OCV @ 25 deg C cells	29.9 VDC																
Modules total in array	48	60	72	84	96	108	52	65	78	91	104						
Modules per string	12	12	12	12	12	12	13	13	13	13	13						
Strings in Parallel	4	5	6	7	8	9	4	5	6	7	8						
Voltage @ MPT (STC)	284.4	284.4	284.4	284.4	284.4	284.4	308.1	308.1	308.1	308.1	308.1						
Vmpt @ max amb temp (30C, 96F amb)	252.5	252.5	252.5	252.5	252.5	252.5	273.6	273.6	273.6	273.6	273.6						
Vmpt @ max amb temp (35C, 95F amb)	247.5	247.5	247.5	247.5	247.5	247.5	268.1	268.1	268.1	268.1	268.1						
Vmpt @ max amb temp (40C, 104F amb)	242.5	242.5	242.5	242.5	242.5	242.5	262.7	262.7	262.7	262.7	262.7						
Vmpt @ max amb temp (45C, 113F amb)	237.4	237.4	237.4	237.4	237.4	237.4	257.2	257.2	257.2	257.2	257.2						
Vmpt @ max amb temp (50C, 122F amb)	232.4	232.4	232.4	232.4	232.4	232.4	251.8	251.8	251.8	251.8	251.8						
OCV @ 25 deg C cells	358.7	358.7	358.7	358.7	358.7	358.7	388.7	388.7	388.7	388.7	388.7						
OCV @ coldest temp (-40C, -40F amb)	440.7	440.7	440.7	440.7	440.7	440.7	477.4	477.4	477.4	477.4	477.4						
OCV @ coldest temp (-30C, -22F amb)	428.1	428.1	428.1	428.1	428.1	428.1	463.9	463.9	463.9	463.9	463.9						
OCV @ coldest temp (-20C, -4F amb)	415.5	415.5	415.5	415.5	415.5	415.5	450.1	450.1	450.1	450.1	450.1						
OCV @ coldest temp (-10C, 14F amb)	402.9	402.9	402.9	402.9	402.9	402.9	436.5	436.5	436.5	436.5	436.5						
OCV @ coldest temp (0C, 32F amb)	390.3	390.3	390.3	390.3	390.3	390.3	422.8	422.8	422.8	422.8	422.8						
Power @ MPT (STC)	8160	10200	12240	14280	16320	18360	8940	11050	13260	15470	17680						
PTC AC system power rating	6949	8499	10199	11899	13599	15299	7366	9200	11049	12891	14733						
Suggested Inverter	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	PVI 15KW	PVI 15KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW						

Module Manufacturer	Mitsubishi										Power @ MPT		170.0 W		For Vmpt @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK		
Module Model	PV-MF170EB3										PTC Power Rating		152.0 W		orange is acceptable but should be avoided where possible (inverter will hold at 225VDC).		
Voltage @ MPT (STC)	24.6 VDC										Temp Coeff of Vmpt		0.085 V/degC (Vmpt)		purple is OK but indicates inverter will limit to 15 kW AC continuous output		
Current @ MPT (STC)	6.93 ADC										Temp Coeff of Voc		0.106 V/degC (Voc)		pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)		
Current, short circuit	7.38 ADC										NOCT (nom. cell temp)		46.6 deg C				
OCV @ 25 deg C cells	30.6 VDC																
Modules total in array	48	60	72	84	96	108	52	65	78	91	104						
Modules per string	12	12	12	12	12	12	13	13	13	13	13						
Strings in Parallel	4	5	6	7	8	9	4	5	6	7	8						
Voltage @ MPT (STC)	295.2	295.2	295.2	295.2	295.2	295.2	319.8	319.8	319.8	319.8	319.8						
Vmpt @ max amb temp (30C, 96F amb)	263.0	263.0	263.0	263.0	263.0	263.0	284.9	284.9	284.9	284.9	284.9						
Vmpt @ max amb temp (35C, 95F amb)	257.9	257.9	257.9	257.9	257.9	257.9	279.4	279.4	279.4	279.4	279.4						
Vmpt @ max amb temp (40C, 104F amb)	252.8	252.8	252.8	252.8	252.8	252.8	273.8	273.8	273.8	273.8	273.8						
Vmpt @ max amb temp (45C, 113F amb)	247.7	247.7	247.7	247.7	247.7	247.7	268.3	268.3	268.3	268.3	268.3						
Vmpt @ max amb temp (50C, 122F amb)	242.6	242.6	242.6	242.6	242.6	242.6	262.8	262.8	262.8	262.8	262.8						
OCV @ 25 deg C cells	367.2	367.2	367.2	367.2	367.2	367.2	397.8	397.8	397.8	397.8	397.8						
OCV @ coldest temp (-40C, -40F amb)	449.9	449.9	449.9	449.9	449.9	449.9	487.4	487.4	487.4	487.4	487.4						
OCV @ coldest temp (-30C, -22F amb)	437.2	437.2	437.2	437.2	437.2	437.2	473.5	473.5	473.5	473.5	473.5						
OCV @ coldest temp (-20C, -4F amb)	424.4	424.4	424.4	4													

Module Manufacturer		REC Solar 220AE				Power @ MPT (STC)				220.0 W				For Vmpt @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK			
Module Model		28.4 VDC				PTC Power Rating				191.7 W				orange is acceptable but should be avoided where possible (inverter will hold at 225VDC),			
Voltage @ MPT (STC)		7.8 VDC				Temp Coeff of Vmpt				0.124 V/degC (Vmpt)				purple is OK but indicates inverter will limit to 15 kW AC continuous output			
Current @ MPT (STC)		8.4 ADC				Temp Coeff of Voc				0.124 V/degC (Voc)				pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)			
Current, short circuit		36.4 VDC				NOCT (nom. cell temp)				47.5 deg C				117.5 deg F			
OCV @ 25 deg C cells		36.4 VDC															
Modules total in array		60 70 80 90 55 66 77 88															
Modules per string		10 10 10 10 11 11 11 11															
Strings in Parallel		6 7 8 9 5 6 7 8															
Voltage @ MPT (STC)		284.0 284.0 284.0 284.0 312.4 312.4 312.4 312.4															
Vmpt @ max amb temp (30C, 96F amb)		243.8 243.8 243.8 243.8 268.2 268.2 268.2 268.2															
Vmpt @ max amb temp (35C, 95F amb)		237.6 237.6 237.6 237.6 261.3 261.3 261.3 261.3															
Vmpt @ max amb temp (40C, 104F amb)		231.4 231.4 231.4 231.4 254.5 254.5 254.5 254.5															
Vmpt @ max amb temp (45C, 113F amb)		225.2 225.2 225.2 225.2 247.7 247.7 247.7 247.7															
Vmpt @ max amb temp (50C, 122F amb)		219.0 219.0 219.0 219.0 240.9 240.9 240.9 240.9															
OCV @ 25 deg C cells		364.0 364.0 364.0 364.0 400.4 400.4 400.4 400.4															
OCV @ coldest temp (-40C, -40F amb)		444.4 444.4 444.4 444.4 488.9 488.9 488.9 488.9															
OCV @ coldest temp (-30C, -22F amb)		432.1 432.1 432.1 432.1 475.3 475.3 475.3 475.3															
OCV @ coldest temp (-20C, -4F amb)		419.7 419.7 419.7 419.7 461.7 461.7 461.7 461.7															
OCV @ coldest temp (-10C, 14F amb)		407.3 407.3 407.3 407.3 448.0 448.0 448.0 448.0															
OCV @ coldest temp (0C, 32F amb)		394.9 394.9 394.9 394.9 434.4 434.4 434.4 434.4															
Power @ MPT (STC)		15200				17600				19600				19360			
PTC AC system power rating		10869				14493				16304				19964			
Suggested Inverter		PVI 13KW				PVI 13KW				PVI 15KW				PVI 13KW			

Module Manufacturer		REC Solar 215AE				Power @ MPT (STC)				215.0 W				For Vmpt @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK			
Module Model		28 VDC				PTC Power Rating				187.2 W				orange is acceptable but should be avoided where possible (inverter will hold at 225VDC),			
Voltage @ MPT (STC)		7.7 VDC				Temp Coeff of Vmpt				0.123 V/degC (Vmpt)				purple is OK but indicates inverter will limit to 15 kW AC continuous output			
Current @ MPT (STC)		8.3 ADC				Temp Coeff of Voc				0.123 V/degC (Voc)				pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)			
Current, short circuit		36.3 VDC				NOCT (nom. cell temp)				47.5 deg C				117.5 deg F			
OCV @ 25 deg C cells		36.3 VDC															
Modules total in array		60 70 80 90 55 66 77 88															
Modules per string		10 10 10 10 11 11 11 11															
Strings in Parallel		6 7 8 9 5 6 7 8															
Voltage @ MPT (STC)		280.0 280.0 280.0 280.0 308.0 308.0 308.0 308.0															
Vmpt @ max amb temp (30C, 96F amb)		239.9 239.9 239.9 239.9 263.9 263.9 263.9 263.9															
Vmpt @ max amb temp (35C, 95F amb)		233.7 233.7 233.7 233.7 257.1 257.1 257.1 257.1															
Vmpt @ max amb temp (40C, 104F amb)		227.5 227.5 227.5 227.5 250.3 250.3 250.3 250.3															
Vmpt @ max amb temp (45C, 113F amb)		221.4 221.4 221.4 221.4 243.5 243.5 243.5 243.5															
Vmpt @ max amb temp (50C, 122F amb)		215.2 215.2 215.2 215.2 236.7 236.7 236.7 236.7															
OCV @ 25 deg C cells		363.0 363.0 363.0 363.0 399.3 399.3 399.3 399.3															
OCV @ coldest temp (-40C, -40F amb)		443.2 443.2 443.2 443.2 487.5 487.5 487.5 487.5															
OCV @ coldest temp (-30C, -22F amb)		430.9 430.9 430.9 430.9 474.0 474.0 474.0 474.0															
OCV @ coldest temp (-20C, -4F amb)		418.5 418.5 418.5 418.5 460.4 460.4 460.4 460.4															
OCV @ coldest temp (-10C, 14F amb)		406.2 406.2 406.2 406.2 446.8 446.8 446.8 446.8															
OCV @ coldest temp (0C, 32F amb)		393.9 393.9 393.9 393.9 433.2 433.2 433.2 433.2															
Power @ MPT (STC)		12900				15700				18350				18200			
PTC AC system power rating		10614				12983				14152				15921			
Suggested Inverter		PVI 13KW				PVI 13KW				PVI 15KW				PVI 13KW			

Module Manufacturer		REC Solar SCM 215				Power @ MPT (STC)				215.0 W				For Vmpt @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK			
Module Model		28.3 VDC				PTC Power Rating				191.3 W				orange is acceptable but should be avoided where possible (inverter will hold at 225VDC),			
Voltage @ MPT (STC)		7.6 VDC				Temp Coeff of Vmpt				0.123 V/degC (Vmpt)				purple is OK but indicates inverter will limit to 15 kW AC continuous output			
Current @ MPT (STC)		8.1 ADC				Temp Coeff of Voc				0.123 V/degC (Voc)				pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)			
Current, short circuit		36.3 VDC				NOCT (nom. cell temp)				43 deg C				109.4 deg F			
OCV @ 25 deg C cells		36.3 VDC															
Modules total in array		50 60 70 80 90 55 66 77 88															
Modules per string		10 10 10 10 10 11 11 11 11															
Strings in Parallel		5 6 7 8 9 5 6 7 8															
Voltage @ MPT (STC)		283.0 283.0 283.0 283.0 311.3 311.3 311.3 311.3															
Vmpt @ max amb temp (30C, 96F amb)		248.4 248.4 248.4 248.4 273.3 273.3 273.3 273.3															
Vmpt @ max amb temp (35C, 95F amb)		242.3 242.3 242.3 242.3 266.5 266.5 266.5 266.5															
Vmpt @ max amb temp (40C, 104F amb)		236.1 236.1 236.1 236.1 259.7 259.7 259.7 259.7															
Vmpt @ max amb temp (45C, 113F amb)		229.9 229.9 229.9 229.9 252.9 252.9 252.9 252.9															
Vmpt @ max amb temp (50C, 122F amb)		223.8 223.8 223.8 223.8 246.1 246.1 246.1 246.1															
OCV @ 25 deg C cells		363.0 363.0 363.0 363.0 399.3 399.3 399.3 399.3															
OCV @ coldest temp (-40C, -40F amb)		443.2 443.2 443.2 443.2 487.5 487.5 487.5 487.5															
OCV @ coldest temp (-30C, -22F amb)		430.9 430.9 430.9 430.9 474.0 474.0 474.0 474.0															
OCV @ coldest temp (-20C, -4F amb)		418.5 418.5 418.5 418.5 460.4 460.4 460.4 460.4															
OCV @ coldest temp (-10C, 14F amb)		406.2 406.2 406.2 406.2 446.8 446.8 446.8 446.8															
OCV @ coldest temp (0C, 32F amb)		393.9 393.9 393.9 393.9 433.2 433.2 433.2 433.2															
Power @ MPT (STC)		10750				12900				15700				16555			
PTC AC system power rating		9038				10846				12642				14462			
Suggested Inverter		PVI 13KW				PVI 13KW				PVI 15KW				PVI 13KW			

Module Manufacturer		REC Solar SCM 210 (230 Wp)				Power @ MPT (STC)				230.0 W				For Vmpt @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK			
Module Model		28.5 VDC				PTC Power Rating				0.0 W				orange is acceptable but should be avoided where possible (inverter will hold at 225VDC),			
Voltage @ MPT (STC)		8 ADC				Temp Coeff of Vmpt				0.104 V/degC (Vmpt)				purple is OK but indicates inverter will limit to 15 kW AC continuous output			
Current @ MPT (STC)		8.6 ADC				Temp Coeff of Voc				0.104 V/degC (Voc)				pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)			
Current, short circuit		36.7 VDC				NOCT (nom. cell temp)				43 deg C				109.4 deg F			
OCV @ 25 deg C cells		36.7 VDC															
Modules total in array		30 40 50 60 70 80 33 44 55 66 77 88															
Modules per string		10 10 10 10 10 10 11 11 11 11 11 11															
Strings in Parallel		3 4 5 6 7 8 3 4 5 6 7 8															
Voltage @ MPT (STC)		285.0 285.0 285.0 285.0 313.5 313.5 313.5 313.5															
Vmpt @ max amb temp (30C, 96F amb)		255.9 255.9 255.9 255.9 281.5 281.5 281.5 281.5															
Vmpt @ max amb temp (35C, 95F amb)		250.7 250.7 250.7 250.7 275.7 275.7 275.7 275.7															
Vmpt @ max amb temp (40C, 104F amb)		245.5 245.5 245.5 245.5 270.0 270.0 270.0 270.0															
Vmpt @ max amb temp (45C, 113F amb)		240.3 240.3 240.3 240.3 264.3 264.3 264.3 264.3															
Vmpt @ max amb temp (50C, 122F amb)		235.1 235.1 235.1 235.1 258.6 258.6 258.6 258.6															
OCV @ 25 deg C cells		367.0 367.0 367.0 367.0 403.7 403.7 403.7 403.7															
OCV @ coldest temp (-40C, -40F amb)		434.6 434.6 434.6 434.6 478.1 478.1 478.1 478.1															
OCV @ coldest temp (-30C, -22F amb)		424.2 424.2 424.2 424.2 466.6 466.6 466.6 466.6															
OCV @ coldest temp (-20C, -4F amb)		413.8 413.8 413.8 413.8 455.2 455.2 455.2 455.2															
OCV @ coldest temp (-10C, 14F amb)		403.4 403.4 403.4 403.4 443.7 443.7 443.7 443.7															
OCV @ coldest temp (0C, 32F amb)		393.0 393.0 393.0 393.0 432.3 432.3 432.3 432.3															
Power @ MPT (STC)		6900				9200				11500				13800			
PTC AC system power rating		0				0				0				0			
Suggested Inverter		PVI 13KW				PVI 13KW				PVI 15KW				PVI 13KW			

Module Manufacturer		REC Solar SCM 210 (225 Wp)				Power @ MPT (STC)				225.0 W				For Vmpt @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK			
Module Model		28.4 VDC				PTC Power Rating				0.0 W				orange is acceptable but should be avoided where possible (inverter will hold at 225VDC),			
Voltage @ MPT (STC)		7.9 VDC				Temp Coeff of Vmpt				0.104 V/degC (Vmpt)				purple is OK but indicates inverter will limit to 15 kW AC continuous output			
Current @ MPT (STC)		8.5 ADC				Temp Coeff of Voc				0.104 V/degC (Voc)				pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)			
Current, short circuit		36.7 VDC				NOCT (nom. cell temp)				43 deg C				109.4 deg F			
OCV @ 25 deg C cells		36.7 VDC															
Modules total in array		30 40 50 60 70 80 33 44 55 66 77 88															
Modules per string		10 10 10 10 10 10 11 11 11 11 11 11															
Strings in Parallel		3 4 5 6 7 8 3 4 5 6 7 8															
Voltage @ MPT (STC)		284.0 284.0 284.0 284.0 312.4 312.4 312.4 312.4															
Vmpt @ max amb temp (30C, 96F amb)		254.9 254.9 254.9 254.9 280.4 280.4 280.4 280.4															
Vmpt @ max amb temp (35C, 95F amb)		249.7 249.7 249.7 249.7 274.6 274.6 274.6 274.6															
Vmpt @ max amb temp (40C, 104F amb)		244.5 244.5 244.5 244.5 268.9 268.9 268.9 268.9															
Vmpt @ max amb temp (45C, 113F amb)		239.3 239.3 239.3 239.3 263.2 263.2 263.2 263.2															
Vmpt @ max amb temp (50C, 122F amb)		234.1 234.1 234.1 234.1 257.5 257.5 257.5 257.5															
OCV @ 25 deg C cells		367.0 367.0 367.0 367.0 403.7 403.7 403.7 403.7															
OCV @ coldest temp (-40C, -40F amb)		434.6 434.6 434.6 434.6 478.1 478.1 478.1 478.1															
OCV @ coldest temp (-30C, -22F amb)		424.2 424.2 424.2 424.2 466.6 466.6 466.6 466.6															
OCV @ coldest temp (-20C, -4F amb)		413.8 413.8 413.8 413.8 455.2 455.2 455.2 455.2															
OCV @ coldest temp (-10C, 14F amb)		403.4 403.4 403.4 403.4 443.7 443.7 443.7 443.7															
OCV @ coldest temp (0C, 32F amb)		393.0 393.0 393.0 393.0 432.3 432.3 432.3 432.3															
Power @ MPT (STC)		6750				9000				11250				13500			
PTC AC system power rating		0				0				0				0			
Suggested Inverter		PVI 13KW				PVI 13KW				PVI 15KW				PVI 13KW			

Module Manufacturer	REC Solar										Power @ MPT (STC)		220.0 W																			
Module Model	SCM 210 (220 Wp)										PTC Power Rating		0.0 W																			
Voltage @ MPT (STC)	28.3 VDC										7.7 ADC		0.104 V/ddegC		(Vmp)																	
Current @ MPT (STC)	8.3 ADC										Temp Coeff of Voc		0.104 V/ddegC		(Voc)																	
Current, short circuit	8.3 ADC										NOCT (nom. cell temp)		43 deg C		109.4 deg F																	
OCV @ 25 deg C cells	36.5 VDC																						For Vmpt @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK, orange is acceptable but should be avoided where possible (inverter will hold at 225VDC), purple is OK but indicates inverter will limit to 15 kW AC continuous output, pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)									
Modules total in array	30	40	50	60	70	80	90	33	44	55	66	77	88																			
Modules per string	10	10	10	10	10	10	10	11	11	11	11	11	11																			
Strings in Parallel	3	4	5	6	7	8	9	3	4	5	6	7	8																			
Voltage @ MPT (STC)	283.0	283.0	283.0	283.0	283.0	283.0	283.0	311.3	311.3	311.3	311.3	311.3	311.3																			
Vmpt @ max amb temp (30C, 96F amb)	253.9	253.9	253.9	253.9	253.9	253.9	253.9	279.3	279.3	279.3	279.3	279.3	279.3																			
Vmpt @ max amb temp (35C, 95F amb)	248.7	248.7	248.7	248.7	248.7	248.7	248.7	273.5	273.5	273.5	273.5	273.5	273.5																			
Vmpt @ max amb temp (40C, 104F amb)	243.5	243.5	243.5	243.5	243.5	243.5	243.5	267.8	267.8	267.8	267.8	267.8	267.8																			
Vmpt @ max amb temp (45C, 113F amb)	238.3	238.3	238.3	238.3	238.3	238.3	238.3	262.1	262.1	262.1	262.1	262.1	262.1																			
Vmpt @ max amb temp (50C, 122F amb)	233.1	233.1	233.1	233.1	233.1	233.1	233.1	256.4	256.4	256.4	256.4	256.4	256.4																			
OCV @ 25 deg C cells	365.0	365.0	365.0	365.0	365.0	365.0	365.0	401.5	401.5	401.5	401.5	401.5	401.5																			
OCV @ coldest temp (-40C, -40F amb)	432.6	432.6	432.6	432.6	432.6	432.6	432.6	475.9	475.9	475.9	475.9	475.9	475.9																			
OCV @ coldest temp (-30C, -22F amb)	422.2	422.2	422.2	422.2	422.2	422.2	422.2	464.4	464.4	464.4	464.4	464.4	464.4																			
OCV @ coldest temp (-20C, -4F amb)	411.8	411.8	411.8	411.8	411.8	411.8	411.8	453.0	453.0	453.0	453.0	453.0	453.0																			
OCV @ coldest temp (-10C, 14F amb)	401.4	401.4	401.4	401.4	401.4	401.4	401.4	441.5	441.5	441.5	441.5	441.5	441.5																			
OCV @ coldest temp (0C, 32F amb)	391.0	391.0	391.0	391.0	391.0	391.0	391.0	430.1	430.1	430.1	430.1	430.1	430.1																			
Power @ MPT (STC)	6600	8800	11000	13200	15400	17600	19800	7260	9680	12100	14520	16940	19360																			
PTC AC system power rating	0	0	0	0	0	0	0	0	0	0	0	0	0																			
Suggested Inverter	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW																			

Module Manufacturer	REC Solar										Power @ MPT (STC)		215.0 W																			
Module Model	SCM 210 (215 Wp)										PTC Power Rating		0.0 W																			
Voltage @ MPT (STC)	28.3 VDC										7.6 ADC		0.104 V/ddegC		(Vmp)																	
Current @ MPT (STC)	8.2 ADC										Temp Coeff of Voc		0.104 V/ddegC		(Voc)																	
Current, short circuit	8.2 ADC										NOCT (nom. cell temp)		43 deg C		109.4 deg F																	
OCV @ 25 deg C cells	36.4 VDC																						For Vmpt @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK, orange is acceptable but should be avoided where possible (inverter will hold at 225VDC), purple is OK but indicates inverter will limit to 15 kW AC continuous output, pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)									
Modules total in array	30	40	50	60	70	80	90	33	44	55	66	77	88																			
Modules per string	10	10	10	10	10	10	10	11	11	11	11	11	11																			
Strings in Parallel	3	4	5	6	7	8	9	3	4	5	6	7	8																			
Voltage @ MPT (STC)	283.0	283.0	283.0	283.0	283.0	283.0	283.0	311.3	311.3	311.3	311.3	311.3	311.3																			
Vmpt @ max amb temp (30C, 96F amb)	253.9	253.9	253.9	253.9	253.9	253.9	253.9	279.3	279.3	279.3	279.3	279.3	279.3																			
Vmpt @ max amb temp (35C, 95F amb)	248.7	248.7	248.7	248.7	248.7	248.7	248.7	273.5	273.5	273.5	273.5	273.5	273.5																			
Vmpt @ max amb temp (40C, 104F amb)	243.5	243.5	243.5	243.5	243.5	243.5	243.5	267.8	267.8	267.8	267.8	267.8	267.8																			
Vmpt @ max amb temp (45C, 113F amb)	238.3	238.3	238.3	238.3	238.3	238.3	238.3	262.1	262.1	262.1	262.1	262.1	262.1																			
Vmpt @ max amb temp (50C, 122F amb)	233.1	233.1	233.1	233.1	233.1	233.1	233.1	256.4	256.4	256.4	256.4	256.4	256.4																			
OCV @ 25 deg C cells	364.0	364.0	364.0	364.0	364.0	364.0	364.0	400.4	400.4	400.4	400.4	400.4	400.4																			
OCV @ coldest temp (-40C, -40F amb)	431.6	431.6	431.6	431.6	431.6	431.6	431.6	474.8	474.8	474.8	474.8	474.8	474.8																			
OCV @ coldest temp (-30C, -22F amb)	421.2	421.2	421.2	421.2	421.2	421.2	421.2	463.3	463.3	463.3	463.3	463.3	463.3																			
OCV @ coldest temp (-20C, -4F amb)	410.8	410.8	410.8	410.8	410.8	410.8	410.8	451.9	451.9	451.9	451.9	451.9	451.9																			
OCV @ coldest temp (-10C, 14F amb)	400.4	400.4	400.4	400.4	400.4	400.4	400.4	440.4	440.4	440.4	440.4	440.4	440.4																			
OCV @ coldest temp (0C, 32F amb)	390.0	390.0	390.0	390.0	390.0	390.0	390.0	429.0	429.0	429.0	429.0	429.0	429.0																			
Power @ MPT (STC)	6450	8600	10750	12900	15050	17200	19350	7095	9460	11825	14190	16555	18920																			
PTC AC system power rating	0	0	0	0	0	0	0	0	0	0	0	0	0																			
Suggested Inverter	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW																			

Module Manufacturer	REC Solar										Power @ MPT (STC)		210.0 W																			
Module Model	SCM 210										PTC Power Rating		0.0 W																			
Voltage @ MPT (STC)	28.2 VDC										7.5 ADC		0.104 V/ddegC		(Vmp)																	
Current @ MPT (STC)	8.1 ADC										Temp Coeff of Voc		0.104 V/ddegC		(Voc)																	
Current, short circuit	8.1 ADC										NOCT (nom. cell temp)		43 deg C		109.4 deg F																	
OCV @ 25 deg C cells	36.3 VDC																						For Vmpt @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK, orange is acceptable but should be avoided where possible (inverter will hold at 225VDC), purple is OK but indicates inverter will limit to 15 kW AC continuous output, pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)									
Modules total in array	30	40	50	60	70	80	90	33	44	55	66	77	88																			
Modules per string	10	10	10	10	10	10	10	11	11	11	11	11	11																			
Strings in Parallel	3	4	5	6	7	8	9	3	4	5	6	7	8																			
Voltage @ MPT (STC)	282.0	282.0	282.0	282.0	282.0	282.0	282.0	310.2	310.2	310.2	310.2	310.2	310.2																			
Vmpt @ max amb temp (30C, 96F amb)	252.9	252.9	252.9	252.9	252.9	252.9	252.9	278.2	278.2	278.2	278.2	278.2	278.2																			
Vmpt @ max amb temp (35C, 95F amb)	247.7	247.7	247.7	247.7	247.7	247.7	247.7	272.4	272.4	272.4	272.4	272.4	272.4																			
Vmpt @ max amb temp (40C, 104F amb)	242.5	242.5	242.5	242.5	242.5	242.5	242.5	266.7	266.7	266.7	266.7	266.7	266.7																			
Vmpt @ max amb temp (45C, 113F amb)	237.3	237.3	237.3	237.3	237.3	237.3	237.3	261.0	261.0	261.0	261.0	261.0	261.0																			
Vmpt @ max amb temp (50C, 122F amb)	232.1	232.1	232.1	232.1	232.1	232.1	232.1	255.3	255.3	255.3	255.3	255.3	255.3																			
OCV @ 25 deg C cells	363.0	363.0	363.0	363.0	363.0	363.0	363.0	399.3	399.3	399.3	399.3	399.3	399.3																			
OCV @ coldest temp (-40C, -40F amb)	430.6	430.6	430.6	430.6	430.6	430.6	430.6	473.7	473.7	473.7	473.7	473.7	473.7																			
OCV @ coldest temp (-30C, -22F amb)	420.2	420.2	420.2	420.2	420.2	420.2	420.2	462.2	462.2	462.2	462.2	462.2	462.2																			
OCV @ coldest temp (-20C, -4F amb)	409.8	409.8	409.8	409.8	409.8	409.8	409.8	450.8	450.8	450.8	450.8	450.8	450.8																			
OCV @ coldest temp (-10C, 14F amb)	399.4	399.4	399.4	399.4	399.4	399.4	399.4	439.3	439.3	439.3	439.3	439.3	439.3																			
OCV @ coldest temp (0C, 32F amb)	389.0	389.0	389.0	389.0	389.0	389.0	389.0	427.9	427.9	427.9	427.9	427.9	427.9																			
Power @ MPT (STC)	6300	8400	10500	12600	14700	16800	18900	6930	9240	11550	13860	16170	18480																			
PTC AC system power rating	0	0	0	0	0	0	0	0	0	0	0	0	0																			
Suggested Inverter	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW																			

Module Manufacturer	REC Solar										Power @ MPT (STC)		210.0 W																			
Module Model	210AE										PTC Power Rating		182.7 W																			
Voltage @ MPT (STC)	27.6 VDC										7.6 ADC		0.123 V/ddegC		(Vmp)																	
Current @ MPT (STC)	8.3 ADC										Temp Coeff of Voc		0.123 V/ddegC		(Voc)																	
Current, short circuit	8.3 ADC										NOCT (nom. cell temp)		47.5 deg C		117.5 deg F																	
OCV @ 25 deg C cells	36.1 VDC																						For Vmpt @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK, orange is acceptable but should be avoided where possible (inverter will hold at 225VDC), purple is OK but indicates inverter will limit to 15 kW AC continuous output, pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)									
Modules total in array	60	70	80	90	55	66	77	88																								
Modules per string	10	10	10	10	11	11	11	11																								
Strings in Parallel	6	7	8	9	6	7	8	9																								
Voltage @ MPT (STC)	276.0	276.0	276.0	276.0	303.6	303.6	303.6	303.6																								
Vmpt @ max amb temp (30C, 96F amb)	236.0	236.0	236.0	236.0	259.6	259.6	259.6	259.6																								
Vmpt @ max amb temp (35C, 95F amb)	229.9	229.9	229.9	229.9	252.9	252.9	252.9	252.9																								
Vmpt @ max amb temp (40C, 104F amb)	223.7	223.7	223.7	223.7	246.1	246.1	246.1	246.1																								
Vmpt @ max amb temp (45C, 113F amb)	217.6	217.6	217.6	217.6	239.3	239.3	239.3	239.3																								
Vmpt @ max amb temp (50C, 122F amb)	211.4	211.4	211.4	211.4	232.6	232.6	232.6	232.6																								
OCV @ 25 deg C cells	361.0	361.0	361.0	361.0	397.1	397.1	397.1	397.1																								
OCV @ coldest temp (-40C, -40F amb)	441.0	441.0	441.0	441.0	485.0	485.0	485.0	485.0																								
OCV @ coldest temp (-30C, -22F amb)	428.7	428.7	428.7	428.7	471.5	471.5	471.5	471.5																								
OCV @ coldest temp (-20C, -4F amb)	416.4	416.4	416.4	416.4	458.0	458.0	458.0	458.0																								
OCV @ coldest temp (-10C, 14F amb)	404.1	404.1	404.1	404.1	444.5	444.5	444.5	444.5																								
OCV @ coldest temp (0C, 32F amb)	391.8	391.8	391.8	391.8	430.9	430.9	430.9	430.9																								
Power @ MPT (STC)	12600	14350	16100	17850	11550	13860	16170	18480																								
PTC AC system power rating	10359	1																														

Module Manufacturer	Schott Solar						
Module Model	ASE-300-DGF/50-320						
Voltage @ MPT (STC)	51.6 VDC	PTC Power Rating					320.0 W
Current @ MPT (STC)	6.2 ADC	Temp Coeff of Vmp					287.8 W
Current, short circuit	6.8 ADC	Temp Coeff of Voc					0.243 V/degC (Vmp)
OCV @ 25 deg C cells	64.4 VDC	NOCT (nom. cell temp)					0.243 V/degC (Voc) 45 deg C
Modules total in array	30	36	42	48	54	60	
Modules per string	6	6	6	6	6	6	
Strings in Parallel	5	6	7	8	9	10	
Voltage @ MPT (STC)	309.6	309.6	309.6	309.6	309.6	309.6	
Vmpt @ max amb temp (30C, 96F amb)	265.9	265.9	265.9	265.9	265.9	265.9	
Vmpt @ max amb temp (35C, 95F amb)	258.6	258.6	258.6	258.6	258.6	258.6	
Vmpt @ max amb temp (40C, 104F amb)	251.3	251.3	251.3	251.3	251.3	251.3	
Vmpt @ max amb temp (45C, 113F amb)	244.0	244.0	244.0	244.0	244.0	244.0	
Vmpt @ max amb temp (50C, 122F amb)	236.7	236.7	236.7	236.7	236.7	236.7	
OCV @ 25 deg C cells	386.4	386.4	386.4	386.4	386.4	386.4	
OCV @ coldest temp (-40C, -40F amb)	481.2	481.2	481.2	481.2	481.2	481.2	
OCV @ coldest temp (-30C, -22F amb)	466.6	466.6	466.6	466.6	466.6	466.6	
OCV @ coldest temp (-20C, -4F amb)	452.0	452.0	452.0	452.0	452.0	452.0	
OCV @ coldest temp (-10C, 14F amb)	437.4	437.4	437.4	437.4	437.4	437.4	
OCV @ coldest temp (0C, 32F amb)	422.9	422.9	422.9	422.9	422.9	422.9	
Power @ MPT (STC)	960	1120	1340	1536	1720	1920	
PTC AC system power rating	8159	9791	11423	13055	14686	15973	
Suggested Inverter	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	

For Vmpt @ max amb temp and OCV @ coldest temperature green is OK, red is not OK
orange is acceptable but should be avoided where possible (inverter will hold at 225VDC),
purple is OK but indicates inverter will limit to 15 KW AC continuous output
pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)

Module Manufacturer	Schott Solar						
Module Model	ASE-300-DGF/50 (315W, 36V)						
Voltage @ MPT (STC)	51.5 VDC	PTC Power Rating					315.0 W
Current @ MPT (STC)	6.1 ADC	Temp Coeff of Vmp					283.0 W
Current, short circuit	6.6 ADC	Temp Coeff of Voc					0.228 V/degC (Vmp)
OCV @ 25 deg C cells	61 VDC	NOCT (nom. cell temp)					0.233 V/degC (Voc) 45 deg C
Modules total in array	30	36	42	48	54	60	
Modules per string	6	6	6	6	6	6	
Strings in Parallel	5	6	7	8	9	10	
Voltage @ MPT (STC)	309.0	309.0	309.0	309.0	309.0	309.0	
Vmpt @ max amb temp (30C, 86F amb)	268.0	268.0	268.0	268.0	268.0	268.0	
Vmpt @ max amb temp (35C, 95F amb)	261.1	261.1	261.1	261.1	261.1	261.1	
Vmpt @ max amb temp (40C, 104F amb)	254.3	254.3	254.3	254.3	254.3	254.3	
Vmpt @ max amb temp (45C, 113F amb)	247.4	247.4	247.4	247.4	247.4	247.4	
Vmpt @ max amb temp (50C, 122F amb)	240.6	240.6	240.6	240.6	240.6	240.6	
OCV @ 25 deg C cells	366.0	366.0	366.0	366.0	366.0	366.0	
OCV @ coldest temp (-40C, -40F amb)	460.0	460.0	460.0	460.0	460.0	460.0	
OCV @ coldest temp (-30C, -22F amb)	442.9	442.9	442.9	442.9	442.9	442.9	
OCV @ coldest temp (-20C, -4F amb)	428.9	428.9	428.9	428.9	428.9	428.9	
OCV @ coldest temp (-10C, 14F amb)	414.9	414.9	414.9	414.9	414.9	414.9	
OCV @ coldest temp (0C, 32F amb)	401.0	401.0	401.0	401.0	401.0	401.0	
Power @ MPT (STC)	945.0	1134.0	1326.0	1520.0	1710.0	1900.0	
PTC AC system power rating	8023	9628	11232	12837	14441	15707	
Suggested Inverter	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	

For Vmpt @ max amb temp and OCV @ coldest temperature green is OK, red is not OK
orange is acceptable but should be avoided where possible (inverter will hold at 225VDC),
purple is OK but indicates inverter will limit to 15 KW AC continuous output
pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)

Module Manufacturer	Schott Solar						
Module Model	ASE-300-DGF/50-310						
Voltage @ MPT (STC)	51.1 VDC	PTC Power Rating					310.0 W
Current @ MPT (STC)	6.1 ADC	Temp Coeff of Vmp					278.5 W
Current, short circuit	6.5 ADC	Temp Coeff of Voc					0.24 V/degC (Vmp)
OCV @ 25 deg C cells	63.8 VDC	NOCT (nom. cell temp)					0.24 V/degC (Voc) 45 deg C
Modules total in array	30	36	42	48	54	60	
Modules per string	6	6	6	6	6	6	
Strings in Parallel	5	6	7	8	9	10	
Voltage @ MPT (STC)	306.6	306.6	306.6	306.6	306.6	306.6	
Vmpt @ max amb temp (30C, 86F amb)	263.4	263.4	263.4	263.4	263.4	263.4	
Vmpt @ max amb temp (35C, 95F amb)	256.2	256.2	256.2	256.2	256.2	256.2	
Vmpt @ max amb temp (40C, 104F amb)	249.0	249.0	249.0	249.0	249.0	249.0	
Vmpt @ max amb temp (45C, 113F amb)	241.8	241.8	241.8	241.8	241.8	241.8	
Vmpt @ max amb temp (50C, 122F amb)	234.6	234.6	234.6	234.6	234.6	234.6	
OCV @ 25 deg C cells	382.8	382.8	382.8	382.8	382.8	382.8	
OCV @ coldest temp (-40C, -40F amb)	476.4	476.4	476.4	476.4	476.4	476.4	
OCV @ coldest temp (-30C, -22F amb)	462.0	462.0	462.0	462.0	462.0	462.0	
OCV @ coldest temp (-20C, -4F amb)	447.6	447.6	447.6	447.6	447.6	447.6	
OCV @ coldest temp (-10C, 14F amb)	433.2	433.2	433.2	433.2	433.2	433.2	
OCV @ coldest temp (0C, 32F amb)	418.8	418.8	418.8	418.8	418.8	418.8	
Power @ MPT (STC)	930.0	1116.0	1302.0	1488.0	1674.0	1860.0	
PTC AC system power rating	7895	9475	11054	12633	14212	15791	
Suggested Inverter	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	

For Vmpt @ max amb temp and OCV @ coldest temperature green is OK, red is not OK
orange is acceptable but should be avoided where possible (inverter will hold at 225VDC),
purple is OK but indicates inverter will limit to 15 KW AC continuous output
pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)

Module Manufacturer	Schott Solar						
Module Model	ASE-300-DGF/50 (300W, 36V)						
Voltage @ MPT (STC)	51 VDC	PTC Power Rating					300.0 W
Current @ MPT (STC)	5.9 ADC	Temp Coeff of Vmp					269.1 W
Current, short circuit	6.5 ADC	Temp Coeff of Voc					0.228 V/degC (Vmp)
OCV @ 25 deg C cells	61 VDC	NOCT (nom. cell temp)					0.233 V/degC (Voc) 45 deg C
Modules total in array	30	36	42	48	54	60	
Modules per string	6	6	6	6	6	6	
Strings in Parallel	5	6	7	8	9	10	
Voltage @ MPT (STC)	306.0	306.0	306.0	306.0	306.0	306.0	
Vmpt @ max amb temp (30C, 86F amb)	265.0	265.0	265.0	265.0	265.0	265.0	
Vmpt @ max amb temp (35C, 95F amb)	258.1	258.1	258.1	258.1	258.1	258.1	
Vmpt @ max amb temp (40C, 104F amb)	251.3	251.3	251.3	251.3	251.3	251.3	
Vmpt @ max amb temp (45C, 113F amb)	244.4	244.4	244.4	244.4	244.4	244.4	
Vmpt @ max amb temp (50C, 122F amb)	237.6	237.6	237.6	237.6	237.6	237.6	
OCV @ 25 deg C cells	366.0	366.0	366.0	366.0	366.0	366.0	
OCV @ coldest temp (-40C, -40F amb)	460.0	460.0	460.0	460.0	460.0	460.0	
OCV @ coldest temp (-30C, -22F amb)	442.9	442.9	442.9	442.9	442.9	442.9	
OCV @ coldest temp (-20C, -4F amb)	428.9	428.9	428.9	428.9	428.9	428.9	
OCV @ coldest temp (-10C, 14F amb)	414.9	414.9	414.9	414.9	414.9	414.9	
OCV @ coldest temp (0C, 32F amb)	401.0	401.0	401.0	401.0	401.0	401.0	
Power @ MPT (STC)	900	1080	1260	1440	1620	1800	
PTC AC system power rating	7629	9155	10681	12206	13732	15258	
Suggested Inverter	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	

For Vmpt @ max amb temp and OCV @ coldest temperature green is OK, red is not OK
orange is acceptable but should be avoided where possible (inverter will hold at 225VDC),
purple is OK but indicates inverter will limit to 15 KW AC continuous output
pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)

Module Manufacturer	Schott Solar						
Module Model	ASE-300-DGF/50 (285W, 36V)						
Voltage @ MPT (STC)	50 VDC	PTC Power Rating					285.0 W
Current @ MPT (STC)	5.7 ADC	Temp Coeff of Vmp					255.4 W
Current, short circuit	6.3 ADC	Temp Coeff of Voc					0.233 V/degC (Vmp)
OCV @ 25 deg C cells	61 VDC	NOCT (nom. cell temp)					0.233 V/degC (Voc) 45 deg C
Modules total in array	30	36	42	48	54	60	
Modules per string	6	6	6	6	6	6	
Strings in Parallel	5	6	7	8	9	10	
Voltage @ MPT (STC)	300.0	300.0	300.0	300.0	300.0	300.0	
Vmpt @ max amb temp (30C, 86F amb)	259.0	259.0	259.0	259.0	259.0	259.0	
Vmpt @ max amb temp (35C, 95F amb)	252.1	252.1	252.1	252.1	252.1	252.1	
Vmpt @ max amb temp (40C, 104F amb)	245.3	245.3	245.3	245.3	245.3	245.3	
Vmpt @ max amb temp (45C, 113F amb)	238.4	238.4	238.4	238.4	238.4	238.4	
Vmpt @ max amb temp (50C, 122F amb)	231.6	231.6	231.6	231.6	231.6	231.6	
OCV @ 25 deg C cells	366.0	366.0	366.0	366.0	366.0	366.0	
OCV @ coldest temp (-40C, -40F amb)	460.0	460.0	460.0	460.0	460.0	460.0	
OCV @ coldest temp (-30C, -22F amb)	442.9	442.9	442.9	442.9	442.9	442.9	
OCV @ coldest temp (-20C, -4F amb)	428.9	428.9	428.9	428.9	428.9	428.9	
OCV @ coldest temp (-10C, 14F amb)	414.9	414.9	414.9	414.9	414.9	414.9	
OCV @ coldest temp (0C, 32F amb)	401.0	401.0	401.0	401.0	401.0	401.0	
Power @ MPT (STC)	850	1020	1190	1360	1530	1700	
PTC AC system power rating	7241	8689	10137	11585	13033	14481	
Suggested Inverter	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	

For Vmpt @ max amb temp and OCV @ coldest temperature green is OK, red is not OK
orange is acceptable but should be avoided where possible (inverter will hold at 225VDC),
purple is OK but indicates inverter will limit to 15 KW AC continuous output
pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)

Module Manufacturer	Schuco												Power @ MPT	165.0 W												For Vmpt @ max amb temp and OCV @ coldest temperature green is OK, red is not OK orange is acceptable but should be avoided where possible (inverter will hold at 225VDC), purple is OK but indicates inverter will limit to 15 kW AC continuous output pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)
Module Model	S 165-SP & SP-2												PTC Power Rating	152.5 W												
Voltage @ MPT (STC)	24.2 VDC												Temp Coeff of Vmpt	0.114 V/degC (Vmpt)												
Current @ MPT (STC)	6.83 ADC												Temp Coeff of Voc	0.105 V/degC (Voc)												
Current, short circuit	7.36 ADC												NOCT (nom. cell temp)	46.2 deg C												
OCV @ 25 deg C cells	30.4 VDC													115.16 deg F												
Modules total in array	48	60	72	84	96	108	52	65	78	91	104															
Modules per string	12	12	12	12	12	12	13	13	13	13	13															
Strings in Parallel	4	5	6	7	8	9	4	5	6	7	8															
Voltage @ MPT (STC)	290.4	290.4	290.4	290.4	290.4	290.4	314.6	314.6	314.6	314.6	314.6															
Vmpt @ max amb temp (30C, 96F amb)	247.7	247.7	247.7	247.7	247.7	247.7	268.4	268.4	268.4	268.4	268.4															
Vmpt @ max amb temp (35C, 95F amb)	240.9	240.9	240.9	240.9	240.9	240.9	261.0	261.0	261.0	261.0	261.0															
Vmpt @ max amb temp (40C, 104F amb)	234.0	234.0	234.0	234.0	234.0	234.0	253.5	253.5	253.5	253.5	253.5															
Vmpt @ max amb temp (45C, 113F amb)	227.2	227.2	227.2	227.2	227.2	227.2	246.1	246.1	246.1	246.1	246.1															
Vmpt @ max amb temp (50C, 122F amb)	220.4	220.4	220.4	220.4	220.4	220.4	238.7	238.7	238.7	238.7	238.7															
OCV @ 25 deg C cells	364.8	364.8	364.8	364.8	364.8	364.8	395.2	395.2	395.2	395.2	395.2															
OCV @ coldest temp (-40C, -40F amb)	446.7	446.7	446.7	446.7	446.7	446.7	483.9	483.9	483.9	483.9	483.9															
OCV @ coldest temp (-30C, -22F amb)	434.1	434.1	434.1	434.1	434.1	434.1	470.3	470.3	470.3	470.3	470.3															
OCV @ coldest temp (-20C, -4F amb)	421.5	421.5	421.5	421.5	421.5	421.5	456.6	456.6	456.6	456.6	456.6															
OCV @ coldest temp (-10C, 14F amb)	408.9	408.9	408.9	408.9	408.9	408.9	443.0	443.0	443.0	443.0	443.0															
OCV @ coldest temp (0C, 32F amb)	396.3	396.3	396.3	396.3	396.3	396.3	429.3	429.3	429.3	429.3	429.3															
Power @ MPT (STC)	7920	9900	11880	13860	15840	17820	8580	10725	12870	15015	17160															
PTC AC system power rating	6917	8647	10376	12105	13835	15564	7494	9367	11241	13114	14988															
Suggested Inverter	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW															

Module Manufacturer	Schuco												Power @ MPT	170.0 W												For Vmpt @ max amb temp and OCV @ coldest temperature green is OK, red is not OK orange is acceptable but should be avoided where possible (inverter will hold at 225VDC), purple is OK but indicates inverter will limit to 15 kW AC continuous output pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)
Module Model	S 162-SP												PTC Power Rating	152.5 W												
Voltage @ MPT (STC)	24.2 VDC												Temp Coeff of Vmpt	0.114 V/degC (Vmpt)												
Current @ MPT (STC)	6.83 ADC												Temp Coeff of Voc	0.105 V/degC (Voc)												
Current, short circuit	7.36 ADC												NOCT (nom. cell temp)	46.2 deg C												
OCV @ 25 deg C cells	30.4 VDC													115.16 deg F												
Modules total in array	48	60	72	84	96	108	52	65	78	91	104															
Modules per string	12	12	12	12	12	12	13	13	13	13	13															
Strings in Parallel	4	5	6	7	8	9	4	5	6	7	8															
Voltage @ MPT (STC)	290.4	290.4	290.4	290.4	290.4	290.4	314.6	314.6	314.6	314.6	314.6															
Vmpt @ max amb temp (30C, 96F amb)	247.7	247.7	247.7	247.7	247.7	247.7	268.4	268.4	268.4	268.4	268.4															
Vmpt @ max amb temp (35C, 95F amb)	240.9	240.9	240.9	240.9	240.9	240.9	261.0	261.0	261.0	261.0	261.0															
Vmpt @ max amb temp (40C, 104F amb)	234.0	234.0	234.0	234.0	234.0	234.0	253.5	253.5	253.5	253.5	253.5															
Vmpt @ max amb temp (45C, 113F amb)	227.2	227.2	227.2	227.2	227.2	227.2	246.1	246.1	246.1	246.1	246.1															
Vmpt @ max amb temp (50C, 122F amb)	220.4	220.4	220.4	220.4	220.4	220.4	238.7	238.7	238.7	238.7	238.7															
OCV @ 25 deg C cells	364.8	364.8	364.8	364.8	364.8	364.8	395.2	395.2	395.2	395.2	395.2															
OCV @ coldest temp (-40C, -40F amb)	446.7	446.7	446.7	446.7	446.7	446.7	483.9	483.9	483.9	483.9	483.9															
OCV @ coldest temp (-30C, -22F amb)	434.1	434.1	434.1	434.1	434.1	434.1	470.3	470.3	470.3	470.3	470.3															
OCV @ coldest temp (-20C, -4F amb)	421.5	421.5	421.5	421.5	421.5	421.5	456.6	456.6	456.6	456.6	456.6															
OCV @ coldest temp (-10C, 14F amb)	408.9	408.9	408.9	408.9	408.9	408.9	443.0	443.0	443.0	443.0	443.0															
OCV @ coldest temp (0C, 32F amb)	396.3	396.3	396.3	396.3	396.3	396.3	429.3	429.3	429.3	429.3	429.3															
Power @ MPT (STC)	8160	10200	12240	14280	16320	18360	8940	11050	13260	15470	17680															
PTC AC system power rating	6917	8647	10376	12105	13835	15564	7494	9367	11241	13114	14988															
Suggested Inverter	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW															

Module Manufacturer	Schuco												Power @ MPT	158.0 W												For Vmpt @ max amb temp and OCV @ coldest temperature green is OK, red is not OK orange is acceptable but should be avoided where possible (inverter will hold at 225VDC), purple is OK but indicates inverter will limit to 15 kW AC continuous output pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)
Module Model	S 158-SP												PTC Power Rating	146.9 W												
Voltage @ MPT (STC)	23.6 VDC												Temp Coeff of Vmpt	0.112 V/degC (Vmpt)												
Current @ MPT (STC)	6.68 ADC												Temp Coeff of Voc	0.104 V/degC (Voc)												
Current, short circuit	7.33 ADC												NOCT (nom. cell temp)	46.2 deg C												
OCV @ 25 deg C cells	30.1 VDC													115.16 deg F												
Modules total in array	48	60	72	84	96	108	52	65	78	91	104															
Modules per string	12	12	12	12	12	12	13	13	13	13	13															
Strings in Parallel	4	5	6	7	8	9	4	5	6	7	8															
Voltage @ MPT (STC)	283.2	283.2	283.2	283.2	283.2	283.2	306.8	306.8	306.8	306.8	306.8															
Vmpt @ max amb temp (30C, 96F amb)	241.3	241.3	241.3	241.3	241.3	241.3	261.4	261.4	261.4	261.4	261.4															
Vmpt @ max amb temp (35C, 95F amb)	234.5	234.5	234.5	234.5	234.5	234.5	254.1	254.1	254.1	254.1	254.1															
Vmpt @ max amb temp (40C, 104F amb)	227.8	227.8	227.8	227.8	227.8	227.8	246.8	246.8	246.8	246.8	246.8															
Vmpt @ max amb temp (45C, 113F amb)	221.1	221.1	221.1	221.1	221.1	221.1	239.5	239.5	239.5	239.5	239.5															
Vmpt @ max amb temp (50C, 122F amb)	214.4	214.4	214.4	214.4	214.4	214.4	232.3	232.3	232.3	232.3	232.3															
OCV @ 25 deg C cells	361.2	361.2	361.2	361.2	361.2	361.2	391.3	391.3	391.3	391.3	391.3															
OCV @ coldest temp (-40C, -40F amb)	442.3	442.3	442.3	442.3	442.3	442.3	479.2	479.2	479.2	479.2	479.2															
OCV @ coldest temp (-30C, -22F amb)	429.8	429.8	429.8	429.8	429.8	429.8	465.7	465.7	465.7	465.7	465.7															
OCV @ coldest temp (-20C, -4F amb)	417.4	417.4	417.4	417.4	417.4	417.4	452.1	452.1	452.1	452.1	452.1															
OCV @ coldest temp (-10C, 14F amb)	404.9	404.9	404.9	404.9	404.9	404.9	438.6	438.6	438.6	438.6	438.6															
OCV @ coldest temp (0C, 32F amb)	392.4	392.4	392.4	392.4	392.4	392.4	425.1	425.1	425.1	425.1	425.1															
Power @ MPT (STC)	7584	9480	11376	13272	15168	17064	8216	10270	12324	14378	16432															
PTC AC system power rating	6663	8329	9995	11661	13327	14993	7219	9027	10827	12633	14437															
Suggested Inverter	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW															

Module Manufacturer	SES												Power @ MPT	18.0 W												For Vmpt @ max amb temp and OCV @ coldest temperature green is OK, red is not OK orange is acceptable but should be avoided where possible (inverter will hold at 225VDC), purple is OK but indicates inverter will limit to 15 kW AC continuous output pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)			
Module Model	SwissTile												PTC Power Rating	0.0 W															
Voltage @ MPT (STC)	3.3 VDC												Temp Coeff of Vmpt	0.0114 V/degC (Vmpt)															
Current @ MPT (STC)	5.61 ADC												Temp Coeff of Voc	0.0114 V/degC (Voc)															
Current, short circuit	6.03 ADC												NOCT (nom. cell temp)	45 deg C															
OCV @ 25 deg C cells	4.0 VDC													113 deg F															
Modules total in array	560	630	700	770	840	910	800	880	720	810	900	990	800	900	1000	880	990												
Modules per string	80	90	100	110	80	90	100	110	80	90	100	110	80	90	100	80	90												
Strings in Parallel	7	7	7	7	8	8	8	8	8	9	9	9	10	10	10	11	11												
Voltage @ MPT (STC)	264.0	297.0	330.0	363.0	264.0	297.0	330.0	363.0	264.0	297.0	330.0	363.0	264.0	297.0	330.0	363.0	264.0												
Vmpt @ max amb temp (30C, 96F amb)	236.6	266.2	295.8	325.4	236.6	266.2	295.8	325.4	236.6	266.2	295.8	325.4	236.6	266.2	295.8	325.4	236.6												
Vmpt @ max amb temp (35C, 95F amb)	232.1	261.1	290.1	319.1	232.1	261.1	290.1	319.1	232.1	261.1	290.1	319.1	232.1	261.1	290.1	319.1	232.1												
Vmpt @ max amb temp (40C, 104F amb)	227.5	256.0	284.4	312.8	227.5	256.0	284.4	312.8	227.5	256.0	284.4	312.8	227.5	256.0	284.4	312.8	227.5												
Vmpt @ max amb temp (45C, 113F amb)	223.0	250.8	278.7	306.6	223.0	250.8	278.7	306.6	223.0	250.8	278.7	306.6	223.0	250.8	278.7	306.6	223.0												
Vmpt @ max amb temp (50C, 122F amb)	218.4	245.7	273.0	300.3	218.4	245.7	273.0	300.3	218.4	245.7	273.0	300.3	218.4	245.7	273.0	300.3	218.4												
OCV @ 25 deg C cells	320.0	360.0	400.0	440.0	320.0	360.0	400.0	440.0	320.0	360.0	400.0	440.0	320.0	360.0	400.0	440.0	320.0												
OCV @ coldest temp (-40C, -40F amb)	379.3	426.7	474.1	521.5	379.3	426.7	474.1	521.5	379.3	426.7	474.1	521.5	379.3	426.7	474.1	521.5	379.3												
OCV @ coldest temp (-30C, -22F amb)	370.2	416.4	462.7	509.0	370.2	416.4	462.7	509.0	370.2	416.4	462.7	509.0	370.2	416.4	462.7	509.0	370.2												
OCV @ coldest temp (-20C, -4F amb)	361.0	406.2	451.3	496.4	361.0																								

Module Manufacturer	Sharp																	
Module Model	ND-V230A1																	
Voltage @ MPT (STC)	36.3 VDC																	
Current @ MPT (STC)	7.6 ADC																	
Current, short circuit	8.24 ADC																	
OCV @ 25 deg C cells	37 VDC																	
Power @ MPT (STC)	230.0 W																	
PTC Power Rating	203.2 W																	
Temp Coeff of Vmp	0.133 V/degC (Vmp)																	
Temp Coeff of Voc	0.133 V/degC (Voc)																	
NOCT (nom. cell temp)	47.5 deg C																	
For Vmpt @ max amb temp and OCV @ coldest temperature	green is OK, red is not OK																	
orange is acceptable but should be avoided where possible (inverter will hold at 225VDC),																		
purple is OK but indicates inverter will limit to 15 kW AC continuous output																		
pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)																		
Modules total in array	36	45	54	63	72	81	90	100	110	120	130	140	150	160	170	180	190	200
Modules per string	9	9	9	9	9	9	9	10	10	10	10	10	11	11	11	11	11	11
Strings in Parallel	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Voltage @ MPT (STC)	272.7	272.7	272.7	272.7	272.7	272.7	272.7	303.0	303.0	303.0	303.0	303.0	333.3	333.3	333.3	333.3	333.3	333.3
Vmpt @ max amb temp (30C, 96F amb)	233.8	233.8	233.8	233.8	233.8	233.8	233.8	259.8	259.8	259.8	259.8	259.8	285.8	285.8	285.8	285.8	285.8	285.8
Vmpt @ max amb temp (35C, 95F amb)	227.8	227.8	227.8	227.8	227.8	227.8	227.8	253.1	253.1	253.1	253.1	253.1	278.4	278.4	278.4	278.4	278.4	278.4
Vmpt @ max amb temp (40C, 104F amb)	221.8	221.8	221.8	221.8	221.8	221.8	221.8	246.5	246.5	246.5	246.5	246.5	271.1	271.1	271.1	271.1	271.1	271.1
Vmpt @ max amb temp (45C, 113F amb)	215.8	215.8	215.8	215.8	215.8	215.8	215.8	239.8	239.8	239.8	239.8	239.8	263.8	263.8	263.8	263.8	263.8	263.8
Vmpt @ max amb temp (50C, 122F amb)	209.9	209.9	209.9	209.9	209.9	209.9	209.9	233.2	233.2	233.2	233.2	233.2	258.5	258.5	258.5	258.5	258.5	258.5
OCV @ 25 deg C cells	333.0	333.0	333.0	333.0	333.0	333.0	333.0	370.0	370.0	370.0	370.0	370.0	407.0	407.0	407.0	407.0	407.0	407.0
OCV @ coldest temp (-40C, -40F amb)	410.8	410.8	410.8	410.8	410.8	410.8	410.8	458.5	458.5	458.5	458.5	458.5	502.1	502.1	502.1	502.1	502.1	502.1
OCV @ coldest temp (-30C, -22F amb)	398.8	398.8	398.8	398.8	398.8	398.8	398.8	443.2	443.2	443.2	443.2	443.2	487.5	487.5	487.5	487.5	487.5	487.5
OCV @ coldest temp (-20C, -4F amb)	386.9	386.9	386.9	386.9	386.9	386.9	386.9	429.9	429.9	429.9	429.9	429.9	472.8	472.8	472.8	472.8	472.8	472.8
OCV @ coldest temp (-10C, 14F amb)	374.9	374.9	374.9	374.9	374.9	374.9	374.9	416.6	416.6	416.6	416.6	416.6	458.2	458.2	458.2	458.2	458.2	458.2
OCV @ coldest temp (0C, 32F amb)	362.9	362.9	362.9	362.9	362.9	362.9	362.9	403.3	403.3	403.3	403.3	403.3	443.6	443.6	443.6	443.6	443.6	443.6
Power @ MPT (STC)	6280	10350	12420	14490	16560	18630	20700	11500	11500	11500	11500	16100	16100	16100	16100	16100	16100	20240
PTC AC system power rating	6941	8641	10369	12098	13826	15554	17282	9901	9901	9901	9901	13424	13424	13424	13424	13424	13424	16898
Suggested Inverter	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	PVI 15KW	PVI 13KW	PVI 13KW	PVI 15KW

Module Manufacturer	Sharp																	
Module Model	ND-224U1F (U2)																	
Voltage @ MPT (STC)	29.28 VDC																	
Current @ MPT (STC)	7.66 ADC																	
Current, short circuit	8.33 ADC																	
OCV @ 25 deg C cells	36.6 VDC																	
Power @ MPT	224.0 W																	
PTC Power Rating	194.0 W																	
Temp Coeff of Vmp	0.12 V/degC (Vmp)																	
Temp Coeff of Voc	0.12 V/degC (Voc)																	
NOCT (nom. cell temp)	47.5 deg C																	
For Vmpt @ max amb temp and OCV @ coldest temperature	green is OK, red is not OK																	
orange is acceptable but should be avoided where possible (inverter will hold at 225VDC),																		
purple is OK but indicates inverter will limit to 15 kW AC continuous output																		
pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)																		
Modules total in array	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	
Modules per string	10	10	10	10	10	10	11	11	11	11	11	11	11	11	11	11	11	
Strings in Parallel	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
Voltage @ MPT (STC)	292.8	292.8	292.8	292.8	292.8	292.8	322.1	322.1	322.1	322.1	322.1	322.1	322.1	322.1	322.1	322.1	322.1	322.1
Vmpt @ max amb temp (30C, 86F amb)	253.8	253.8	253.8	253.8	253.8	253.8	279.2	279.2	279.2	279.2	279.2	279.2	279.2	279.2	279.2	279.2	279.2	279.2
Vmpt @ max amb temp (35C, 95F amb)	247.8	247.8	247.8	247.8	247.8	247.8	272.6	272.6	272.6	272.6	272.6	272.6	272.6	272.6	272.6	272.6	272.6	272.6
Vmpt @ max amb temp (40C, 104F amb)	241.8	241.8	241.8	241.8	241.8	241.8	266.0	266.0	266.0	266.0	266.0	266.0	266.0	266.0	266.0	266.0	266.0	266.0
Vmpt @ max amb temp (45C, 113F amb)	235.8	235.8	235.8	235.8	235.8	235.8	259.4	259.4	259.4	259.4	259.4	259.4	259.4	259.4	259.4	259.4	259.4	259.4
Vmpt @ max amb temp (50C, 122F amb)	229.8	229.8	229.8	229.8	229.8	229.8	252.8	252.8	252.8	252.8	252.8	252.8	252.8	252.8	252.8	252.8	252.8	252.8
OCV @ 25 deg C cells	366.0	366.0	366.0	366.0	366.0	366.0	402.6	402.6	402.6	402.6	402.6	402.6	402.6	402.6	402.6	402.6	402.6	402.6
OCV @ coldest temp (-40C, -40F amb)	444.0	444.0	444.0	444.0	444.0	444.0	488.4	488.4	488.4	488.4	488.4	488.4	488.4	488.4	488.4	488.4	488.4	488.4
OCV @ coldest temp (-30C, -22F amb)	432.0	432.0	432.0	432.0	432.0	432.0	475.2	475.2	475.2	475.2	475.2	475.2	475.2	475.2	475.2	475.2	475.2	475.2
OCV @ coldest temp (-20C, -4F amb)	420.0	420.0	420.0	420.0	420.0	420.0	462.0	462.0	462.0	462.0	462.0	462.0	462.0	462.0	462.0	462.0	462.0	462.0
OCV @ coldest temp (-10C, 14F amb)	408.0	408.0	408.0	408.0	408.0	408.0	448.8	448.8	448.8	448.8	448.8	448.8	448.8	448.8	448.8	448.8	448.8	448.8
OCV @ coldest temp (0C, 32F amb)	396.0	396.0	396.0	396.0	396.0	396.0	435.6	435.6	435.6	435.6	435.6	435.6	435.6	435.6	435.6	435.6	435.6	435.6
Power @ MPT (STC)	8960	11200	13440	15680	17920	20160	22400	12320	12320	12320	12320	14784	14784	14784	14784	14784	14784	19712
PTC AC system power rating	9641	9641	11988	14335	16682	19029	21376	10638	10638	10638	10638	13424	13424	13424	13424	13424	13424	16898
Suggested Inverter	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW

Module Manufacturer	Sharp																	
Module Model	ND-220U1F (U2)																	
Voltage @ MPT (STC)	29.19 VDC																	
Current @ MPT (STC)	7.54 ADC																	
Current, short circuit	8.24 ADC																	
OCV @ 25 deg C cells	36.5 VDC																	
Power @ MPT	220.0 W																	
PTC Power Rating	194.0 W																	
Temp Coeff of Vmp	0.12 V/degC (Vmp)																	
Temp Coeff of Voc	0.12 V/degC (Voc)																	
NOCT (nom. cell temp)	47.5 deg C																	
For Vmpt @ max amb temp and OCV @ coldest temperature	green is OK, red is not OK																	
orange is acceptable but should be avoided where possible (inverter will hold at 225VDC),																		
purple is OK but indicates inverter will limit to 15 kW AC continuous output																		
pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)																		
Modules total in array	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	
Modules per string	10	10	10	10	10	10	11	11	11	11	11	11	11	11	11	11	11	
Strings in Parallel	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
Voltage @ MPT (STC)	291.9	291.9	291.9	291.9	291.9	291.9	321.1	321.1	321.1	321.1	321.1	321.1	321.1	321.1	321.1	321.1	321.1	321.1
Vmpt @ max amb temp (30C, 86F amb)	252.9	252.9	252.9	252.9	252.9	252.9	278.2	278.2	278.2	278.2	278.2	278.2	278.2	278.2	278.2	278.2	278.2	278.2
Vmpt @ max amb temp (35C, 95F amb)	246.9	246.9	246.9	246.9	246.9	246.9	271.6	271.6	271.6	271.6	271.6	271.6	271.6	271.6	271.6	271.6	271.6	271.6
Vmpt @ max amb temp (40C, 104F amb)	240.9	240.9	240.9	240.9	240.9	240.9	265.0	265.0	265.0	265.0	265.0	265.0	265.0	265.0	265.0	265.0	265.0	265.0
Vmpt @ max amb temp (45C, 113F amb)	234.9	234.9	234.9	234.9	234.9	234.9	258.4	258.4	258.4	258.4	258.4	258.4	258.4	258.4	258.4	258.4	258.4	258.4
Vmpt @ max amb temp (50C, 122F amb)	228.9	228.9	228.9	228.9	228.9	228.9	251.8	251.8	251.8	251.8	251.8	251.8	251.8	251.8	251.8	251.8	251.8	251.8
OCV @ 25 deg C cells	365.0	365.0	365.0	365.0	365.0	365.0	401.5	401.5	401.5	401.5	401.5	401.5	401.5	401.5	401.5	401.5	401.5	401.5
OCV @ coldest temp (-40C, -40F amb)	443.0	443.0	443.0	443.0	443.0	443.0	487.3	487.3	487.3	487.3	487.3	487.3	487.3	487.3	487.3	487.3	487.3	487.3
OCV @ coldest temp (-30C, -22F amb)	431.0	431.0	431.0	431.0	431.0	431.0	474.1	474.1	474.1	474.1	474.1	474.1	474.1	474.1	474.1	474.1	474.1	474.1
OCV @ coldest temp (-20C, -4F amb)	419.0	419.0	419.0	419.0	419.0	419.0	460.9	460.9	460.9	460.9	460.9	460.9	460.9	460.9	460.9	460.9	460.9	460.9
OCV @ coldest temp (-10C, 14F amb)	407.0	407.0	407.0	407.0	407.0	407.0	447.7	447.7	447.7	447.7	447.7	447.7	447.7	447.7	447.7	447.7	447.7	447.7
OCV @ coldest temp (0C, 32F amb)	395.0	395.0	395.0	395.0	395.0	395.0	434.5	434.5	434.5	434.5	434.5	434.5	434.5	434.5	434.5	434.5	434.5	434.5
Power @ MPT (STC)	8800	11000	13200	15400	17600	19800	22000	12200	12200	12200	12200	14680	14680	14680	14680	14680	14680	19680
PTC AC system power rating	9481	9481	11828	14175	16522	18869	21216	10568	10568	10568	10568	13354	13354	13354	13354	13354	13354	16898
Suggested Inverter	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW

Module

Module Manufacturer		Sharp		Power @ MPT		208.0 W		For Vmpt @ max amb temp and OCV @ coldest temperature green is OK, red is not OK			
Module Model		ND-208U1		PTC Power Rating		183.3 W		orange is acceptable but should be avoided where possible (inverter will hold at 225VDC),			
Voltage @ MPT (STC)		28.5 VDC		Temp Coeff of Vmpt		0.12 V/degC (Vmpt)		purple is OK but indicates inverter will limit to 15 KW AC continuous output			
Current @ MPT (STC)		7.3 ADC		Temp Coeff of Voc		0.12 V/degC (Voc)		pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)			
Current, short circuit		8.13 ADC		NOCT (nom. cell temp)		47.5 deg C		117.5 deg F			
OCV @ 25 deg C cells		36.1 VDC									
Modules total in array	40	50	60	70	80	90	44	60	66	77	88
Modules per string	10	10	10	10	10	10	11	12	11	11	11
Strings in Parallel	4	5	6	7	8	9	4	5	6	7	8
Voltage @ MPT (STC)	285.0	285.0	285.0	285.0	285.0	285.0	313.5	342.0	313.5	313.5	313.5
Vmpt @ max amb temp (30C, 96F amb)	246.0	246.0	246.0	246.0	246.0	246.0	270.6	295.2	270.6	270.6	270.6
Vmpt @ max amb temp (35C, 95F amb)	240.0	240.0	240.0	240.0	240.0	240.0	264.0	288.0	264.0	264.0	264.0
Vmpt @ max amb temp (40C, 104F amb)	234.0	234.0	234.0	234.0	234.0	234.0	257.4	280.8	257.4	257.4	257.4
Vmpt @ max amb temp (45C, 113F amb)	228.0	228.0	228.0	228.0	228.0	228.0	250.8	273.6	250.8	250.8	250.8
Vmpt @ max amb temp (50C, 122F amb)	222.0	222.0	222.0	222.0	222.0	222.0	244.2	266.4	244.2	244.2	244.2
OCV @ 25 deg C cells	361.0	361.0	361.0	361.0	361.0	361.0	397.1	433.2	397.1	397.1	397.1
OCV @ coldest temp (-40C, -40F amb)	439.0	439.0	439.0	439.0	439.0	439.0	482.3	526.8	482.9	482.9	482.3
OCV @ coldest temp (-30C, -22F amb)	427.0	427.0	427.0	427.0	427.0	427.0	469.7	512.4	469.7	469.7	469.7
OCV @ coldest temp (-20C, -4F amb)	415.0	415.0	415.0	415.0	415.0	415.0	456.5	498.0	456.5	456.5	456.5
OCV @ coldest temp (-10C, 14F amb)	403.0	403.0	403.0	403.0	403.0	403.0	443.3	483.6	443.3	443.3	443.3
OCV @ coldest temp (0C, 32F amb)	391.0	391.0	391.0	391.0	391.0	391.0	430.1	430.1	430.1	430.1	430.1
Power @ MPT (STC)	8320	10400	12480	14560	16640	18720	3152	12480	13728	16064	18304
PTC AC system power rating	6929	8661	10393	12125	13857	15590	7622	10393	11432	13338	15243
Suggested Inverter	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW

Module Manufacturer		Sharp		Power @ MPT		208.0 W		For Vmpt @ max amb temp and OCV @ coldest temperature green is OK, red is not OK			
Module Model		ND-205U1		PTC Power Rating		176.6 W		orange is acceptable but should be avoided where possible (inverter will hold at 225VDC),			
Voltage @ MPT (STC)		28.9 VDC		Temp Coeff of Vmpt		0.12 V/degC (Vmpt)		purple is OK but indicates inverter will limit to 15 KW AC continuous output			
Current @ MPT (STC)		7.1 ADC		Temp Coeff of Voc		0.12 V/degC (Voc)		pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)			
Current, short circuit		7.91 ADC		NOCT (nom. cell temp)		47.5 deg C		117.5 deg F			
OCV @ 25 deg C cells		36.3 VDC									
Modules total in array	40	50	60	70	80	90	44	55	66	77	88
Modules per string	10	10	10	10	10	10	11	11	11	11	11
Strings in Parallel	4	5	6	7	8	9	4	5	6	7	8
Voltage @ MPT (STC)	289.0	289.0	289.0	289.0	289.0	289.0	317.9	317.9	317.9	317.9	317.9
Vmpt @ max amb temp (30C, 86F amb)	250.0	250.0	250.0	250.0	250.0	250.0	275.0	275.0	275.0	275.0	275.0
Vmpt @ max amb temp (35C, 95F amb)	244.0	244.0	244.0	244.0	244.0	244.0	268.4	268.4	268.4	268.4	268.4
Vmpt @ max amb temp (40C, 104F amb)	238.0	238.0	238.0	238.0	238.0	238.0	261.8	261.8	261.8	261.8	261.8
Vmpt @ max amb temp (45C, 113F amb)	232.0	232.0	232.0	232.0	232.0	232.0	255.2	255.2	255.2	255.2	255.2
Vmpt @ max amb temp (50C, 122F amb)	226.0	226.0	226.0	226.0	226.0	226.0	248.6	248.6	248.6	248.6	248.6
OCV @ 25 deg C cells	363.0	363.0	363.0	363.0	363.0	363.0	399.3	399.3	399.3	399.3	399.3
OCV @ coldest temp (-40C, -40F amb)	441.0	441.0	441.0	441.0	441.0	441.0	485.1	485.1	485.1	485.1	485.1
OCV @ coldest temp (-30C, -22F amb)	429.0	429.0	429.0	429.0	429.0	429.0	471.3	471.3	471.3	471.3	471.3
OCV @ coldest temp (-20C, -4F amb)	417.0	417.0	417.0	417.0	417.0	417.0	458.7	458.7	458.7	458.7	458.7
OCV @ coldest temp (-10C, 14F amb)	405.0	405.0	405.0	405.0	405.0	405.0	445.5	445.5	445.5	445.5	445.5
OCV @ coldest temp (0C, 32F amb)	393.0	393.0	393.0	393.0	393.0	393.0	432.3	432.3	432.3	432.3	432.3
Power @ MPT (STC)	8200	10250	12300	14350	16400	18450	3020	11275	13520	15765	18010
PTC AC system power rating	6827	8533	10240	11947	13653	15360	7509	9387	11263	13141	15019
Suggested Inverter	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW

Module Manufacturer		Sharp		Power @ MPT		200.0 W		For Vmpt @ max amb temp and OCV @ coldest temperature green is OK, red is not OK			
Module Model		ND-200U1		PTC Power Rating		174.7 W		orange is acceptable but should be avoided where possible (inverter will hold at 225VDC),			
Voltage @ MPT (STC)		28.5 VDC		Temp Coeff of Vmpt		0.144 V/degC (Vmpt)		purple is OK but indicates inverter will limit to 15 KW AC continuous output			
Current @ MPT (STC)		7.02 ADC		Temp Coeff of Voc		0.144 V/degC (Voc)		pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)			
Current, short circuit		7.82 ADC		NOCT (nom. cell temp)		47.5 deg C		117.5 deg F			
OCV @ 25 deg C cells		35.5 VDC									
Modules total in array	40	50	60	70	80	90	44	55	66	77	88
Modules per string	10	10	10	10	10	10	11	11	11	11	11
Strings in Parallel	4	5	6	7	8	9	4	5	6	7	8
Voltage @ MPT (STC)	285.0	285.0	285.0	285.0	285.0	285.0	313.5	313.5	313.5	313.5	313.5
Vmpt @ max amb temp (30C, 86F amb)	238.2	238.2	238.2	238.2	238.2	238.2	262.0	262.0	262.0	262.0	262.0
Vmpt @ max amb temp (35C, 95F amb)	231.0	231.0	231.0	231.0	231.0	231.0	254.1	254.1	254.1	254.1	254.1
Vmpt @ max amb temp (40C, 104F amb)	223.8	223.8	223.8	223.8	223.8	223.8	246.2	246.2	246.2	246.2	246.2
Vmpt @ max amb temp (45C, 113F amb)	216.6	216.6	216.6	216.6	216.6	216.6	238.3	238.3	238.3	238.3	238.3
Vmpt @ max amb temp (50C, 122F amb)	209.4	209.4	209.4	209.4	209.4	209.4	230.3	230.3	230.3	230.3	230.3
OCV @ 25 deg C cells	355.0	355.0	355.0	355.0	355.0	355.0	390.5	390.5	390.5	390.5	390.5
OCV @ coldest temp (-40C, -40F amb)	448.6	448.6	448.6	448.6	448.6	448.6	493.5	493.5	493.5	493.5	493.5
OCV @ coldest temp (-30C, -22F amb)	434.2	434.2	434.2	434.2	434.2	434.2	477.6	477.6	477.6	477.6	477.6
OCV @ coldest temp (-20C, -4F amb)	419.8	419.8	419.8	419.8	419.8	419.8	461.8	461.8	461.8	461.8	461.8
OCV @ coldest temp (-10C, 14F amb)	405.4	405.4	405.4	405.4	405.4	405.4	445.9	445.9	445.9	445.9	445.9
OCV @ coldest temp (0C, 32F amb)	391.0	391.0	391.0	391.0	391.0	391.0	430.1	430.1	430.1	430.1	430.1
Power @ MPT (STC)	8000	10000	12000	14000	16000	18000	2900	11000	13200	15400	17600
PTC AC system power rating	6627	8318	10025	11741	13457	15173	7320	9150	10980	12810	14640
Suggested Inverter	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW

Module Manufacturer		Sharp		Power @ MPT		198.0 W		For Vmpt @ max amb temp and OCV @ coldest temperature green is OK, red is not OK			
Module Model		ND-198U1F		PTC Power Rating		174.7 W		orange is acceptable but should be avoided where possible (inverter will hold at 225VDC),			
Voltage @ MPT (STC)		26.3 VDC		Temp Coeff of Vmpt		0.144 V/degC (Vmpt)		purple is OK but indicates inverter will limit to 15 KW AC continuous output			
Current @ MPT (STC)		7.52 ADC		Temp Coeff of Voc		0.144 V/degC (Voc)		pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)			
Current, short circuit		8.23 ADC		NOCT (nom. cell temp)		47.5 deg C		117.5 deg F			
OCV @ 25 deg C cells		32.9 VDC									
Modules total in array	44	55	66	77	88	99	48	60	72	84	96
Modules per string	11	11	11	11	11	11	12	12	12	12	12
Strings in Parallel	4	5	6	7	8	9	4	5	6	7	8
Voltage @ MPT (STC)	289.3	289.3	289.3	289.3	289.3	289.3	315.6	315.6	315.6	315.6	315.6
Vmpt @ max amb temp (30C, 86F amb)	237.8	237.8	237.8	237.8	237.8	237.8	259.4	259.4	259.4	259.4	259.4
Vmpt @ max amb temp (35C, 95F amb)	229.9	229.9	229.9	229.9	229.9	229.9	250.8	250.8	250.8	250.8	250.8
Vmpt @ max amb temp (40C, 104F amb)	222.0	222.0	222.0	222.0	222.0	222.0	242.2	242.2	242.2	242.2	242.2
Vmpt @ max amb temp (45C, 113F amb)	214.1	214.1	214.1	214.1	214.1	214.1	233.5	233.5	233.5	233.5	233.5
Vmpt @ max amb temp (50C, 122F amb)	206.1	206.1	206.1	206.1	206.1	206.1	224.9	224.9	224.9	224.9	224.9
OCV @ 25 deg C cells	361.9	361.9	361.9	361.9	361.9	361.9	394.8	394.8	394.8	394.8	394.8
OCV @ coldest temp (-40C, -40F amb)	444.3	444.3	444.3	444.3	444.3	444.3	507.1	507.1	507.1	507.1	507.1
OCV @ coldest temp (-30C, -22F amb)	449.0	449.0	449.0	449.0	449.0	449.0	489.8	489.8	489.8	489.8	489.8
OCV @ coldest temp (-20C, -4F amb)	433.2	433.2	433.2	433.2	433.2	433.2	472.6	472.6	472.6	472.6	472.6
OCV @ coldest temp (-10C, 14F amb)	417.3	417.3	417.3	417.3	417.3	417.3	455.3	455.3	455.3	455.3	455.3
OCV @ coldest temp (0C, 32F amb)	401.5	401.5	401.5	401.5	401.5	401.5	438.0	438.0	438.0	438.0	438.0
Power @ MPT (STC)	8712	10890	13068	15246	17424	19602	3504	11880	14256	16632	19008
PTC AC system power rating	7264	9080	10966	12922	14858	16844	7924	9905	11887	13868	15849
Suggested Inverter	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW

Module Manufacturer	
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Module Manufacturer		Sharp		Power @ MPT		167.0 W		For Vmpt @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK								
Module Model		ND-167U1 (or US)		PTC Power Rating		147.1 W		orange is acceptable but should be avoided where possible (inverter will hold at 225VDC),								
Voltage @ MPT (STC)		7.1 AC VDC		Temp Coeff of Vmpt		0.096 V/dgC (Vmpt)		purple is OK but indicates inverter will limit to 15 kW AC continuous output,								
Current @ MPT (STC)		7.91 ADC		Temp Coeff of Voc		0.096 V/dgC (Voc)		pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)								
Current, short circuit		29 ADC		NOCT (nom. cell temp)		47.5 deg C		117.5 deg F								
OCV @ 25 deg C cells		29 VDC														
Modules total in array	48	60	72	84	96	108	52	65	78	91	104	56	70	84	98	112
Modules per string	12	12	12	12	12	12	13	13	13	13	13	14	14	14	14	12
Strings in Parallel	4	5	6	7	8	9	4	5	6	7	8	4	5	6	7	8
Voltage @ MPT (STC)	282.0	282.0	282.0	282.0	282.0	282.0	305.5	305.5	305.5	305.5	305.5	329.0	329.0	329.0	329.0	329.0
Vmpt @ max amb temp (30C, 96F amb)	244.6	244.6	244.6	244.6	244.6	244.6	264.9	264.9	264.9	264.9	264.9	285.3	285.3	285.3	285.3	285.3
Vmpt @ max amb temp (35C, 95F amb)	238.8	238.8	238.8	238.8	238.8	238.8	258.7	258.7	258.7	258.7	258.7	278.6	278.6	278.6	278.6	278.6
Vmpt @ max amb temp (40C, 104F amb)	233.0	233.0	233.0	233.0	233.0	233.0	252.5	252.5	252.5	252.5	252.5	271.9	271.9	271.9	271.9	271.9
Vmpt @ max amb temp (45C, 113F amb)	227.3	227.3	227.3	227.3	227.3	227.3	246.2	246.2	246.2	246.2	246.2	265.2	265.2	265.2	265.2	265.2
Vmpt @ max amb temp (50C, 122F amb)	221.5	221.5	221.5	221.5	221.5	221.5	240.0	240.0	240.0	240.0	240.0	258.4	258.4	258.4	258.4	258.4
OCV @ 25 deg C cells	348.0	348.0	348.0	348.0	348.0	348.0	377.0	377.0	377.0	377.0	377.0	406.0	406.0	406.0	406.0	406.0
OCV @ coldest temp (-40C, -40F amb)	422.9	422.9	422.9	422.9	422.9	422.9	451.9	451.9	451.9	451.9	451.9	493.4	493.4	493.4	493.4	493.4
OCV @ coldest temp (-30C, -22F amb)	411.4	411.4	411.4	411.4	411.4	411.4	445.6	445.6	445.6	445.6	445.6	479.9	479.9	479.9	479.9	479.9
OCV @ coldest temp (-20C, -4F amb)	399.8	399.8	399.8	399.8	399.8	399.8	433.2	433.2	433.2	433.2	433.2	466.5	466.5	466.5	466.5	466.5
OCV @ coldest temp (-10C, 14F amb)	388.3	388.3	388.3	388.3	388.3	388.3	420.7	420.7	420.7	420.7	420.7	453.0	453.0	453.0	453.0	453.0
OCV @ coldest temp (0C, 32F amb)	376.8	376.8	376.8	376.8	376.8	376.8	408.2	408.2	408.2	408.2	408.2	439.6	439.6	439.6	439.6	439.6
Power @ MPT (STC)	8016	10020	12024	14028	16032	18036	8684	10855	13026	15197	17368	9352	11690	14028	16366	18704
PTC AC system power rating	6672	8341	10009	11677	13345	15013	229	229	9306	10843	12650	14457	17895	8731	11677	13623
Suggested Inverter	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW

Module Manufacturer		Sharp		Power @ MPT		165.0 W		For Vmpt @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK								
Module Model		NE-165U1		PTC Power Rating		145.4 W		orange is acceptable but should be avoided where possible (inverter will hold at 225VDC),								
Voltage @ MPT (STC)		4.77 AC VDC		Temp Coeff of Vmpt		0.144 V/dgC (Vmpt)		purple is OK but indicates inverter will limit to 15 kW AC continuous output,								
Current @ MPT (STC)		5.46 ADC		Temp Coeff of Voc		0.144 V/dgC (Voc)		pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)								
Current, short circuit		43.1 ADC		NOCT (nom. cell temp)		47.5 deg C		117.5 deg F								
OCV @ 25 deg C cells		43.1 VDC														
Modules total in array	56	64	72	80	88	96	104	112	45	54	63	72	81	90	99	108
Modules per string	7	8	9	10	11	12	13	14	5	6	7	8	9	10	11	12
Strings in Parallel	8	8	8	8	8	8	8	8	9	9	9	9	9	9	9	9
Voltage @ MPT (STC)	276.8	276.8	276.8	276.8	276.8	276.8	276.8	311.4	311.4	311.4	311.4	311.4	311.4	311.4	311.4	311.4
Vmpt @ max amb temp (30C, 86F amb)	239.4	239.4	239.4	239.4	239.4	239.4	239.4	269.3	269.3	269.3	269.3	269.3	269.3	269.3	269.3	269.3
Vmpt @ max amb temp (35C, 95F amb)	233.6	233.6	233.6	233.6	233.6	233.6	233.6	262.8	262.8	262.8	262.8	262.8	262.8	262.8	262.8	262.8
Vmpt @ max amb temp (40C, 104F amb)	227.8	227.8	227.8	227.8	227.8	227.8	227.8	256.3	256.3	256.3	256.3	256.3	256.3	256.3	256.3	256.3
Vmpt @ max amb temp (45C, 113F amb)	222.1	222.1	222.1	222.1	222.1	222.1	222.1	249.8	249.8	249.8	249.8	249.8	249.8	249.8	249.8	249.8
Vmpt @ max amb temp (50C, 122F amb)	216.3	216.3	216.3	216.3	216.3	216.3	216.3	243.4	243.4	243.4	243.4	243.4	243.4	243.4	243.4	243.4
OCV @ 25 deg C cells	344.8	344.8	344.8	344.8	344.8	344.8	344.8	387.9	387.9	387.9	387.9	387.9	387.9	387.9	387.9	387.9
OCV @ coldest temp (-40C, -40F amb)	419.7	419.7	419.7	419.7	419.7	419.7	419.7	451.9	451.9	451.9	451.9	493.4	493.4	493.4	493.4	493.4
OCV @ coldest temp (-30C, -22F amb)	408.2	408.2	408.2	408.2	408.2	408.2	408.2	459.2	459.2	459.2	459.2	499.2	499.2	499.2	499.2	499.2
OCV @ coldest temp (-20C, -4F amb)	396.6	396.6	396.6	396.6	396.6	396.6	396.6	446.2	446.2	446.2	446.2	486.2	486.2	486.2	486.2	486.2
OCV @ coldest temp (-10C, 14F amb)	385.1	385.1	385.1	385.1	385.1	385.1	385.1	433.3	433.3	433.3	433.3	473.3	473.3	473.3	473.3	473.3
OCV @ coldest temp (0C, 32F amb)	373.6	373.6	373.6	373.6	373.6	373.6	373.6	420.3	420.3	420.3	420.3	460.3	460.3	460.3	460.3	460.3
Power @ MPT (STC)	9240	10560	11880	13200	14520	15840	17160	18480	7425	8910	10395	11880	13365	14850	16335	17820
PTC AC system power rating	7680	8784	9888	10992	12096	13199	14299	15399	6183	7420	8656	9893	11130	12366	13603	14840
Suggested Inverter	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW

Module Manufacturer		Sharp		Power @ MPT		123.0 W		For Vmpt @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK								
Module Model		ND-123U1 (or ND-L3E1U)		PTC Power Rating		108.3 W		orange is acceptable but should be avoided where possible (inverter will hold at 225VDC),								
Voltage @ MPT (STC)		7.16 AC VDC		Temp Coeff of Vmpt		0.072 V/dgC (Vmpt)		purple is OK but indicates inverter will limit to 15 kW AC continuous output,								
Current @ MPT (STC)		8.1 ADC		Temp Coeff of Voc		0.072 V/dgC (Voc)		pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)								
Current, short circuit		21.3 ADC		NOCT (nom. cell temp)		47.5 deg C		117.5 deg F								
OCV @ 25 deg C cells		21.3 VDC														
Modules total in array	96	112	128	144	85	102	119	136	153	72	90	108	126	144	95	114
Modules per string	16	16	16	16	17	17	17	17	17	18	18	18	18	18	19	19
Strings in Parallel	6	7	8	9	5	6	7	8	9	4	5	6	7	8	9	8
Voltage @ MPT (STC)	275.2	275.2	275.2	275.2	292.4	292.4	292.4	292.4	309.6	309.6	309.6	309.6	309.6	309.6	326.8	326.8
Vmpt @ max amb temp (30C, 86F amb)	237.8	237.8	237.8	237.8	252.6	252.6	252.6	252.6	267.5	267.5	267.5	267.5	267.5	267.5	282.3	282.3
Vmpt @ max amb temp (35C, 95F amb)	232.0	232.0	232.0	232.0	246.5	246.5	246.5	246.5	261.0	261.0	261.0	261.0	261.0	261.0	275.5	275.5
Vmpt @ max amb temp (40C, 104F amb)	226.2	226.2	226.2	226.2	240.4	240.4	240.4	240.4	254.5	254.5	254.5	254.5	254.5	254.5	268.7	268.7
Vmpt @ max amb temp (45C, 113F amb)	220.5	220.5	220.5	220.5	234.3	234.3	234.3	234.3	248.0	248.0	248.0	248.0	248.0	248.0	261.8	261.8
Vmpt @ max amb temp (50C, 122F amb)	214.7	214.7	214.7	214.7	228.1	228.1	228.1	228.1	241.6	241.6	241.6	241.6	241.6	241.6	255.0	255.0
OCV @ 25 deg C cells	340.8	340.8	340.8	340.8	362.1	362.1	362.1	362.1	383.4	383.4	383.4	383.4	383.4	383.4	404.7	404.7
OCV @ coldest temp (-40C, -40F amb)	415.7	415.7	415.7	415.7	441.7	441.7	441.7	441.7	477.9	477.9	477.9	477.9	493.6	493.6	493.6	493.6
OCV @ coldest temp (-30C, -22F amb)	404.2	404.2	404.2	404.2	429.4	429.4	429.4	429.4	454.7	454.7	454.7	454.7	479.9	479.9	479.9	479.9
OCV @ coldest temp (-20C, -4F amb)	392.6	392.6	392.6	392.6	417.2	417.2	417.2	417.2	441.7	441.7	441.7	441.7	466.3	466.3	466.3	466.3
OCV @ coldest temp (-10C, 14F amb)	381.1	381.1	381.1	381.1	404.9	404.9	404.9	404.9	428.8	428.8	428.8	428.8	452.6	452.6	452.6	452.6
OCV @ coldest temp (0C, 32F amb)	369.6	369.6	369.6	369.6	392.7	392.7	392.7	392.7	415.8	415.8	415.8	415.8	438.9	438.9	438.9	438.9
Power @ MPT (STC)	11688	13776	15744	17712	10455	12545	14637	16819	8656	11070	13284	15498	17712	11688	14022	16356
PTC AC system power rating	9825	11462	13100	14737	8659	10439	12179	13919	5659	7397	9211	11053	12895	14737	9723	11565
Suggested Inverter	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW

Module Manufacturer		Sharp		Power @ MPT		140.0 W		For Vmpt @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK	
Module Model		ND-N0ECU (140W)		PTC Power Rating		123.2 W		orange is acceptable but should be avoided where possible (inverter will hold at 225VDC),	
Voltage @ MPT (STC)		7.92 AC VDC		Temp Coeff of Vmpt		0.084 V/dgC (Vmpt)		purple is OK but indicates	

Module Manufacturer		Siliken		SLK60P6L (233W)		Power @ MPT		233.0 W				For Vmpt @ max amb temp and OCV @ coldest temperature:green is OK, red is not OK orange is acceptable but should be avoided where possible (inverter will hold at 225VDC), purple is OK but indicates inverter will limit to 15 kW AC continuous output pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)																				
Module Model		29.6 VDC		PTC Power Rating		210.0 W																										
Voltage @ MPT (STC)		7.86 ADC		Temp Coeff of Vmpt		0.127 V/dgC (Vmpt)																										
Current @ MPP (STC)		8.32 ADC		Temp Coeff of Vocv		0.127 V/dgC (Vocv)																										
Current, short circuit		36.9 VDC		NOCT (nom. cell temp)		46 deg C		114.8 deg F																								
OCV @ 25 deg C Cells				cool climates only and 5% low voltage tap recommended																												
Modules total in array	36	45	54	63	72	81	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280	290	300				
Modules per string	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31				
Strings in Parallel	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9				
Voltage @ MPT (STC)	266.4	266.4	266.4	266.4	266.4	266.4	266.4	266.4	266.4	266.4	266.4	266.4	266.4	266.4	266.4	266.4	266.4	266.4	266.4	266.4	266.4	266.4	266.4	266.4	266.4	266.4	266.4	266.4	266.4	266.4		
Vmpt @ max amb temp (30C, 86F amb)	231.0	231.0	231.0	231.0	231.0	231.0	231.0	231.0	231.0	231.0	231.0	231.0	231.0	231.0	231.0	231.0	231.0	231.0	231.0	231.0	231.0	231.0	231.0	231.0	231.0	231.0	231.0	231.0	231.0	231.0	231.0	
Vmpt @ max amb temp (35C, 95F amb)	225.3	225.3	225.3	225.3	225.3	225.3	225.3	225.3	225.3	225.3	225.3	225.3	225.3	225.3	225.3	225.3	225.3	225.3	225.3	225.3	225.3	225.3	225.3	225.3	225.3	225.3	225.3	225.3	225.3	225.3	225.3	
Vmpt @ max amb temp (40C, 104F amb)	219.5	219.5	219.5	219.5	219.5	219.5	219.5	219.5	219.5	219.5	219.5	219.5	219.5	219.5	219.5	219.5	219.5	219.5	219.5	219.5	219.5	219.5	219.5	219.5	219.5	219.5	219.5	219.5	219.5	219.5	219.5	
Vmpt @ max amb temp (45C, 113F amb)	213.8	213.8	213.8	213.8	213.8	213.8	213.8	213.8	213.8	213.8	213.8	213.8	213.8	213.8	213.8	213.8	213.8	213.8	213.8	213.8	213.8	213.8	213.8	213.8	213.8	213.8	213.8	213.8	213.8	213.8	213.8	
Vmpt @ max amb temp (50C, 122F amb)	208.1	208.1	208.1	208.1	208.1	208.1	208.1	208.1	208.1	208.1	208.1	208.1	208.1	208.1	208.1	208.1	208.1	208.1	208.1	208.1	208.1	208.1	208.1	208.1	208.1	208.1	208.1	208.1	208.1	208.1	208.1	
OCV @ 25 deg C Cells	332.1	332.1	332.1	332.1	332.1	332.1	332.1	332.1	332.1	332.1	332.1	332.1	332.1	332.1	332.1	332.1	332.1	332.1	332.1	332.1	332.1	332.1	332.1	332.1	332.1	332.1	332.1	332.1	332.1	332.1	332.1	
OCV @ coldest temp (-40C, -40F amb)	406.4	406.4	406.4	406.4	406.4	406.4	406.4	406.4	406.4	406.4	406.4	406.4	406.4	406.4	406.4	406.4	406.4	406.4	406.4	406.4	406.4	406.4	406.4	406.4	406.4	406.4	406.4	406.4	406.4	406.4	406.4	406.4
OCV @ coldest temp (-30C, -22F amb)	395.0	395.0	395.0	395.0	395.0	395.0	395.0	395.0	395.0	395.0	395.0	395.0	395.0	395.0	395.0	395.0	395.0	395.0	395.0	395.0	395.0	395.0	395.0	395.0	395.0	395.0	395.0	395.0	395.0	395.0	395.0	395.0
OCV @ coldest temp (-20C, -4F amb)	383.5	383.5	383.5	383.5	383.5	383.5	383.5	383.5	383.5	383.5	383.5	383.5	383.5	383.5	383.5	383.5	383.5	383.5	383.5	383.5	383.5	383.5	383.5	383.5	383.5	383.5	383.5	383.5	383.5	383.5	383.5	383.5
OCV @ coldest temp (-10C, 14F amb)	372.1	372.1	372.1	372.1	372.1	372.1	372.1	372.1	372.1	372.1	372.1	372.1	372.1	372.1	372.1	372.1	372.1	372.1	372.1	372.1	372.1	372.1	372.1	372.1	372.1	372.1	372.1	372.1	372.1	372.1	372.1	372.1
OCV @ coldest temp (1C, 32F amb)	360.7	360.7	360.7	360.7	360.7	360.7	360.7	360.7	360.7	360.7	360.7	360.7	360.7	360.7	360.7	360.7	360.7	360.7	360.7	360.7	360.7	360.7	360.7	360.7	360.7	360.7	360.7	360.7	360.7	360.7	360.7	360.7
Power @ MPT (STC)	3388	10485	12582	14679	16776	18873	20970	23067	25164	27261	29358	31455	33552	35649	37746	39843	41940	44037	46134	48231	50328	52425	54522	56619	58716	60813	62910	65007	67104	69201	71298	
PTC AC system power rating	7165	8956	10747	12538	14329	16120	17911	19702	21493	23284	25075	26866	28657	30448	32239	34030	35821	37612	39403	41194	42985	44776	46567	48358	50149	51940	53731	55522	57313	59104	60895	
Suggested Inverter	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	

Module Manufacturer		Siliken		SLK60P6L (215W)		Power @ MPT		215.0 W				For Vmpt @ max amb temp and OCV @ coldest temperature:green is OK, red is not OK orange is acceptable but should be avoided where possible (inverter will hold at 225VDC), purple is OK but indicates inverter will limit to 15 kW AC continuous output pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)																					
Module Model		29.0 VDC		PTC Power Rating		194.0 W																											
Voltage @ MPT (STC)		7.42 ADC		Temp Coeff of Vmpt		0.127 V/dgC (Vmpt)																											
Current @ MPP (STC)		8.02 ADC		Temp Coeff of Vocv		0.127 V/dgC (Vocv)																											
Current, short circuit		36.5 VDC		NOCT (nom. cell temp)		46 deg C		114.8 deg F																									
OCV @ 25 deg C Cells				cool climates only and 5% low voltage tap recommended																													
Modules total in array	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280	290	300	310	320	330	340	350	
Modules per string	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	
Strings in Parallel	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	
Voltage @ MPT (STC)	290.0	290.0	290.0	290.0	290.0	290.0	290.0	290.0	290.0	290.0	290.0	290.0	290.0	290.0	290.0	290.0	290.0	290.0	290.0	290.0	290.0	290.0	290.0	290.0	290.0	290.0	290.0	290.0	290.0	290.0	290.0	290.0	
Vmpt @ max amb temp (30C, 86F amb)	250.6	250.6	250.6	250.6	250.6	250.6	250.6	250.6	250.6	250.6	250.6	250.6	250.6	250.6	250.6	250.6	250.6	250.6	250.6	250.6	250.6	250.6	250.6	250.6	250.6	250.6	250.6	250.6	250.6	250.6	250.6	250.6	250.6
Vmpt @ max amb temp (35C, 95F amb)	244.3	244.3	244.3	244.3	244.3	244.3	244.3	244.3	244.3	244.3	244.3	244.3	244.3	244.3	244.3	244.3	244.3	244.3	244.3	244.3	244.3	244.3	244.3	244.3	244.3	244.3	244.3	244.3	244.3	244.3	244.3	244.3	244.3
Vmpt @ max amb temp (40C, 104F amb)	237.9	237.9	237.9	237.9	237.9	237.9	237.9	237.9	237.9	237.9	237.9	237.9	237.9	237.9	237.9	237.9	237.9	237.9	237.9	237.9	237.9	237.9	237.9	237.9	237.9	237.9	237.9	237.9	237.9	237.9	237.9	237.9	237.9
Vmpt @ max amb temp (45C, 113F amb)	231.6	231.6	231.6	231.6	231.6	231.6	231.6	231.6	231.6	231.6	231.6	231.6	231.6	231.6	231.6	231.6	231.6	231.6	231.6	231.6	231.6	231.6	231.6	231.6	231.6	231.6	231.6	231.6	231.6	231.6	231.6	231.6	231.6
Vmpt @ max amb temp (50C, 122F amb)	225.2	225.2	225.2	225.2	225.2	225.2	225.2	225.2	225.2	225.2	225.2	225.2	225.2	225.2	225.2	225.2	225.2	225.2	225.2	225.2	225.2	225.2	225.2	225.2	225.2	225.2	225.2	225.2	225.2	225.2	225.2	225.2	225.2
OCV @ 25 deg C Cells	365.0	365.0	365.0	365.0	365.0	365.0	365.0	365.0	365.0	365.0	365.0	365.0	365.0	365.0	365.0	365.0	365.0	365.0	365.0	365.0	365.0	365.0	365.0	365.0	365.0	365.0	365.0	365.0	365.0	365.0	365.0	365.0	365.0
OCV @ coldest temp (-40C, -40F amb)	447.6	447.6	447.6	447.6	447.6	447.6	447.6	447.6	447.6	447.6	447.6	447.6	447.6	447.6	447.6	447.6	447.6	447.6	447.6	447.6	447.6	447.6	447.6	447.6	447.6	447.6	447.6	447.6	447.6	447.6	447.6	447.6	447.6
OCV @ coldest temp (-30C, -22F amb)	434.9	434.9	434.9	434.9	434.9	434.9	434.9	434.9	434.9	434.9	434.9	434.9	434.9	434.9	434.9	434.9	434.9	434.9	434.9	434.9	434.9	434.9	434.9	434.9	434.9	434.9	434.9	434.9	434.9	434.9	434.9	434.9	434.9
OCV @ coldest temp (-20C, -4F amb)	422.2	422.2	422.2	422.2	422.2	422.2	422.2	422.2	422.2	422.2	422.2	422.2	422.2	422.2	422.2	422.2	422.2	422.2	422.2	422.2	422.2	422.2	422.2	422.2	422.2	422.2	422.2	422.2	422.2	422.2	422.2	422.2	422.2
OCV @ coldest temp (-10C, 14F amb)	409.5	409.5	409.5	409.5	40																												

Module Manufacturer		SolarRun SF190-27 (200W version)								Power @ MPT				200.0 W				For Vmpt @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK				
Module Model		26.7 VDC								PTC Power Rating				176.7 W				orange is acceptable but should be avoided where possible (inverter will hold at 225VDC),				
Voltage @ MPT (STC)		7.49 VDC								Temp Coeff of Vmpt				0.101 V/degC (Vmpt)				purple is OK but indicates inverter will limit to 15 kW AC continuous output				
Current @ MPT (STC)		8.19 ADC								Temp Coeff of Voc				0.125 V/degC (Voc)				pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)				
Current, short circuit		33 VDC								NOCT (nom. cell temp)				45 deg C				113 deg F				
OCV @ 25 deg C cells																						
Modules total in array		44	55	66	77	88	8	8	8	8	8	8	12	12	12	12	12	12	12	12	12	12
Modules per string		11	11	11	11	11	11	11	11	11	11	11	12	12	12	12	12	12	12	12	12	12
Strings in Parallel		4	5	6	7	8	8	8	8	8	8	4	5	6	7	8	8	8	8	8	8	8
Voltage @ MPT (STC)		293.7	293.7	293.7	293.7	293.7	293.7	293.7	293.7	293.7	293.7	320.4	320.4	320.4	320.4	320.4	320.4	320.4	320.4	320.4	320.4	
Vmpt @ max amb temp (30C, 96F amb)		260.4	260.4	260.4	260.4	260.4	260.4	260.4	260.4	260.4	260.4	284.0	284.0	284.0	284.0	284.0	284.0	284.0	284.0	284.0	284.0	
Vmpt @ max amb temp (35C, 95F amb)		254.8	254.8	254.8	254.8	254.8	254.8	254.8	254.8	254.8	278.0	278.0	278.0	278.0	278.0	278.0	278.0	278.0	278.0	278.0	278.0	
Vmpt @ max amb temp (40C, 104F amb)		249.3	249.3	249.3	249.3	249.3	249.3	249.3	249.3	249.3	271.9	271.9	271.9	271.9	271.9	271.9	271.9	271.9	271.9	271.9	271.9	
Vmpt @ max amb temp (45C, 113F amb)		243.7	243.7	243.7	243.7	243.7	243.7	243.7	243.7	243.7	265.9	265.9	265.9	265.9	265.9	265.9	265.9	265.9	265.9	265.9	265.9	
Vmpt @ max amb temp (50C, 122F amb)		236.2	236.2	236.2	236.2	236.2	236.2	236.2	236.2	236.2	259.8	259.8	259.8	259.8	259.8	259.8	259.8	259.8	259.8	259.8	259.8	
OCV @ 25 deg C cells		357.4	357.4	357.4	357.4	357.4	357.4	357.4	357.4	357.4	396.0	396.0	396.0	396.0	396.0	396.0	396.0	396.0	396.0	396.0	396.0	
OCV @ coldest temp (-40C, -40F amb)		438.6	438.6	438.6	438.6	438.6	438.6	438.6	438.6	438.6	478.5	478.5	478.5	478.5	478.5	478.5	478.5	478.5	478.5	478.5	478.5	
OCV @ coldest temp (-30C, -22F amb)		424.9	424.9	424.9	424.9	424.9	424.9	424.9	424.9	424.9	463.5	463.5	463.5	463.5	463.5	463.5	463.5	463.5	463.5	463.5	463.5	
OCV @ coldest temp (-20C, -4F amb)		411.1	411.1	411.1	411.1	411.1	411.1	411.1	411.1	411.1	448.5	448.5	448.5	448.5	448.5	448.5	448.5	448.5	448.5	448.5	448.5	
OCV @ coldest temp (-10C, 14F amb)		397.4	397.4	397.4	397.4	397.4	397.4	397.4	397.4	397.4	433.5	433.5	433.5	433.5	433.5	433.5	433.5	433.5	433.5	433.5	433.5	
Power @ MPT (STC)		8600	11000	13200	15400	17600	9600	12000	14400	16800	9600	12000	14400	16800	9600	12000	14400	16800	9600	12000	14400	
PTC AC system power rating		7347	9184	11021	12858	14694	8015	10019	12023	14026	8015	10019	12023	14026	8015	10019	12023	14026	8015	10019	12023	
Suggested Inverter		PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	

Module Manufacturer		SolarRun SF160-24								Power @ MPT				170.0 W				For Vmpt @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK			
Module Model		35.9 VDC								PTC Power Rating				149.8 W				orange is acceptable but should be avoided where possible (inverter will hold at 225VDC),			
Voltage @ MPT (STC)		4.74 ADC								Temp Coeff of Vmpt				0.135 V/degC (Vmpt)				purple is OK but indicates inverter will limit to 15 kW AC continuous output			
Current @ MPT (STC)		5.12 ADC								Temp Coeff of Voc				0.165 V/degC (Voc)				pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)			
Current, short circuit		44.5 VDC								NOCT (nom. cell temp)				45 deg C				113 deg F			
OCV @ 25 deg C cells																					
Modules total in array		56	64	72	80	88	8	8	8	8	8	104	54	63	72	81	90	99	108	9	9
Modules per string		8	8	8	8	8	8	8	8	8	8	8	9	9	9	9	9	9	9	9	9
Strings in Parallel		7	8	9	10	11	12	13	14	15	16	3	4	5	6	7	8	9	10	11	12
Voltage @ MPT (STC)		287.2	287.2	287.2	287.2	287.2	287.2	287.2	287.2	287.2	287.2	323.1	323.1	323.1	323.1	323.1	323.1	323.1	323.1	323.1	323.1
Vmpt @ max amb temp (30C, 96F amb)		254.8	254.8	254.8	254.8	254.8	254.8	254.8	254.8	254.8	286.7	286.7	286.7	286.7	286.7	286.7	286.7	286.7	286.7	286.7	286.7
Vmpt @ max amb temp (35C, 95F amb)		249.4	249.4	249.4	249.4	249.4	249.4	249.4	249.4	249.4	280.6	280.6	280.6	280.6	280.6	280.6	280.6	280.6	280.6	280.6	280.6
Vmpt @ max amb temp (40C, 104F amb)		244.0	244.0	244.0	244.0	244.0	244.0	244.0	244.0	244.0	274.5	274.5	274.5	274.5	274.5	274.5	274.5	274.5	274.5	274.5	274.5
Vmpt @ max amb temp (45C, 113F amb)		238.6	238.6	238.6	238.6	238.6	238.6	238.6	238.6	238.6	268.4	268.4	268.4	268.4	268.4	268.4	268.4	268.4	268.4	268.4	268.4
Vmpt @ max amb temp (50C, 122F amb)		233.2	233.2	233.2	233.2	233.2	233.2	233.2	233.2	233.2	262.4	262.4	262.4	262.4	262.4	262.4	262.4	262.4	262.4	262.4	262.4
OCV @ 25 deg C cells		356.0	356.0	356.0	356.0	356.0	356.0	356.0	356.0	356.0	396.0	396.0	396.0	396.0	396.0	396.0	396.0	396.0	396.0	396.0	396.0
OCV @ coldest temp (-40C, -40F amb)		441.8	441.8	441.8	441.8	441.8	441.8	441.8	441.8	441.8	497.0	497.0	497.0	497.0	497.0	497.0	497.0	497.0	497.0	497.0	497.0
OCV @ coldest temp (-30C, -22F amb)		428.6	428.6	428.6	428.6	428.6	428.6	428.6	428.6	428.6	482.2	482.2	482.2	482.2	482.2	482.2	482.2	482.2	482.2	482.2	482.2
OCV @ coldest temp (-20C, -4F amb)		415.4	415.4	415.4	415.4	415.4	415.4	415.4	415.4	415.4	467.3	467.3	467.3	467.3	467.3	467.3	467.3	467.3	467.3	467.3	467.3
OCV @ coldest temp (-10C, 14F amb)		402.2	402.2	402.2	402.2	402.2	402.2	402.2	402.2	402.2	452.5	452.5	452.5	452.5	452.5	452.5	452.5	452.5	452.5	452.5	452.5
OCV @ coldest temp (0C, 32F amb)		389.0	389.0	389.0	389.0	389.0	389.0	389.0	389.0	389.0	437.6	437.6	437.6	437.6	437.6	437.6	437.6	437.6	437.6	437.6	437.6
Power @ MPT (STC)		9520	10880	12240	13600	14960	8320	9680	11040	12400	9680	11040	12400	13760	15120	16480	17840	19200	16800	18160	19520
PTC AC system power rating		7927	9060	10192	11325	12457	6915	7958	9100	10233	7958	9100	10233	11366	12500	13633	14766	15900	13633	14766	15900
Suggested Inverter		PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW

Module Manufacturer		Solar Power SP 205FPF52								Power @ MPT				205.0 W				For Vmpt @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK			
Module Model		25.8 VDC								PTC Power Rating				184.2 W				orange is acceptable but should be avoided where possible (inverter will hold at 225VDC),			
Voltage @ MPT (STC)		7.95 ADC								Temp Coeff of Vmpt				0.111 V/degC (Vmpt)				purple is OK but indicates inverter will limit to 15 kW AC continuous output			
Current @ MPT (STC)		8.48 ADC								Temp Coeff of Voc				0.101 V/degC (Voc)				pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)			
Current, short circuit		32.6 VDC								NOCT (nom. cell temp)				48.6 deg C				119.48 deg F			
OCV @ 25 deg C cells																					
Modules total in array		44	55	66	77	88	8	8	8	8	8	36	48	60	72	84	96	9	9	9	9
Modules per string		11	11	11	11	11	11	11	11	11	12	12	12	12	12	12	12	12	12	12	12
Strings in Parallel		4	5	6	7	8	8	8	8	8	3	4	5	6	7	8	9	9	9	9	9
Voltage @ MPT (STC)		283.8	283.8	283.8	283.8	283.8	283.8	283.8	283.8	283.8	309.6	309.6	309.6	309.6	309.6	309.6	309.6	309.6	309.6	309.6	309.6
Vmpt @ max amb temp (30C, 96F amb)		246.5	246.5	246.5	246.5	246.5	246.5	246.5	246.5	246.5	268.9	268.9	268.9	268.9	268.9	268.9	268.9	268.9	268.9	268.9	268.9
Vmpt @ max amb temp (35C, 95F amb)		240.9	240.9	240.9	240.9	240.9	240.9	240.9	240.9	240.9	262.8	262.8	262.8	262.8	262.8	262.8	262.8	262.8	262.8	262.8	262.8
Vmpt @ max amb temp (40C, 104F amb)		235.4	235.4	235.4	235.4	235.4	235.4	235.4	235.4	235.4	256.8	256.8	256.8	256.8	256.8	256.8	256.8	256.8	256.8	256.8	256.8
Vmpt @ max amb temp (45C, 113F amb)		229.8	229.8	229.8	229.8	229.8	229.8	229.8	229.8	229.8	250.7	250.7	250.7	250.7	250.7	250.7	250.7	250.7	250.7	250.7	250.7
Vmpt @ max amb temp (50C, 122F amb)		224.3	224.3	224.3	224.3	224.3	224.3	224.3	224.3	224.3	244.6	244.6	244.6	244.6	244.6	244.6	244.6	244.6	244.6	244.6	244.6
OCV @ 25 deg C cells		358.6	358.6	358.6	358.6	358.6	358.6	358.6	358.6	358.6	391.2	391.2	391.2	391.2	391.2	391.2	391.2	391.2	391.2	391.2	391.2
OCV @ coldest temp (-40C, -40F amb)		430.8	430.8	430.8	430.8	430.8	430.8	430.8	430.8	430.8	473.9	473.9	473.9	473.9	473.9	473.9	473.9	473.9	473.9	473.9	473.9
OCV @ coldest temp (-30C, -22F amb)		419.7	419.7	419.7	419.7	419.7	419.7	419.7	419.7	419.7	457.9	457.9	457.9	457.9	457.9	457.9	457.9	457.9	457.9	457.9	457.9
OCV @ coldest temp (-20C, -4F amb)		408.6	408.6	408.6	408.6	408.6	408.6	408.6	408.6	408.6	445.7	445.7	445.7	445.7	445.7	445.7	445.7	445.7	445.7	445.7	445.7
OCV @ coldest temp (-10C, 14F amb)		397.5	397.5	397.5	397.5	397.5	397.5	397.5	397.5	397.5	433.6	433.6	433.6	433.6	433.6	433.6	433.6	433.6	433.6	433.6	433.6
OCV @ coldest temp (0C, 32F amb)		386.4	386.4	386.4	386.4	386															

Module Manufacturer	Solar World / Shell				Power @ MPT	245.0 W			
Module Model	SW 245 mono				PTC Power Rating	0.0			
Voltage @ MPT (STC)	30.1 VDC				Temp Coeff of Vmp	0.123 V/degC	(Vmp)		
Current @ MPT (STC)	8.14 ADC				Temp Coeff of Voc	0.122 V/degC	(Voc)		
Current, short circuit	8.78 ADC				NOCT (nom. cell temp)	46 deg C		114.8 deg F	
OCV @ 25 deg C cells	37.3 VDC								
Modules total in array	45	54	63	40	50	60	44	55	66
Modules per string	9	9	9	10	10	10	11	11	11
Strings in Parallel	5	6	7	4	5	6	4	5	6
Voltage @ MPT (STC)	270.9	270.9	270.9	301.0	301.0	301.0	331.1	331.1	331.1
Vmpt @ max amb temp (30C, 96F amb)	236.6	236.6	236.6	262.9	262.9	262.9	289.2	289.2	289.2
Vmpt @ max amb temp (35C, 95F amb)	231.0	231.0	231.0	256.7	256.7	256.7	282.4	282.4	282.4
Vmpt @ max amb temp (40C, 104F amb)	225.5	225.5	225.5	250.6	250.6	250.6	275.6	275.6	275.6
Vmpt @ max amb temp (45C, 113F amb)	220.0	220.0	220.0	244.4	244.4	244.4	268.9	268.9	268.9
Vmpt @ max amb temp (50C, 122F amb)	214.4	214.4	214.4	238.3	238.3	238.3	262.1	262.1	262.1
OCV @ 25 deg C cells	335.7	335.7	335.7	373.0	373.0	373.0	410.3	410.3	410.3
OCV @ coldest temp (-40C, -40F amb)	407.7	407.7	407.7	438.3	438.3	438.3	498.2	498.2	498.2
OCV @ coldest temp (-30C, -22F amb)	396.6	396.6	396.6	440.7	440.7	440.7	484.7	484.7	484.7
OCV @ coldest temp (-20C, -4F amb)	385.5	385.5	385.5	428.4	428.4	428.4	471.2	471.2	471.2
OCV @ coldest temp (-10C, 14F amb)	374.4	374.4	374.4	416.1	416.1	416.1	457.7	457.7	457.7
OCV @ coldest temp (0C, 32F amb)	363.4	363.4	363.4	403.8	403.8	403.8	444.1	444.1	444.1
Power @ MPT (STC)	11025	13250	15435	9800	12250	14700	10780	13475	16170
PTC AC system power rating	0	0	0	0	0	0	0	0	0
Suggested Inverter	PVI 13KW	PVI 13KW	PVI 15KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 13KW	PVI 13KW	PVI 15KW

For Vmpt @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK
orange is acceptable but should be avoided where possible (inverter will hold at 225VDC),
purple is OK but indicates inverter will limit to 15 KW AC continuous output
pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)

Module Manufacturer	Solar World / Shell				Power @ MPT	240.0 W			
Module Model	SW 240 mono				PTC Power Rating	0.0			
Voltage @ MPT (STC)	30 VDC				Temp Coeff of Vmp	0.122 V/degC	(Vmp)		
Current @ MPT (STC)	8.02 ADC				Temp Coeff of Voc	0.122 V/degC	(Voc)		
Current, short circuit	8.66 ADC				NOCT (nom. cell temp)	46 deg C		114.8 deg F	
OCV @ 25 deg C cells	37.1 VDC								
Modules total in array	45	54	63	50	60	70	44	55	66
Modules per string	9	9	9	10	10	10	11	11	11
Strings in Parallel	5	6	7	5	6	7	4	5	6
Voltage @ MPT (STC)	270.0	270.0	270.0	300.0	300.0	300.0	330.0	330.0	330.0
Vmpt @ max amb temp (30C, 86F amb)	236.0	236.0	236.0	262.2	262.2	262.2	288.4	288.4	288.4
Vmpt @ max amb temp (35C, 95F amb)	230.5	230.5	230.5	256.1	256.1	256.1	281.7	281.7	281.7
Vmpt @ max amb temp (40C, 104F amb)	225.0	225.0	225.0	250.0	250.0	250.0	275.0	275.0	275.0
Vmpt @ max amb temp (45C, 113F amb)	219.5	219.5	219.5	243.9	243.9	243.9	268.3	268.3	268.3
Vmpt @ max amb temp (50C, 122F amb)	214.0	214.0	214.0	237.8	237.8	237.8	261.6	261.6	261.6
OCV @ 25 deg C cells	333.9	333.9	333.9	371.0	371.0	371.0	408.1	408.1	408.1
OCV @ coldest temp (-40C, -40F amb)	405.3	405.3	405.3	438.3	438.3	438.3	495.3	495.3	495.3
OCV @ coldest temp (-30C, -22F amb)	394.3	394.3	394.3	438.1	438.1	438.1	481.9	481.9	481.9
OCV @ coldest temp (-20C, -4F amb)	383.3	383.3	383.3	425.9	425.9	425.9	468.5	468.5	468.5
OCV @ coldest temp (-10C, 14F amb)	372.3	372.3	372.3	413.7	413.7	413.7	455.1	455.1	455.1
OCV @ coldest temp (0C, 32F amb)	361.4	361.4	361.4	401.5	401.5	401.5	441.7	441.7	441.7
Power @ MPT (STC)	10800	12960	15120	12000	14400	16800	10560	13200	15840
PTC AC system power rating	0	0	0	0	0	0	0	0	0
Suggested Inverter	PVI 13KW	PVI 13KW	PVI 15KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 13KW	PVI 13KW	PVI 15KW

For Vmpt @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK
orange is acceptable but should be avoided where possible (inverter will hold at 225VDC),
purple is OK but indicates inverter will limit to 15 KW AC continuous output
pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)

Module Manufacturer	Solar World / Shell				Power @ MPT	235.0 W			
Module Model	SW 235 mono				PTC Power Rating	0.0			
Voltage @ MPT (STC)	29.8 VDC				Temp Coeff of Vmp	0.122 V/degC	(Vmp)		
Current @ MPT (STC)	7.89 ADC				Temp Coeff of Voc	0.122 V/degC	(Voc)		
Current, short circuit	8.54 ADC				NOCT (nom. cell temp)	46 deg C		114.8 deg F	
OCV @ 25 deg C cells	37 VDC								
Modules total in array	40	50	60	70	44	55	66		
Modules per string	10	10	10	10	11	11	11		
Strings in Parallel	4	5	6	7	4	5	6		
Voltage @ MPT (STC)	298.0	298.0	298.0	298.0	327.8	327.8	327.8		
Vmpt @ max amb temp (30C, 86F amb)	260.2	260.2	260.2	260.2	286.2	286.2	286.2		
Vmpt @ max amb temp (35C, 95F amb)	254.1	254.1	254.1	254.1	279.5	279.5	279.5		
Vmpt @ max amb temp (40C, 104F amb)	248.0	248.0	248.0	248.0	272.8	272.8	272.8		
Vmpt @ max amb temp (45C, 113F amb)	241.9	241.9	241.9	241.9	266.1	266.1	266.1		
Vmpt @ max amb temp (50C, 122F amb)	235.8	235.8	235.8	235.8	259.4	259.4	259.4		
OCV @ 25 deg C cells	370.0	370.0	370.0	370.0	407.0	407.0	407.0		
OCV @ coldest temp (-40C, -40F amb)	449.3	449.3	449.3	449.3	494.2	494.2	494.2		
OCV @ coldest temp (-30C, -22F amb)	437.1	437.1	437.1	437.1	480.8	480.8	480.8		
OCV @ coldest temp (-20C, -4F amb)	424.9	424.9	424.9	424.9	467.4	467.4	467.4		
OCV @ coldest temp (-10C, 14F amb)	412.7	412.7	412.7	412.7	454.0	454.0	454.0		
OCV @ coldest temp (0C, 32F amb)	400.5	400.5	400.5	400.5	440.6	440.6	440.6		
Power @ MPT (STC)	9400	11750	14100	16450	10340	12925	15510		
PTC AC system power rating	0	0	0	0	0	0	0		
Suggested Inverter	PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 13KW	PVI 13KW	PVI 15KW		

For Vmpt @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK
orange is acceptable but should be avoided where possible (inverter will hold at 225VDC),
purple is OK but indicates inverter will limit to 15 KW AC continuous output
pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)

Module Manufacturer	Solar World / Shell				Power @ MPT	230.0 W			
Module Model	SW 230 mono				PTC Power Rating	0.0			
Voltage @ MPT (STC)	29.6 VDC				Temp Coeff of Vmp	0.122 V/degC	(Vmp)		
Current @ MPT (STC)	7.76 ADC				Temp Coeff of Voc	0.122 V/degC	(Voc)		
Current, short circuit	8.42 ADC				NOCT (nom. cell temp)	46 deg C		114.8 deg F	
OCV @ 25 deg C cells	36.9 VDC								
Modules total in array	40	50	60	70	44	55	66	77	
Modules per string	10	10	10	10	11	11	11	11	
Strings in Parallel	4	5	6	7	4	5	6	7	
Voltage @ MPT (STC)	296.0	296.0	296.0	296.0	325.6	325.6	325.6	325.6	
Vmpt @ max amb temp (30C, 86F amb)	258.2	258.2	258.2	258.2	284.0	284.0	284.0	284.0	
Vmpt @ max amb temp (35C, 95F amb)	252.1	252.1	252.1	252.1	277.3	277.3	277.3	277.3	
Vmpt @ max amb temp (40C, 104F amb)	246.0	246.0	246.0	246.0	270.6	270.6	270.6	270.6	
Vmpt @ max amb temp (45C, 113F amb)	239.9	239.9	239.9	239.9	263.9	263.9	263.9	263.9	
Vmpt @ max amb temp (50C, 122F amb)	233.8	233.8	233.8	233.8	257.2	257.2	257.2	257.2	
OCV @ 25 deg C cells	369.0	369.0	369.0	369.0	405.9	405.9	405.9	405.9	
OCV @ coldest temp (-40C, -40F amb)	448.3	448.3	448.3	448.3	493.1	493.1	493.1	493.1	
OCV @ coldest temp (-30C, -22F amb)	436.1	436.1	436.1	436.1	479.7	479.7	479.7	479.7	
OCV @ coldest temp (-20C, -4F amb)	423.9	423.9	423.9	423.9	466.3	466.3	466.3	466.3	
OCV @ coldest temp (-10C, 14F amb)	411.7	411.7	411.7	411.7	452.9	452.9	452.9	452.9	
OCV @ coldest temp (0C, 32F amb)	399.5	399.5	399.5	399.5	439.5	439.5	439.5	439.5	
Power @ MPT (STC)	9200	11500	13800	16100	10120	12650	15180	17710	
PTC AC system power rating	0	0	0	0	0	0	0	0	
Suggested Inverter	PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	

For Vmpt @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK
orange is acceptable but should be avoided where possible (inverter will hold at 225VDC),
purple is OK but indicates inverter will limit to 15 KW AC continuous output
pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)

Module Manufacturer	Solar World / Shell				Power @ MPT	225.0 W			
Module Model	SW 225 mono				PTC Power Rating	0.0			
Voltage @ MPT (STC)	29.5 VDC				Temp Coeff of Vmp	0.121 V/degC	(Vmp)		
Current @ MPT (STC)	7.64 ADC				Temp Coeff of Voc	0.121 V/degC	(Voc)		
Current, short circuit	8.3 ADC				NOCT (nom. cell temp)	46 deg C		114.8 deg F	
OCV @ 25 deg C cells	36.8 VDC								
Modules total in array	40	50	60	70	44	55	66	77	
Modules per string	10	10	10	10	11	11	11	11	
Strings in Parallel	4	5	6	7	4	5	6	7	
Voltage @ MPT (STC)	295.0	295.0	295.0	295.0	324.5	324.5	324.5	324.5	
Vmpt @ max amb temp (30C, 86F amb)	257.5	257.5	257.5	257.5	283.2	283.2	283.2	283.2	
Vmpt @ max amb temp (35C, 95F amb)	251.4	251.4	251.4	251.4	276.6	276.6	276.6	276.6	
Vmpt @ max amb temp (40C, 104F amb)	245.4	245.4	245.4	245.4	269.9	269.9	269.9	269.9	
Vmpt @ max amb temp (45C, 113F amb)	239.3	239.3	239.3	239.3	263.3	263.3	263.3	263.3	
Vmpt @ max amb temp (50C, 122F amb)	233.3	233.3	233.3	233.3	256.6	256.6	256.6	256.6	
OCV @ 25 deg C cells	368.0	368.0	368.0	368.0	404.8	404.8	404.8	404.8	
OCV @ coldest temp (-40C, -40F amb)	446.7	446.7	446.7	446.7	491.3	491.3	491.3	491.3	
OCV @ coldest temp (-30C, -22F amb)	434.6	434.6	434.6	434.6	478.0	478.0	478.0	478.0	
OCV @ coldest temp (-20C, -4F amb)	422.5	422.5	422.5						

Module Manufacturer		Solar World / Shell SW 220 mono								Power @ MPT		220.0 W	For Vmpt @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK, orange is acceptable but should be avoided where possible (inverter will hold at 225VDC), purple is OK but indicates inverter will limit to 15 kW AC continuous output, pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)							
Module Model		29.3 VDC								PTC Power Rating		0.0 W								
Voltage @ MPT (STC)		7.51 ADC								Temp Coeff of Vmpt		0.121 V/degC (Vmpt)								
Current @ MPT (STC)		8.18 ADC								Temp Coeff of Voc		0.121 V/degC (Voc)								
Current, short circuit		36.6 VDC								NOCT (nom. cell temp)		46 deg C	114.8 deg F							
OCV @ 25 deg C cells																				
Modules total in array		40	50	60	70	80	90	44	55	66	77									
Modules per string		10	10	10	10	10	10	11	11	11	11									
Strings in Parallel		4	5	6	7	8	9	4	5	6	7									
Voltage @ MPT (STC)		293.0	293.0	293.0	293.0	293.0	293.0	322.3	322.3	322.3	322.3									
Vmpt @ max amb temp (30C, 96F amb)		255.5	255.5	255.5	255.5	255.5	255.5	281.0	281.0	281.0	281.0									
Vmpt @ max amb temp (35C, 95F amb)		249.4	249.4	249.4	249.4	249.4	249.4	274.4	274.4	274.4	274.4									
Vmpt @ max amb temp (40C, 104F amb)		243.4	243.4	243.4	243.4	243.4	243.4	267.7	267.7	267.7	267.7									
Vmpt @ max amb temp (45C, 113F amb)		237.3	237.3	237.3	237.3	237.3	237.3	261.1	261.1	261.1	261.1									
Vmpt @ max amb temp (50C, 122F amb)		231.3	231.3	231.3	231.3	231.3	231.3	254.4	254.4	254.4	254.4									
OCV @ 25 deg C cells		366.0	366.0	366.0	366.0	366.0	366.0	402.6	402.6	402.6	402.6									
OCV @ coldest temp (-40C, -40F amb)		444.7	444.7	444.7	444.7	444.7	444.7	489.1	489.1	489.1	489.1									
OCV @ coldest temp (-30C, -22F amb)		432.6	432.6	432.6	432.6	432.6	432.6	475.8	475.8	475.8	475.8									
OCV @ coldest temp (-20C, -4F amb)		420.5	420.5	420.5	420.5	420.5	420.5	462.5	462.5	462.5	462.5									
OCV @ coldest temp (-10C, 14F amb)		408.4	408.4	408.4	408.4	408.4	408.4	449.2	449.2	449.2	449.2									
OCV @ coldest temp (0C, 32F amb)		396.3	396.3	396.3	396.3	396.3	396.3	435.9	435.9	435.9	435.9									
Power @ MPT (STC)		8800	11000	13200	15400	17600	19800	9680	12100	14520	16940									
PTC AC system power rating		754 ADC																		
Suggested Inverter		PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	PVI 15KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW									

Module Manufacturer		Solar World SW 220 Poly								Power @ MPT		220.0 W	For Vmpt @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK, orange is acceptable but should be avoided where possible (inverter will hold at 225VDC), purple is OK but indicates inverter will limit to 15 kW AC continuous output, pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)							
Module Model		29.2 VDC								PTC Power Rating		0.0 W								
Voltage @ MPT (STC)		7.51 ADC								Temp Coeff of Vmpt		0.126 V/degC (Vmpt)								
Current @ MPT (STC)		8.08 ADC								Temp Coeff of Voc		0.126 V/degC (Voc)								
Current, short circuit		36.6 VDC								NOCT (nom. cell temp)		46 deg C	114.8 deg F							
OCV @ 25 deg C cells																				
Modules total in array		40	50	60	70	80	90	44	55	66	77	88								
Modules per string		10	10	10	10	10	10	11	11	11	11	11								
Strings in Parallel		4	5	6	7	8	9	4	5	6	7	8								
Voltage @ MPT (STC)		292.0	292.0	292.0	292.0	292.0	292.0	321.2	321.2	321.2	321.2	321.2								
Vmpt @ max amb temp (30C, 86F amb)		252.9	252.9	252.9	252.9	252.9	252.9	278.2	278.2	278.2	278.2	278.2								
Vmpt @ max amb temp (35C, 95F amb)		246.6	246.6	246.6	246.6	246.6	246.6	271.3	271.3	271.3	271.3	271.3								
Vmpt @ max amb temp (40C, 104F amb)		240.3	240.3	240.3	240.3	240.3	240.3	264.4	264.4	264.4	264.4	264.4								
Vmpt @ max amb temp (45C, 113F amb)		234.0	234.0	234.0	234.0	234.0	234.0	257.4	257.4	257.4	257.4	257.4								
Vmpt @ max amb temp (50C, 122F amb)		227.7	227.7	227.7	227.7	227.7	227.7	250.5	250.5	250.5	250.5	250.5								
OCV @ 25 deg C cells		366.0	366.0	366.0	366.0	366.0	366.0	402.6	402.6	402.6	402.6	402.6								
OCV @ coldest temp (-40C, -40F amb)		447.9	447.9	447.9	447.9	447.9	447.9	492.7	492.7	492.7	492.7	492.7								
OCV @ coldest temp (-30C, -22F amb)		435.3	435.3	435.3	435.3	435.3	435.3	478.8	478.8	478.8	478.8	478.8								
OCV @ coldest temp (-20C, -4F amb)		422.7	422.7	422.7	422.7	422.7	422.7	465.0	465.0	465.0	465.0	465.0								
OCV @ coldest temp (-10C, 14F amb)		410.1	410.1	410.1	410.1	410.1	410.1	451.1	451.1	451.1	451.1	451.1								
OCV @ coldest temp (0C, 32F amb)		397.5	397.5	397.5	397.5	397.5	397.5	437.3	437.3	437.3	437.3	437.3								
Power @ MPT (STC)		8800	11000	13200	15400	17600	19800	9680	12100	14520	16940	19360								
PTC AC system power rating		754 ADC																		
Suggested Inverter		PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	PVI 15KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	PVI 13KW	PVI 15KW							

Module Manufacturer		Solar World SW 185 mono								Power @ MPT		185.0 W	For Vmpt @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK, orange is acceptable but should be avoided where possible (inverter will hold at 225VDC), purple is OK but indicates inverter will limit to 15 kW AC continuous output, pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)							
Module Model		36 VDC								PTC Power Rating		172.0 W								
Voltage @ MPT (STC)		5.1 ADC								Temp Coeff of Vmpt		0.126 V/degC (Vmpt)								
Current @ MPT (STC)		5.5 ADC								Temp Coeff of Voc		0.155 V/degC (Voc)								
Current, short circuit		44.5 VDC								NOCT (nom. cell temp)		46 deg C	114.8 deg F							
OCV @ 25 deg C cells																				
Modules total in array		48	56	64	72	80	88	96	45	54	63	72	81	90	99					
Modules per string		8	8	8	8	8	8	8	9	9	9	9	9	9	9					
Strings in Parallel		6	7	8	9	10	11	12	5	6	7	8	9	10	11					
Voltage @ MPT (STC)		288.0	288.0	288.0	288.0	288.0	288.0	324.0	324.0	324.0	324.0	324.0	324.0	324.0	324.0					
Vmpt @ max amb temp (30C, 86F amb)		256.8	256.8	256.8	256.8	256.8	256.8	288.8	288.8	288.8	288.8	288.8	288.8	288.8	288.8					
Vmpt @ max amb temp (35C, 95F amb)		251.7	251.7	251.7	251.7	251.7	251.7	283.2	283.2	283.2	283.2	283.2	283.2	283.2	283.2					
Vmpt @ max amb temp (40C, 104F amb)		246.7	246.7	246.7	246.7	246.7	246.7	277.5	277.5	277.5	277.5	277.5	277.5	277.5	277.5					
Vmpt @ max amb temp (45C, 113F amb)		241.6	241.6	241.6	241.6	241.6	241.6	271.8	271.8	271.8	271.8	271.8	271.8	271.8	271.8					
Vmpt @ max amb temp (50C, 122F amb)		236.6	236.6	236.6	236.6	236.6	236.6	266.2	266.2	266.2	266.2	266.2	266.2	266.2	266.2					
OCV @ 25 deg C cells		352.0	352.0	352.0	352.0	352.0	352.0	399.6	399.6	399.6	399.6	399.6	399.6	399.6	399.6					
OCV @ coldest temp (-40C, -40F amb)		436.6	436.6	436.6	436.6	436.6	436.6	491.2	491.2	491.2	491.2	491.2	491.2	491.2	491.2					
OCV @ coldest temp (-30C, -22F amb)		424.2	424.2	424.2	424.2	424.2	424.2	477.2	477.2	477.2	477.2	477.2	477.2	477.2	477.2					
OCV @ coldest temp (-20C, -4F amb)		411.8	411.8	411.8	411.8	411.8	411.8	463.3	463.3	463.3	463.3	463.3	463.3	463.3	463.3					
OCV @ coldest temp (-10C, 14F amb)		399.4	399.4	399.4	399.4	399.4	399.4	449.3	449.3	449.3	449.3	449.3	449.3	449.3	449.3					
OCV @ coldest temp (0C, 32F amb)		387.0	387.0	387.0	387.0	387.0	387.0	435.4	435.4	435.4	435.4	435.4	435.4	435.4	435.4					
Power @ MPT (STC)		8880	10360	11840	13320	14800	16280	17760	8325	9990	11665	13320	14985	16650	18315					
PTC AC system power rating		7892	9102	10493	11702	13093	14304	15504	13504	15877	18249	20622	22995	25368	27741					
Suggested Inverter		PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	PVI 15KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW					

Module Manufacturer		Solar World (Shell) SW 175 mono/T / S0175-PC (or-I Power @ MPT								175.0 W		For Vmpt @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK, orange is acceptable but should be avoided where possible (inverter will hold at 225VDC), purple is OK but indicates inverter will limit to 15 kW AC continuous output, pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)								
Module Model		35.3 VDC								PTC Power Rating		162.7 W	158.3W for mono/P							
Voltage @ MPT (STC)		4.89 ADC								Temp Coeff of Vmpt		0.125 V/degC (Vmpt)								
Current @ MPT (STC)		5.3 ADC								Temp Coeff of Voc		0.155 V/degC (Voc)								
Current, short circuit		44.4 VDC								NOCT (nom. cell temp)		46 deg C	114.8 deg F							
OCV @ 25 deg C cells																				
Modules total in array		48	56	64	72	80	88	96	45	54	63	72	81	90	99					
Modules per string		8	8	8	8	8	8	8	9	9	9	9	9	9	9					
Strings in Parallel		6	7	8	9	10	11	12	5	6	7	8	9	10	11					
Voltage @ MPT (STC)		282.4	282.4	282.4	282.4	282.4	282.4	322.2	322.2	322.2	322.2	322.2	322.2	322.2	322.2					
Vmpt @ max amb temp (30C, 86F amb)		255.4	255.4	255.4	255.4	255.4	255.4	287.3	287.3	287.3	287.3	287.3	287.3	287.3	287.3					
Vmpt @ max amb temp (35C, 95F amb)		250.4	250.4	250.4	250.4	250.4	250.4	281.7	281.7	281.7	281.7	281.7	281.7	281.7	281.7					
Vmpt @ max amb temp (40C, 104F amb)		245.4	245.4	245.4	245.4	245.4	245.4	276.1	276.1	276.1	276.1	276.1	276.1	276.1	276.1					
Vmpt @ max amb temp (45C, 113F amb)		240.4	240.4	240.4	240.4	240.4	240.4	270.5	270.5	270.5	270.5	270.5	270.5	270.5	270.5					
Vmpt @ max amb temp (50C, 122F amb)		235.4	235.4	235.4	235.4	235.4	235.4	264.9	264.9	264.9	264.9	264.9	264.9	264.9	264.9					
OCV @ 25 deg C cells		352.0	352.0	352.0	352.0	352.0	352.0	399.6	399.6	399.6	399.6	399.6	399.6	399.6	399.6					
OCV @ coldest temp (-40C, -40F amb)		435.8	435.8	435.8	435.8	435.8	435.8	490.3	490.3	490.3	490.3	490.3	490.3	490.3	490.3					
OCV @ coldest temp (-30C, -22F amb)		423.4	423.4	423.4	423.4	423.4	423.4	476.3	476.3	476.3	476.3	476.3	476.3	476.3	476.3					
OCV @ coldest temp (-20C, -4F amb)		411.0	411.0	411.0	411.0	411.0	411.0	462.4	462.4	462.4	462.4	462.4	462.4	462.4	462.4					
OCV @ coldest temp (-10C, 14F amb)		398.6	398.6	398.6	398.6	398.6	398.6	448.4	448.4	448.4	448.4	448.4	448.4	448.4	448.4					
OCV @ coldest temp (0C, 32F amb)		386.2	386.2	386.2	386.2	386.2	386.2	434.5	434.5	434.5	434.5	434.5	434.5	434.5	434.5					
Power @ MPT (STC)		8400	9800	11200	12600	14000	15400	16800	7875	9450	11025	12600	14175							

Module Manufacturer		Solartech										Power @ MPT		225.0 W		For Vmpt @ max amb temp and OCV @ coldest temperature green is OK, red is not OK											
Module Model		SPM 225P										PTC Power Rating		193.4 W		orange is acceptable but should be avoided where possible (inverter will hold at 225VDC),											
Voltage @ MPT (STC)		28.44 VDC										Temp Coeff of Vmpt		0.133 V/degC (Vmpt)		purple is OK but indicates inverter will limit to 15 kW AC continuous output											
Current @ MPT (STC)		7.92 ADC										Temp Coeff of Voc		0.133 V/degC (Voc)		pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)											
Current, short circuit		8.27 ADC										NOCT (nom. cell temp)		46 deg C		114.8 deg F		*estimated NOCT									
OCV @ 25 deg C cells		37.08 VDC																									
Modules total in array		40	50	60	70	80	33	44	55	66	77																
Modules per string		10	10	10	10	10	11	11	11	11	11																
Strings in Parallel		4	5	6	7	8	3	4	5	6	7																
Voltage @ MPT (STC)		284.4	284.4	284.4	284.4	284.4	312.8	312.8	312.8	312.8	312.8																
Vmpt @ max amb temp (30C, 96F amb)		243.0	243.0	243.0	243.0	243.0	267.3	267.3	267.3	267.3	267.3																
Vmpt @ max amb temp (35C, 95F amb)		236.3	236.3	236.3	236.3	236.3	260.0	260.0	260.0	260.0	260.0																
Vmpt @ max amb temp (40C, 104F amb)		229.7	229.7	229.7	229.7	229.7	252.6	252.6	252.6	252.6	252.6																
Vmpt @ max amb temp (45C, 113F amb)		223.0	223.0	223.0	223.0	223.0	245.3	245.3	245.3	245.3	245.3																
Vmpt @ max amb temp (50C, 122F amb)		216.3	216.3	216.3	216.3	216.3	238.0	238.0	238.0	238.0	238.0																
OCV @ 25 deg C cells		370.8	370.8	370.8	370.8	370.8	407.9	407.9	407.9	407.9	407.9																
OCV @ coldest temp (-40C, -40F amb)		444.2	444.2	444.2	444.2	444.2	486.6	486.6	486.6	486.6	486.6																
OCV @ coldest temp (-30C, -22F amb)		430.9	430.9	430.9	430.9	430.9	474.0	474.0	474.0	474.0	474.0																
OCV @ coldest temp (-20C, -4F amb)		417.5	417.5	417.5	417.5	417.5	459.3	459.3	459.3	459.3	459.3																
OCV @ coldest temp (-10C, 14F amb)		404.2	404.2	404.2	404.2	404.2	444.6	444.6	444.6	444.6	444.6																
Power @ MPT (STC)		3060	11250	13500	15750	18000	7425	9900	12375	14850	17325																
PTC AC system power rating		7311	9198	10966	12793	14621	6091	8042	10052	12062	14073																
Suggested Inverter		PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW																

Module Manufacturer		Solartech										Power @ MPT		220.0 W		For Vmpt @ max amb temp and OCV @ coldest temperature green is OK, red is not OK											
Module Model		SPM 220P										PTC Power Rating		189.0 W		orange is acceptable but should be avoided where possible (inverter will hold at 225VDC),											
Voltage @ MPT (STC)		30.2 VDC										Temp Coeff of Vmpt		0.133 V/degC (Vmpt)		purple is OK but indicates inverter will limit to 15 kW AC continuous output											
Current @ MPT (STC)		7.32 ADC										Temp Coeff of Voc		0.133 V/degC (Voc)		pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)											
Current, short circuit		7.85 ADC										NOCT (nom. cell temp)		46 deg C		114.8 deg F		*estimated NOCT									
OCV @ 25 deg C cells		36.90 VDC																									
Modules total in array		40	50	60	70	80	33	44	55	66	77																
Modules per string		10	10	10	10	10	11	11	11	11	11																
Strings in Parallel		4	5	6	7	8	3	4	5	6	7																
Voltage @ MPT (STC)		302.0	302.0	302.0	302.0	302.0	332.2	332.2	332.2	332.2	332.2																
Vmpt @ max amb temp (30C, 86F amb)		260.8	260.8	260.8	260.8	260.8	286.9	286.9	286.9	286.9	286.9																
Vmpt @ max amb temp (35C, 95F amb)		254.2	254.2	254.2	254.2	254.2	279.6	279.6	279.6	279.6	279.6																
Vmpt @ max amb temp (40C, 104F amb)		247.5	247.5	247.5	247.5	247.5	272.3	272.3	272.3	272.3	272.3																
Vmpt @ max amb temp (45C, 113F amb)		240.9	240.9	240.9	240.9	240.9	265.0	265.0	265.0	265.0	265.0																
Vmpt @ max amb temp (50C, 122F amb)		234.3	234.3	234.3	234.3	234.3	257.7	257.7	257.7	257.7	257.7																
OCV @ 25 deg C cells		369.0	369.0	369.0	369.0	369.0	405.9	405.9	405.9	405.9	405.9																
OCV @ coldest temp (-40C, -40F amb)		442.1	442.1	442.1	442.1	442.1	486.3	486.3	486.3	486.3	486.3																
OCV @ coldest temp (-30C, -22F amb)		428.8	428.8	428.8	428.8	428.8	471.7	471.7	471.7	471.7	471.7																
OCV @ coldest temp (-20C, -4F amb)		415.5	415.5	415.5	415.5	415.5	457.0	457.0	457.0	457.0	457.0																
OCV @ coldest temp (-10C, 14F amb)		402.2	402.2	402.2	402.2	402.2	442.4	442.4	442.4	442.4	442.4																
Power @ MPT (STC)		8600	11000	13200	15400	17600	7260	9680	12100	14520	16940																
PTC AC system power rating		7144	8930	10716	12502	14288	5894	7859	9823	11788	13753																
Suggested Inverter		PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW																

Module Manufacturer		Solartech										Power @ MPT		215.0 W		For Vmpt @ max amb temp and OCV @ coldest temperature green is OK, red is not OK											
Module Model		SPM 215P										PTC Power Rating		184.5 W		orange is acceptable but should be avoided where possible (inverter will hold at 225VDC),											
Voltage @ MPT (STC)		28.55 VDC										Temp Coeff of Vmpt		0.132 V/degC (Vmpt)		purple is OK but indicates inverter will limit to 15 kW AC continuous output											
Current @ MPT (STC)		7.54 ADC										Temp Coeff of Voc		0.132 V/degC (Voc)		pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)											
Current, short circuit		8.00 ADC										NOCT (nom. cell temp)		46 deg C		114.8 deg F		*estimated NOCT									
OCV @ 25 deg C cells		36.72 VDC																									
Modules total in array		40	50	60	70	80	44	55	66	77	88																
Modules per string		10	10	10	10	10	11	11	11	11	11																
Strings in Parallel		4	5	6	7	8	4	5	6	7	8																
Voltage @ MPT (STC)		285.5	285.5	285.5	285.5	285.5	314.1	314.1	314.1	314.1	314.1																
Vmpt @ max amb temp (30C, 86F amb)		244.5	244.5	244.5	244.5	244.5	269.0	269.0	269.0	269.0	269.0																
Vmpt @ max amb temp (35C, 95F amb)		237.9	237.9	237.9	237.9	237.9	261.7	261.7	261.7	261.7	261.7																
Vmpt @ max amb temp (40C, 104F amb)		231.3	231.3	231.3	231.3	231.3	254.4	254.4	254.4	254.4	254.4																
Vmpt @ max amb temp (45C, 113F amb)		224.7	224.7	224.7	224.7	224.7	247.2	247.2	247.2	247.2	247.2																
Vmpt @ max amb temp (50C, 122F amb)		218.1	218.1	218.1	218.1	218.1	239.9	239.9	239.9	239.9	239.9																
OCV @ 25 deg C cells		367.2	367.2	367.2	367.2	367.2	403.9	403.9	403.9	403.9	403.9																
OCV @ coldest temp (-40C, -40F amb)		439.9	439.9	439.9	439.9	439.9	483.9	483.9	483.9	483.9	483.9																
OCV @ coldest temp (-30C, -22F amb)		426.7	426.7	426.7	426.7	426.7	469.4	469.4	469.4	469.4	469.4																
OCV @ coldest temp (-20C, -4F amb)		413.5	413.5	413.5	413.5	413.5	454.8	454.8	454.8	454.8	454.8																
OCV @ coldest temp (-10C, 14F amb)		400.2	400.2	400.2	400.2	400.2	440.3	440.3	440.3	440.3	440.3																
Power @ MPT (STC)		8600	10750	12900	15050	17200	3460	4680	5900	7120	8340																
PTC AC system power rating		7144	8930	10716	12502	14288	5894	7859	9823	11788	13753																
Suggested Inverter		PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW																

Module Manufacturer		Solartech										Power @ MPT		210.0 W		For Vmpt @ max amb temp and OCV @ coldest temperature green is OK, red is not OK											
Module Model		SPM 210P										PTC Power Rating		180.10 W		orange is acceptable but should be avoided where possible (inverter will hold at 225VDC),											
Voltage @ MPT (STC)		28.97 VDC										Temp Coeff of Vmpt		0.129 V/degC (Vmpt)		purple is OK but indicates inverter will limit to 15 kW AC continuous output											
Current @ MPT (STC)		7.25 ADC										Temp Coeff of Voc		0.129 V/degC (Voc)		pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)											
Current, short circuit		7.76 ADC										NOCT (nom. cell temp)		46 deg C		114.8 deg F		*estimated NOCT									
OCV @ 25 deg C cells		35.90 VDC																									
Modules total in array		40	50	60	70	80	44	55	66	77	88																
Modules per string		10	10	10	10	10	11	11	11	11	11																
Strings in Parallel		4	5	6	7	8	4	5	6	7	8																
Voltage @ MPT (STC)		289.7	289.7	289.7	289.7	289.7	318.7	318.7	318.7	318.7	318.7																
Vmpt @ max amb temp (30C, 86F amb)		249.6	249.6	249.6	249.6	249.6	274.6	274.6	274.6	274.6	274.6																
Vmpt @ max amb temp (35C, 95F amb)		243.2	243.2	243.2	243.2	243.2	267.5	267.5	267.5	267.5	267.5																
Vmpt @ max amb temp (40C, 104F amb)		236.7	236.7	236.7	236.7	236.7	260.4	260.4	260.4	260.4	260.4																
Vmpt @ max amb temp (45C, 113F amb)		230.2	230.2	230.2	230.2	230.2	253.3	253.3	253.3	253.3	253.3																
Vmpt @ max amb temp (50C, 122F amb)		223.8	223.8	223.8	223.8	223.8	246.2	246.2	246.2	246.2	246.2																
OCV @ 25 deg C cells		359.0	359.0	359.0	359.0	359.0	394.9	394.9	394.9	394.9	394.9																
OCV @ coldest temp (-40C, -40F amb)		443.0	443.0	443.0	443.0	443.0	487.3	487.3	487.3	487.3	487.3																
OCV @ coldest temp (-30C, -22F amb)		430.1	430.1	430.1	430.1	430.1	473.1	473.1	473.1	473.1	473.1																
OCV @ coldest temp (-20C, -4F amb)		417.2	417.2	417.2	417.2	417.2	458.9	458.9	458.9	458.9	458.9																
OCV @ coldest temp (-10C, 14F amb)		404.2	404.2	404.2	404.2	404.2	444.7	444.7	444.7	444.7	444.7																
OCV @ coldest temp (0C, 32F amb)		391.3	391.3	391.3	391.3	391.3	430.4	430.4	430.4	430.4	430.4																
Power @ MPT (STC)		8400	10500	12600	14700	16800	3240	4320	5400	6480	7560																
PTC AC system power rating		6808	8510	10212	11914	13616	7489	9361	11233	13105	14977																
Suggested Inverter		PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW																

Module Manufacturer		Solartech										Power @ MPT		205.0 W		For Vmpt @ max amb temp and OCV @ coldest temperature green is OK, red is not OK											
Module Model		SPM 205P										PTC Power Rating		175.7 W		orange is acceptable but should be avoided where possible (inverter will hold at 225VDC),											
Voltage @ MPT (STC)		28.35 VDC										Temp Coeff of Vmpt		0.131 V/degC (Vmpt)		purple is OK but indicates inverter will limit to 15 kW AC continuous output											
Current @ MPT (STC)		7.24 ADC										Temp Coeff of Voc		0.131 V/degC (Voc)		pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)											
Current, short circuit		7.77 ADC										NOCT (nom. cell temp)		46 deg C		114.8 deg F		*estimated NOCT									
OCV @ 25 deg C cells		36.42 VDC																									
Modules total in array		40	50	60	70	80	44	55	66	77	88																
Modules per string		10	10	10	10	10	11	11	11	11	11																
Strings in Parallel		4	5	6	7	8	4	5	6	7	8																
Voltage @ MPT (STC)		283.5	283.5	283.5	283.5	283.5	311.9	311.9	311.9																		

Module Manufacturer		Solon								Power @ MPT		220.0 W		For Vmpt @ max amb temp and OCV @ coldest temperature		
Module Model		Blue 220/01 (220W)								PTC Power Rating		194.3 W		green is OK, red is not OK		
Voltage @ MPT (STC)		28.0 VDC		28.0 VDC		28.0 VDC		28.0 VDC		Temp Coeff of Vmpt		0.127 V/degC		(Vmpt) orange is acceptable but should be avoided where possible (inverter will hold at 225VDC), purple is OK but indicates inverter will limit to 15 kW AC continuous output		
Current @ MPT (STC)		7.65 ADC		7.65 ADC		7.65 ADC		7.65 ADC		Temp Coeff of Voc		0.127 V/degC		(Voc) pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)		
Current, short circuit		8.3 ADC		8.3 ADC		8.3 ADC		8.3 ADC		NOCT (nom. cell temp)		46 deg C		114.8 deg F		
OCV @ 25 deg C cells		36.40 VDC		36.40 VDC		36.40 VDC		36.40 VDC		NOCT (nom. cell temp)		46 deg C		114.8 deg F		
Modules total in array		40	50	60	70	80	44	55	66	77	88					
Modules per string		10	10	10	10	10	11	11	11	11	11					
Strings in Parallel		4	5	6	7	8	4	5	6	7	8					
Voltage @ MPT (STC)		288.0	288.0	288.0	288.0	288.0	316.8	316.8	316.8	316.8	316.8					
Vmpt @ max amb temp (30C, 96F amb)		248.6	248.6	248.6	248.6	248.6	273.5	273.5	273.5	273.5	273.5					
Vmpt @ max amb temp (35C, 95F amb)		242.3	242.3	242.3	242.3	242.3	266.5	266.5	266.5	266.5	266.5					
Vmpt @ max amb temp (40C, 104F amb)		235.9	235.9	235.9	235.9	235.9	259.5	259.5	259.5	259.5	259.5					
Vmpt @ max amb temp (45C, 113F amb)		229.6	229.6	229.6	229.6	229.6	252.5	252.5	252.5	252.5	252.5					
Vmpt @ max amb temp (50C, 122F amb)		223.2	223.2	223.2	223.2	223.2	245.6	245.6	245.6	245.6	245.6					
OCV @ 25 deg C cells		364.0	364.0	364.0	364.0	364.0	400.4	400.4	400.4	400.4	400.4					
OCV @ coldest temp (-40C, -40F amb)		446.6	446.6	446.6	446.6	446.6	491.2	491.2	491.2	491.2	491.2					
OCV @ coldest temp (-30C, -22F amb)		433.9	433.9	433.9	433.9	433.9	477.2	477.2	477.2	477.2	477.2					
OCV @ coldest temp (-20C, -4F amb)		421.2	421.2	421.2	421.2	421.2	463.3	463.3	463.3	463.3	463.3					
OCV @ coldest temp (-10C, 14F amb)		408.5	408.5	408.5	408.5	408.5	449.3	449.3	449.3	449.3	449.3					
OCV @ coldest temp (0C, 32F amb)		395.8	395.8	395.8	395.8	395.8	435.3	435.3	435.3	435.3	435.3					
Power @ MPT (STC)		8600	11000	13200	15400	17600	9690	12100	14520	16940	19360					
PTC AC system power rating		7345	9181	11047	12853	14659	8079	10099	12119	14138	16158					
Suggested Inverter		PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW					

Module Manufacturer		Solartech								Power @ MPT		200.0 W		For Vmpt @ max amb temp and OCV @ coldest temperature		
Module Model		SPM 200P								PTC Power Rating		171.3 W		green is OK, red is not OK		
Voltage @ MPT (STC)		28.44 VDC		28.44 VDC		28.44 VDC		28.44 VDC		Temp Coeff of Vmpt		0.130 V/degC		(Vmpt) orange is acceptable but should be avoided where possible (inverter will hold at 225VDC), purple is OK but indicates inverter will limit to 15 kW AC continuous output		
Current @ MPT (STC)		7.04 ADC		7.04 ADC		7.04 ADC		7.04 ADC		Temp Coeff of Voc		0.130 V/degC		(Voc) pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)		
Current, short circuit		7.62 ADC		7.62 ADC		7.62 ADC		7.62 ADC		NOCT (nom. cell temp)		46 deg C		114.8 deg F		
OCV @ 25 deg C cells		36.24 VDC		36.24 VDC		36.24 VDC		36.24 VDC		NOCT (nom. cell temp)		46 deg C		114.8 deg F		
Modules total in array		40	50	60	70	80	44	55	66	77	88					
Modules per string		10	10	10	10	10	11	11	11	11	11					
Strings in Parallel		4	5	6	7	8	4	5	6	7	8					
Voltage @ MPT (STC)		284.4	284.4	284.4	284.4	284.4	312.8	312.8	312.8	312.8	312.8					
Vmpt @ max amb temp (30C, 86F amb)		244.0	244.0	244.0	244.0	244.0	268.4	268.4	268.4	268.4	268.4					
Vmpt @ max amb temp (35C, 95F amb)		237.4	237.4	237.4	237.4	237.4	261.2	261.2	261.2	261.2	261.2					
Vmpt @ max amb temp (40C, 104F amb)		230.9	230.9	230.9	230.9	230.9	254.0	254.0	254.0	254.0	254.0					
Vmpt @ max amb temp (45C, 113F amb)		224.4	224.4	224.4	224.4	224.4	246.8	246.8	246.8	246.8	246.8					
Vmpt @ max amb temp (50C, 122F amb)		217.9	217.9	217.9	217.9	217.9	239.6	239.6	239.6	239.6	239.6					
OCV @ 25 deg C cells		362.4	362.4	362.4	362.4	362.4	398.6	398.6	398.6	398.6	398.6					
OCV @ coldest temp (-40C, -40F amb)		447.2	447.2	447.2	447.2	447.2	491.9	491.9	491.9	491.9	491.9					
OCV @ coldest temp (-30C, -22F amb)		434.2	434.2	434.2	434.2	434.2	477.6	477.6	477.6	477.6	477.6					
OCV @ coldest temp (-20C, -4F amb)		421.1	421.1	421.1	421.1	421.1	463.2	463.2	463.2	463.2	463.2					
OCV @ coldest temp (-10C, 14F amb)		408.1	408.1	408.1	408.1	408.1	448.9	448.9	448.9	448.9	448.9					
OCV @ coldest temp (0C, 32F amb)		395.0	395.0	395.0	395.0	395.0	434.5	434.5	434.5	434.5	434.5					
Power @ MPT (STC)		8000	10000	12000	14000	16000	8800	11000	13200	15400	17600					
PTC AC system power rating		7045	8940	10835	12730	14625	7123	8903	10684	12465	14245					
Suggested Inverter		PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW					

Module Manufacturer		Solyndra								Power @ MPT		200.0 W		For Vmpt @ max amb temp and OCV @ coldest temperature	
Module Model		SL-001-200								PTC Power Rating		189.6 W		green is OK, red is not OK	
Voltage @ MPT (STC)		28.3 VDC		28.3 VDC		28.3 VDC		28.3 VDC		Temp Coeff of Vmpt		0.239 V/degC		(Vmpt) orange is acceptable but should be avoided where possible (inverter will hold at 225VDC), purple is OK but indicates inverter will limit to 15 kW AC continuous output	
Current @ MPT (STC)		7.13 ADC		7.13 ADC		7.13 ADC		7.13 ADC		Temp Coeff of Voc		0.239 V/degC		(Voc) pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)	
Current, short circuit		7.78 ADC		7.78 ADC		7.78 ADC		7.78 ADC		NOCT (nom. cell temp)		41.7 deg C		107.06 deg F	
OCV @ 25 deg C cells		36.24 VDC		36.24 VDC		36.24 VDC		36.24 VDC		NOCT (nom. cell temp)		41.7 deg C		107.06 deg F	
Modules total in array		56	60	64	68	72	76	80	84	88					
Modules per string		4	4	4	4	4	4	4	4	4					
Strings in Parallel		14	15	16	17	18	19	20	21	22					
Voltage @ MPT (STC)		313.2	313.2	313.2	313.2	313.2	313.2	313.2	313.2	313.2					
Vmpt @ max amb temp (30C, 86F amb)		287.7	287.7	287.7	287.7	287.7	287.7	287.7	287.7	287.7					
Vmpt @ max amb temp (35C, 95F amb)		282.9	282.9	282.9	282.9	282.9	282.9	282.9	282.9	282.9					
Vmpt @ max amb temp (40C, 104F amb)		278.1	278.1	278.1	278.1	278.1	278.1	278.1	278.1	278.1					
Vmpt @ max amb temp (45C, 113F amb)		273.3	273.3	273.3	273.3	273.3	273.3	273.3	273.3	273.3					
Vmpt @ max amb temp (50C, 122F amb)		268.6	268.6	268.6	268.6	268.6	268.6	268.6	268.6	268.6					
OCV @ 25 deg C cells		398.8	398.8	398.8	398.8	398.8	398.8	398.8	398.8	398.8					
OCV @ coldest temp (-40C, -40F amb)		451.4	451.4	451.4	451.4	451.4	451.4	451.4	451.4	451.4					
OCV @ coldest temp (-30C, -22F amb)		441.8	441.8	441.8	441.8	441.8	441.8	441.8	441.8	441.8					
OCV @ coldest temp (-20C, -4F amb)		432.3	432.3	432.3	432.3	432.3	432.3	432.3	432.3	432.3					
OCV @ coldest temp (-10C, 14F amb)		422.7	422.7	422.7	422.7	422.7	422.7	422.7	422.7	422.7					
Power @ MPT (STC)		11200	12800	14400	16000	17600	15200	16800	18400	17600					
PTC AC system power rating		10034	10750	11467	12184	12900	13617	14334	15050	15767					
Suggested Inverter		PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	PVI 15KW					

Module Manufacturer		Solyndra								Power @ MPT		191.0 W		For Vmpt @ max amb temp and OCV @ coldest temperature	
Module Model		SL-001-191								PTC Power Rating		181.0 W		green is OK, red is not OK	
Voltage @ MPT (STC)		28.51 VDC		28.51 VDC		28.51 VDC		28.51 VDC		Temp Coeff of Vmpt		0.236 V/degC		(Vmpt) orange is acceptable but should be avoided where possible (inverter will hold at 225VDC), purple is OK but indicates inverter will limit to 15 kW AC continuous output	
Current @ MPT (STC)		6.70 ADC		6.70 ADC		6.70 ADC		6.70 ADC		Temp Coeff of Voc		0.236 V/degC		(Voc) pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)	
Current, short circuit		7.27 ADC		7.27 ADC		7.27 ADC		7.27 ADC		NOCT (nom. cell temp)		41.7 deg C		107.06 deg F	
OCV @ 25 deg C cells		36.24 VDC		36.24 VDC		36.24 VDC		36.24 VDC		NOCT (nom. cell temp)		41.7 deg C		107.06 deg F	
Modules total in array		60	64	68	72	76	80	84	88	92					
Modules per string		4	4	4	4	4	4	4	4	4					
Strings in Parallel		15	16	17	18	19	20	21	22	23					
Voltage @ MPT (STC)		304.4	304.4	304.4	304.4	304.4	304.4	304.4	304.4	304.4					
Vmpt @ max amb temp (30C, 86F amb)		279.2	279.2	279.2	279.2	279.2	279.2	279.2	279.2	279.2					
Vmpt @ max amb temp (35C, 95F amb)		274.5	274.5	274.5	274.5	274.5	274.5	274.5	274.5	274.5					
Vmpt @ max amb temp (40C, 104F amb)		269.8	269.8	269.8	269.8	269.8	269.8	269.8	269.8	269.8					
Vmpt @ max amb temp (45C, 113F amb)		265.0	265.0	265.0	265.0	265.0	265.0	265.0	265.0	265.0					
Vmpt @ max amb temp (50C, 122F amb)		260.3	260.3	260.3	260.3	260.3	260.3	260.3	260.3	260.3					
OCV @ 25 deg C cells		392.8	392.8	392.8	392.8	392.8	392.8	392.8	392.8	392.8					
OCV @ coldest temp (-40C, -40F amb)		444.7	444.7	444.7	444.7	444.7	444.7	444.7	444.7	444.7					
OCV @ coldest temp (-30C, -22F amb)		435.3	435.3	435.3	435.3	435.3	435.3	435.3	435.3	435.3					
OCV @ coldest temp (-20C, -4F amb)		425.8	425.8	425.8	425.8	425.8	425.8	425.8	425.8	425.8					
OCV @ coldest temp (-10C, 14F amb)		416.4	416.4	416.4	416.4	416.4	416.4	416.4	416.4	416.4					
Power @ MPT (STC)		11460	12224	12988	13752	14516	15280	16044	16808	17572					
PTC AC system power rating		10283	10947	11611	12275	12939	13603	14267	14931	15595					
Suggested Inverter		PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	PVI 15KW					

Module Manufacturer		Solyndra								Power @ MPT		182.0 W		For Vmpt @ max amb temp and OCV @ coldest temperature	
Module Model		SL-001-182								PTC Power Rating		172.4 W		green is OK, red is not OK	
Voltage @ MPT (STC)		28.46 VDC		28.46 VDC		28.46 VDC		28.46 VDC		Temp Coeff of Vmpt		0.232 V/degC		(Vmpt) orange is acceptable but should be avoided where possible (inverter will hold at 225VDC), purple is OK but indicates inverter will limit to 15 kW AC continuous output	
Current @ MPT (STC)		6.40 ADC		6.40 ADC											

Module Manufacturer		Solyndra				Power @ MPT		173.0 W	
Module Model		SL-001-173				PTC Power Rating		163.8 W	
Voltage @ MPT (STC)		71.7 VDC				Temp Coeff of Vmp		0.228 V/degC (Vmp)	
Current @ MPT (STC)		2.41 ADC				Temp Coeff of Voc		0.228 V/degC (Voc)	
Current, short circuit		2.75 ADC				NOCT (nom. cell temp)		41.7 deg C	
OCV @ 25 deg C cells		95.2 VDC						107.06 deg F	

For Vmpt @ max amb temp and OCV @ coldest temperature green is OK, red is not OK
orange is acceptable but should be avoided where possible (inverter will hold at 225VDC),
purple is OK but indicates inverter will limit to 15 KW AC continuous output
pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)

Modules total in array	68	72	76	80	84	88	92	96	100
Modules per string	4	4	4	4	4	4	4	4	4
Strings in Parallel	17	18	19	20	21	22	23	24	25
Voltage @ MPT (STC)	286.8	286.8	286.8	286.8	286.8	286.8	286.8	286.8	286.8

Vmpt @ max amb temp (30C, 96F amb)	262.4	262.4	262.4	262.4	262.4	262.4	262.4	262.4	262.4
Vmpt @ max amb temp (35C, 95F amb)	257.9	257.9	257.9	257.9	257.9	257.9	257.9	257.9	257.9
Vmpt @ max amb temp (40C, 104F amb)	253.3	253.3	253.3	253.3	253.3	253.3	253.3	253.3	253.3
Vmpt @ max amb temp (45C, 113F amb)	248.8	248.8	248.8	248.8	248.8	248.8	248.8	248.8	248.8
Vmpt @ max amb temp (50C, 122F amb)	244.2	244.2	244.2	244.2	244.2	244.2	244.2	244.2	244.2
OCV @ 25 deg C cells	380.8	380.8	380.8	380.8	380.8	380.8	380.8	380.8	380.8
OCV @ coldest temp (-40C, -40F amb)	440.1	440.1	440.1	440.1	440.1	440.1	440.1	440.1	440.1
OCV @ coldest temp (-30C, -22F amb)	431.0	431.0	431.0	431.0	431.0	431.0	431.0	431.0	431.0
OCV @ coldest temp (-20C, -4F amb)	421.8	421.8	421.8	421.8	421.8	421.8	421.8	421.8	421.8
OCV @ coldest temp (-10C, 14F amb)	412.7	412.7	412.7	412.7	412.7	412.7	412.7	412.7	412.7
OCV @ coldest temp (0C, 32F amb)	403.6	403.6	403.6	403.6	403.6	403.6	403.6	403.6	403.6

Power @ MPT (STC)	1175.4	1245.6	1314.8	1384.0	1453.2	1522.4	1591.6	1660.8	1730.0
PTC AC system power rating	1050.6	1114.5	1178.4	1238.3	1302.2	1362.1	1424.1	1486.0	1547.9
Suggested Inverter	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	PVI 15KW	PVI 15KW

Module Manufacturer		Solyndra				Power @ MPT		165.0 W	
Module Model		SL-001-165				PTC Power Rating		156.1 W	
Voltage @ MPT (STC)		69.6 VDC				Temp Coeff of Vmp		0.225 V/degC (Vmp)	
Current @ MPT (STC)		2.37 ADC				Temp Coeff of Voc		0.225 V/degC (Voc)	
Current, short circuit		2.74 ADC				NOCT (nom. cell temp)		41.7 deg C	
OCV @ 25 deg C cells		93.9 VDC						107.06 deg F	

For Vmpt @ max amb temp and OCV @ coldest temperature green is OK, red is not OK
orange is acceptable but should be avoided where possible (inverter will hold at 225VDC),
purple is OK but indicates inverter will limit to 15 KW AC continuous output
pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)

Modules total in array	72	76	80	84	88	92	96	100	104
Modules per string	4	4	4	4	4	4	4	4	4
Strings in Parallel	18	19	20	21	22	23	24	25	26
Voltage @ MPT (STC)	278.4	278.4	278.4	278.4	278.4	278.4	278.4	278.4	278.4

Vmpt @ max amb temp (30C, 96F amb)	254.4	254.4	254.4	254.4	254.4	254.4	254.4	254.4	254.4
Vmpt @ max amb temp (35C, 95F amb)	249.9	249.9	249.9	249.9	249.9	249.9	249.9	249.9	249.9
Vmpt @ max amb temp (40C, 104F amb)	245.4	245.4	245.4	245.4	245.4	245.4	245.4	245.4	245.4
Vmpt @ max amb temp (45C, 113F amb)	240.9	240.9	240.9	240.9	240.9	240.9	240.9	240.9	240.9
Vmpt @ max amb temp (50C, 122F amb)	236.4	236.4	236.4	236.4	236.4	236.4	236.4	236.4	236.4
OCV @ 25 deg C cells	375.6	375.6	375.6	375.6	375.6	375.6	375.6	375.6	375.6
OCV @ coldest temp (-40C, -40F amb)	434.1	434.1	434.1	434.1	434.1	434.1	434.1	434.1	434.1
OCV @ coldest temp (-30C, -22F amb)	425.1	425.1	425.1	425.1	425.1	425.1	425.1	425.1	425.1
OCV @ coldest temp (-20C, -4F amb)	416.1	416.1	416.1	416.1	416.1	416.1	416.1	416.1	416.1
OCV @ coldest temp (-10C, 14F amb)	407.1	407.1	407.1	407.1	407.1	407.1	407.1	407.1	407.1
OCV @ coldest temp (0C, 32F amb)	398.1	398.1	398.1	398.1	398.1	398.1	398.1	398.1	398.1

Power @ MPT (STC)	1163.0	1245.0	1326.0	1386.0	1452.0	1519.0	1586.0	1656.0	1716.0
PTC AC system power rating	1062.1	1121.1	1180.1	1239.1	1298.1	1357.1	1416.1	1475.1	1534.2
Suggested Inverter	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	PVI 15KW	PVI 15KW

Module Manufacturer		Solyndra				Power @ MPT		157.0 W	
Module Model		SL-001-157				PTC Power Rating		148.5 W	
Voltage @ MPT (STC)		67.5 VDC				Temp Coeff of Vmp		0.222 V/degC (Vmp)	
Current @ MPT (STC)		2.33 ADC				Temp Coeff of Voc		0.222 V/degC (Voc)	
Current, short circuit		2.73 ADC				NOCT (nom. cell temp)		41.7 deg C	
OCV @ 25 deg C cells		92.5 VDC						107.06 deg F	

For Vmpt @ max amb temp and OCV @ coldest temperature green is OK, red is not OK
orange is acceptable but should be avoided where possible (inverter will hold at 225VDC),
purple is OK but indicates inverter will limit to 15 KW AC continuous output
pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)

Modules total in array	76	80	84	88	92	96	100	104	108
Modules per string	4	4	4	4	4	4	4	4	4
Strings in Parallel	19	20	21	22	23	24	25	26	27
Voltage @ MPT (STC)	270.0	270.0	270.0	270.0	270.0	270.0	270.0	270.0	270.0

Vmpt @ max amb temp (30C, 96F amb)	246.3	246.3	246.3	246.3	246.3	246.3	246.3	246.3	246.3
Vmpt @ max amb temp (35C, 95F amb)	241.9	241.9	241.9	241.9	241.9	241.9	241.9	241.9	241.9
Vmpt @ max amb temp (40C, 104F amb)	237.4	237.4	237.4	237.4	237.4	237.4	237.4	237.4	237.4
Vmpt @ max amb temp (45C, 113F amb)	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0
Vmpt @ max amb temp (50C, 122F amb)	228.5	228.5	228.5	228.5	228.5	228.5	228.5	228.5	228.5
OCV @ 25 deg C cells	370.0	370.0	370.0	370.0	370.0	370.0	370.0	370.0	370.0
OCV @ coldest temp (-40C, -40F amb)	427.7	427.7	427.7	427.7	427.7	427.7	427.7	427.7	427.7
OCV @ coldest temp (-30C, -22F amb)	418.8	418.8	418.8	418.8	418.8	418.8	418.8	418.8	418.8
OCV @ coldest temp (-20C, -4F amb)	410.0	410.0	410.0	410.0	410.0	410.0	410.0	410.0	410.0
OCV @ coldest temp (-10C, 14F amb)	401.1	401.1	401.1	401.1	401.1	401.1	401.1	401.1	401.1
OCV @ coldest temp (0C, 32F amb)	392.2	392.2	392.2	392.2	392.2	392.2	392.2	392.2	392.2

Power @ MPT (STC)	1152.0	1245.0	1326.0	1386.0	1444.4	1507.2	1570.0	1632.8	1695.6
PTC AC system power rating	1066.5	1122.7	1178.9	1234.9	1291.1	1347.2	1403.3	1459.5	1515.6
Suggested Inverter	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	PVI 15KW	PVI 15KW

Module Manufacturer		Solyndra				Power @ MPT		150.0 W	
Module Model		SL-001-150				PTC Power Rating		141.8 W	
Voltage @ MPT (STC)		65.7 VDC				Temp Coeff of Vmp		0.219 V/degC (Vmp)	
Current @ MPT (STC)		2.28 ADC				Temp Coeff of Voc		0.219 V/degC (Voc)	
Current, short circuit		2.72 ADC				NOCT (nom. cell temp)		41.7 deg C	
OCV @ 25 deg C cells		91.4 VDC						107.06 deg F	

For Vmpt @ max amb temp and OCV @ coldest temperature green is OK, red is not OK
orange is acceptable but should be avoided where possible (inverter will hold at 225VDC),
purple is OK but indicates inverter will limit to 15 KW AC continuous output
pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)

Modules total in array	80	84	88	92	96	100	104	108	112
Modules per string	4	4	4	4	4	4	4	4	4
Strings in Parallel	20	21	22	23	24	25	26	27	28
Voltage @ MPT (STC)	262.8	262.8	262.8	262.8	262.8	262.8	262.8	262.8	262.8

Vmpt @ max amb temp (30C, 96F amb)	239.4	239.4	239.4	239.4	239.4	239.4	239.4	239.4	239.4
Vmpt @ max amb temp (35C, 95F amb)	235.0	235.0	235.0	235.0	235.0	235.0	235.0	235.0	235.0
Vmpt @ max amb temp (40C, 104F amb)	230.7	230.7	230.7	230.7	230.7	230.7	230.7	230.7	230.7
Vmpt @ max amb temp (45C, 113F amb)	226.3	226.3	226.3	226.3	226.3	226.3	226.3	226.3	226.3
Vmpt @ max amb temp (50C, 122F amb)	221.9	221.9	221.9	221.9	221.9	221.9	221.9	221.9	221.9
OCV @ 25 deg C cells	365.6	365.6	365.6	365.6	365.6	365.6	365.6	365.6	365.6
OCV @ coldest temp (-40C, -40F amb)	422.5	422.5	422.5	422.5	422.5	422.5	422.5	422.5	422.5
OCV @ coldest temp (-30C, -22F amb)	413.8	413.8	413.8	413.8	413.8	413.8	413.8	413.8	413.8
OCV @ coldest temp (-20C, -4F amb)	405.0	405.0	405.0	405.0	405.0	405.0	405.0	405.0	405.0
OCV @ coldest temp (-10C, 14F amb)	396.3	396.3	396.3	396.3	396.3	396.3	396.3	396.3	396.3
OCV @ coldest temp (0C, 32F amb)	387.5	387.5	387.5	387.5	387.5	387.5	387.5	387.5	387.5

Power @ MPT (STC)	1200.0	1260.0	1320.0	1380.0	1440.0	1500.0	1560.0	1620.0	1680.0
PTC AC system power rating	1072.0	1126.6	1179.2	1232.8	1286.4	1340.0	1393.6	1447.2	1500.8
Suggested Inverter	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	PVI 15KW	PVI 15KW

Module Manufacturer		Sunpower				Order Positive Ground Option for Sunpower arrays			
Module Model		315 SOLAR PANEL				Power @ MPT		315.0 W	
Voltage @ MPT (STC)		54.7 VDC				PTC Power Rating		291.6 W	
Current @ MPT (STC)		5.76 ADC				Temp Coeff of Vmp		0.176 V/degC (Vmp)	
Current, short circuit		6.14 ADC				Temp Coeff of Voc		0.176 V/degC (Voc)	
OCV @ 25 deg C cells		64.6 VDC				NOCT (nom. cell temp)		45 deg C	

For Vmpt @ max amb temp and OCV @ coldest temperature green is OK, red is not OK
orange is acceptable but should be avoided where possible (inverter will hold at 225VDC),
purple is OK but indicates inverter will limit to 15 KW AC continuous output
pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)

Modules total in array	30	36	42	48	54				
Modules per string	6	6	6	6	6				
Strings in Parallel	5	6	7	8	9				
Voltage @ MPT (STC)	328.2	328.2	328.2	328.2	328.2				

Vmpt @ max amb temp (30C, 96F amb)	296.5	296.5	296.5	296.5	296.5				
Vmpt @ max amb temp (35C, 95F amb)	291.2	291.2	291.2	291.2	291.2				
Vmpt @ max amb temp (40C, 104F amb)	286.0	286.0	286.0	286.0	286.0				
Vmpt @ max amb temp (45C, 113F amb)	280.7	280.7	280.7	280.7	280.7				
Vmpt @ max amb temp (50C, 122F amb)	275.4	275.4	275.4	275.4	275.4				
OCV @ 25 deg C cells	387.6	387.6	387.6	387.6	387.6				
OCV @ coldest temp (-40C, -40F amb)									
OCV @ coldest temp (-30C, -22F amb)	445.7	445.7	445.7	445.7	445.7				
OCV @ coldest temp (-20C, -4F amb)	435.1	435.1	435.1	435.1	435.1				
OCV @ coldest temp (-10C, 14F amb)	424.6	424.6	424.6	424.6	424.6				
OCV @ coldest temp (0C, 32F amb)	414.0	414.0	414.0	414.0	414.0				

Power @ MPT (STC)	945.0	1134.0	1323.0	1512.0	1701.0				
PTC AC system power rating	825.9	920.0	1014.1	1108.2	1202.3				

Module Manufacturer	Sunpower										Order Positive Ground Option for Sunpower arrays										Power @ MPT	305.0 W	281.2 W	For Vmpt @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK																
Module Model	305 SOLAR PANEL																				PTC Power Rating	305.0 W	281.2 W	orange is acceptable but should be avoided where possible (inverter will hold at 225VDC),																
Voltage @ MPT (STC)	54.7 VDC																				Temp Coeff of Vmpt	0.176 V/degC	0.176 V/degC	purple is OK but indicates inverter will limit to 15 kW AC continuous output																
Current @ MPT (STC)	5.58 ADC																				Temp Coeff of Voc	0.176 V/degC	0.176 V/degC	pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)																
Current, short circuit	5.96 ADC																				NOCT (nom. cell temp)	45 deg C	45 deg C																	
OCV @ 25 deg C cells	64.2 VDC																							113 deg F																
Modules total in array	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120	126	132	138	144	150	156	162	168	174	180	186	192	198	204	210	216	222	228	234	240	246	252	258	264
Modules per string	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Strings in Parallel	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
Voltage @ MPT (STC)	328.2	328.2	328.2	328.2	328.2	328.2	328.2	328.2	328.2	328.2	328.2	328.2	328.2	328.2	328.2	328.2	328.2	328.2	328.2	328.2	328.2	328.2	328.2	328.2	328.2	328.2	328.2	328.2	328.2	328.2	328.2	328.2	328.2	328.2	328.2	328.2	328.2	328.2	328.2	328.2
Vmpt @ max amb temp (30C, 96F amb)	296.5	296.5	296.5	296.5	296.5	296.5	296.5	296.5	296.5	296.5	296.5	296.5	296.5	296.5	296.5	296.5	296.5	296.5	296.5	296.5	296.5	296.5	296.5	296.5	296.5	296.5	296.5	296.5	296.5	296.5	296.5	296.5	296.5	296.5	296.5	296.5	296.5	296.5	296.5	296.5
Vmpt @ max amb temp (35C, 95F amb)	291.2	291.2	291.2	291.2	291.2	291.2	291.2	291.2	291.2	291.2	291.2	291.2	291.2	291.2	291.2	291.2	291.2	291.2	291.2	291.2	291.2	291.2	291.2	291.2	291.2	291.2	291.2	291.2	291.2	291.2	291.2	291.2	291.2	291.2	291.2	291.2	291.2	291.2	291.2	291.2
Vmpt @ max amb temp (40C, 104F amb)	286.0	286.0	286.0	286.0	286.0	286.0	286.0	286.0	286.0	286.0	286.0	286.0	286.0	286.0	286.0	286.0	286.0	286.0	286.0	286.0	286.0	286.0	286.0	286.0	286.0	286.0	286.0	286.0	286.0	286.0	286.0	286.0	286.0	286.0	286.0	286.0	286.0	286.0	286.0	286.0
Vmpt @ max amb temp (45C, 113F amb)	280.7	280.7	280.7	280.7	280.7	280.7	280.7	280.7	280.7	280.7	280.7	280.7	280.7	280.7	280.7	280.7	280.7	280.7	280.7	280.7	280.7	280.7	280.7	280.7	280.7	280.7	280.7	280.7	280.7	280.7	280.7	280.7	280.7	280.7	280.7	280.7	280.7	280.7	280.7	280.7
Vmpt @ max amb temp (50C, 122F amb)	275.4	275.4	275.4	275.4	275.4	275.4	275.4	275.4	275.4	275.4	275.4	275.4	275.4	275.4	275.4	275.4	275.4	275.4	275.4	275.4	275.4	275.4	275.4	275.4	275.4	275.4	275.4	275.4	275.4	275.4	275.4	275.4	275.4	275.4	275.4	275.4	275.4	275.4	275.4	275.4
OCV @ 25 deg C cells	385.2	385.2	385.2	385.2	385.2	385.2	385.2	385.2	385.2	385.2	385.2	385.2	385.2	385.2	385.2	385.2	385.2	385.2	385.2	385.2	385.2	385.2	385.2	385.2	385.2	385.2	385.2	385.2	385.2	385.2	385.2	385.2	385.2	385.2	385.2	385.2	385.2	385.2	385.2	385.2
OCV @ coldest temp (-40C, -40F amb)	443.3	443.3	443.3	443.3	443.3	443.3	443.3	443.3	443.3	443.3	443.3	443.3	443.3	443.3	443.3	443.3	443.3	443.3	443.3	443.3	443.3	443.3	443.3	443.3	443.3	443.3	443.3	443.3	443.3	443.3	443.3	443.3	443.3	443.3	443.3	443.3	443.3	443.3	443.3	443.3
OCV @ coldest temp (-30C, -22F amb)	432.7	432.7	432.7	432.7	432.7	432.7	432.7	432.7	432.7	432.7	432.7	432.7	432.7	432.7	432.7	432.7	432.7	432.7	432.7	432.7	432.7	432.7	432.7	432.7	432.7	432.7	432.7	432.7	432.7	432.7	432.7	432.7	432.7	432.7	432.7	432.7	432.7	432.7	432.7	432.7
OCV @ coldest temp (-20C, -4F amb)	422.2	422.2	422.2	422.2	422.2	422.2	422.2	422.2	422.2	422.2	422.2	422.2	422.2	422.2	422.2	422.2	422.2	422.2	422.2	422.2	422.2	422.2	422.2	422.2	422.2	422.2	422.2	422.2	422.2	422.2	422.2	422.2	422.2	422.2	422.2	422.2	422.2	422.2	422.2	422.2
OCV @ coldest temp (-10C, 14F amb)	411.6	411.6	411.6	411.6	411.6	411.6	411.6	411.6	411.6	411.6	411.6	411.6	411.6	411.6	411.6	411.6	411.6	411.6	411.6	411.6	411.6	411.6	411.6	411.6	411.6	411.6	411.6	411.6	411.6	411.6	411.6	411.6	411.6	411.6	411.6	411.6	411.6	411.6	411.6	411.6
Power @ MPT (STC)	9150	10980	12810	14640	16470	18300	20130	21960	23790	25620	27450	29280	31110	32940	34770	36600	38430	40260	42090	43920	45750	47580	49410	51240	53070	54900	56730	58560	60390	62220	64050	65880	67710	69540	71370	73200	75030	76860	78690	
PTC AC system power rating	7972	9566	11151	12735	14320	15904	17488	19072	20656	22240	23824	25408	26992	28576	30160	31744	33328	34912	36496	38080	39664	41248	42832	44416	46000	47584	49168	50752	52336	53920	55504	57088	58672	60256	61840	63424	65008	66592	68176	
Suggested Inverter	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	

Module Manufacturer	Sunpower										Order Positive Ground Option for Sunpower arrays										Power @ MPT	230.0 W	215.5 W	For Vmpt @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK															
Module Model	SPR-230 BLK																				PTC Power Rating	230.0 W	215.5 W	orange is acceptable but should be avoided where possible (inverter will hold at 225VDC),															
Voltage @ MPT (STC)	41 VDC																				Temp Coeff of Vmpt	0.1368 V/degC	0.1368 V/degC	purple is OK but indicates inverter will limit to 15 kW AC continuous output															
Current @ MPT (STC)	5.61 ADC																				Temp Coeff of Voc	0.1325 V/degC	0.1325 V/degC	pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)															
Current, short circuit	5.99 ADC																				NOCT (nom. cell temp)	50.5 deg C	122.9 deg F																
OCV @ 25 deg C cells	48.7 VDC																																						
Modules total in array	35	42	49	56	63	70	77	84	91	98	105	112	119	126	133	140	147	154	161	168	175	182	189	196	203	210	217	224	231	238	245	252	259	266	273	280	287	294	301
Modules per string	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
Strings in Parallel	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
Voltage @ MPT (STC)	287.0	287.0	287.0	287.0	287.0	287.0	287.0	287.0	287.0	287.0	287.0	287.0	287.0	287.0	287.0	287.0	287.0	287.0	287.0	287.0	287.0	287.0	287.0	287.0	287.0	287.0	287.0	287.0	287.0	287.0	287.0	287.0	287.0	287.0	287.0	287.0	287.0	287.0	287.0
Vmpt @ max amb temp (30C, 96F amb)	253.0	253.0	253.0	253.0	253.0	253.0	253.0	253.0	253.0	253.0	253.0	253.0	253.0	253.0	253.0	253.0	253.0	253.0	253.0	253.0	253.0	253.0	253.0	253.0	253.0	253.0	253.0	253.0	253.0	253.0	253.0	253.0	253.0	253.0	253.0	253.0	253.0	253.0	253.0
Vmpt @ max amb temp (35C, 95F amb)	248.2	248.2	248.2	248.2	248.2	248.2	248.2	248.2	248.2	248.2	248.2	248.2	248.2	248.2	248.2	248.2	248.2	248.2	248.2	248.2	248.2	248.2	248.2	248.2	248.2	248.2	248.2	248.2	248.2	248.2	248.2	248.2	248.2	248.2	248.2	248.2	248.2	248.2	248.2
Vmpt @ max amb temp (40C, 104F amb)	243.4	243.4	243.4	243.4	243.4	243.4	243.4	243.4	243.4	243.4	243.4	243.4	243.4	243.4	243.4	243.4	243.4	243.4	243.4	243.4	243.4	243.4	243.4	243.4	243.4	243.4	243.4	243.4	243.4	243.4	243.4	243.4	243.4	243.4	243.4	243.4	243.4	243.4	243.4
Vmpt @ max amb temp (45C, 113F amb)	238.6	238.6	238.6	238.6	238.6	238.6	238.6	238.6	238.6	238.6	238.6	238.6	238.6	238.6	238.6	238.6	238.6	238.6	238.6	238.6	238.6	238.6	238.6	238.6	238.6	238.6	238.6	238.6	238.6	238.6	238.6	238.6	238.6	238.6	238.6	238.6	238.6	238.6	238.6
Vmpt @ max amb temp (50C, 122F amb)	233.9	233.9	233.9	233.9	233.9	233.9	233.9	233.9	233.9	233.9	233.9	233.9	233.9	233.9	233.9	233.9	233.9	233.9	233.9	233.9	233.9	233.9	233.9	233.9	233.9	233.9	233.9	233.9	233.9	233.9	233.9	233.9	233.9	233.9	233.9	233.9	233.9	233.9	233.9
OCV @ 25 deg C cells	340.9	340.9	340.9	340.9	340.9	340.9	340.9	340.9	340.9	340.9	340.9	340.9	340.9	340.9	340.9	340.9	340.9	340.9	340.9	340.9	340.9	340.9	340.9	340.9	340.9	340.9	340.9	340.9	340.9	340.9	340.9	340.9	340.9	340.9	340.9	340.9	340.9	340.9	340.9
OCV @ coldest temp (-40C, -40F amb)	401.2	401.2	401.2	401.2	401.2	401.2	401.2	401.2	401.2	401.2	401.2	401.2	401.2	401.2	401.2</																								

Module Manufacturer	Suntech										Power @ MPT	200.0 W	* PTC power rating is 179.8W for the STP-200-24/Ab-1, the STP-208-24/Ab-1 has a PTC power of 179.3W									
Module Model	STP210(S)-24(18)U/b-1										PTC Power Rating	169.0 188.5 W	For Vmpt @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK									
Voltage @ MPT (STC)	26.4 VDC										Temp Coeff of Vmpt	0.114 V/degC	orange is acceptable but should be avoided where possible (inverter will hold at 225VDC)									
Current @ MPT (STC)	7.95 ADC										Temp Coeff of Vocv	0.114 V/degC	purple is OK but indicates inverter will limit to 15 kW AC continuous output									
Current, short circuit	8.33 ADC										NOCT (nom. cell temp)	45 deg C	pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)									
OCV @ 25 deg C cells	33.6 VDC																					
Modules total in array	44	55	66	77	88	99	36	48	60	72	84											
Modules per string	11	11	11	11	11	11	12	12	12	12	12											
Strings in Parallel	4	5	6	7	8	9	3	4	5	6	7											
Voltage @ MPT (STC)	290.4	290.4	290.4	290.4	290.4	290.4	316.8	316.8	316.8	316.8	316.8											
Vmpt @ max amb temp (30C, 86F amb)	252.7	252.7	252.7	252.7	252.7	252.7	275.7	275.7	275.7	275.7	275.7											
Vmpt @ max amb temp (35C, 95F amb)	246.4	246.4	246.4	246.4	246.4	246.4	268.8	268.8	268.8	268.8	268.8											
Vmpt @ max amb temp (40C, 104F amb)	240.1	240.1	240.1	240.1	240.1	240.1	262.0	262.0	262.0	262.0	262.0											
Vmpt @ max amb temp (45C, 113F amb)	233.9	233.9	233.9	233.9	233.9	233.9	255.1	255.1	255.1	255.1	255.1											
Vmpt @ max amb temp (50C, 122F amb)	227.6	227.6	227.6	227.6	227.6	227.6	248.3	248.3	248.3	248.3	248.3											
OCV @ 25 deg C cells	369.6	369.6	369.6	369.6	369.6	369.6	403.2	403.2	403.2	403.2	403.2											
OCV @ coldest temp (-40C, -40F amb)	451.3	451.3	451.3	451.3	451.3	451.3	492.3	492.3	492.3	492.3	492.3											
OCV @ coldest temp (-30C, -22F amb)	438.7	438.7	438.7	438.7	438.7	438.7	478.6	478.6	478.6	478.6	478.6											
OCV @ coldest temp (-20C, -4F amb)	426.1	426.1	426.1	426.1	426.1	426.1	464.9	464.9	464.9	464.9	464.9											
OCV @ coldest temp (-10C, 14F amb)	413.6	413.6	413.6	413.6	413.6	413.6	451.2	451.2	451.2	451.2	451.2											
OCV @ coldest temp (0C, 32F amb)	401.0	401.0	401.0	401.0	401.0	401.0	437.5	437.5	437.5	437.5	437.5											
Power @ MPT (STC)	9240	11550	13860	16170	18480	20790	10690	12690	14690	16690	18690											
PTC AC system power rating STP210	7859	9823	11788	13753	15717	17682	8573	10174	11860	13546	15232											
PTC AC system power rating STP210S	7838	9797	11757	13716	15676	17635	8550	10688	12826	14963	17100											
Suggested Inverter	PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	PVI 15KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	PVI 15KW											

Module Manufacturer	Suntech										Power @ MPT	200.0 W	* PTC power rating is 179.8W for the STP-200-24/Ab-1, the STP-208-24/Ab-1 has a PTC power of 179.3W										
Module Model	STP200(S)-24(18)U/b-1										PTC Power Rating	179.8 179.3 W	For Vmpt @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK										
Voltage @ MPT (STC)	26.2 VDC										Temp Coeff of Vmpt	0.114 V/degC	orange is acceptable but should be avoided where possible (inverter will hold at 225VDC)										
Current @ MPT (STC)	7.63 ADC										Temp Coeff of Vocv	0.114 V/degC	purple is OK but indicates inverter will limit to 15 kW AC continuous output										
Current, short circuit	8.1 ADC										NOCT (nom. cell temp)	45 deg C	pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)										
OCV @ 25 deg C cells	33.6 VDC																						
Modules total in array	44	55	66	77	88	99	36	48	60	72	84	96											
Modules per string	11	11	11	11	11	11	12	12	12	12	12	12											
Strings in Parallel	4	5	6	7	8	9	3	4	5	6	7	8											
Voltage @ MPT (STC)	288.2	288.2	288.2	288.2	288.2	288.2	314.4	314.4	314.4	314.4	314.4	314.4											
Vmpt @ max amb temp (30C, 86F amb)	250.5	250.5	250.5	250.5	250.5	250.5	273.3	273.3	273.3	273.3	273.3	273.3											
Vmpt @ max amb temp (35C, 95F amb)	244.2	244.2	244.2	244.2	244.2	244.2	266.4	266.4	266.4	266.4	266.4	266.4											
Vmpt @ max amb temp (40C, 104F amb)	237.9	237.9	237.9	237.9	237.9	237.9	259.6	259.6	259.6	259.6	259.6	259.6											
Vmpt @ max amb temp (45C, 113F amb)	231.7	231.7	231.7	231.7	231.7	231.7	252.7	252.7	252.7	252.7	252.7	252.7											
Vmpt @ max amb temp (50C, 122F amb)	225.4	225.4	225.4	225.4	225.4	225.4	245.9	245.9	245.9	245.9	245.9	245.9											
OCV @ 25 deg C cells	369.6	369.6	369.6	369.6	369.6	369.6	403.2	403.2	403.2	403.2	403.2	403.2											
OCV @ coldest temp (-40C, -40F amb)	451.3	451.3	451.3	451.3	451.3	451.3	492.3	492.3	492.3	492.3	492.3	492.3											
OCV @ coldest temp (-30C, -22F amb)	438.7	438.7	438.7	438.7	438.7	438.7	478.6	478.6	478.6	478.6	478.6	478.6											
OCV @ coldest temp (-20C, -4F amb)	426.1	426.1	426.1	426.1	426.1	426.1	464.9	464.9	464.9	464.9	464.9	464.9											
OCV @ coldest temp (-10C, 14F amb)	413.6	413.6	413.6	413.6	413.6	413.6	451.2	451.2	451.2	451.2	451.2	451.2											
OCV @ coldest temp (0C, 32F amb)	401.0	401.0	401.0	401.0	401.0	401.0	437.5	437.5	437.5	437.5	437.5	437.5											
Power @ MPT (STC)	8800	11000	13200	15400	17600	19800	7200	9600	12000	14400	16800	19200											
PTC AC system power rating STP200	7476	9345	11214	13083	14952	16821	6117	8156	10195	12234	14273	16311											
PTC AC system power rating STP200S	7455	9319	11183	13047	14911	16774	6100	8133	10166	12200	14233	16266											
Suggested Inverter	PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	PVI 15KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	PVI 15KW	PVI 15KW											

Module Manufacturer	Suntech										Power @ MPT	190.0 W	* PTC power rating is 170.6W for the STP-190-24/Ab-1, the STP-198-24/Ab-1 has a PTC power of 170.2W										
Module Model	STP190(S)-24(18)U/b-1										PTC Power Rating	170.6 170.2 W	For Vmpt @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK										
Voltage @ MPT (STC)	26.2 VDC										Temp Coeff of Vmpt	0.113 V/degC	orange is acceptable but should be avoided where possible (inverter will hold at 225VDC)										
Current @ MPT (STC)	7.25 ADC										Temp Coeff of Vocv	0.113 V/degC	purple is OK but indicates inverter will limit to 15 kW AC continuous output										
Current, short circuit	7.84 ADC										NOCT (nom. cell temp)	45 deg C	pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)										
OCV @ 25 deg C cells	33.2 VDC																						
Modules total in array	44	55	66	77	88	99	36	48	60	72	84	96											
Modules per string	11	11	11	11	11	11	12	12	12	12	12	12											
Strings in Parallel	4	5	6	7	8	9	3	4	5	6	7	8											
Voltage @ MPT (STC)	288.2	288.2	288.2	288.2	288.2	288.2	314.4	314.4	314.4	314.4	314.4	314.4											
Vmpt @ max amb temp (30C, 86F amb)	250.9	250.9	250.9	250.9	250.9	250.9	273.8	273.8	273.8	273.8	273.8	273.8											
Vmpt @ max amb temp (35C, 95F amb)	244.7	244.7	244.7	244.7	244.7	244.7	267.0	267.0	267.0	267.0	267.0	267.0											
Vmpt @ max amb temp (40C, 104F amb)	238.5	238.5	238.5	238.5	238.5	238.5	260.2	260.2	260.2	260.2	260.2	260.2											
Vmpt @ max amb temp (45C, 113F amb)	232.3	232.3	232.3	232.3	232.3	232.3	253.4	253.4	253.4	253.4	253.4	253.4											
Vmpt @ max amb temp (50C, 122F amb)	226.1	226.1	226.1	226.1	226.1	226.1	246.7	246.7	246.7	246.7	246.7	246.7											
OCV @ 25 deg C cells	365.2	365.2	365.2	365.2	365.2	365.2	398.4	398.4	398.4	398.4	398.4	398.4											
OCV @ coldest temp (-40C, -40F amb)	445.9	445.9	445.9	445.9	445.9	445.9	486.4	486.4	486.4	486.4	486.4	486.4											
OCV @ coldest temp (-30C, -22F amb)	433.5	433.5	433.5	433.5	433.5	433.5	472.9	472.9	472.9	472.9	472.9	472.9											
OCV @ coldest temp (-20C, -4F amb)	421.1	421.1	421.1	421.1	421.1	421.1	459.4	459.4	459.4	459.4	459.4	459.4											
OCV @ coldest temp (-10C, 14F amb)	408.7	408.7	408.7	408.7	408.7	408.7	445.8	445.8	445.8	445.8	445.8	445.8											
OCV @ coldest temp (0C, 32F amb)	396.2	396.2	396.2	396.2	396.2	396.2	432.3	432.3	432.3	432.3	432.3	432.3											
Power @ MPT (STC)	8360	10450	12540	14630	16720	18810	7200	9600	12000	14400	16800	19200											
PTC AC system power rating STP190	7094	8867	10640	12414	14187	15960	5804	7738	9673	11608	13542	15477											
PTC AC system power rating STP190S	7077	8846	10615	12385	14154	15923	5790	7720	9650	11580	13510	15441											
Suggested Inverter	PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	PVI 15KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	PVI 15KW	PVI 15KW											

Module Manufacturer	Suntech										Power @ MPT	180.0 W	* PTC power rating is 162.5W for the STP-180-24/Ab-1, the STP-188-24/Ab-1 has a PTC power of 159.1W									
Module Model	STP180(S)-24(18)U/b-1										PTC Power Rating	162.5 159.1 W	For Vmpt @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK									
Voltage @ MPT (STC)	35																					

Module Manufacturer		Sunwize SW160		Power @ MPT		160.0 W		For Vmpt @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK, orange is acceptable but should be avoided where possible (inverter will hold at 225VDC), purple is OK but indicates inverter will limit to 15 kW AC continuous output, pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)															
Module Model		33.4 VDC		PTC Power Rating		139.4 W																	
Voltage @ MPT (STC)		4.79 ADC		Temp Coeff of Vmpt		0.165 V/degC (Vmpt)																	
Current @ MPT (STC)		5.43 ADC		Temp Coeff of Vocv		0.165 V/degC (Vocv)																	
Current, short circuit		42 VDC		NOCT (nom. cell temp)		43 deg C		109.4 deg F															
OCV @ 25 deg C cells																							
cool climates only																							
Modules total in array		56	64	72	80	88	96	104	112	54	63	72	81	90	99	108	117						
Modules per string		8	8	8	8	8	8	8	8	8	9	9	9	9	9	9	9						
Strings in Parallel		7	8	9	10	11	12	13	14	15	6	7	8	9	10	11	12						
Voltage @ MPT (STC)		267.2	267.2	267.2	267.2	267.2	267.2	267.2	267.2	300.6	300.6	300.6	300.6	300.6	300.6	300.6	300.6						
Vmpt @ max amb temp (30C, 96F amb)		230.2	230.2	230.2	230.2	230.2	230.2	230.2	230.2	259.0	259.0	259.0	259.0	259.0	259.0	259.0	259.0						
Vmpt @ max amb temp (35C, 95F amb)		223.6	223.6	223.6	223.6	223.6	223.6	223.6	223.6	251.6	251.6	251.6	251.6	251.6	251.6	251.6	251.6						
Vmpt @ max amb temp (40C, 104F amb)		217.0	217.0	217.0	217.0	217.0	217.0	217.0	217.0	244.2	244.2	244.2	244.2	244.2	244.2	244.2	244.2						
Vmpt @ max amb temp (45C, 113F amb)		210.4	210.4	210.4	210.4	210.4	210.4	210.4	210.4	236.7	236.7	236.7	236.7	236.7	236.7	236.7	236.7						
Vmpt @ max amb temp (50C, 122F amb)		203.8	203.8	203.8	203.8	203.8	203.8	203.8	203.8	229.3	229.3	229.3	229.3	229.3	229.3	229.3	229.3						
OCV @ 25 deg C cells		336.0	336.0	336.0	336.0	336.0	336.0	336.0	336.0	378.0	378.0	378.0	378.0	378.0	378.0	378.0	378.0						
OCV @ coldest temp (-40C, -40F amb)		421.8	421.8	421.8	421.8	421.8	421.8	421.8	421.8	415.1	415.1	415.1	415.1	415.1	415.1	415.1	415.1						
OCV @ coldest temp (-30C, -22F amb)		408.6	408.6	408.6	408.6	408.6	408.6	408.6	408.6	459.7	459.7	459.7	459.7	459.7	459.7	459.7	459.7						
OCV @ coldest temp (-20C, -4F amb)		395.4	395.4	395.4	395.4	395.4	395.4	395.4	395.4	444.8	444.8	444.8	444.8	444.8	444.8	444.8	444.8						
OCV @ coldest temp (-10C, 14F amb)		382.2	382.2	382.2	382.2	382.2	382.2	382.2	382.2	430.0	430.0	430.0	430.0	430.0	430.0	430.0	430.0						
OCV @ coldest temp (0C, 32F amb)		369.0	369.0	369.0	369.0	369.0	369.0	369.0	369.0	415.1	415.1	415.1	415.1	415.1	415.1	415.1	415.1						
Power @ MPT (STC)		960	1020	1120	1200	1400	1530	1640	1720	960	1000	1120	1200	1400	1540	1720	1820						
PTC AC system power rating		737	843	945	1039	1159	1266	1370	1474	829	898	1017	1087	1256	1362	1542	1670						
Suggested Inverter		PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	PVI 15KW	PVI 15KW	PVI 15KW	PVI 15KW	PVI 15KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	PVI 15KW						

Module Manufacturer		Sunwize SW155		Power @ MPT		155.0 W		For Vmpt @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK, orange is acceptable but should be avoided where possible (inverter will hold at 225VDC), purple is OK but indicates inverter will limit to 15 kW AC continuous output, pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)															
Module Model		33.4 VDC		PTC Power Rating		135.3 W																	
Voltage @ MPT (STC)		4.65 ADC		Temp Coeff of Vmpt		0.165 V/degC (Vmpt)																	
Current @ MPT (STC)		5.28 ADC		Temp Coeff of Vocv		0.165 V/degC (Vocv)																	
Current, short circuit		42 VDC		NOCT (nom. cell temp)		43 deg C		109.4 deg F															
OCV @ 25 deg C cells																							
cool climates only																							
Modules total in array		64	72	80	88	96	104	112	120	54	63	72	81	90	99	108	117						
Modules per string		8	8	8	8	8	8	8	8	8	9	9	9	9	9	9	9						
Strings in Parallel		8	9	10	11	12	13	14	15	6	7	8	9	10	11	12	13						
Voltage @ MPT (STC)		267.2	267.2	267.2	267.2	267.2	267.2	267.2	267.2	300.6	300.6	300.6	300.6	300.6	300.6	300.6	300.6						
Vmpt @ max amb temp (30C, 96F amb)		230.2	230.2	230.2	230.2	230.2	230.2	230.2	230.2	259.0	259.0	259.0	259.0	259.0	259.0	259.0	259.0						
Vmpt @ max amb temp (35C, 95F amb)		223.6	223.6	223.6	223.6	223.6	223.6	223.6	223.6	251.6	251.6	251.6	251.6	251.6	251.6	251.6	251.6						
Vmpt @ max amb temp (40C, 104F amb)		217.0	217.0	217.0	217.0	217.0	217.0	217.0	217.0	244.2	244.2	244.2	244.2	244.2	244.2	244.2	244.2						
Vmpt @ max amb temp (45C, 113F amb)		210.4	210.4	210.4	210.4	210.4	210.4	210.4	210.4	236.7	236.7	236.7	236.7	236.7	236.7	236.7	236.7						
Vmpt @ max amb temp (50C, 122F amb)		203.8	203.8	203.8	203.8	203.8	203.8	203.8	203.8	229.3	229.3	229.3	229.3	229.3	229.3	229.3	229.3						
OCV @ 25 deg C cells		336.0	336.0	336.0	336.0	336.0	336.0	336.0	336.0	378.0	378.0	378.0	378.0	378.0	378.0	378.0	378.0						
OCV @ coldest temp (-40C, -40F amb)		421.8	421.8	421.8	421.8	421.8	421.8	421.8	421.8	415.1	415.1	415.1	415.1	415.1	415.1	415.1	415.1						
OCV @ coldest temp (-30C, -22F amb)		408.6	408.6	408.6	408.6	408.6	408.6	408.6	408.6	459.7	459.7	459.7	459.7	459.7	459.7	459.7	459.7						
OCV @ coldest temp (-20C, -4F amb)		395.4	395.4	395.4	395.4	395.4	395.4	395.4	395.4	444.8	444.8	444.8	444.8	444.8	444.8	444.8	444.8						
OCV @ coldest temp (-10C, 14F amb)		382.2	382.2	382.2	382.2	382.2	382.2	382.2	382.2	430.0	430.0	430.0	430.0	430.0	430.0	430.0	430.0						
OCV @ coldest temp (0C, 32F amb)		369.0	369.0	369.0	369.0	369.0	369.0	369.0	369.0	415.1	415.1	415.1	415.1	415.1	415.1	415.1	415.1						
Power @ MPT (STC)		920	1160	1240	1340	1460	1570	1660	1720	960	1000	1120	1200	1400	1540	1720	1810						
PTC AC system power rating		737	843	945	1039	1159	1266	1370	1474	829	898	1017	1087	1256	1362	1542	1670						
Suggested Inverter		PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	PVI 15KW	PVI 15KW	PVI 15KW	PVI 15KW	PVI 15KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	PVI 15KW						

Module Manufacturer		Sunwize SW150		Power @ MPT		150.0 W		For Vmpt @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK, orange is acceptable but should be avoided where possible (inverter will hold at 225VDC), purple is OK but indicates inverter will limit to 15 kW AC continuous output, pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)															
Module Model		33.4 VDC		PTC Power Rating		130.9 W																	
Voltage @ MPT (STC)		4.5 ADC		Temp Coeff of Vmpt		0.165 V/degC (Vmpt)																	
Current @ MPT (STC)		5.11 ADC		Temp Coeff of Vocv		0.165 V/degC (Vocv)																	
Current, short circuit		42 VDC		NOCT (nom. cell temp)		43 deg C		109.4 deg F															
OCV @ 25 deg C cells																							
cool climates only																							
Modules total in array		64	72	80	88	96	104	112	120	54	63	72	81	90	99	108	117						
Modules per string		8	8	8	8	8	8	8	8	8	9	9	9	9	9	9	9						
Strings in Parallel		8	9	10	11	12	13	14	15	6	7	8	9	10	11	12	13						
Voltage @ MPT (STC)		267.2	267.2	267.2	267.2	267.2	267.2	267.2	267.2	300.6	300.6	300.6	300.6	300.6	300.6	300.6	300.6						
Vmpt @ max amb temp (30C, 96F amb)		230.2	230.2	230.2	230.2	230.2	230.2	230.2	230.2	259.0	259.0	259.0	259.0	259.0	259.0	259.0	259.0						
Vmpt @ max amb temp (35C, 95F amb)		223.6	223.6	223.6	223.6	223.6	223.6	223.6	223.6	251.6	251.6	251.6	251.6	251.6	251.6	251.6	251.6						
Vmpt @ max amb temp (40C, 104F amb)		217.0	217.0	217.0	217.0	217.0	217.0	217.0	217.0	244.2	244.2	244.2	244.2	244.2	244.2	244.2	244.2						
Vmpt @ max amb temp (45C, 113F amb)		210.4	210.4	210.4	210.4	210.4	210.4	210.4	210.4	236.7	236.7	236.7	236.7	236.7	236.7	236.7	236.7						
Vmpt @ max amb temp (50C, 122F amb)		203.8	203.8	203.8	203.8	203.8	203.8	203.8	203.8	229.3	229.3	229.3	229.3	229.3	229.3	229.3	229.3						
OCV @ 25 deg C cells		336.0	336.0	336.0	336.0	336.0	336.0	336.0	336.0	378.0	378.0	378.0	378.0	378.0	378.0	378.0	378.0						
OCV @ coldest temp (-40C, -40F amb)		421.8	421.8	421.8	421.8	421.8	421.8	421.8	421.8	415.1	415.1	415.1	415.1	415.1	415.1	415.1	415.1						
OCV @ coldest temp (-30C, -22F amb)		408.6	408.6	408.6	408.6	408.6	408.6	408.6	408.6	459.7	459.7	459.7	459.7	459.7	459.7	459.7	459.7						
OCV @ coldest temp (-20C, -4F amb)		395.4	395.4	395.4	395.4	395.4	395.4	395.4	395.4	444.8	444.8	444.8	444.8	444.8	444.8	444.8	444.8						
OCV @ coldest temp (-10C, 14F amb)		382.2	382.2	382.2	382.2	382.2	382.2	382.2	382.2	430.0	430.0	430.0	430.0	430.0	430.0	430.0	430.0						
OCV @ coldest temp (0C, 32F amb)		369.0	369.0	369.0	369.0	369.0	369.0	369.0	369.0	415.1	415.1	415.1	415.1	415.1	415.1	415.1	415.1						
Power @ MPT (STC)		920	1160	1240	1340	1460	1570	1660	1720	960	1000	1120	1200	1400	1540	1720	1810						
PTC AC system power rating		737	843	945	1039	11																	

Module Manufacturer: Uni-Solar PVL68. Module Model: PVL68. Voltage @ MPT (STC): 16.5 VDC. Current @ MPT (STC): 4.13 ADC. Current, short circuit: 5.1 ADC. OCV @ 25 deg C cells: 23.1 VDC. Power @ MPT: 68.0 W. PTIC Power Rating: 64.4 W. Temp Coeff of Vmp: 0.051 V/degC. Temp Coeff of Voc: 0.088 V/degC. NOCT (nom. cell temp): 46 deg C. For Vmpt @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK, orange is acceptable but should be avoided where possible (inverter will hold at 225VDC), purple is OK but indicates inverter will limit to 15 kW AC continuous output, pink is acceptable but should be avoided where possible (inverter will not run above 450VDC).

Module Manufacturer: WanXiang Solar WXS165S. Module Model: WXS165S. Voltage @ MPT (STC): 34.74 VDC. Current @ MPT (STC): 4.75 ADC. Current, short circuit: 5.4 ADC. OCV @ 25 deg C cells: 42.84 VDC. Power @ MPT: 165.0 W. PTIC Power Rating: 0.0 W. Temp Coeff of Vmp: 0.150 V/degC. Temp Coeff of Voc: 0.150 V/degC. NOCT (nom. cell temp): 47 deg C. For Vmpt @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK, orange is acceptable but should be avoided where possible (inverter will hold at 225VDC), purple is OK but indicates inverter will limit to 15 kW AC continuous output, pink is acceptable but should be avoided where possible (inverter will not run above 450VDC).

Module Manufacturer: WanXiang Solar WXS160S. Module Model: WXS160S. Voltage @ MPT (STC): 34.04 VDC. Current @ MPT (STC): 4.7 ADC. Current, short circuit: 5.4 ADC. OCV @ 25 deg C cells: 42.48 VDC. Power @ MPT: 160.0 W. PTIC Power Rating: 0.0 W. Temp Coeff of Vmp: 0.155 V/degC. Temp Coeff of Voc: 0.155 V/degC. NOCT (nom. cell temp): 48 deg C. For Vmpt @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK, orange is acceptable but should be avoided where possible (inverter will hold at 225VDC), purple is OK but indicates inverter will limit to 15 kW AC continuous output, pink is acceptable but should be avoided where possible (inverter will not run above 450VDC).

Module Manufacturer: Yingli Solar YL230 (156). Module Model: YL230 (156). Voltage @ MPP (STC): 29.5 VDC. Current @ MPP (STC): 7.8 ADC. Current, short circuit: 8.4 ADC. OCV @ 25 deg C cells: 37 VDC. Power @ MPP: 230.0 W. PTIC Power Rating: 0.0 W. Temp Coeff of Vmp: 0.137 V/degC. Temp Coeff of Voc: 0.137 V/degC. NOCT (nom. cell temp): 46 deg C. For Vmpt @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK, orange is acceptable but should be avoided where possible (inverter will hold at 225VDC), purple is OK but indicates inverter will limit to 15 kW AC continuous output, pink is acceptable but should be avoided where possible (inverter will not run above 450VDC).

Module Manufacturer: Yingli Solar YL225 (156). Module Model: YL225 (156). Voltage @ MPP (STC): 29.5 VDC. Current @ MPP (STC): 7.83 ADC. Current, short circuit: 8.28 ADC. OCV @ 25 deg C cells: 36.5 VDC. Power @ MPP: 225.0 W. PTIC Power Rating: 0.0 W. Temp Coeff of Vmp: 0.135 V/degC. Temp Coeff of Voc: 0.135 V/degC. NOCT (nom. cell temp): 46 deg C. For Vmpt @ max amb temp and OCV @ coldest temperature: green is OK, red is not OK, orange is acceptable but should be avoided where possible (inverter will hold at 225VDC), purple is OK but indicates inverter will limit to 15 kW AC continuous output, pink is acceptable but should be avoided where possible (inverter will not run above 450VDC).

Module Manufacturer	Yingli Solar										Power @ MPP	220.0 W	For Vmpt @ max amb temp and OCV @ coldest temperature	green is OK, red is not OK
Module Model	YL220 (156)										PTC Power Rating	0.0 W	orange is acceptable but should be avoided where possible (inverter will hold at 225VDC),	
Voltage @ MPP (STC)	29 VDC										Temp Coeff of Vmppt	0.135 V/dgC (Vmppt)	purple is OK but indicates inverter will limit to 15 kW AC continuous output	
Current @ MPP (STC)	7.59 ADC										Temp Coeff of Voc	0.135 V/dgC (Voc)	pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)	
Current, short circuit	8.15 ADC										NOCT (nom. cell temp)	46 deg C	114.8 deg F	
OCV @ 25 deg C cells	36.5 VDC													
Modules total in array	50	60	70	80	90	44	55	66	77	88				
Modules per string	10	10	10	10	10	11	11	11	11	11				
Strings in Parallel	5	6	7	8	9	4	5	6	7	8				
Voltage @ MPT (STC)	290.0	290.0	290.0	290.0	290.0	319.0	319.0	319.0	319.0	319.0				
Vmpt @ max amb temp (30C, 96F amb)	248.2	248.2	248.2	248.2	248.2	273.0	273.0	273.0	273.0	273.0				
Vmpt @ max amb temp (35C, 95F amb)	241.4	241.4	241.4	241.4	241.4	265.5	265.5	265.5	265.5	265.5				
Vmpt @ max amb temp (40C, 104F amb)	234.7	234.7	234.7	234.7	234.7	258.1	258.1	258.1	258.1	258.1				
Vmpt @ max amb temp (45C, 113F amb)	227.9	227.9	227.9	227.9	227.9	250.7	250.7	250.7	250.7	250.7				
Vmpt @ max amb temp (50C, 122F amb)	221.2	221.2	221.2	221.2	221.2	243.3	243.3	243.3	243.3	243.3				
OCV @ 25 deg C cells	365.0	365.0	365.0	365.0	365.0	401.5	401.5	401.5	401.5	401.5				
OCV @ coldest temp (-40C, -40F amb)	439.3	439.3	439.3	439.3	439.3	483.2	483.2	483.2	483.2	483.2				
OCV @ coldest temp (-30C, -22F amb)	425.8	425.8	425.8	425.8	425.8	468.3	468.3	468.3	468.3	468.3				
OCV @ coldest temp (-20C, -4F amb)	412.3	412.3	412.3	412.3	412.3	453.5	453.5	453.5	453.5	453.5				
OCV @ coldest temp (-10C, 14F amb)	398.8	398.8	398.8	398.8	398.8	438.6	438.6	438.6	438.6	438.6				
Power @ MPT (STC)	11000	13200	15400	17600	19800	9680	12100	14520	16940	19360				
PTC AC system power rating	0	0	0	0	0	0	0	0	0	0				
Suggested Inverter	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	PVI 15KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	PVI 15KW				

Module Manufacturer	Yingli Solar										Power @ MPP	215.0 W	For Vmpt @ max amb temp and OCV @ coldest temperature	green is OK, red is not OK
Module Model	YL215 (156)										PTC Power Rating	0.0 W	orange is acceptable but should be avoided where possible (inverter will hold at 225VDC),	
Voltage @ MPP (STC)	29 VDC										Temp Coeff of Vmppt	0.133 V/dgC (Vmppt)	purple is OK but indicates inverter will limit to 15 kW AC continuous output	
Current @ MPP (STC)	7.41 ADC										Temp Coeff of Voc	0.133 V/dgC (Voc)	pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)	
Current, short circuit	8.1 ADC										NOCT (nom. cell temp)	46 deg C	114.8 deg F	
OCV @ 25 deg C cells	36 VDC													
Modules total in array	50	60	70	80	90	44	55	66	77	88				
Modules per string	10	10	10	10	10	11	11	11	11	11				
Strings in Parallel	5	6	7	8	9	4	5	6	7	8				
Voltage @ MPT (STC)	290.0	290.0	290.0	290.0	290.0	319.0	319.0	319.0	319.0	319.0				
Vmpt @ max amb temp (30C, 96F amb)	248.8	248.8	248.8	248.8	248.8	273.6	273.6	273.6	273.6	273.6				
Vmpt @ max amb temp (35C, 95F amb)	242.1	242.1	242.1	242.1	242.1	266.3	266.3	266.3	266.3	266.3				
Vmpt @ max amb temp (40C, 104F amb)	235.5	235.5	235.5	235.5	235.5	259.0	259.0	259.0	259.0	259.0				
Vmpt @ max amb temp (45C, 113F amb)	228.8	228.8	228.8	228.8	228.8	251.7	251.7	251.7	251.7	251.7				
Vmpt @ max amb temp (50C, 122F amb)	222.2	222.2	222.2	222.2	222.2	244.4	244.4	244.4	244.4	244.4				
OCV @ 25 deg C cells	360.0	360.0	360.0	360.0	360.0	396.0	396.0	396.0	396.0	396.0				
OCV @ coldest temp (-40C, -40F amb)	446.5	446.5	446.5	446.5	446.5	491.1	491.1	491.1	491.1	491.1				
OCV @ coldest temp (-30C, -22F amb)	433.2	433.2	433.2	433.2	433.2	476.5	476.5	476.5	476.5	476.5				
OCV @ coldest temp (-20C, -4F amb)	419.9	419.9	419.9	419.9	419.9	461.8	461.8	461.8	461.8	461.8				
OCV @ coldest temp (-10C, 14F amb)	406.6	406.6	406.6	406.6	406.6	447.2	447.2	447.2	447.2	447.2				
OCV @ coldest temp (0C, 32F amb)	393.3	393.3	393.3	393.3	393.3	432.6	432.6	432.6	432.6	432.6				
Power @ MPT (STC)	10750	12900	15050	17200	19350	9460	11825	14190	16555	18920				
PTC AC system power rating	0	0	0	0	0	0	0	0	0	0				
Suggested Inverter	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	PVI 15KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	PVI 15KW				

Module Manufacturer	Yingli Solar										Power @ MPP	175.0 W	For Vmpt @ max amb temp and OCV @ coldest temperature	green is OK, red is not OK		
Module Model	YL175										PTC Power Rating	0.0 W	orange is acceptable but should be avoided where possible (inverter will hold at 225VDC),			
Voltage @ MPP (STC)	23 VDC										Temp Coeff of Vmppt	0.107 V/dgC (Vmppt)	purple is OK but indicates inverter will limit to 15 kW AC continuous output			
Current @ MPP (STC)	7.61 ADC										Temp Coeff of Voc	0.107 V/dgC (Voc)	pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)			
Current, short circuit	8.2 ADC										NOCT (nom. cell temp)	46 deg C	114.8 deg F			
OCV @ 25 deg C cells	29 VDC															
Modules total in array	48	60	72	84	96	108	52	65	78	91	104	56	70	84	98	112
Modules per string	12	12	12	12	12	12	13	13	13	13	13	14	14	14	14	14
Strings in Parallel	4	5	6	7	8	9	4	5	6	7	8	4	5	6	7	8
Voltage @ MPT (STC)	276.0	276.0	276.0	276.0	276.0	276.0	299.0	299.0	299.0	299.0	299.0	322.0	322.0	322.0	322.0	322.0
Vmpt @ max amb temp (30C, 96F amb)	236.2	236.2	236.2	236.2	236.2	236.2	255.9	255.9	255.9	255.9	255.9	275.6	275.6	275.6	275.6	275.6
Vmpt @ max amb temp (35C, 95F amb)	229.8	229.8	229.8	229.8	229.8	229.8	248.9	248.9	248.9	248.9	248.9	268.1	268.1	268.1	268.1	268.1
Vmpt @ max amb temp (40C, 104F amb)	223.4	223.4	223.4	223.4	223.4	223.4	242.0	242.0	242.0	242.0	242.0	260.6	260.6	260.6	260.6	260.6
Vmpt @ max amb temp (45C, 113F amb)	216.9	216.9	216.9	216.9	216.9	216.9	235.0	235.0	235.0	235.0	235.0	253.1	253.1	253.1	253.1	253.1
Vmpt @ max amb temp (50C, 122F amb)	210.5	210.5	210.5	210.5	210.5	210.5	228.1	228.1	228.1	228.1	228.1	245.6	245.6	245.6	245.6	245.6
OCV @ 25 deg C cells	348.0	348.0	348.0	348.0	348.0	348.0	377.0	377.0	377.0	377.0	377.0	406.0	406.0	406.0	406.0	406.0
OCV @ coldest temp (-40C, -40F amb)	431.5	431.5	431.5	431.5	431.5	431.5	487.4	487.4	487.4	487.4	487.4	503.4	503.4	503.4	503.4	503.4
OCV @ coldest temp (-30C, -22F amb)	418.6	418.6	418.6	418.6	418.6	418.6	453.5	453.5	453.5	453.5	453.5	488.4	488.4	488.4	488.4	488.4
OCV @ coldest temp (-20C, -4F amb)	405.8	405.8	405.8	405.8	405.8	405.8	439.6	439.6	439.6	439.6	439.6	473.4	473.4	473.4	473.4	473.4
OCV @ coldest temp (-10C, 14F amb)	392.9	392.9	392.9	392.9	392.9	392.9	425.7	425.7	425.7	425.7	425.7	458.4	458.4	458.4	458.4	458.4
OCV @ coldest temp (0C, 32F amb)	380.1	380.1	380.1	380.1	380.1	380.1	411.8	411.8	411.8	411.8	411.8	443.5	443.5	443.5	443.5	443.5
Power @ MPT (STC)	8400	10500	12600	14700	16800	18900	9100	11375	13650	15925	18200	9800	12250	14700	17150	19600
PTC AC system power rating	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Suggested Inverter	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	PVI 15KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	PVI 15KW	PVI 15KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	PVI 15KW

Module Manufacturer	Yingli Solar										Power @ MPP	170.0 W	For Vmpt @ max amb temp and OCV @ coldest temperature	green is OK, red is not OK		
Module Model	YLDJ-3 23V version										PTC Power Rating	0.0 W	orange is acceptable but should be avoided where possible (inverter will hold at 225VDC),			
Voltage @ MPP (STC)	23 VDC										Temp Coeff of Vmppt	0.085 V/dgC (Vmppt)	purple is OK but indicates inverter will limit to 15 kW AC continuous output			
Current @ MPP (STC)	7.4 ADC										Temp Coeff of Voc	0.107 V/dgC (Voc)	pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)			
Current, short circuit	8.1 ADC										NOCT (nom. cell temp)	46 deg C	114.8 deg F			
OCV @ 25 deg C cells	29 VDC															
Modules total in array	48	60	72	84	96	108	52	65	78	91	104	56	70	84	98	112
Modules per string	12	12	12	12	12	12	13	13	13	13	13	14	14	14	14	14
Strings in Parallel	4	5	6	7	8	9	4	5	6	7	8	4	5	6	7	8
Voltage @ MPT (STC)	276.0	276.0	276.0	276.0	276.0	276.0	299.0	299.0	299.0	299.0	299.0	322.0	322.0	322.0	322.0	322.0
Vmpt @ max amb temp (30C, 96F amb)	244.4	244.4	244.4	244.4	244.4	244.4	264.7	264.7	264.7	264.7	264.7	285.1	285.1	285.1	285.1	285.1
Vmpt @ max amb temp (35C, 95F amb)	239.3	239.3	239.3	239.3	239.3	239.3	259.2	259.2	259.2	259.2	259.2	279.2	279.2	279.2	279.2	279.2
Vmpt @ max amb temp (40C, 104F amb)	234.2	234.2	234.2	234.2	234.2	234.2	253.7	253.7	253.7	253.7	253.7	273.2	273.2	273.2	273.2	273.2
Vmpt @ max amb temp (45C, 113F amb)	229.1	229.1	229.1	229.1	229.1	229.1	248.2	248.2	248.2	248.2	248.2	267.3	267.3	267.3	267.3	267.3
Vmpt @ max amb temp (50C, 122F amb)	224.0	224.0	224.0	224.0	224.0	224.0	242.6	242.6	242.6	242.6	242.6	261.3	261.3	261.3	261.3	261.3
OCV @ 25 deg C cells	348.0	348.0	348.0	348.0	348.0	348.0	377.0	377.0	377.0	377.0	377.0	406.0	406.0	406.0	406.0	406.0
OCV @ coldest temp (-40C, -40F amb)	431.5	431.5	431.5	431.5	431.5	431.5	487.4	487.4	487.4	487.4	487.4	503.4	503.4	503.4	503.4	503.4
OCV @ coldest temp (-30C, -22F amb)	418.6	418.6	418.6	418.6	418.6	418.6	453.5	453.5	453.5	453.5	453.5	488.4	488.4	488.4	488.4	488.4
OCV @ coldest temp (-20C, -4F amb)	405.8	405.8	405.8	405.8	405.8	405.8	439.6	439.6	439.6	439.6	439.6	473.4	473.4	473.4	473.4	473.4
OCV @ coldest temp (-10C, 14F amb)	392.9	392.9	392.9	392.9	392.9	392.9	425.7	425.7	425.7	425.7	425.7	458.4	458.4	458.4	458.4	458.4
OCV @ coldest temp (0C, 32F amb)	380.1	380.1	380.1	380.1	380.1	380.1	411.8	411.8	411.8	411.8	411.8	443.5	443.5	443.5	443.5	443.5
Power @ MPT (STC)	8160	10200	12240													

Module Manufacturer		Yocaso										
Module Model		PCA210-A01										
Voltage @ MPP (STC)		25.8 VDC										
Current @ MPP (STC)		8.14 ADC										
Current, short circuit		8.74 ADC										
OCV @ 25 deg C cells		32.9 VDC										
Power @ MPP		210.0 W										
PTC Power Rating		0.0 W										
Temp Coeff of Vmppt		0.122 V/dgC (Vmpp)										
Temp Coeff of Voc		0.122 V/dgC (Voc)										
NOCT (nom. cell temp)		46 deg C										
114.8 deg F												
For Vmpt @ max amb temp and OCV @ coldest temperature		green is OK, red is not OK										
orange is acceptable but should be avoided where possible (inverter will hold at 225VDC),												
purple is OK but indicates inverter will limit to 15 kW AC continuous output.												
pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)												
Modules total in array		44	55	66	77	88	99	48	60	72	84	96
Modules per string		11	11	11	11	11	11	12	12	12	12	12
Strings in Parallel		4	5	6	7	8	9	4	5	6	7	8
Voltage @ MPT (STC)		283.8	283.8	283.8	283.8	283.8	283.8	309.6	309.6	309.6	309.6	309.6
Vmpt @ max amb temp (30C, 96F amb)		242.2	242.2	242.2	242.2	242.2	242.2	264.2	264.2	264.2	264.2	264.2
Vmpt @ max amb temp (35C, 95F amb)		235.5	235.5	235.5	235.5	235.5	235.5	256.9	256.9	256.9	256.9	256.9
Vmpt @ max amb temp (40C, 104F amb)		228.8	228.8	228.8	228.8	228.8	228.8	249.6	249.6	249.6	249.6	249.6
Vmpt @ max amb temp (45C, 113F amb)		222.1	222.1	222.1	222.1	222.1	222.1	242.3	242.3	242.3	242.3	242.3
Vmpt @ max amb temp (50C, 122F amb)		215.4	215.4	215.4	215.4	215.4	215.4	234.9	234.9	234.9	234.9	234.9
OCV @ 25 deg C cells		361.9	361.9	361.9	361.9	361.9	361.9	394.8	394.8	394.8	394.8	394.8
OCV @ coldest temp (-40C, -40F amb)		449.1	449.1	449.1	449.1	449.1	449.1	490.0	490.0	490.0	490.0	490.0
OCV @ coldest temp (-30C, -22F amb)		435.7	435.7	435.7	435.7	435.7	435.7	475.3	475.3	475.3	475.3	475.3
OCV @ coldest temp (-20C, -4F amb)		422.3	422.3	422.3	422.3	422.3	422.3	460.7	460.7	460.7	460.7	460.7
OCV @ coldest temp (-10C, 14F amb)		408.9	408.9	408.9	408.9	408.9	408.9	446.0	446.0	446.0	446.0	446.0
OCV @ coldest temp (0C, 32F amb)		395.5	395.5	395.5	395.5	395.5	395.5	431.4	431.4	431.4	431.4	431.4
Power @ MPT (STC)		9240	11550	13860	16170	18480	20790	10080	12600	15120	17640	20160
PTC AC system power rating		0										
Suggested Inverter		PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	PVI 15KW

Module Manufacturer		Yocaso										
Module Model		PCA205-A01										
Voltage @ MPP (STC)		25.8 VDC										
Current @ MPP (STC)		7.96 ADC										
Current, short circuit		8.71 ADC										
OCV @ 25 deg C cells		32.9 VDC										
Power @ MPP		205.0 W										
PTC Power Rating		0.0 W										
Temp Coeff of Vmppt		0.122 V/dgC (Vmpp)										
Temp Coeff of Voc		0.122 V/dgC (Voc)										
NOCT (nom. cell temp)		46 deg C										
114.8 deg F												
For Vmpt @ max amb temp and OCV @ coldest temperature		green is OK, red is not OK										
orange is acceptable but should be avoided where possible (inverter will hold at 225VDC),												
purple is OK but indicates inverter will limit to 15 kW AC continuous output.												
pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)												
Modules total in array		44	55	66	77	88	99	48	60	72	84	96
Modules per string		11	11	11	11	11	11	12	12	12	12	12
Strings in Parallel		4	5	6	7	8	9	4	5	6	7	8
Voltage @ MPT (STC)		283.8	283.8	283.8	283.8	283.8	283.8	309.6	309.6	309.6	309.6	309.6
Vmpt @ max amb temp (30C, 96F amb)		242.2	242.2	242.2	242.2	242.2	242.2	264.2	264.2	264.2	264.2	264.2
Vmpt @ max amb temp (35C, 95F amb)		235.5	235.5	235.5	235.5	235.5	235.5	256.9	256.9	256.9	256.9	256.9
Vmpt @ max amb temp (40C, 104F amb)		228.8	228.8	228.8	228.8	228.8	228.8	249.6	249.6	249.6	249.6	249.6
Vmpt @ max amb temp (45C, 113F amb)		222.1	222.1	222.1	222.1	222.1	222.1	242.3	242.3	242.3	242.3	242.3
Vmpt @ max amb temp (50C, 122F amb)		215.4	215.4	215.4	215.4	215.4	215.4	234.9	234.9	234.9	234.9	234.9
OCV @ 25 deg C cells		361.9	361.9	361.9	361.9	361.9	361.9	394.8	394.8	394.8	394.8	394.8
OCV @ coldest temp (-40C, -40F amb)		449.1	449.1	449.1	449.1	449.1	449.1	490.0	490.0	490.0	490.0	490.0
OCV @ coldest temp (-30C, -22F amb)		435.7	435.7	435.7	435.7	435.7	435.7	475.3	475.3	475.3	475.3	475.3
OCV @ coldest temp (-20C, -4F amb)		422.3	422.3	422.3	422.3	422.3	422.3	460.7	460.7	460.7	460.7	460.7
OCV @ coldest temp (-10C, 14F amb)		408.9	408.9	408.9	408.9	408.9	408.9	446.0	446.0	446.0	446.0	446.0
OCV @ coldest temp (0C, 32F amb)		395.5	395.5	395.5	395.5	395.5	395.5	431.4	431.4	431.4	431.4	431.4
Power @ MPT (STC)		9020	11275	13530	15785	18040	20295	9840	12300	14760	17220	19680
PTC AC system power rating		0										
Suggested Inverter		PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	PVI 15KW

Module Manufacturer		Yocaso										
Module Model		PCA200-A01										
Voltage @ MPP (STC)		25.7 VDC										
Current @ MPP (STC)		7.79 ADC										
Current, short circuit		8.68 ADC										
OCV @ 25 deg C cells		32.8 VDC										
Power @ MPP		200.0 W										
PTC Power Rating		0.0 W										
Temp Coeff of Vmppt		0.121 V/dgC (Vmpp)										
Temp Coeff of Voc		0.121 V/dgC (Voc)										
NOCT (nom. cell temp)		46 deg C										
114.8 deg F												
For Vmpt @ max amb temp and OCV @ coldest temperature		green is OK, red is not OK										
orange is acceptable but should be avoided where possible (inverter will hold at 225VDC),												
purple is OK but indicates inverter will limit to 15 kW AC continuous output.												
pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)												
Modules total in array		55	66	77	88	99	110	60	72	84	96	108
Modules per string		11	11	11	11	11	11	12	12	12	12	12
Strings in Parallel		5	6	7	8	9	10	5	6	7	8	9
Voltage @ MPT (STC)		282.7	282.7	282.7	282.7	282.7	282.7	308.4	308.4	308.4	308.4	308.4
Vmpt @ max amb temp (30C, 96F amb)		241.4	241.4	241.4	241.4	241.4	241.4	263.4	263.4	263.4	263.4	263.4
Vmpt @ max amb temp (35C, 95F amb)		234.8	234.8	234.8	234.8	234.8	234.8	256.1	256.1	256.1	256.1	256.1
Vmpt @ max amb temp (40C, 104F amb)		228.1	228.1	228.1	228.1	228.1	228.1	248.9	248.9	248.9	248.9	248.9
Vmpt @ max amb temp (45C, 113F amb)		221.5	221.5	221.5	221.5	221.5	221.5	241.6	241.6	241.6	241.6	241.6
Vmpt @ max amb temp (50C, 122F amb)		214.8	214.8	214.8	214.8	214.8	214.8	234.3	234.3	234.3	234.3	234.3
OCV @ 25 deg C cells		360.8	360.8	360.8	360.8	360.8	360.8	393.6	393.6	393.6	393.6	393.6
OCV @ coldest temp (-40C, -40F amb)		447.3	447.3	447.3	447.3	447.3	447.3	488.0	488.0	488.0	488.0	488.0
OCV @ coldest temp (-30C, -22F amb)		434.0	434.0	434.0	434.0	434.0	434.0	473.5	473.5	473.5	473.5	473.5
OCV @ coldest temp (-20C, -4F amb)		420.7	420.7	420.7	420.7	420.7	420.7	458.9	458.9	458.9	458.9	458.9
OCV @ coldest temp (-10C, 14F amb)		407.4	407.4	407.4	407.4	407.4	407.4	444.4	444.4	444.4	444.4	444.4
OCV @ coldest temp (0C, 32F amb)		394.1	394.1	394.1	394.1	394.1	394.1	429.9	429.9	429.9	429.9	429.9
Power @ MPT (STC)		11000	13200	15400	17600	19800	22000	12000	14400	16800	19200	21600
PTC AC system power rating		0										
Suggested Inverter		PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	PVI 15KW

Module Manufacturer		Yocaso										
Module Model		PCA195-A01										
Voltage @ MPP (STC)		25.7 VDC										
Current @ MPP (STC)		7.6 ADC										
Current, short circuit		8.65 ADC										
OCV @ 25 deg C cells		32.8 VDC										
Power @ MPP		195.0 W										
PTC Power Rating		0.0 W										
Temp Coeff of Vmppt		0.121 V/dgC (Vmpp)										
Temp Coeff of Voc		0.121 V/dgC (Voc)										
NOCT (nom. cell temp)		46 deg C										
114.8 deg F												
For Vmpt @ max amb temp and OCV @ coldest temperature		green is OK, red is not OK										
orange is acceptable but should be avoided where possible (inverter will hold at 225VDC),												
purple is OK but indicates inverter will limit to 15 kW AC continuous output.												
pink is acceptable but should be avoided where possible (inverter will not run above 450VDC)												
Modules total in array		55	66	77	88	99	110	60	72	84	96	108
Modules per string		11	11	11	11	11	11	12	12	12	12	12
Strings in Parallel		5	6	7	8	9	10	5	6	7	8	9
Voltage @ MPT (STC)		282.7	282.7	282.7	282.7	282.7	282.7	308.4	308.4	308.4	308.4	308.4
Vmpt @ max amb temp (30C, 96F amb)		241.4	241.4	241.4	241.4	241.4	241.4	263.4	263.4	263.4	263.4	263.4
Vmpt @ max amb temp (35C, 95F amb)		234.8	234.8	234.8	234.8	234.8	234.8	256.1	256.1	256.1	256.1	256.1
Vmpt @ max amb temp (40C, 104F amb)		228.1	228.1	228.1	228.1	228.1	228.1	248.9	248.9	248.9	248.9	248.9
Vmpt @ max amb temp (45C, 113F amb)		221.5	221.5	221.5	221.5	221.5	221.5	241.6	241.6	241.6	241.6	241.6
Vmpt @ max amb temp (50C, 122F amb)		214.8	214.8	214.8	214.8	214.8	214.8	234.3	234.3	234.3	234.3	234.3
OCV @ 25 deg C cells		360.8	360.8	360.8	360.8	360.8	360.8	393.6	393.6	393.6	393.6	393.6
OCV @ coldest temp (-40C, -40F amb)		447.3	447.3	447.3	447.3	447.3	447.3	488.0	488.0	488.0	488.0	488.0
OCV @ coldest temp (-30C, -22F amb)		434.0	434.0	434.0	434.0	434.0	434.0	473.5	473.5	473.5	473.5	473.5
OCV @ coldest temp (-20C, -4F amb)		420.7	420.7	420.7	420.7	420.7	420.7	458.9	458.9	458.9	458.9	458.9
OCV @ coldest temp (-10C, 14F amb)		407.4	407.4	407.4	407.4	407.4	407.4	444.4	444.4	444.4	444.4	444.4
OCV @ coldest temp (0C, 32F amb)		394.1	394.1	394.1	394.1	394.1	394.1	429.9	429.9	429.9	429.9	429.9
Power @ MPT (STC)		10725	12870	15015	17160	19305	21450	11700	14040	16380	18720	21060
PTC AC system power rating		0										
Suggested Inverter		PVI 13KW	PVI 13KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	PVI 13KW	PVI 13KW	PVI 15KW	PVI 15KW	PVI 15KW

Module Manufacturer		Yocaso									
Module Model		PCA190-A01									
Voltage @ MPP (STC)		25.6 VDC									
Current @ MPP (STC)		7.42 ADC									
Current, short circuit		8.62 ADC									
OCV @ 25 deg C cells		32.7 VDC									
Power @ MPP		190.0 W									
PTC Power Rating		0.0 W									
Temp Coeff of Vmppt		0.12 V/dgC (Vmpp)									
Temp Coeff of Voc		0.12 V/dgC (Voc)									
NOCT (nom. cell temp)		46 deg C									
114.8 deg F											
For Vmpt @ max amb temp and OCV @ coldest temperature		green is OK, red is not OK									
orange is acceptable but should be avoided where possible (inverter will hold at 225VDC),											