

i20 String Optimizer

1500V Systems

maximum output **20A**

Vxxx-i20-20 models		V1350	V1375	V1400	V1425	V1450	V1475	V1500
Electrical								
Input								
Maximum voltage per input	V	1500	1500	1500	1500	1500	1500	1500
Maximum current (Imp) per input	A	12.8	12.8	12.8	12.8	12.8	12.8	12.8
Maximum short-circuit current (Isc) per input	A	13.3	13.3	13.3	13.3	13.3	13.3	13.3
MPP tracking voltage range	V	400 - 1270	400 - 1295	400 - 1300	400 - 1300	400 - 1300	400 - 1300	400 - 1300
Startup voltage per input	V	510	510	510	510	510	510	510
Number of inputs		2	2	2	2	2	2	2
Output								
Output voltage range	V	0 - 1350	0 - 1375	0 - 1400	0 - 1425	0 - 1450	0 - 1475	0 - 1500
Maximum output voltage at full power	V	1270	1295	1320	1345	1370	1395	1420
Output voltage at zero power	V	1350	1375	1400	1425	1450	1475	1500
Maximum output current	A	20	20	20	20	20	20	20
Maximum continuous output power	kWdc	25.3	25.8	26.3	26.8	27.3	27.8	28.0
Efficiency (max / CEC / Euro)	%	99.6 / 99.5 / 99.4						
Mechanical								
Input & output connector	Stäubli MC4-Evo 2							
Dimensions	12.13" x 9.45" x 4.26" (308.1 mm x 240 mm x 108.2 mm)							
Weight	11.8 lbs. (5.4 kg)							
Ambient temperature operating range	-40 °F – 131 °F (-40 °C – 55 °C)							
Cooling	Convection							
Environmental								
Environmental category	Outdoor							
Pollution degree	2							
Maximum operating altitude	9843 ft (3000 m)							
Overvoltage category	OVII							
Ingress protection	IP67 / NEMA 6							
General								
Compliance	ETL to UL 1741; IEC 61000-6-1, 61000-6-3, 62109; CE; Giteki 2-1-19; FCC Part 15, class A							

Follow Ampt design guidelines to identify possible derating at high ambient temperatures or altitudes.

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Vxxx-i20-20 models		V1200	V1225	V1250	V1275	V1300	V1325
Electrical							
Input							
Maximum voltage per input	V	1500	1500	1500	1500	1500	1500
Maximum current (Imp) per input	A	12.8	12.8	12.8	12.8	12.8	12.8
Maximum short-circuit current (Isc) per input	A	13.3	13.3	13.3	13.3	13.3	13.3
MPP tracking voltage range	V	400 - 1120	400 - 1145	400 - 1170	400 - 1195	400 - 1220	400 - 1245
Startup voltage per input	V	510	510	510	510	510	510
Number of inputs		2	2	2	2	2	2
Output							
Output voltage range	V	0 - 1200	0 - 1225	0 - 1250	0 - 1275	0 - 1300	0 - 1325
Maximum output voltage at full power	V	1120	1145	1170	1195	1220	1245
Output voltage at zero power	V	1200	1225	1250	1275	1300	1325
Maximum output current	A	20	20	20	20	20	20
Maximum continuous output power	kWdc	22.3	22.8	23.3	23.8	24.3	24.8
Efficiency (max / CEC / Euro)	%	99.6 / 99.5 / 99.4					
Mechanical							
Input & output connector	Stäubli MC4-Evo 2						
Dimensions	12.13" x 9.45" x 4.26" (308.1 mm x 240 mm x 108.2 mm)						
Weight	11.8 lbs. (5.4 kg)						
Ambient temperature operating range	-40 °F – 131 °F (-40 °C – 55 °C)						
Cooling	Convection						
Environmental							
Environmental category	Outdoor						
Pollution degree	2						
Maximum operating altitude	9843 ft (3000 m)						
Overvoltage category	OVII						
Ingress protection	IP67 / NEMA 6						
General							
Compliance	ETL to UL 1741; IEC 61000-6-1, 61000-6-3, 62109; CE; Giteki 2-1-19; FCC Part 15, class A						

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1500V Systems

maximum output **16A**

Vxxx-i20-16 models		V1350	V1375	V1400	V1425	V1450	V1475	V1500
Electrical								
Input								
Maximum voltage per input	V	1500	1500	1500	1500	1500	1500	1500
Maximum current (Imp) per input	A	12.3	12.3	12.3	12.3	12.3	12.3	12.3
Maximum short-circuit current (Isc) per input	A	13.3	13.3	13.3	13.3	13.3	13.3	13.3
MPP tracking voltage range	V	400 - 1285	400 - 1300	400 - 1300	400 - 1300	400 - 1300	400 - 1300	400 - 1300
Startup voltage per input	V	510	510	510	510	510	510	510
Number of inputs		2	2	2	2	2	2	2
Output								
Output voltage range	V	0 - 1350	0 - 1375	0 - 1400	0 - 1425	0 - 1450	0 - 1475	0 - 1500
Maximum output voltage at full power	V	1285	1310	1335	1360	1385	1410	1435
Output voltage at zero power	V	1350	1375	1400	1425	1450	1475	1500
Maximum output current	A	16	16	16	16	16	16	16
Maximum continuous output power	kWdc	20.5	20.9	21.3	21.7	22.1	22.4	22.4
Efficiency (max / CEC / Euro)	%	99.6 / 99.5 / 99.4						
Mechanical								
Input & output connector	Stäubli MC4-Evo 2							
Dimensions	12.13" x 9.45" x 4.26" (308.1 mm x 240 mm x 108.2 mm)							
Weight	11.8 lbs. (5.4 kg)							
Ambient temperature operating range	-40 °F – 131 °F (-40 °C – 55 °C)							
Cooling	Convection							
Environmental								
Environmental category	Outdoor							
Pollution degree	2							
Maximum operating altitude	9843 ft (3000 m)							
Overvoltage category	OVII							
Ingress protection	IP67 / NEMA 6							
General								
Compliance	ETL to UL 1741; IEC 61000-6-1, 61000-6-3, 62109; CE; Giteki 2-1-19; FCC Part 15, class A							

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maximum output **16A**

Vxxx-i20-16 models		V1200	V1225	V1250	V1275	V1300	V1325
Electrical							
Input							
Maximum voltage per input	V	1500	1500	1500	1500	1500	1500
Maximum current (Imp) per input	A	12.3	12.3	12.3	12.3	12.3	12.3
Maximum short-circuit current (Isc) per input	A	13.3	13.3	13.3	13.3	13.3	13.3
MPP tracking voltage range	V	400 - 1135	400 - 1160	400 - 1185	400 - 1210	400 - 1235	400 - 1260
Startup voltage per input	V	510	510	510	510	510	510
Number of inputs		2	2	2	2	2	2
Output							
Output voltage range	V	0 - 1200	0 - 1225	0 - 1250	0 - 1275	0 - 1300	0 - 1325
Maximum output voltage at full power	V	1135	1160	1185	1210	1235	1260
Output voltage at zero power	V	1200	1225	1250	1275	1300	1325
Maximum output current	A	16	16	16	16	16	16
Maximum continuous output power	kWdc	18.1	18.5	18.9	19.3	19.7	20.1
Efficiency (max / CEC / Euro)	%	99.6 / 99.5 / 99.4					
Mechanical							
Input & output connector	Stäubli MC4-Evo 2						
Dimensions	12.13" x 9.45" x 4.26" (308.1 mm x 240 mm x 108.2 mm)						
Weight	11.8 lbs. (5.4 kg)						
Ambient temperature operating range	-40 °F – 131 °F (-40 °C – 55 °C)						
Cooling	Convection						
Environmental							
Environmental category	Outdoor						
Pollution degree	2						
Maximum operating altitude	9843 ft (3000 m)						
Overvoltage category	OVII						
Ingress protection	IP67 / NEMA 6						
General							
Compliance	ETL to UL 1741; IEC 61000-6-1, 61000-6-3, 62109; CE; Giteki 2-1-19; FCC Part 15, class A						

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