

i50 String Optimizer

750V Systems

maximum output **50A**

Vxxx-i50-50 models		V625	V650	V675	V700	V725	V750
Electrical							
Input							
Maximum voltage per input	V	750	750	750	750	750	750
Maximum current (Imp) per input	A	32	32	32	32	32	32
Maximum short-circuit current (Isc) per input	A	34	34	34	34	34	34
MPP tracking voltage range	V	300 - 540	300 - 565	300 - 590	300 - 615	300 - 640	300 - 665
Startup voltage per input	V	390	390	390	390	390	390
Number of inputs		2	2	2	2	2	2
Output							
Output voltage range	V	0 - 625	0 - 650	0 - 675	0 - 700	0 - 725	0 - 750
Maximum output voltage at full power	V	540	565	590	615	640	665
Output voltage at zero power	V	625	650	675	700	725	750
Maximum output current	A	50	50	50	50	50	50
Maximum continuous output power	kWdc	26.9	28.1	29.4	30.6	31.9	33.1
Efficiency (max / CEC / Euro)	%	99.5 / 99.45 / 99.35					
Mechanical							
Input & output connector	Stäubli MC4-Evo 2						
Dimensions	20.18" x 9.45" x 4.26" (513 mm x 240 mm x 108 mm)						
Weight	22.6 lbs. (10.25 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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750V Systems

maximum output **48A**

Vxxx-i50-48 models		V625	V650	V675	V700	V725	V750
Electrical							
Input							
Maximum voltage per input	V	750	750	750	750	750	750
Maximum current (Imp) per input	A	32	32	32	32	32	32
Maximum short-circuit current (Isc) per input	A	34	34	34	34	34	34
MPP tracking voltage range	V	300 - 545	300 - 570	300 - 595	300 - 620	300 - 645	300 - 670
Startup voltage per input	V	390	390	390	390	390	390
Number of inputs		2	2	2	2	2	2
Output							
Output voltage range	V	0 - 625	0 - 650	0 - 675	0 - 700	0 - 725	0 - 750
Maximum output voltage at full power	V	545	570	595	620	645	670
Output voltage at zero power	V	625	650	675	700	725	750
Maximum output current	A	48	48	48	48	48	48
Maximum continuous output power	kWdc	26.0	27.2	28.4	29.6	30.8	32.0
Efficiency (max / CEC / Euro)	%	99.5 / 99.45 / 99.35					
Mechanical							
Input & output connector	Stäubli MC4-Evo 2						
Dimensions	20.18" x 9.45" x 4.26" (513 mm x 240 mm x 108 mm)						
Weight	22.6 lbs. (10.25 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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750V Systems

maximum output **44A**

Vxxx-i50-44 models		V625	V650	V675	V700	V725	V750
Electrical							
Input							
Maximum voltage per input	V	750	750	750	750	750	750
Maximum current (Imp) per input	A	32	32	32	32	32	32
Maximum short-circuit current (Isc) per input	A	34	34	34	34	34	34
MPP tracking voltage range	V	300 - 550	300 - 575	300 - 600	300 - 625	300 - 650	300 - 675
Startup voltage per input	V	390	390	390	390	390	390
Number of inputs		2	2	2	2	2	2
Output							
Output voltage range	V	0 - 625	0 - 650	0 - 675	0 - 700	0 - 725	0 - 750
Maximum output voltage at full power	V	550	575	600	625	650	675
Output voltage at zero power	V	625	650	675	700	725	750
Maximum output current	A	44	44	44	44	44	44
Maximum continuous output power	kWdc	24.1	25.2	26.3	27.4	28.5	29.6
Efficiency (max / CEC / Euro)	%	99.5 / 99.45 / 99.35					
Mechanical							
Input & output connector	Stäubli MC4-Evo 2						
Dimensions	20.18" x 9.45" x 4.26" (513 mm x 240 mm x 108 mm)						
Weight	22.6 lbs. (10.25 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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750V Systems

maximum output **40A**

Vxxx-i50-40 models		V625	V650	V675	V700	V725	V750
Electrical							
Input							
Maximum voltage per input	V	750	750	750	750	750	750
Maximum current (Imp) per input	A	32	32	32	32	32	32
Maximum short-circuit current (Isc) per input	A	34	34	34	34	34	34
MPP tracking voltage range	V	300 - 560	300 - 585	300 - 610	300 - 635	300 - 660	300 - 685
Startup voltage per input	V	390	390	390	390	390	390
Number of inputs		2	2	2	2	2	2
Output							
Output voltage range	V	0 - 625	0 - 650	0 - 675	0 - 700	0 - 725	0 - 750
Maximum output voltage at full power	V	560	585	610	635	660	685
Output voltage at zero power	V	625	650	675	700	725	750
Maximum output current	A	40	40	40	40	40	40
Maximum continuous output power	kWdc	22.2	23.2	24.2	25.2	26.2	27.2
Efficiency (max / CEC / Euro)	%	99.5 / 99.45 / 99.35					
Mechanical							
Input & output connector	Stäubli MC4-Evo 2						
Dimensions	20.18" x 9.45" x 4.26" (513 mm x 240 mm x 108 mm)						
Weight	22.6 lbs. (10.25 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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750V Systems

maximum
output **36A**

Vxxx-i50-36 models		V625	V650	V675	V700	V725	V750
Electrical							
Input							
Maximum voltage per input	V	750	750	750	750	750	750
Maximum current (Imp) per input	A	28.8	28.8	28.8	28.8	28.8	28.8
Maximum short-circuit current (Isc) per input	A	30.8	30.8	30.8	30.8	30.8	30.8
MPP tracking voltage range	V	300 - 565	300 - 590	300 - 615	300 - 640	300 - 665	300 - 690
Startup voltage per input	V	390	390	390	390	390	390
Number of inputs		2	2	2	2	2	2
Output							
Output voltage range	V	0 - 625	0 - 650	0 - 675	0 - 700	0 - 725	0 - 750
Maximum output voltage at full power	V	565	590	615	640	665	690
Output voltage at zero power	V	625	650	675	700	725	750
Maximum output current	A	36	36	36	36	36	36
Maximum continuous output power	kWdc	20.2	21.1	22.0	22.9	23.8	24.7
Efficiency (max / CEC / Euro)	%			99.5 / 99.45 / 99.35			
Mechanical							
Input & output connector				Stäubli MC4-Evo 2			
Dimensions				20.18" x 9.45" x 4.26" (513 mm x 240 mm x 108 mm)			
Weight				22.6 lbs. (10.25 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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i50 String Optimizer

750V Systems

maximum output **32A**

Vxxx-i50-32 models		V625	V650	V675	V700	V725	V750
Electrical							
Input							
Maximum voltage per input	V	750	750	750	750	750	750
Maximum current (Imp) per input	A	25.6	25.6	25.6	25.6	25.6	25.6
Maximum short-circuit current (Isc) per input	A	27.6	27.6	27.6	27.6	27.6	27.6
MPP tracking voltage range	V	300 - 570	300 - 595	300 - 620	300 - 645	300 - 670	300 - 695
Startup voltage per input	V	390	390	390	390	390	390
Number of inputs		2	2	2	2	2	2
Output							
Output voltage range	V	0 - 625	0 - 650	0 - 675	0 - 700	0 - 725	0 - 750
Maximum output voltage at full power	V	570	595	620	645	670	695
Output voltage at zero power	V	625	650	675	700	725	750
Maximum output current	A	32	32	32	32	32	32
Maximum continuous output power	kWdc	18.2	19.0	19.8	20.6	21.4	22.2
Efficiency (max / CEC / Euro)	%			99.5 / 99.45 / 99.35			
Mechanical							
Input & output connector				Stäubli MC4-Evo 2			
Dimensions				20.18" x 9.45" x 4.26" (513 mm x 240 mm x 108 mm)			
Weight				22.6 lbs. (10.25 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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