

# i50 String Optimizer

## 1000V Systems

maximum output **50A**

Vxxx-i50-50 models		V800	V825	V850	V875	V900	V925	V950	V975	V1000
<b>Electrical</b>										
<b>Input</b>										
Maximum voltage per input	V	1000	1000	1000	1000	1000	1000	1000	1000	1000
Maximum current (Imp) per input	A	32	32	32	32	32	32	32	32	32
Maximum short-circuit current (Isc) per input	A	34	34	34	34	34	34	34	34	34
MPP tracking voltage range	V	300 - 715	300 - 740	300 - 765	300 - 790	300 - 815	300 - 840	300 - 865	300 - 890	300 - 915
Startup voltage per input	V	390	390	390	390	390	390	390	390	390
Number of inputs		2	2	2	2	2	2	2	2	2
<b>Output</b>										
Output voltage range	V	0 - 800	0 - 825	0 - 850	0 - 875	0 - 900	0 - 925	0 - 950	0 - 975	0 - 1000
Maximum output voltage at full power	V	715	740	765	790	815	840	865	890	915
Output voltage at zero power	V	800	825	850	875	900	925	950	975	1000
Maximum output current	A	50	50	50	50	50	50	50	50	50
Maximum continuous output power	kWdc	35.6	36.9	38.1	39.4	40.6	41.9	43.1	44.4	45.6
Efficiency (max / CEC / Euro)	%	99.55 / 99.5 / 99.4								
<b>Mechanical</b>										
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									
<b>Environmental</b>										
Environmental category	Outdoor									
Pollution degree	2									
Maximum operating altitude	9843 ft (3000 m)									
Overvoltage category	OVII									
Ingress protection	IP66 / 4X									
<b>General</b>										
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.

# i50 String Optimizer

## 1000V Systems

maximum output **48A**

Vxxx-i50-48 models		V800	V825	V850	V875	V900	V925	V950	V975	V1000
<b>Electrical</b>										
<b>Input</b>										
Maximum voltage per input	V	1000	1000	1000	1000	1000	1000	1000	1000	1000
Maximum current (Imp) per input	A	32	32	32	32	32	32	32	32	32
Maximum short-circuit current (Isc) per input	A	34	34	34	34	34	34	34	34	34
MPP tracking voltage range	V	300 - 720	300 - 745	300 - 770	300 - 795	300 - 820	300 - 845	300 - 870	300 - 895	300 - 920
Startup voltage per input	V	390	390	390	390	390	390	390	390	390
Number of inputs		2	2	2	2	2	2	2	2	2
<b>Output</b>										
Output voltage range	V	0 - 800	0 - 825	0 - 850	0 - 875	0 - 900	0 - 925	0 - 950	0 - 975	0 - 1000
Maximum output voltage at full power	V	720	745	770	795	820	845	870	895	920
Output voltage at zero power	V	800	825	850	875	900	925	950	975	1000
Maximum output current	A	48	48	48	48	48	48	48	48	48
Maximum continuous output power	kWdc	34.4	35.6	36.8	38.0	39.2	40.4	41.6	42.8	44.0
Efficiency (max / CEC / Euro)	%	99.55 / 99.5 / 99.4								
<b>Mechanical</b>										
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									
<b>Environmental</b>										
Environmental category	Outdoor									
Pollution degree	2									
Maximum operating altitude	9843 ft (3000 m)									
Overvoltage category	OVII									
Ingress protection	IP66 / 4X									
<b>General</b>										
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

## 1000V Systems

maximum output **44A**

Vxxx-i50-44 models		V800	V825	V850	V875	V900	V925	V950	V975	V1000
<b>Electrical</b>										
<b>Input</b>										
Maximum voltage per input	V	1000	1000	1000	1000	1000	1000	1000	1000	1000
Maximum current (Imp) per input	A	32	32	32	32	32	32	32	32	32
Maximum short-circuit current (Isc) per input	A	34	34	34	34	34	34	34	34	34
MPP tracking voltage range	V	300 - 725	300 - 750	300 - 775	300 - 800	300 - 825	300 - 850	300 - 875	300 - 900	300 - 925
Startup voltage per input	V	390	390	390	390	390	390	390	390	390
Number of inputs		2	2	2	2	2	2	2	2	2
<b>Output</b>										
Output voltage range	V	0 - 800	0 - 825	0 - 850	0 - 875	0 - 900	0 - 925	0 - 950	0 - 975	0 - 1000
Maximum output voltage at full power	V	725	750	775	800	825	850	875	900	925
Output voltage at zero power	V	800	825	850	875	900	925	950	975	1000
Maximum output current	A	44	44	44	44	44	44	44	44	44
Maximum continuous output power	kWdc	31.8	32.9	34.0	35.1	36.2	37.3	38.4	39.5	40.6
Efficiency (max / CEC / Euro)	%	99.55 / 99.5 / 99.4								
<b>Mechanical</b>										
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									
<b>Environmental</b>										
Environmental category	Outdoor									
Pollution degree	2									
Maximum operating altitude	9843 ft (3000 m)									
Overvoltage category	OVII									
Ingress protection	IP66 / 4X									
<b>General</b>										
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

## 1000V Systems

maximum output **40A**

Vxxx-i50-40 models		V800	V825	V850	V875	V900	V925	V950	V975	V1000
<b>Electrical</b>										
<b>Input</b>										
Maximum voltage per input	V	1000	1000	1000	1000	1000	1000	1000	1000	1000
Maximum current (Imp) per input	A	32	32	32	32	32	32	32	32	32
Maximum short-circuit current (Isc) per input	A	34	34	34	34	34	34	34	34	34
MPP tracking voltage range	V	300 - 735	300 - 760	300 - 785	300 - 810	300 - 835	300 - 860	300 - 885	300 - 910	300 - 935
Startup voltage per input	V	390	390	390	390	390	390	390	390	390
Number of inputs		2	2	2	2	2	2	2	2	2
<b>Output</b>										
Output voltage range	V	0 - 800	0 - 825	0 - 850	0 - 875	0 - 900	0 - 925	0 - 950	0 - 975	0 - 1000
Maximum output voltage at full power	V	735	760	785	810	835	860	885	910	935
Output voltage at zero power	V	800	825	850	875	900	925	950	975	1000
Maximum output current	A	40	40	40	40	40	40	40	40	40
Maximum continuous output power	kWdc	29.2	30.2	31.2	32.2	33.2	34.2	35.2	36.2	37.2
Efficiency (max / CEC / Euro)	%	99.55 / 99.5 / 99.4								
<b>Mechanical</b>										
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									
<b>Environmental</b>										
Environmental category	Outdoor									
Pollution degree	2									
Maximum operating altitude	9843 ft (3000 m)									
Overvoltage category	OVII									
Ingress protection	IP66 / 4X									
<b>General</b>										
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

## 1000V Systems

maximum output **36A**

Vxxx-i50-36 models		V800	V825	V850	V875	V900	V925	V950	V975	V1000
<b>Electrical</b>										
<b>Input</b>										
Maximum voltage per input	V	1000	1000	1000	1000	1000	1000	1000	1000	1000
Maximum current (Imp) per input	A	28.8	28.8	28.8	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	30.8	30.8	30.8
MPP tracking voltage range	V	300 - 740	300 - 765	300 - 790	300 - 815	300 - 840	300 - 865	300 - 890	300 - 915	300 - 940
Startup voltage per input	V	390	390	390	390	390	390	390	390	390
Number of inputs		2	2	2	2	2	2	2	2	2
<b>Output</b>										
Output voltage range	V	0 - 800	0 - 825	0 - 850	0 - 875	0 - 900	0 - 925	0 - 950	0 - 975	0 - 1000
Maximum output voltage at full power	V	740	765	790	815	840	865	890	915	940
Output voltage at zero power	V	800	825	850	875	900	925	950	975	1000
Maximum output current	A	36	36	36	36	36	36	36	36	36
Maximum continuous output power	kWdc	26.5	27.4	28.3	29.2	30.1	31.0	31.9	32.8	33.7
Efficiency (max / CEC / Euro)	%	99.55 / 99.5 / 99.4								
<b>Mechanical</b>										
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									
<b>Environmental</b>										
Environmental category	Outdoor									
Pollution degree	2									
Maximum operating altitude	9843 ft (3000 m)									
Overvoltage category	OVII									
Ingress protection	IP66 / 4X									
<b>General</b>										
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

## 1000V Systems

maximum output **32A**

Vxxx-i50-32 models		V800	V825	V850	V875	V900	V925	V950	V975	V1000
<b>Electrical</b>										
<b>Input</b>										
Maximum voltage per input	V	1000	1000	1000	1000	1000	1000	1000	1000	1000
Maximum current (Imp) per input	A	25.6	25.6	25.6	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	27.6	27.6	27.6
MPP tracking voltage range	V	300 - 745	300 - 770	300 - 795	300 - 820	300 - 845	300 - 870	300 - 895	300 - 920	300 - 945
Startup voltage per input	V	390	390	390	390	390	390	390	390	390
Number of inputs		2	2	2	2	2	2	2	2	2
<b>Output</b>										
Output voltage range	V	0 - 800	0 - 825	0 - 850	0 - 875	0 - 900	0 - 925	0 - 950	0 - 975	0 - 1000
Maximum output voltage at full power	V	745	770	795	820	845	870	895	920	945
Output voltage at zero power	V	800	825	850	875	900	925	950	975	1000
Maximum output current	A	32	32	32	32	32	32	32	32	32
Maximum continuous output power	kWdc	23.8	24.6	25.4	26.2	27.0	27.8	28.6	29.4	30.2
Efficiency (max / CEC / Euro)	%	99.55 / 99.5 / 99.4								
<b>Mechanical</b>										
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									
<b>Environmental</b>										
Environmental category	Outdoor									
Pollution degree	2									
Maximum operating altitude	9843 ft (3000 m)									
Overvoltage category	OVII									
Ingress protection	IP66 / 4X									
<b>General</b>										
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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