

Ampt V1000 String Optimizer

Lower Cost and Higher Performing PV Systems

Ampt V1000 String Optimizers are DC/DC converters that lower the cost and improve the performance of large-scale PV systems. Ampt optimizers feature patented technology that enables PV systems to deliver more value than traditional system designs without Ampt.

Ampt optimized systems are distinguished from other solutions by uniquely delivering a true spend-less-get-more value proposition. Systems with Ampt lower the total system cost on day one and deliver more energy to increase lifetime revenues.

Features:

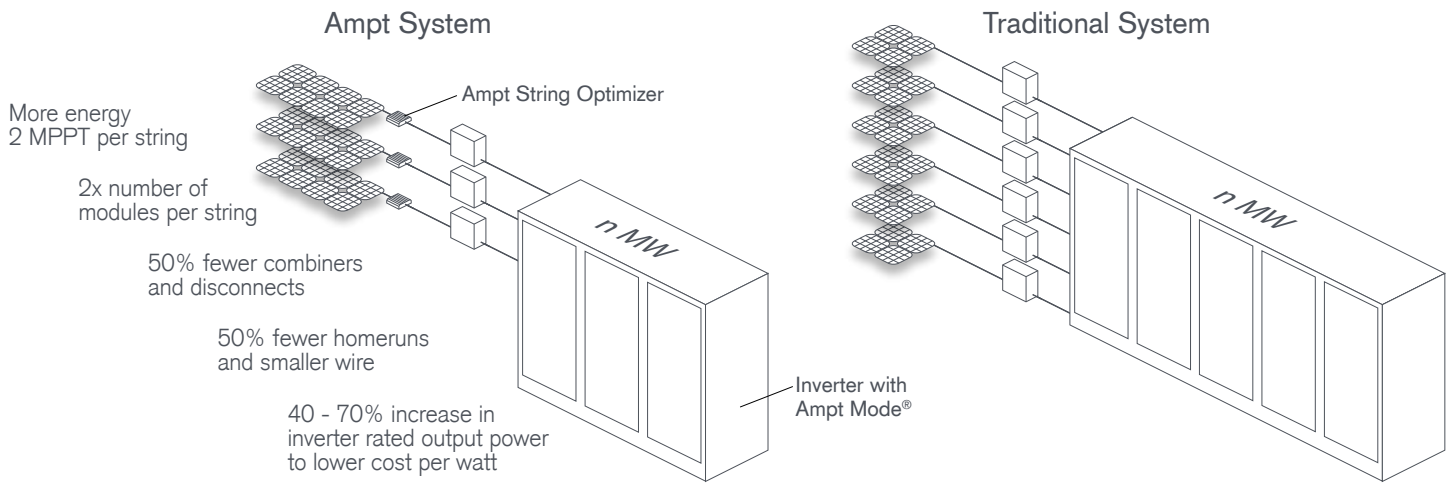
- String Stretch[®] technology allows 2x the number of modules per string
- Ampt Mode[®] technology increases inverter rated output power
- Two MPP trackers per PV string improve system performance
- High efficiency power conversion
- Patented output voltage and current limits
- Independent power optimization without reliance on communication

Benefits:

- Decrease DC wiring and combining costs up to 50% and reduce wire losses
- Decrease inverter cost up to 50%
- Decrease AC electrical BOS costs
- Increase inverter efficiency
- Deliver more energy with higher MPP tracking resolution
- Recover lifetime degradation losses
- Prevent failed PV strings from dropping the entire array

Results:

- Reduce upfront total system cost
- Increase system lifetime performance
- Realize a lower cost of energy
- Increase return on investment



String Optimizer Model		V850-12	V875-12	V900-12	V925-12	V950-12	V975-12	V1000-12
Electrical								
Input								
Maximum voltage per input ¹	V	1000	1000	1000	1000	1000	1000	1000
Maximum current per input ²	A	11.5	11.5	11.5	11.5	11.5	11.5	11.5
MPP tracking voltage range	V	400 - 850	400 - 850	400 - 850	400 - 850	400 - 850	400 - 850	400 - 850
Number of inputs		2	2	2	2	2	2	2
Typical power per optimizer ³	kWp	10 - 13	10 - 13	10 - 13	10 - 13	10 - 13	10 - 13	10 - 13
Output								
Voltage range	V	0 - 850	0 - 875	0 - 900	0 - 925	0 - 950	0 - 975	0 - 1000
Maximum current	A	12	12	12	12	12	12	12
Efficiency (Max / CEC / Euro)	%	99.5 / 99.3 / 99.2						
Mechanical								
Input and output connector type	Amphenol H4							
Dimensions	10.71" x 8.66" x 3.94" (272mm x 220mm x 100mm)							
Weight	10.6 lbs. (4.8 kg)							
Ambient temperature operating range	-40 °F to +167 °F (-40 °C to +75 °C)							
Cooling	Convection							
General								
Maximum system voltage	1000 V (UL and IEC)							
Compliance	ETL to UL 1741; IEC 61000-6-1, 61000-6-3, 62109; CE; FCC Part 15, class A							
Ingress protection	IP 66							

1. Voc at coldest design temperature - follow Ampt's design guidelines to determine the number of modules per input and maximum system voltage.
 2. Module Imp at standard test condition (STC) - irradiation level of 1000 W/m² at 25°C.
 3. Power ratings listed are at STC - follow Ampt's design guidelines for recommended input power per optimizer.

