ampt

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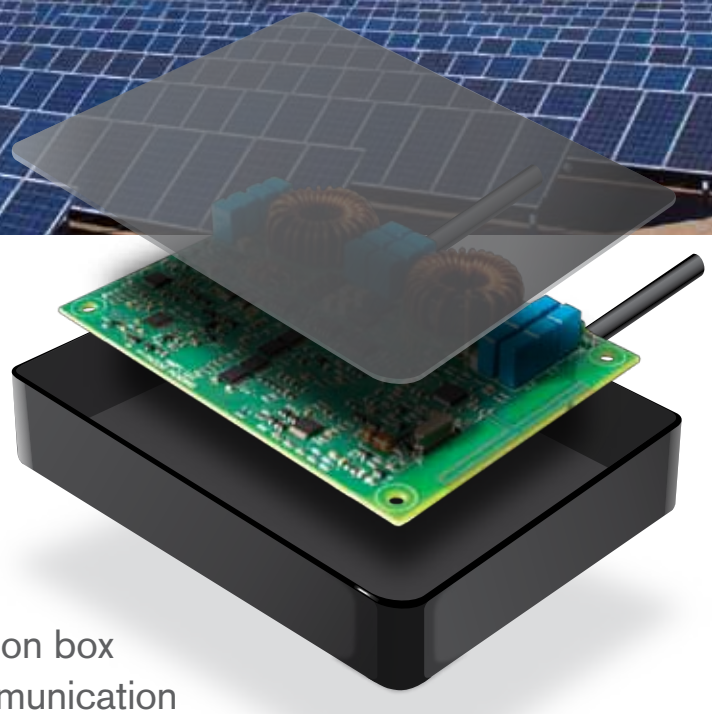

Ampt Integrated Converters

Active electronics integrated with PV junction box featuring MPPT and optional wireless communication

- Lower system costs
- More energy
- Informed decisions
- Future-proof modules
- Higher uptime
- Reduce project risk

Ampt DC/DC power converters put maximum power point tracking (MPPT) and optional wireless communication capabilities on each PV module. Our electronics enable junction box manufacturers to offer active J-boxes to module makers. The result? A lower cost of energy and higher return on investment.

Features:

- High efficiency power conversion
- Fast and accurate MPPT per PV module
- Ampt Mode™ technology to increase inverter output power
- String Stretch™ technology to build longer strings
- Output voltage and current limits
- Instrument-grade precision measurement
- Optional two-way wireless communication
- Independent power optimization without reliance on communication
- Inverter and PV module compatible
- Compatible with 3rd party monitoring
- Utility-strength operation and stability
- High reliability
- 25 year warranty

Benefits:

- Decrease inverter cost and increase efficiency with Ampt Mode™
- Decrease the cost of wiring and combiners and reduce wire losses with String Stretch™
- Deliver more power by correcting for mismatch between PV modules and strings
- Recover lifetime degradation losses
- Prevent failed PV modules from dropping a full string
- Optimize system footprint
- Simplify module binning and inventory
- Remove risk of module obsolescence

Results:

- Reduce the cost of PV system components and installation
- Increase the lifetime performance and uptime of PV systems
- Gain deeper knowledge, predictability, and control to operate system more efficiently
- Reduce PV project risk
- Realize a lower cost of energy and increase return on investment

Ampt-i Converter Model	V34-94	V36-92	V41-92	V64-67
Electrical*				
Input				
Maximum module power (Pmax) at STC	260 W	280 W	320 W	360 W
Maximum module voltage (Voc) at coldest design temperature	46 V	50 V	58 V	102 V
Module MPP DC voltage range	10 - 38 V	17 - 48 V	17 - 48 V	25 - 80 V
Maximum module current (Imp) at STC	8.5 A	9.2 A	9.2 A	6.1 A**
Maximum module short circuit current (Isc) at STC	9.2 A	9.2 A	9.2 A	6.7 A
Output				
Maximum converter output voltage	33.3 V	36 V	40.6 V	63.6 V
Maximum converter output current	9.4 A	9.2 A	9.2 A	6.7 A**
Maximum converter output power	260 W	280 W	320 W	360 W
Maximum operating efficiency	99.0%	99.2%	99.2%	99.2%
Mechanical				
Ambient temperature operating range	-40°F to +158°F (-40°C to +70°C)			
Dimensions	4.2 x 3 x 0.66 in. (10.7 x 7.6 x 1.7 cm)			
Weight	3 oz. (85 g)			
Cooling	Convection			
General				
Communication	Two-way wireless (optional)			
Compliance	CSA to UL 1741, FCC Part 15 Class B IEC 62109, 61000-6-1, 61000-6-3			
Demonstrated MTBF at 40°C continuous	90 million hours			
Warranty	25 years			

* Standard test condition (STC) irradiation level of 1000 W/m^2 at 25°C.
** 6.1 A input and 6.7 A output at 60°C. 5.45 A input and 5.55 A output at 70°C.

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