

# Ampner ACE™ 300 PV



1500-V string inverter with the highest power rating in the industry



## Highlights

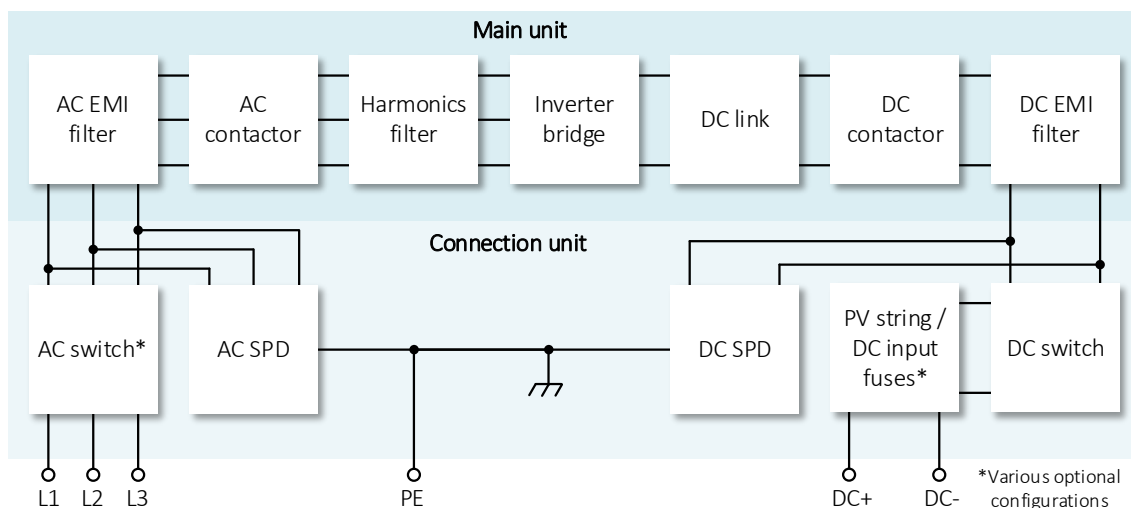
- Maximum operating DC voltage 1500 V
- Power ratings from 260 kW to 333 kW
- Full reactive power generation capability
- IP65 / Type 4 design
- Operating ambient temperature range from -40°C to +60°C (-40°F to +140°F)
- Rugged design for all outdoor conditions
- Easy field handling and assembly in two parts
- Dedicated variants for global (IEC) and North American (UL/CSA) markets

## Optional features

- Various AC connection types
- Flexible DC input arrangements for combiner-input or direct string-input systems
- Wide range of DC fuse protection solutions for every need
- Communication interface option
- Optional AC load switch

Contact Ampner sales for a complete list of options and customer tailoring

## Circuit Diagram



Model	1560	1563	1566	1569
<b>AC</b>				
Rated power (@ +40°C/+104°F ambient)	261 kVA	274 kVA	288 kVA	300 kVA
Max. power (@ ≤ +30°C/+86°F ambient)	289 kVA	304 kVA	318 kVA	333 kVA
Rated grid voltage, RMS (3Ø, line-to-line)	600 V	630 V	660 V	690 V
Continuous operation grid voltage range <sup>1)</sup>	-15% to +10%			
Rated AC current, RMS (@ +40°C/+104°F ambient)	252 A			
Max. AC current, RMS (@ ≤ +30°C/+86°F ambient)	279 A			
AC current distortion (THD at rated output power)	< 3%			
Power factor – default	> 0.99 at rated power			
Operational power factor range <sup>2)</sup>	0.0 lagging to 0.0 leading			
Stand-by power consumption	≤ 10 W			
Nominal grid frequency (range)	50/60 Hz (± 10 Hz)			
Grid connection type	IT (ungrounded 3-phase + PE)			
<b>DC</b>				
Max. operating input voltage	1500 V			
Min. MPP/operating input voltage	850 V	893 V	935 V	978 V
Max. MPP voltage (@ +40°C/+104°F ambient)	1200 V			
Max. MPP voltage (@ ≤ +30°C/+86°F ambient)	1300 V			
Rated input voltage	1050 V			
Max. total input current (@ ≤ +30°C/+86°F ambient)	345 A			
Rated total input current	255 A	270 A	280 A	290 A
Max. PV array short circuit rating	700 A			
Max. DC to AC power ratio	1.73	1.64	1.57	1.50
MPP trackers	1			
Max. amount of string inputs <sup>3)</sup>	48			
Max. amount of inputs from combiners <sup>4)</sup>	4			
Max. recommended PV power	500 kW peak			
<b>Efficiency</b>				
Max. efficiency	98.7%	98.8%	98.9%	99.0%
CEC efficiency at rated input voltage	98.0%	98.0%	98.5%	98.5%
Euro efficiency, static	98.5%	98.5%	98.6%	98.6%
<b>Installation and Environment</b>				
Total dimensions (H, W, D)	1100 mm x 950 mm x 380 mm (43.3 in. x 37.4 in. x 15.0 in.)			
Weight <sup>5)</sup>	<b>Main unit:</b> 120 kg (264 lb.) <b>Connection unit:</b> 57-70 kg (125-154 lb.) <b>Mounting rack:</b> 10 kg (55 lb.)			
Enclosure rating	IP65 (NEMA Type 4)			
Typical/max. acoustic noise level	< 73 dB(A) / < 80 dB(A)			
Operating temperature range	-40°C to +60°C (-40°F to +140°F)			
Humidity	Outdoor conditions			
Storage temperature	-40°C to +70°C (-40°F to +158°F)			
Max. operating altitude <sup>6)</sup>	4000 m (13,000 ft.) above sea level			
Cooling concept	Forced air, variable speed fan			
Wall or frame mounting position	Vertical			
<b>Ancillary Features</b>				
Insulation resistance condition detection	Integrated			
Load switches	DC: Integrated, AC: Optional			
Communications <sup>8)</sup>	Modbus TCP over twisted pair or fiber optic <sup>7)</sup>			
<b>Compliance <sup>9)</sup></b>				
Safety	CE marking, UKCA marking, IEC/EN 62109-1, IEC/EN 62109-2, UL 1741, UL 62109-1, CSA C22.2 No. 107.1, CSA C22.2 No. 62109-1:16			
Grid code <sup>10)</sup>	E.g. VDE-AR-N 4110/4120/4105, UL 1741.SA (Grid Support Utility Interactive Inverter), IEEE 1547, G99			
EMC	CE marking, UKCA marking, IEC/EN 62920, CISPR 11, FCC Part 15 Class A (radiated emission)			
Efficiency	IEC/EN 61683, EN 50530, CEC listing			

<sup>1)</sup> Ride-through characteristic and additional limitations according to the grid code applied, <sup>2)</sup> Limitations according to the grid code applied, <sup>3)</sup> With string input option, <sup>4)</sup> With combiner input option, <sup>5)</sup> Depending on selected product configuration, <sup>6)</sup> Contact Ampner for characteristics above 1000 m (3300 ft.), <sup>7)</sup> Media converter option, <sup>8)</sup> Contact Ampner for ModBus profile details, <sup>9)</sup> Pending, <sup>10)</sup> Contact Ampner for full list of grid of compliance