

# Ampner ACE™ 300 ES



Leading 1500-V battery energy storage converter in its class



## Highlights

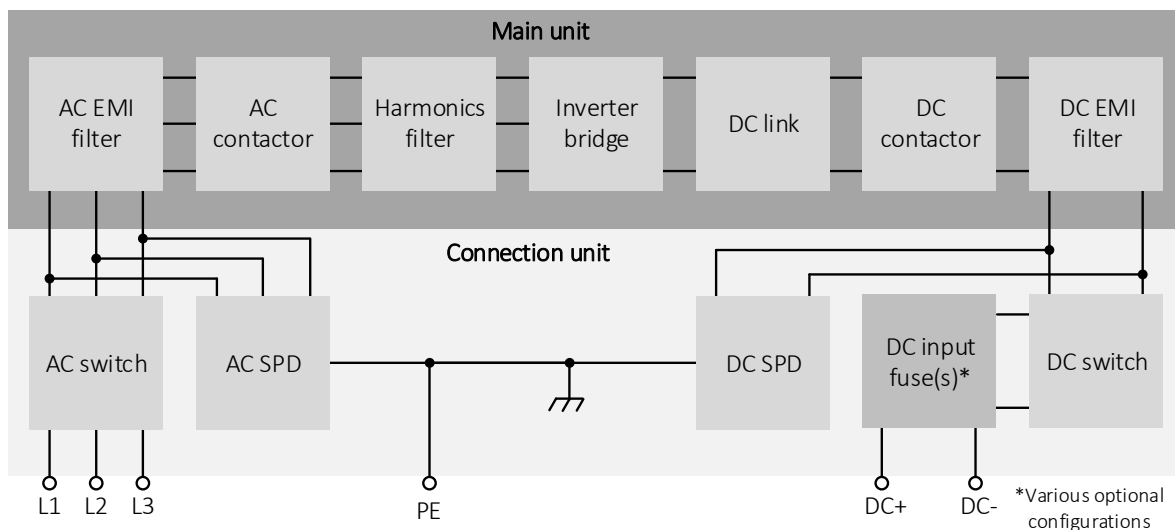
- Maximum operational DC voltage 1500 V
- Power ratings from 260 kW to 333 kW
- Full reactive power generation capability
- IP65 / Type 4 design
- Operating ambient temperature range from -40°C to +60°C (-40°F to +140°F)
- Rugged design for all outdoor conditions
- Easy field handling and assembly in two parts
- Flexible mounting angle between 0° (vertical) and 90° (horizontal)
- Dedicated variants for global (IEC) and North American (UL/CSA) markets
- Suitable for all common battery energy storage applications

## Optional features

- Various AC termination types
- Flexible DC input arrangements for different input systems
- Wide range of DC fuse protection solutions for every need
- Communication interface options

Contact Ampner sales for the 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 (3Ø, line-to-line RMS)	600 V	630 V	660 V	690 V
Continuous operation grid voltage range <sup>1)</sup>	-15% to +10%			
Rated AC current (@ +40°C/+104°F ambient)	252 A per phase			
Max. AC current (@ ≤ +30°C/+86°F ambient)	279 A per phase			
AC current distortion	< 3% (THD at rated output power)			
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. operating input voltage	850 V	893 V	935 V	978 V
Max. input voltage with continuous rated power (@ +40°C/+104°F ambient)	1200 V			
Max. input voltage with continuous max. power (@ ≤ +30°C/+86°F ambient)	1300 V			
Rated input voltage	1050 V			
Max. total operating input current	345 A			
Rated total input current	255 A	270 A	280 A	290 A
Amount of inputs <sup>3)</sup>	1, 2, 3 or 4			
<b>Efficiency</b>				
Max. conversion efficiency	98.7%	98.8%	98.9%	99.0%
<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	<b>Main unit:</b> 110 kg (242 lb.) <b>Connection unit:</b> 40 kg (88 lb.)			
Enclosure rating	IP65 (NEMA Type 4)			
Typical/max. acoustic noise level	< 65 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>4)</sup>	4000 m (13,000 ft.) above sea level			
Cooling concept	Forced air, variable speed fan			
Wall or frame mounting position	Between 0° (vertical) and 90° (horizontal)			
<b>Ancillary Features</b>				
Insulation resistance condition detection	Integrated			
DC load switch, AC load switch	Integrated			
Communications <sup>5), 6)</sup>	Modbus TCP/IP over twisted pair or fiber optic			
<b>Compliance <sup>7)</sup></b>				
Safety	CE marking, IEC/EN 62477-1, UL 1741, UL 1998, NEC 2017, CSA C22.2 No. 107.1			
Grid code	VDE-AR-N 4110, UL 1741 SA (Grid Support Utility Interactive Inverter), IEEE 1547, etc.			
EMC	According to CE mark directive, FCC Part 15 Class A (radiated emission)			

<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> Standard 1, options for 2, 3 and 4, <sup>4)</sup> Contact Ampner for characteristics above 1000 m (3300 ft.), <sup>5)</sup> Media converter option <sup>6)</sup> Configurable information models including SunSpec, <sup>7)</sup> Pending