

Ampner ACE™ 300 ES



Leading 1500-V battery energy storage converter in its class



Highlights

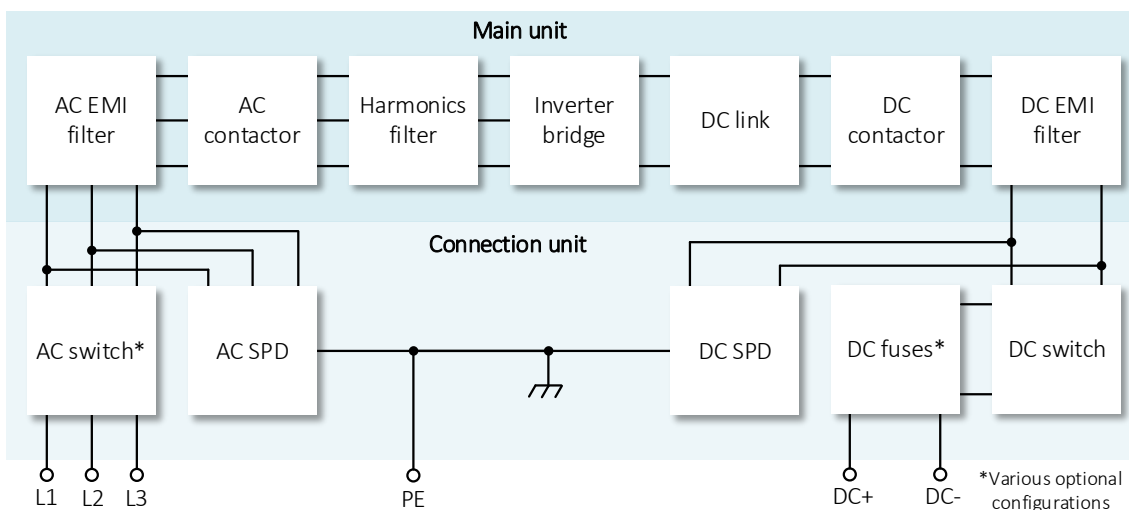
- Maximum operating DC voltage 1500 V
- Power ratings from 222 kW to 333 kW
- Full reactive power generation capability
- IP65 / Type 4 design
- Operating ambient temperature range from -40°C to +60°C (-40°F to +140°F)
- Rugged design for all outdoor conditions
- Easy field handling and assembly in two parts
- Dedicated variants for global (IEC) and North American (UL/CSA) markets
- Suitable for all common battery energy storage applications

Optional features

- Various AC termination types
- Flexible DC connection arrangements
- Wide range of DC fuse protection solutions for every need
- Communication interface options
- Optional AC load switch

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

Circuit Diagram



Model	1551 ⁽¹⁾	1560	1563	1566	1569
AC					
Rated power (@ +40°C/+104°F ambient)	222 kVA	261 kVA	274 kVA	288 kVA	300 kVA
Max. power (@ ≤ +30°C/+86°F ambient)	246 kVA	289 kVA	304 kVA	318 kVA	333 kVA
Rated grid voltage, RMS (3Ø, line-to-line)	510 V	600 V	630 V	660 V	690 V
Continuous operating grid voltage range ²⁾	-15% to +10%				
Min. operating grid voltage, RMS (3Ø, line-to-line)	320 V				
Rated AC current, RMS (@ ≤ +30°C/+86°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				
Operating power factor range ³⁾	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)				
DC					
Max. operating DC voltage	1500 V (rated power up to +30°C/+86°F ambient)				
Min. operating DC voltage	723 V	850 V	893 V	935 V	978 V
Absolute max. total continuous DC current (@ +30°C/+86°F ambient)	345 A				
Absolute max. total continuous DC current (@ +40°C/+104°F ambient)	315 A				
Amount of DC connections	1 – 4				
Prospective DC short-circuit current rating	50 kA / 100 kA ⁴⁾				
Efficiency					
Max. conversion efficiency	98.5%	98.7%	98.8%	98.9%	99.0%
Installation and Environment					
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 ⁴⁾	Main unit: 120 kg (264 lb.) Connection unit: 57-70 kg (125-154 lb.) Mounting rack: 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 ⁵⁾	4000 m (13,000 ft.) above sea level				
Cooling concept	Forced air, variable speed fan				
Wall or frame mounting position	Vertical				
Max. individual DC conductor length	30 m / 100 ft				
Ancillary Features					
Load switches	DC: Integrated, AC: Optional				
Communications ⁷⁾	Modbus TCP over twisted pair or fiber optic ⁶⁾				
Compliance ⁸⁾					
Safety	CE marking, UKCA marking, IEC/EN 62477-1, UL 1741, UL 9540, CSA C22.2 No. 107.1				
Grid code ⁹⁾	E.g. VDE-AR-N 4110/4120/4105, UL 1741 SA (Grid Support Utility Interactive Inverter), IEEE 1547, G99				
EMC	CE marking, UKCA marking, CISPR 11, IEC/EN 61000-6-2, FCC Part 15 Class A (radiated emission)				

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