

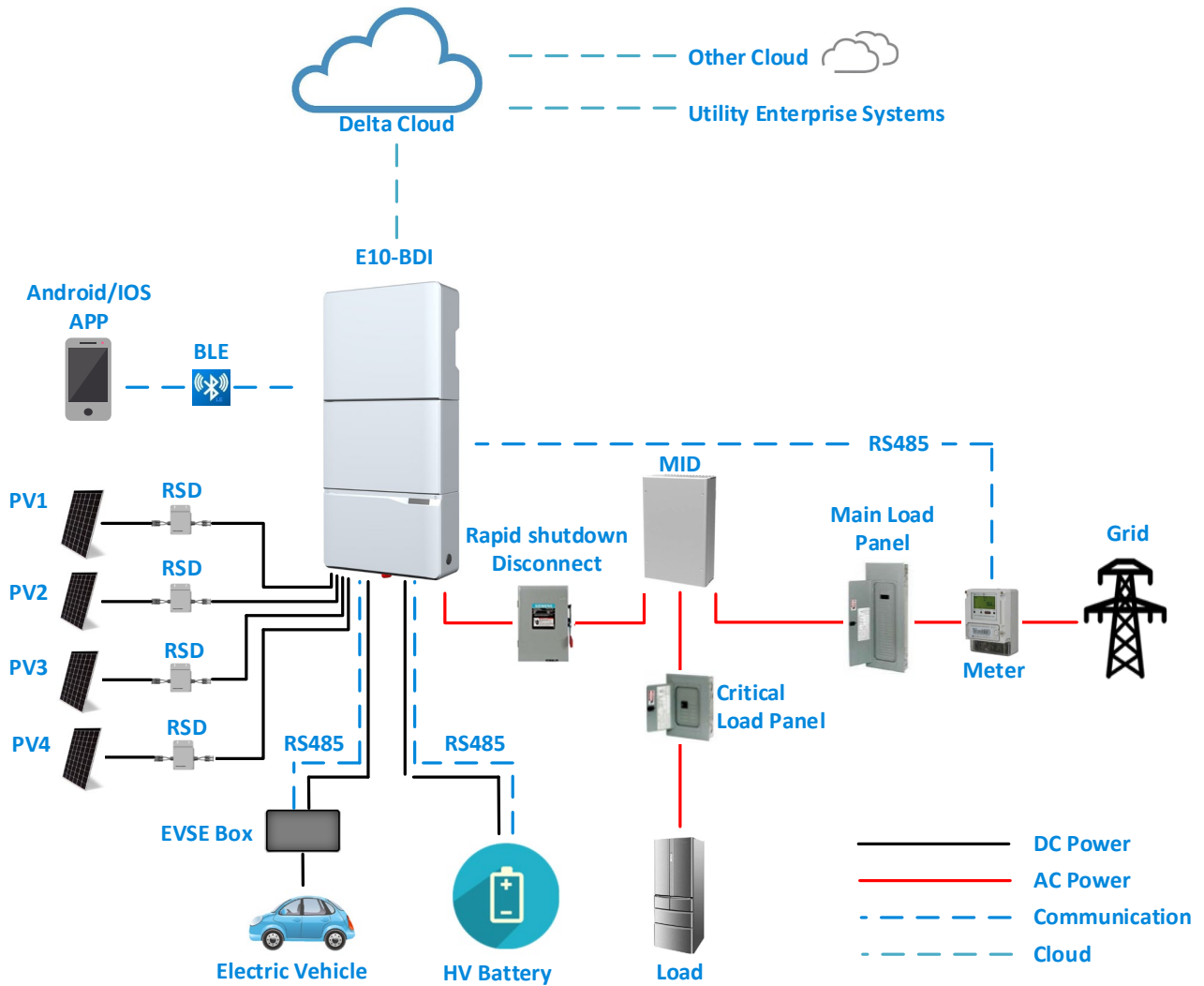
Residential Energy Storage Inverter with Integrated DC Charger for North America

E4_BDI | E6_BDI | E8_BDI | E10_BDI

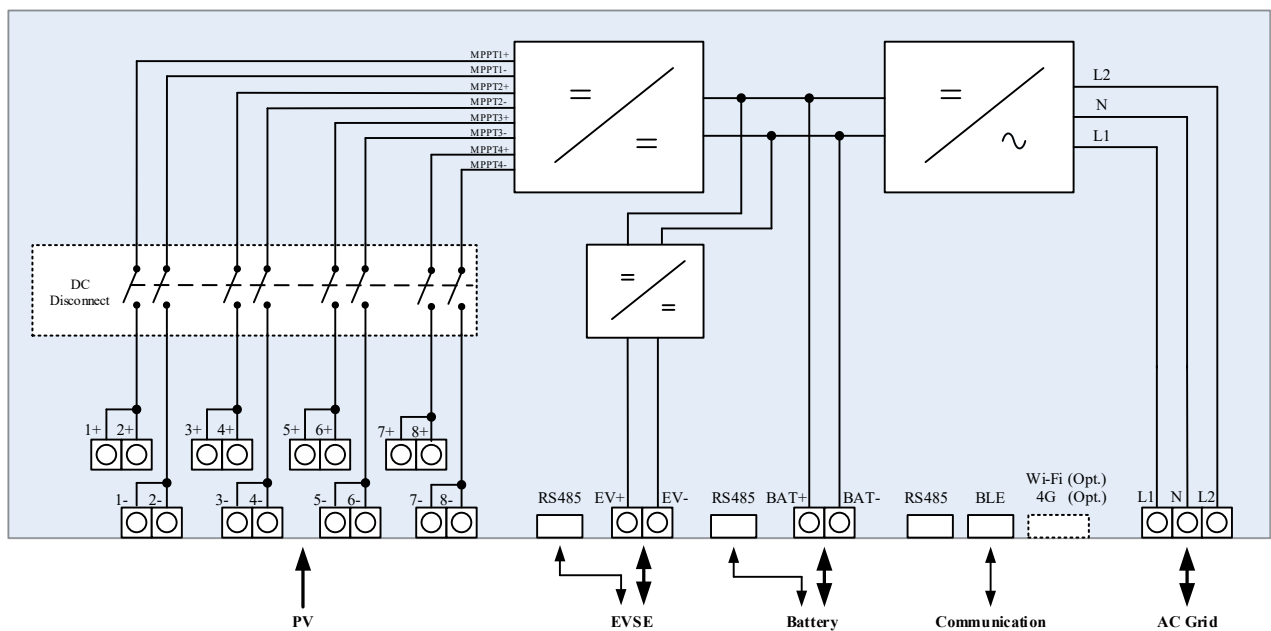


Key Features:

- Integrated DC-DC converter for EV charging and discharging
- UL9540 complied Li-ion battery energy storage system
- Smart PV inverter with BLE, optional WiFi, Ethernet, 3G / 4G cellular communication
- Integrated EMS including self-consumption, zero export, TOU and back-up operations
- Support both DC-coupled and AC-coupled system
- Support bi-directional cloud communication
- Support remote diagnosis and OTA
- Built-in AFCI & Rapid shutdown controller
- UL 1741 SA, HECO compliant
- CA Rule 21 Phase 1 & 2 & 3 compliant



System Configuration



Block Diagram

Model	E4_BDI	E6_BDI	E8_BDI	E10_BDI
EVSE PORT				
Nominal I/O power	9600 W			
Acceptable input voltage range	290 V to 413 V			
Max continuous I/O current	36.7 A			
Charging/discharging efficiency(to AC), peak	> 95.5%			
Battery terminal	Spring type			
BATTERY PORT				
Compatible battery pack size	5 kWh to 20 kWh			
Max I/O power	10000 W ¹⁾			
Acceptable input voltage range	350 V to 450 V ²⁾			
Max I/O current	28.5 A ¹⁾			
Round trip efficiency (PCS Only), peak	> 97.5%			
Fuse rating	50 A			
Battery terminal	Spring type			
PV INPUT				
Absolute maximum input voltage	480 V ²⁾			
Start-up voltage	120 V			
Operating MPPT voltage range	50 V to 480 V ²⁾			
Maximum input current per MPPT	12A			
MPP tracker	4			
Maximum DC/AC ratio ³⁾	1.3			
Maximum allowable MPPT in-paralleled	2 (strings)			
MPPT scan (Shading option)	~ 15min (high) /~ 30min (default) /~ 60min (low)			
DC disconnect	Integrated			
AC PORT (ON-GRID MODE)				
Nominal output power @ 240Vac	3840 W	5760 W	7680 W	9600 W
Maximum output power @ 240Vac	4000 W	6000 W	8000 W	10000 W
Nominal output power @ 208Vac	3328 W	4992 W	6656 W	8320 W
Maximum output power @ 208Vac	3648 W	5472 W	7296 W	9120 W
AC operating voltage range	183 Vac to 228 Vac @ 208 Vac 211 Vac to 264 Vac @ 240 Vac			
Maximum continuous current	16 A	24 A	32 A	40 A
Operating frequency range	59.3 Hz to 60.5 Hz			
Adjustable frequency range	50 Hz to 66 Hz			
Adjustable power factor range	0.8i to 0.8c			
THD @ nominal power	< 3%			
Grid support compliance	UL 1741 SA, CA Rule 21 phase 1,2, 3, HECO			
Revenue Grade Meter (optional)	Integrated compliant with ANSI C12.20, Class 0.5			
AC terminal	Spring type			
AC PORT (OFF-GRID MODE)				
Output	Pure sin-wave voltage			
Maximum output power	9600 W			
AC output voltage	240 Vac			
Maximum continuous current	40 A			
Operating frequency range	57 Hz to 63 Hz			
THD @ nominal power	< 5%			
Maximum allowed crest factor	2.0			
AC terminal	Spring type			

GENERAL SPECIFICATION				
Peak efficiency (PV inverter)	98.0%			
CEC efficiency (PV inverter)	97.5 % @ 240 Vac	97.5 % @ 240 Vac	97.5 % @ 240 Vac	97.5 % @ 240 Vac
Operating temperature range	-22 °F to 149 °F (-30 °C to 65 °C), with derating above 113 °F (45 °C)			
Humidity	0% to 95%			
Maximum operating altitude	9,843 ft (3,000 m)			
Audible noise	< 50 dB(A) @ 3 ft (1 m)			
MECHANICAL DESIGN				
Dimensions (W x H x D)	16.7 x 34.1 x 5.9 in (425 x 865 x 150 mm)			
Weight ⁴⁾	69.9 lbs (31.7 kg)			
Cooling	Forced air			
Enclosure material	Die-casting aluminum			
INTERFACE				
Display	LED indicators			
Communication interface	BLE, optional WiFi, Ethernet, 3G / 4G cellular communication			
Protocol	Modbus - RTU			
Ethernet (optional)	Standard (support IPv4)			
Remote diagnose/monitoring	Bi-direction through cloud			
Remote firmware update	Through cloud (optional)			
STANDARDS				
Battery safety	UL 1973 / UL 1974 (Optional depends on battery pack)			
Enclosure protecting rating	Type 4			
Safety	UL 1741, CSA - C22.2 No. 107.1-16			
Software approval	UL 1998			
Grounding fault protection	UL 1741 CRD			
Anti-islanding protection	IEEE 1547, IEEE 1547.1			
EMC	FCC part 15 Class B			
AFCI	UL 1699B (Type 1), NEC 2017 690.11			
Rapid shutdown protection	NEC 2017 690.12 ⁵⁾			
Rapid shutdown transmitter	Optional pre-installed ⁶⁾			
Grid support regulation	UL 1741 SA, California Rule 21 phase 1 & 2 & 3, HECO Compliant			
Energy storage system certification	UL 9540			
EV Charger system certification	UL 2202, UL 9741			
WARRANTY				
Standard warranty	10 years			

- 1) Adjustable value, limited by the output capability of battery pack
- 2) Adjustable value, limited by the maximum allowed voltage of battery pack
- 3) Please refer to technical note for detailed string configuration
- 4) Without weight of revenue grade meter
- 5) Compliant with APS rapid shutdown system or Tigo rapid shutdown system
- 6) Optional pre-installed with APS rapid shutdown transmitter or Tigo rapid shutdown transmitter



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