

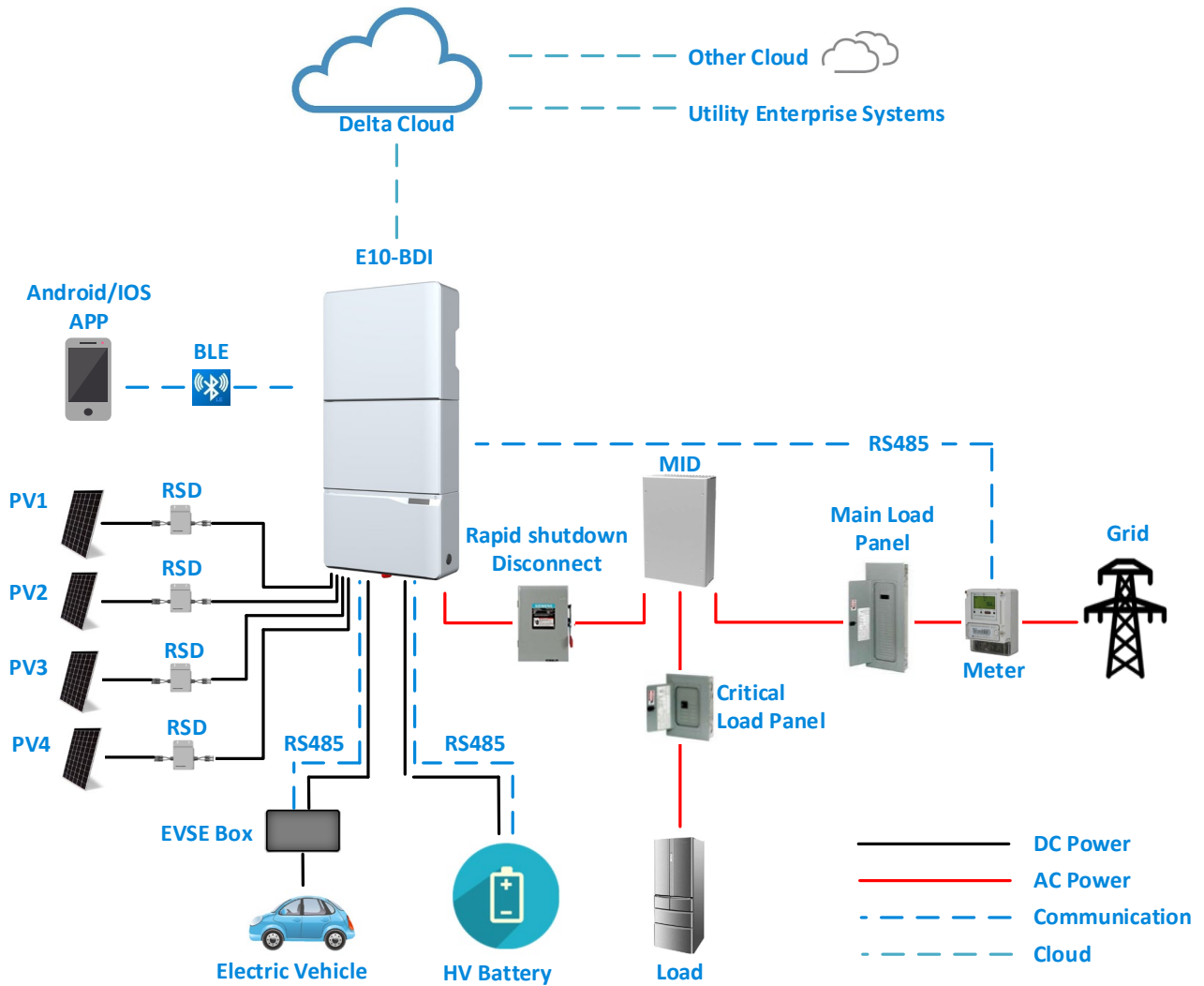
## Residential Energy Storage Inverter with Integrated DC Charger for North America

E4\_BDI | E6\_BDI | E8\_BDI | E10\_BDI

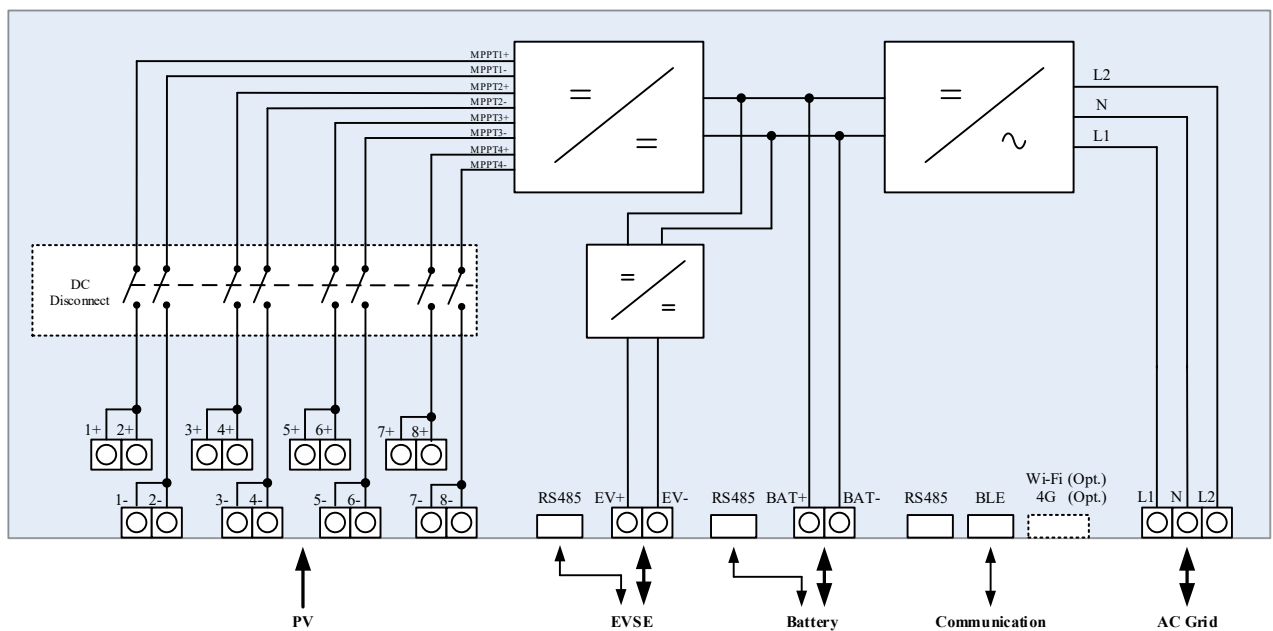


### Key Features:

- 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
<b>EVSE PORT</b>				
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			
<b>BATTERY PORT</b>				
Compatible battery pack size	5 kWh to 20 kWh			
Max I/O power	10000 W <sup>1)</sup>			
Acceptable input voltage range	350 V to 450 V <sup>2)</sup>			
Max I/O current	28.5 A <sup>1)</sup>			
Round trip efficiency (PCS Only), peak	> 97.5%			
Fuse rating	50 A			
Battery terminal	Spring type			
<b>PV INPUT</b>				
Absolute maximum input voltage	480 V <sup>2)</sup>			
Start-up voltage	120 V			
Operating MPPT voltage range	50 V to 480 V <sup>2)</sup>			
Maximum input current per MPPT	12A			
MPP tracker	4			
Maximum DC/AC ratio <sup>3)</sup>	1.3			
Maximum allowable MPPT in-paralleled	2 (strings)			
MPPT scan (Shading option)	~ 15min (high) /~ 30min (default) /~ 60min (low)			
DC disconnect	Integrated			
<b>AC PORT (ON-GRID MODE)</b>				
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			
<b>AC PORT (OFF-GRID MODE)</b>				
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 <sup>4)</sup>	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 <sup>5)</sup>			
Rapid shutdown transmitter	Optional pre-installed <sup>6)</sup>			
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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