

11,000W Bi-Directional DC-DC Converter

Features

- ◆ 1U rackmount
- ◆ Battery Side 240VDC
- ◆ Grid Side 320VDC
- ◆ High Efficiency (95%)
- ◆ RS-485 Communications & Control

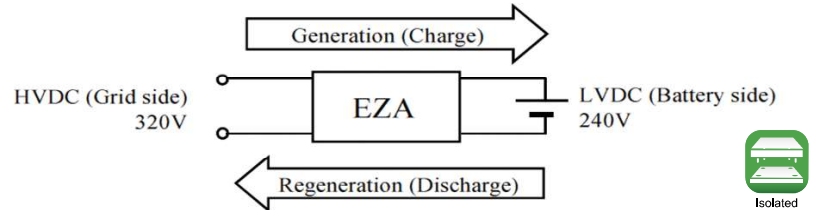


Key Market Segments & Applications



Renewable

Basic Operation



Specifications

Model		Low Voltage DC (Battery Side)	High Voltage DC (Grid Side)
Voltage Range (1)(2)	VDC	150 - 300VDC (240V Nominal)	240 - 400VDC (320V Nominal)
Output Current (Maximum)	A	±45.8A	±34.4A
Constant Current Programming Range (1)(2)	A	1 - 50A	1 - 40A
Maximum Output Power	W	±11,000W	±11,000W
Efficiency	%	95%	95%
Pre-charge Voltage (required)	VDC	>150V	>240V
Inrush Current (Typical)	A	3.6A	3.6A
Line Regulation (Maximum)	V	1.2V	1.6V
Load Regulation (Maximum)	V	2.4V	3.2V
Temperature Regulation (Maximum)	V	1.5V	2.0V
Output Ripple & Noise (Maximum pk-pk)	V	3V	4V
Sink Current (When applied V > output set V)	A	1.6A	1.2A
Overcurrent Protection (Manual reset)	A	70A	60A
Overpower Protection	W	12,000W (Constant power)	12,000W (Constant power)
Input Current Limit (typical)	A	52A	42A
Under & Overvoltage Protection (2)	V	144 - 306V	230 - 410V
Overtemperature Protection	-	Yes, Alarm signal is given	
Remote On/Off & Reset (2)	-	Yes	
Parallel Operation	-	Yes (Droop mode, can be set via RS-485)	
Front panel Indicators and Settings	-	Operating mode (Generating, Regenerating & Alarm), Alarm clear & RS-485 address selection	
Operating Temperature	°C	-10 to +50°C, full load. Refer to application notes for input/output derating	
Storage Temperature	°C	-20 to +70°C	
Humidity (Non condensing)	%RH	Operating: 30 - 85%RH, Storage: 20 - 85%RH	
Cooling	-	Internal fans	
Vibration (Non operating)	-	10-55Hz (1 min sweep), 19.6m/s ² constant for 1 hour in each direction: X, Y & Z axis	
Shock	-	196.1m/s ² maximum	
Withstand Voltage (3)	-	Input (HVDC) to Output (LVDC) 2.2kVAC, Input/Output to Ground 2kVAC, Signals to Ground 400VAC	
Isolation Resistance	MΩ	>100MΩ at 25°C & 70%RH, Input/Output to Ground 1kVDC, Signals to Ground 500VAC	
Safety Certification	-	IEC/EN/UL/CSA60950-1, IEC/EN/UL/CSA62368-1, CE Mark (LVD, EMC RoHS)	
Size (W x H x D)	mm	422.8 x 43.6 x 530mm	
Weight	kg	20kg	
Warranty	Yrs	Five Years	

Notes

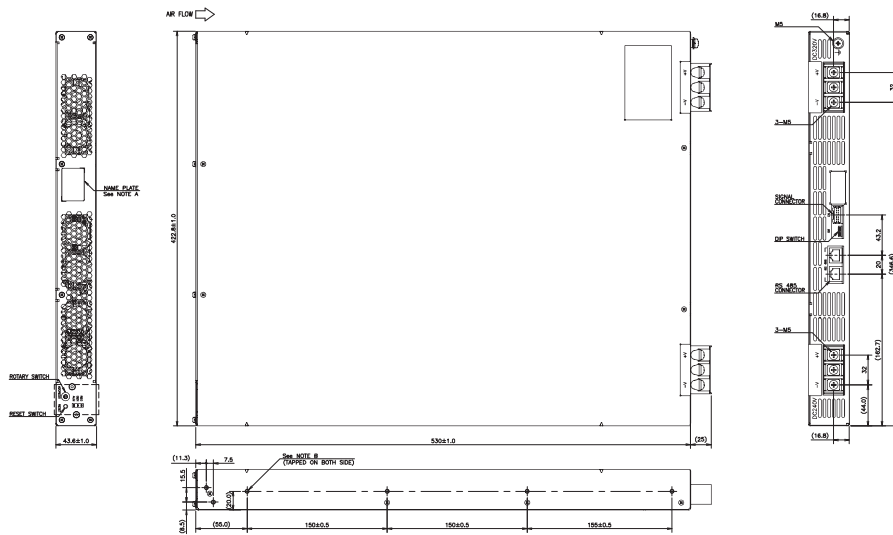
- (1) See installation manual for detailed specifications & test methods
- (2) Can be set via RS-485 or signal connector
- (3) See specification on website for signal isolation voltages

RS-485 Functions

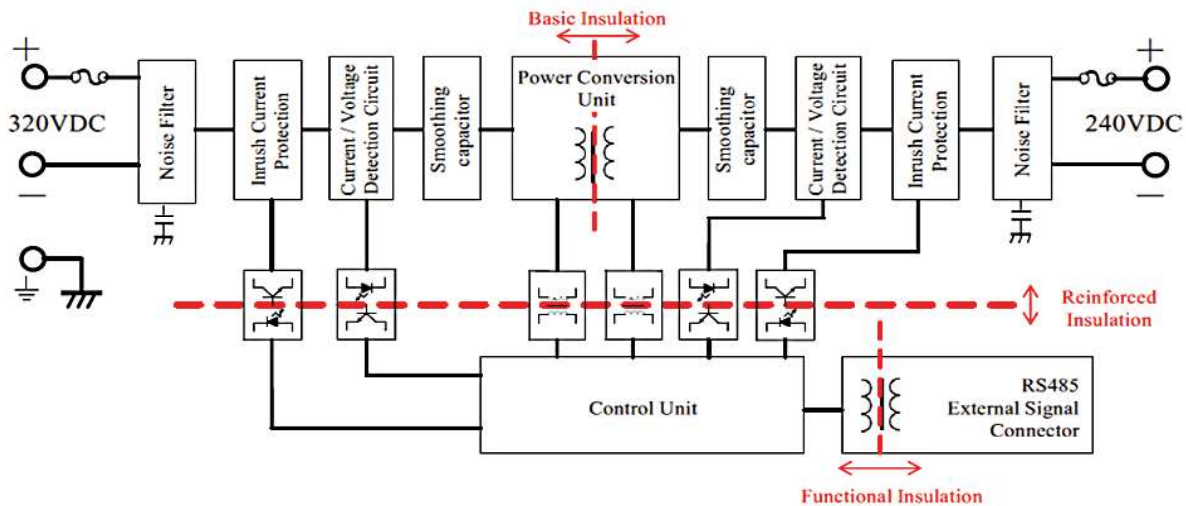
Items

Voltage Setting Accuracy	-	< ±6V
Current Setting Accuracy	-	< ±1A
Voltage Setting Resolution	-	< 600mV
Current Setting Resolution	-	< 100mA
Voltage Reading Accuracy	-	< ±6V
Current Reading Accuracy	-	< ±1A
Voltage Reading Resolution	-	< 600mV
Current Reading Resolution	-	< 100mA
RS-485 Baud Rate	-	19.2kbps / 33.6kbps / 57.6kbps (Set by DIP Switch)
RS-485 Maximum Connection	-	14

Outline Drawing



Block Diagram



For Additional Information, please visit <https://product.tdk.com/en/power/>

