



2500W Bi-Directional DC-DC Converter

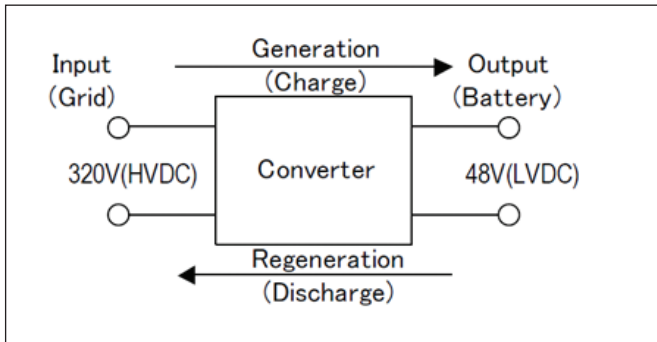
| Features | Benefits |
|----------------------|--|
| 1U rackmount | Utilises less system space |
| High efficiency >92% | Minimises heat in system |
| Digital Interface | User configurable & offers various operation modes |
| Full Digital Control | Unit features fast charge/discharge & discharge/charge direction changes |



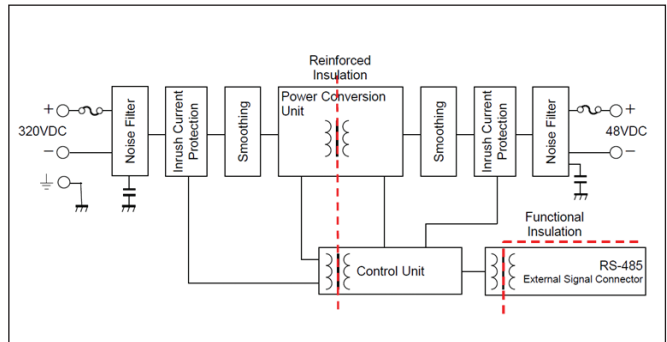
| Specification | | | |
|--|-----|---|-----------------------------|
| Model | | Low Voltage DC (Battery Side) | High Voltage DC (Grid Side) |
| Voltage Range (1) (2) | VDC | 36 - 60VDC (48V Nominal) | 300 - 380VDC (320V Nominal) |
| Output Current (Maximum) | A | ±52A | ±7.8A |
| Constant Current Programming Range (1) (2) | A | 2.4 - 56A | 0.5 - 8.5A |
| Maximum Output Power | W | ±2,496W | ±2,496W |
| Efficiency | % | ≥92% | ≥92% |
| Pre-charge Voltage (required) | VDC | >36V | >300V |
| Inrush Current (Typical) | A | 5.5A | 3.6A |
| Line Regulation (Maximum) | - | 240mV | 1.52V |
| Load Regulation (Maximum) | - | 480mV | 3.04V |
| Temperature Regulation (Maximum) | - | 300mV | 1.9V |
| Output Ripple & Noise (Maximum pk-pk) | - | 480mV | 3.2V |
| Sink Current (When applied V > output set V) | mA | 300mA | 50mA |
| Overcurrent Protection (Manual reset) | A | 60A | 9.5A |
| Overpower Protection | W | 2600W (Constant power) | 2600W (Constant power) |
| Under & Overvoltage Protection (2) | V | 32 - 68V | 260 - 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 +40°C, full load | |
| Storage Temperature | °C | -20 to +70°C | |
| Humidity (Non condensing) | %RH | Operating: 30 - 90%RH, Storage: 10 - 95%RH | |
| Cooling | - | Internal fan | |
| Vibration (Non operating) | - | 10-500Hz (1 min sweep), 10.2m/s ² constant for 1 hour in each direction: X, Y & Z axis | |
| Shock | - | 196.1m/s ² maximum | |
| Withstand Voltage | - | Input (HVDC) to Output (LVDC) 3kVAC, Input to Ground 2kVAC, Output to Ground 500VAC | |
| Isolation Resistance | MΩ | >100MΩ at 25°C & 70%RH, Output to Ground 500VDC | |
| Safety Certifications | - | UL60950-1, CSA60950-1, EN60950-1, CE mark | |
| Size (W x H x D) | mm | 422.8 x 43.6 x 400 | |
| Weight | g | 8000 | |
| Warranty | Yrs | 5 | |

Notes: (1) See installation manual for detailed specifications & test methods (2) Can be set via RS-485

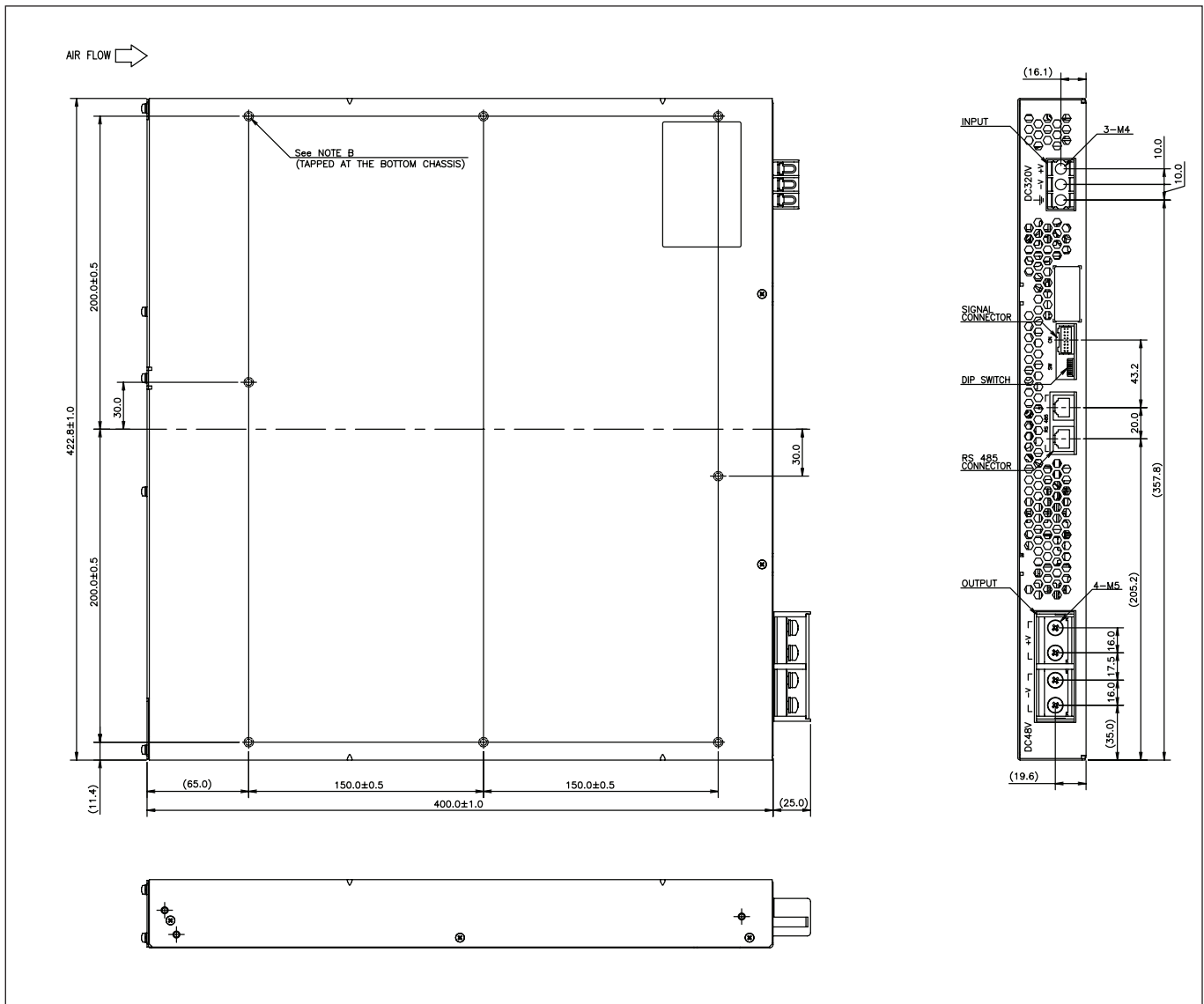
Basic Operation



Block Diagram



Outline Drawing EZA Series



| RS-485 Functions | | | |
|----------------------------|---|--|-----------------------------|
| Model | | Low Voltage DC (Battery Side) | High Voltage DC (Grid Side) |
| Voltage Setting Accuracy | - | < $\pm 0.6V$ | < $\pm 4V$ |
| Current Setting Accuracy | - | < $\pm 0.8A$ | < $\pm 0.125A$ |
| Voltage Setting Resolution | - | < 60mV | < 0.4V |
| Current Setting Resolution | - | < 50mA | < 8mA |
| Voltage Reading Accuracy | - | < $\pm 0.6V$ | < $\pm 4V$ |
| Current Reading Accuracy | - | < $\pm 0.8A$ | < $\pm 0.125A$ |
| Voltage Reading Resolution | - | < 60mV | < 0.4V |
| Current Reading Resolution | - | < 50mA | < 8mA |
| RS-485 Baud Rate | - | 19.2kbps / 33.6kbps / 57.6kbps (Set by DIP Switch) | |
| RS-485 Maximum Connection | - | 14 | |



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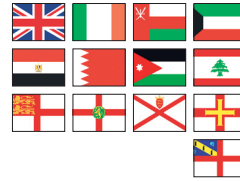
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