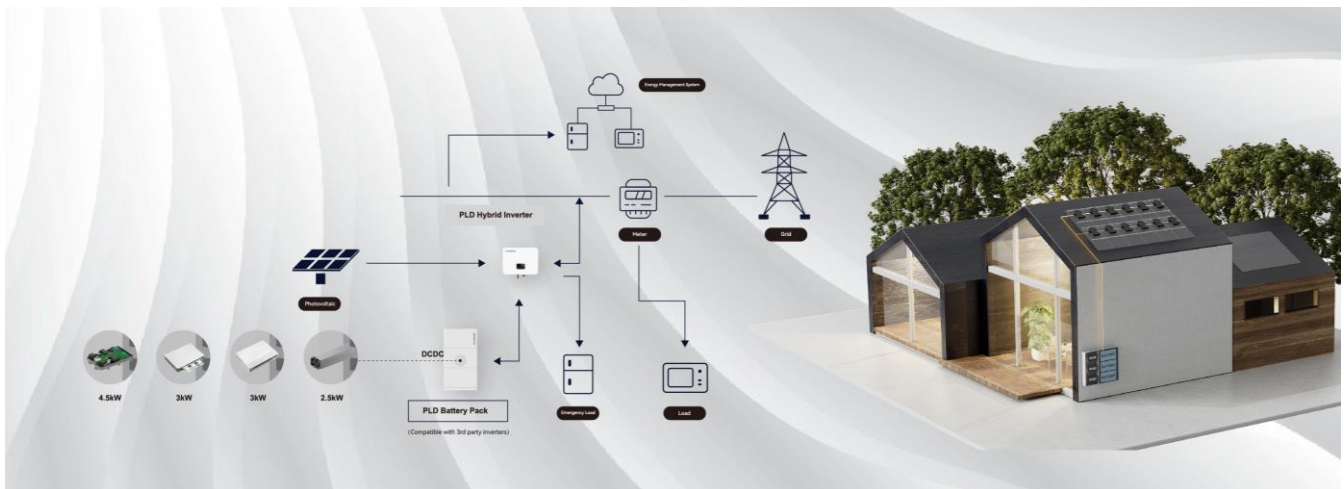
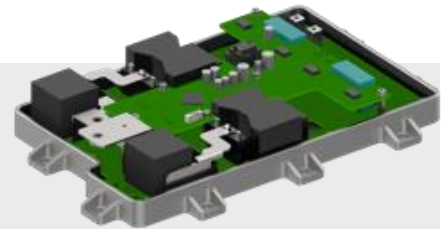


4.5KW | Isolated Bidirectional Energy Storage DCDC



Description

Powerland's 2500W isolated bi-directional DC/DC converter allows bi-directional power transfer between 300-450Vdc high voltage (HV) and 28-58.4Vdc low voltage (LV). The converter supports current control and can switch between boost and buck operating states via CAN communication.

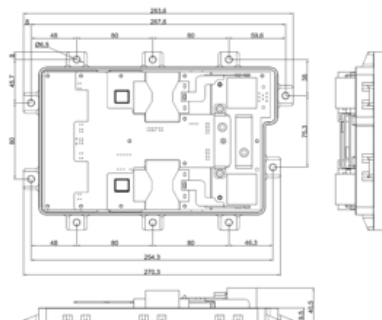


Features

- Isolated bidirectional DC/DC conversion in current mode/voltage mode
- 300~450 Vdc HV range, 28~58.4 Vdc LV range
- HV → LV Power: 4500W typical, 4500W full range (Down-conversion)
- HV ← LV Power: 4500W typical, 4500W full range (Up-conversion)
- Efficiency: 97.5% max; full range 93% min.
- -40~45 °C operating temperature range
- Comprehensive monitoring and protection based on CAN bus communication



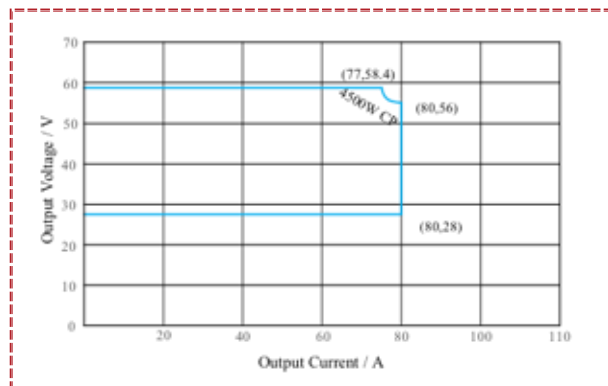
Dimension and Outline Drawing



Specifications

Model	PLD4500-BDGA400-48
Power Direction	Bi-directional
HV Voltage	300~450V
HV Max Current	12A
HV Max Output Power	4500W
LV Voltage	28~58V
LV Max Current	92A
LV Max Output Power	4500W
Efficiency	97%
Communication	CAN
Protection	HV/LV overvoltage, HV/LV undervoltage, HV/LV overcurrent & current limiting, short-circuit protection, Temperature derating & OTP
Housing operating temperature	-40~85°C
No derating working ring temperature	-40~45°C
Cooling	Natural cooling
Dimensions(L*W*H)	268×188×52mm
Weight	3.5kg

LV output I – V Characteristic



HV output I – V Characteristic

