

## 3000 Watt DC/DC Converter EVD Data Sheet



### Description:

Green Watt/Powerland's 3kW DC/DC power supply for air conditioning and other EV systems is designed with extended protection functions, the next-generation semiconductor power devices, and thermal management. It is the industry's first design to cover full input voltage range of e-vehicle on-board air conditioning system DC/DC power supply, and feasible for a wide variety of electric vehicles.

### Features:

- Full Input Voltage Coverage for E-Vehicle Air Conditioning System
- Input Voltage: 200~880Vdc
- High Power Density and High Maintainability
- Ultra High Efficiency: Up to 96%
- Advanced EMI Design
- Suitable for High Inrush Current Application
- Designed with Next-Generation Semiconductor Devices
- Natural Cooling
- Max. Case Temperature @ 100oC
- CAN Communication
- All-Around Protections: OVP, OCP, SCP, OTP
- Optimized for variable motor loads of EV air conditioning system: reliable DC output direct driving / embedded dual-output chopper (optional Fully Isolated)



Model Number	EVD-540-3000-28 [PLD3000-EVDYL01-27]	EVD-590-3000-28HS [PLD3000-EVDYL02-27(HS)]	EVD-590-3000-48 [PLD3000-EVDYL02-48]
Output Voltage	27.5V	27.5V	48V
Output Current	110A	110A	62.5A
Max. Output Voltage	27.5V	27.5V	48V
Output Voltage @ Open Circuit	27.5V	27.5V	48V
Voltage Accuracy	±2%	±2%	±2%
Output Power	3000W	3000W	3000W
Input Voltage	200~880Vdc	280~900V	280~900V
Max. Input Current	12A	12A	12A
Max. Input Power	3600W	3600W	3600W
Efficiency	96%	96%	96%
Communication	CAN	CAN	CAN
On/Off Control	Yes	Yes	Yes
Protections	OVP, OCP, SCP, OTP	OVP, OCP, SCP, OTP	OVP, OCP, SCP, OTP
Ingress Protection	IP54 (With System)	IP54 (With System)	IP54 (With System)
Working Temperature	-40~100°C	-40~85°C	-40~85°C
Cooling	Natural Cooling (With System)	Natural Cooling (With System) / air cooling (for HS version)	Natural Cooling (With System)
Max. Case Temperature	100°C	100°C	100°C
EMI	GB18655 (With System)	GB18655 (With System)	GB18655 (With System)
Isolation	3500Vdc	3500Vdc	3500Vdc
Dimensions (LxWxH)	287x168x74mm	260x180x62mm (260x180x110mm for PLD3000-EVDYL02-27HS)	260x180x62mm
Weight	3.5kg	3kg	3kg
Life Time at 40°C, 380Vdc Input, and Continuous Full Load Output	50,000 Hours	50,000 Hours	50,000 Hours

Part numbers in brackets are factory numbers