

Descriptions

Powerland's "Black Diamond" series 36V Li-ion battery chargers are designed with high efficiency, as well as full metal case enclosure. The extraordinary performances of low power dissipation and water proof provide the chargers high reliability and super long life time. This series of chargers offer solid and safe power conversions for applications such as e-vehicles, e-bikes, e-motorcycles, e-boat, e-machines, etc.

Features

- Universal AC Input (185~264Vac or 90~264Vac)
- Output Power: 150~280W
- Ultra High Reliability
- High Efficiency: Up to 93%
- All-Around Protections: OVP, OCP, SCP, OTP
- Low Temperature Start Up @ -20°C
- High Temperature Full Load Operation @ 50°C
- IP65/IP20 Ingress Grade



Models

Model Number	Output Power	Output Voltage	Output Current	Output Current Range
PLD150-EVCS04-42	150W	25~42V	3.5A	95~105%Io
PLD210-EVCS05-42	210W	25~42V	5A	95~105%Io
PLD280-EVCS13-42	280W	25~42V	6.6A	95~105%Io
PLD280-EVCS06-42	280W	25~42V	6.6A	95~105%Io

Electrical Specifications

Model	PLD150-EVCS04-42	PLD210-EVCS05-42	PLD280-EVCS13-42	PLD280-EVCS06-42
Output Voltage	25~42V			
Output Current	3.5A	5A	6.6A	6.6A
Max. Output Voltage	42V			
Output Voltage @ Open Circuit	42V			
Current Accuracy	± 5%			
Voltage Accuracy	± 0.5%			
Output Power	150W	210W	280W	280W
Input Voltage	185~264Vac			90~264Vac
Input Frequency	47~63Hz			
Max. Input Current	2A@230Vac	3A@230Vac	3.5A@230Vac	3A@115Vac 1.6A@230Vac
Max. Input Power	175W	235W	310W	320W
Power Factor	N/A			>0.97@115Vac >0.95@230Vac
THD	N/A			20%Max
Efficiency	91%@230Vac	93%@230Vac	93%@230Vac	90%@115Vac 93%@230Vac
Protections	OVP, OCP, SCP, OTP			
Ingress Protection	IP65			
Working Temp.	-20~50°C			
Cooling	Natural Cooling			
Max. Case Temp.	<55°C@25°C Ambient Temperature			
EMI	N/A			EN55014
Surge Protection	1kV DM, 2kV CM			
Isolation	Primary to Secondary: 3000Vac/10mA max./60s Primary to Earth: 1500Vac/10mA max./60s Secondary to Earth: 500Vac/10mA max./60s			
Dimensions (LxWxH)	146x84x48mm	161x84x48mm	181x88x51mm	210x88x51mm
Weight	1.14kg	1.32kg	1.52kg	1.92kg
Life Time	30,000 Hours at 25°C, 230Vac Input, and Continuous Full Load Output			

* Unless otherwise noted, the data are based on 25°C ambient temperature, 230Vac input voltage and full load.

Descriptions

Powerland's "Black Diamond" series 48V Li-ion battery chargers are designed with ultra high efficiency, as well as full metal case enclosure. The extraordinary performances of low power dissipation and water proof provide the chargers high reliability and super long life time. This series of chargers offer solid and safe power conversions for applications such as e-vehicles, e-bikes, e-motorcycles, e-boat, e-machines, etc.



Features

- Universal AC Input (185~264Vac or 90~264Vac)
- Output Power: 97~280W
- Ultra High Reliability
- High Efficiency: Up to 93%
- All-Around Protections: OVP, OCP, SCP, OTP
- Low Temperature Start Up @ -20°C
- High Temperature Full Load Operation @ 50°C
- IP65 Ingress Grade

Models

Model Number	Output Power	Output Voltage	Output Current	Output Current Range
PLD100-15CH07	97W	30~54.1V	1.8A	95~105%Io
PLD150-15CH06	152W	30~54.1V	2.8A	95~105%Io
PLD210-15CH03	210W	30~54.1V	4A	95~105%Io
PLD280-15CH05	280W	30~54.1V	5.2A	95~105%Io
PLD280-EVCN09-54	280W	30~54.1V	5.2A	95~105%Io

Electrical Specifications

Model	PLD100-15CH07	PLD150-15CH06	PLD210-15CH03	PLD280-15CH05	PLD280-EVCN09-54
Output Voltage	30~54.1V				
Output Current	1.8A	2.8A	4A	5.2A	5.2A
Max. Output Voltage	54.1V				
Output Voltage @ Open Circuit	54.1V				
Current Accuracy	± 5%				
Voltage Accuracy	± 0.5%				
Output Power	97W	152W	210W	280W	280W
Input Voltage	185~264Vac				90~264Vac
Input Frequency	47~63Hz				
Max. Input Current	1.3A@230Vac	2A@230Vac	3A@230Vac	3.5A@230Vac	3A@115Vac 1.5A@230Vac
Max. Input Power	118W	168W	232W	310W	320W
Power Factor	N/A				>0.97@115Vac >0.95@230Vac
THD	N/A				20%Max
Efficiency	90%@230Vac	91%@230Vac	93%@230Vac	93%@230Vac	90%@115Vac 93%@230Vac
Protections	OVP, OCP, SCP, OTP				
Ingress Protection	IP20	IP65			
Working Temperature	-20~40°C	-20~50°C			
Cooling	Natural Cooling				
Max. Case Temp.	<55°C@25°C Ambient Temperature				
EMI	N/A				EN55014
Surge Protection	1kV DM, 2kV CM				
Isolation	Primary to Secondary: 3000Vac/10mA max. /60s	Primary to Secondary: 3000Vac/10mA max./60s Primary to Earth: 1500Vac/10mA max./60s Secondary to Earth: 500Vac/10mA max./60s			
Dimensions (LxWxH)	146x70x39mm	146x84x48mm	161x84x48mm	181x88x51mm	210x88x51mm
Weight	0.6kg	1.14kg	1.32kg	1.52kg	1.92kg
Life Time	30,000 Hours at 25°C, 230Vac Input, and Continuous Full Load Output				

* Unless otherwise noted, the data are based on 25°C ambient temperature, 230Vac input voltage and full load.

Descriptions

Powerland's "Black Diamond" series 48V Li-ion battery chargers are designed with ultra high efficiency, as well as full metal case enclosure. The extraordinary performances of low power dissipation and water proof provide the chargers high reliability and super long life time. This series of chargers offer solid and safe power conversions for applications such as e-vehicles, e-bikes, e-motorcycles, e-boat, e-machines, etc.

Features

- Universal AC Input: 90~264Vac
- Output Power: 215W
- Ultra High Reliability
- High Efficiency: Up to 92.5%
- All-Around Protections: OVP, OCP, SCP, OTP
- Low Temperature Start Up @ -20°C
- High Temperature Full Load Operation @ 50°C
- IP65 Ingress Grade
- Meet the CE, PSE, KC Requirement



Models

Model Number	Output Power	Output Voltage	Output Current	Output Current Range
PLD215-EVCN09-54040	215W	26~54V	4A	95~105%Io

Electrical Specifications

Model	PLD215-EVCN09-54040
Output Voltage	26-54V
Output Current	4A
Current Accuracy	± 5%
Voltage Accuracy	± 0.5%
Output Power	215W
Input Voltage	90-264Vac
Input Frequency	47-63Hz
Max. Input Current	2.3A@115Vac 1.15A@230Vac
Max. Input Power	235W
Power Factor	>0.97@115Vac, >0.95@230Vac
THD	20%Max
Efficiency	90.5%@115Vac, 92.5%@230Vac
Protections	OVP, OCP, SCP, OTP
Ingress Protection	IP65
Working Temperature	-20-50°C
Cooling	Natural Cooling
Max. Case Temperature	<55°C@25°C Ambient Temperature
EMI	EN55014
Surge Protection	1kV DM, 2kV CM
Isolation	Primary to Secondary: 3750Vac/10mA max./60s Primary to Earth: 1500Vac/10mA max./60s Secondary to Earth: 500Vac/10mA max./60s
Dimensions (LxWxH)	210x88x51mm
Weight	1.92kg
Life Time	30,000 Hours at 25°C, 230Vac Input, and Continuous Full Load Output

* Unless otherwise noted, the data are based on 25°C ambient temperature, 230Vac input voltage and full load.

Descriptions

Powerland's "Black Diamond" series 48V Li-ion battery chargers are designed with ultra high efficiency, as well as full metal case enclosure. The extraordinary performances of low power dissipation and water proof provide the chargers high reliability and super long life time. This series of chargers offer solid and safe power conversions for applications such as e-vehicles, e-bikes, e-motorcycles, e-boat, e-machines, etc.



Features

- Universal AC Input (185~264Vac or 90~264Vac)
- Output Power: 120~280W
- Ultra High Reliability
- High Efficiency: Up to 93%
- All-Around Protections: OVP, OCP, SCP, OTP
- Low Temperature Start Up @ -20°C
- High Temperature Full Load Operation @ 50°C
- IP65 Ingress Grade

Models

Model Number	Output Power	Output Voltage	Output Current	Output Current Range
PLD120-EVCS07-58	120W	30~58V	2.0A	95~105%Io
PLD150-EVCS08-58	150W	30~58V	2.8A	95~105%Io
PLD210-EVCS09-58	210W	30~58V	3.8A	95~105%Io
PLD280-EVCS14-58	280W	30~58V	4.8A	95~105%Io
PLD280-EVCS10-58	280W	30~58V	4.8A	95~105%Io

Electrical Specifications

Model	PLD120-EVCS07-58	PLD150-EVCS08-58	PLD210-EVCS09-58	PLD280-EVCS14-58	PLD280-EVCS10-58
Output Voltage	30~58V				
Output Current	2A	2.8A	3.8A	4.8A	4.8A
Max. Output Voltage	58V				
Output Voltage @ Open Circuit	58V				
Current Accuracy	± 5%				
Voltage Accuracy	± 0.5%				
Output Power	120W	150W	210W	280W	280W
Input Voltage	185~264Vac				90~264Vac
Input Frequency	47~63Hz				
Max. Input Current	1.5A@230Vac	2A@230Vac	3A@230Vac	3.5A@230Vac	3A@115Vac 1.6A@230Vac
Max. Input Power	135W	168W	235W	310W	320W
Power Factor	N/A				>0.97@115Vac >0.95@230Vac
THD	N/A				20%Max
Efficiency	91%@230Vac	92%@230Vac	93%@230Vac	93%@230Vac	90%@115Vac 93%@230Vac
Protections	OVP, OCP, SCP, OTP				
Ingress Protection	IP65				
Working Temperature	-20~50°C				
Cooling	Natural Cooling				
Max. Case Temp.	<55°C@25°C Ambient Temperature				
EMI	N/A				EN55014
Surge Protection	1kV DM, 2kV CM				
Isolation	Primary to Secondary: 3000Vac/10mA max./60s Primary to Earth: 1500Vac/10mA max./60s Secondary to Earth: 500Vac/10mA max./60s				
Dimensions (LxWxH)	146x84x48mm	146x84x48mm	161x84x48mm	181x88x51mm	210x88x51mm
Weight	1.14kg	1.14kg	1.32kg	1.52kg	1.92kg
Life Time	30,000 Hours at 25°C, 230Vac Input, and Continuous Full Load Output				

* Unless otherwise noted, the data are based on 25°C ambient temperature, 230Vac input voltage and full load.

Descriptions

Powerland's “Black Diamond” series 60V Li-ion battery chargers are designed with ultra high efficiency, as well as full metal case enclosure. The extraordinary performances of low power dissipation and water proof provide the chargers high reliability and super long life time. This series of chargers offer solid and safe power conversions for applications such as e-vehicles, e-bikes, e-motorcycles, e-boat, e-machines, etc.

Features

- Universal AC Input (185~264Vac or 90~264Vac)
- Output Power: 210~280W
- Ultra High Reliability
- High Efficiency: Up to 93%
- All-Around Protections: OVP, OCP, SCP, OTP
- Low Temperature Start Up @ -20°C
- High Temperature Full Load Operation @ 50°C
- IP65 Ingress Grade



Models

Model Number	Output Power	Output Voltage	Output Current	Output Current Range
PLD210-15CH02	210W	46~70.4V	3A	95~105%Io
PLD280-15CH03	280W	46~70.4V	4A	95~105%Io
PLD280-15CF03	280W	46~70.4V	4A	95~105%Io

Electrical Specifications

Model	PLD210-15CH02	PLD280-15CH03	PLD280-15CF03
Output Voltage	46~70.4V		
Output Current	3A	4A	4A
Max. Output Voltage	70.4V		
Output Voltage @ Open Circuit	70.4V		
Current Accuracy	± 5%		
Voltage Accuracy	± 0.5%		
Output Power	210W	280W	280W
Input Voltage	185~264Vac		90~264Vac
Input Frequency	47~63Hz		
Max. Input Current	3A@230Vac	3.5A@230Vac	3A@115Vac 1.5A@230Vac
Max. Input Power	244W	310W	320W
Power Factor	N/A		>0.97@115Vac, >0.95@230Vac
THD	N/A		20%Max
Efficiency	93%@230Vac	93%@230Vac	90%@115Vac 93%@230Vac
Protections	OVP, OCP, SCP, OTP		
Ingress Protection	IP65		
Working Temperature	-20~50°C		
Cooling	Natural Cooling		
Max. Case Temperature	<55°C@25°C Ambient Temperature		
EMI	N/A		EN55014
Surge Protection	1kV DM, 2kV CM		
Isolation	Primary to Secondary: 3000Vac/10mA max./60s Primary to Earth: 1500Vac/10mA max./60s Secondary to Earth: 500Vac/10mA max./60s		
Dimensions (LxWxH)	161x84x48mm	181x88x51mm	210x88x51mm
Weight	1.32kg	1.52kg	1.92kg
Life Time	30,000 Hours at 25°C, 230Vac Input, and Continuous Full Load Output		

* Unless otherwise noted, the data are based on 25°C ambient temperature, 230Vac input voltage and full load.

Descriptions

Powerland's “Black Diamond” series 72V Li-ion battery charger is designed with ultra high efficiency, as well as full metal case enclosure. The extraordinary performances of low power dissipation and water proof provide the charger high reliability and super long life time. This series of chargers offer solid and safe power conversions for applications such as e-vehicles, e-bikes, e-motorcycles, e-boat, e-machines, etc.

Features

- Universal AC Input (90~264Vac or 185~264Vac)
- Output Power: 280W
- Ultra High Reliability
- High Efficiency: Up to 94%
- All-Around Protections: OVP, OCP, SCP, OTP
- Low Temperature Start Up @ -20°C
- High Temperature Full Load Operation @ 50°C
- Adaptive Power Derating
- IP65 Ingress Grade



Models

Model Number	Input Voltage	Output Power	Output Voltage	Output Current	Output Current Range
PLD280-EVCS24-83	185~264Vac	280W	50~83V	3.5A	95~105%Io
PLD280-EVCS11-83	90~264Vac	280W	50~83V	3.5A	95~105%Io

Electrical Specifications

Model	PLD280-EVCS24-83	PLD280-EVCS11-83
Output Voltage	50~83V	
Output Current	3.5A	3.5A
Max. Output Voltage	83V	
Output Voltage @ Open Circuit	83V	
Current Accuracy	± 5%	
Voltage Accuracy	± 0.5%	
Output Power	280W	280W
Input Voltage	185~264Vac	90~264Vac
Input Frequency	47~63Hz	
Max. Input Current	3.5A@230Vac	3A@115Vac 1.6A@230Vac
Max. Input Power	310W	320W
Power Factor	N/A	>0.97@115Vac >0.95@230Vac
THD	N/A	20%Max
Efficiency	93%@230Vac	90%@115Vac 93%@230Vac
Protections	OVP, OCP, SCP, OTP	
Ingress Protection	IP65	
Working Temperature	-20~50°C	
Cooling	Natural Cooling	
Max. Case Temperature	<55°C@25°C Ambient Temperature	
EMI	N/A	EN55014
Surge Protection	1kV DM, 2kV CM	
Isolation	Primary to Secondary: 3000Vac/10mA max./60s Primary to Earth: 1500Vac/10mA max./60s Secondary to Earth: 500Vac/10mA max./60s	
Dimensions (LxWxH)	181x88x51mm	210x88x51mm
Weight	1.52kg	1.92kg
Life Time	30,000 Hours at 25°C, 230Vac Input, and Continuous Full Load Output	

* Unless otherwise noted, the data are based on 25°C ambient temperature, 230Vac input voltage and full load.