PowerFirst

A Global Leader in Charger Manufacture















PDV 450







Intelligent design for charging AGM, GEL, Flooded and Lithium batteries, the PDV 450 Charger is available in on- and off-board configurations. Optional CAN bus communication ensures seamless machine integration and AC/DC cabling is completely customizable.

Main applications:













- High frequency system with advanced technology
- Charging process fully controlled by microprocessor.
- Possibility to change the charging curve by button, choosing from 16 standard pre-programmed curves for AGM, GEL, WET, Lithium batteries.
- Charging process starting in the "soft start" mode and automatic reset upon connection of a new battery. Equipped with NC (Normally closed) relay for safety interlock connections (available only for on-board installation)
- Alphanumeric signals of possible anomalies.
- Protection with an output relay against polarity inversions, short circuits, over-voltages or anomalies.

- dV/dT adaptive charging profile available under request for Wet lead-acid traction batteries.
- Compensation of the voltage drop on the connecting cables to the battery.
- Normally closed auxiliary contact of connected AC input line.
- Self-extinguishing case made of ABS with double insulation
- Customized remote LED indicator available per request
- Support both ON-BOARD and OFF BOARD use.
- Thermal protection against over heating.
- With forced ventilation fans

PDV 450

Charger Specifications

DC Output	24 VDC	36 VDC	48 VDC
Maximum DC output voltage	33 V	49.5 V	66 V
Maximum DC output current	15 A	10 A	8 A
Maximum DC output power		450 W	
Deep discharge recovery (minimum voltage)	1.2 V	1.8 V	2.4 V
Maximum C3 interlock current		7 A	
Battery type	Lead acid (wet / AGM / gel), lithium		
Reverse polarity	Electronic protection with auto-reset		
Short circuit	Electronic current limit		

AC Input		
AC input voltage range	85-270 VAC	
Nominal AC input voltage	100-240 VAC	
Nominal AC input frequency	50 / 60 Hz	
Maximum AC input current	14.5 A	
Nominal AC input current	13.4 A @ 100 VAC	11.1 A @ 120 VAC
	5.7 A @ 230 VAC	5.5 A @ 240 VAC
Power factor	>0.99 @ 120 VAC	>0.98 @ 230 VAC

Regulatory	
Effciency	90% at full load, 120 VAC, 48 VDC 92% at full load, 240 VAC, 48 VDC
Safety (LVD)	UL1564, CSA 107.2, EN 60335-2-29
Emissions (EMC)	FCC Part 15 / ICES 003 Class A, EN55011, EN 61000-6-4
Immunity (EMC)	EN 61000-3-2, EN 61000-3-3, EN 61000-6-2

Mechanical	
Dimensions	L276.8 x W154.4 x H133.6 mm
Weight	2.5 kg
AC input connector	IEC320 / C14 (requires country-specifc cord)
DC output connector	M6 threaded fasteners for ring terminals (field replaceable)
Mounting holes	6.0 mm (1/4") diameter slots
Cooling	Active cooling with fan (Variable speed, feld serviceable, field replaceable)

Environmental		
Enclosure	IP21	
Mechanical shock & vibration	GMW3172	
Corrosion & humidity		
Thermal fatigue		
Operating temperature	-10°C to +45°C	Derated at >40°C
Storage temperature	-20°C to +70°C	

Visit epowerfirst.com/charger/Padova-family/ to view the complete product datasheet. Copyright © 2022 PowerFirst Company Limited. All rights reserved.



Highlighted Features:

- Optional CAN bus, RS485, I²C, Wi-Fi, Bluetooth communication for machine integration or lithiumBMS
- User friendly LED indicators for AC source, batterystatus, charging, error
- Field programmable with up to 16 charging profiles
- · Auto-recharge for low voltage in maintenance mode
- OEM customizable & field replaceable AC/DC cabling































