# **PowerFirst**

A Global Leader in Charger Manufacture

























Intelligent design for charging AGM, GEL, Flooded and Lithium batteries, the Smart 600 Charger is available in on- and off-board configurations. AC/DC cabling is completely customizable.

## Main applications:















#### High Reliability

Engineered using design for reliability. Validated for long service life in harsh operating conditions. Tested to perform reliably and durably in automotive applications. Manufactured in a world class facility specializing in high reliability solutions.



### Machine Integration

Option CAN bus communication enables deeo machine integration, disgnostics control.



#### Premium charging Quality

Charge profiles to precisely charge AGM, GEL, Flooded and Li-ion batteries. Developed in PowerFirst's battery lab to balance charge time, battery life and application requirements.



#### Global + Efficient

Capable of operating reliably on any single-phase grid worldwide. High-efficiency performance for electricity savings and shorter charge times. Active cooling enables optimal peak performance.















# Smart 600 Charger Specifications

DC Output	12 VDC	24 VDC	36 VDC	48 VDC
Max. DC output voltage	16.8 V	33.6 V	50.4 V	67.2 V
Max. DC output current	30 A	20 A	13 A	10 A
Max. DC output power	600 W			
Deep discharge recovery (minimum voltage)	8 V	16 V	24 V	32 V
Maximum 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 ±10%		
Nominal AC input frequency	50 / 60 Hz		
Maximum AC input current	7 A		
Nominal AC input current	7 A @ 100 VAC	3.5 A @ 240 VAC	
Power factor	>0.99 @ 120 VAC	>0.98 @ 230 VAC	

Regulatory	
Effciency	88% at full load, 120 VAC, 48 VDC   99% at full load, 240 VAC, 48 VDC
Safety (LVD)	UL1564, CSA 107.2, EN 60335-2-29
Emissions (EMC)	EN55014
Immunity (EMC)	EN 61000-3-2, EN 61000-3-3

Mechanical		
Dimensions	L241.2 x W135 x H60 mm	
Weight	2.2 kg	
AC input connector	IEC320 / C14 (requires country-specifc cord)	
DC output connector	Customizable	
Communication	CAN bus 485 (optional)	
inhibit function	ON / OC	
Cooling	Active cooling with fan (Variable speed)	

Environmental			
Enclosure	IP21		
Operating temperature	-20°C to +45°C	Derated at >45°C	
Storage temperature	-40°C to +70°C		

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

#### Highlighted Features:

- Optional CAN bus, RS485, I<sup>2</sup>C, Wi-Fi, Bluetooth communication for machine integration or lithiumBMS.
- User friendly LED indicators for AC source, batterystatus, charging, error.
- Field programmable with up to 30 charge profiles
  Auto-recharge for low voltage in maintenance mode
- OEM customizable & field replaceable AC/DC cabling
   Additional portable handle available

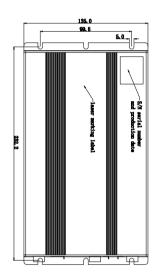


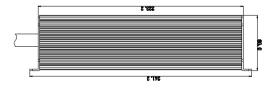


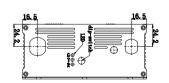














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