

PowerCharge™

Battery Charger
iHF Series

The PowerCharge iHF Series is a line of intelligent and high frequency industrial battery chargers that feature advanced power electronics technologies and microprocessor controls. The new line features state-of-the-art power electronics technologies, including soft switching power conversion and advanced planar magnetics, resulting in higher efficiencies, smaller size, and lower weight. The advanced on-board microprocessor controls incorporate programmable charging algorithms that can be tailored to meet the needs of various battery chemistries including flooded, Gel, and AGM Lead-Acid batteries.



Advantages:

- Compact size and weight
- High performance and high efficiency
- Advanced programming capabilities

Applications:

- Industrial electric vehicles:
 - Electric forklift trucks
 - Electric ground support equipment (GSEs)
- Electric and hybrid electric vehicles

FEATURES & BENEFITS

❖ High Efficiency Soft Switching Power Conversion Technology

The PowerCharge iHF chargers utilize state-of-the-art power electronics technologies including soft switching power conversion, which greatly improves efficiency and reduces electromagnetic interference (EMI). With soft switching, the switching losses in the power semiconductor devices are eliminated allowing for higher switching frequencies (75-100kHz) and resulting in reduced unit size and weight.

❖ Multi Voltage Capability

The PowerCharge iHF Series is a multi-voltage battery charger eliminating the need for multiple chargers in a facility or plant. Users can standardize on a single charger from a single source simplifying installation, operation, and maintenance. With its advanced user interface, the chargers are field programmable to fit any battery size.

❖ Advanced Intelligence and Controls

The PowerCharge iHF chargers features state-of-the-art microprocessor controls and advanced user interfaces including an on-board Infra Red port. Using a PDA device (a Palm Pilot) along with PowerDesigners' user friendly Palm software, users can easily and fully program various charging parameters and select among the various charging sequences that best meet their specific battery needs.

❖ Advanced User Interface with Remote Control Capability

Equipped with an RS-232, an RS-485, an IR port, and an optional Ethernet port, PowerCharge extends its programmability and monitoring features to remote hosts such as PCs, PDAs, PLCs, and servers.

For further information please visit our website at www.powerdesigners.com

or contact PowerDesigners, LLC at +1-608-231-0450.

PowerCharge iHF Series Product Matrix

Specifications	PCiHF-6kW-48V-480VAC	PCiHF-10kW-48V-480VAC	PCiHF-10kW-80V-480VAC
Nominal VA Ratings	48V / 150A	48V / 250A	80V / 120A
Input Specs.			
Voltage	480VAC, 3-phase $\pm 10\%$ Delta Connection with Earth Ground		
Current	8.3A rms nominal / phase	13.8A rms nominal / phase	13.8A rms nominal / phase
AC Circuit Size	15A	20A	20A
Power Factor	0.96 (Active Power Factor Correction)		
Output Specs.			
Voltage	48V Nom. / 62.5V Max.	48V Nom. / 62.5V Max.	80V Nom. / 110V Max.
Current	150A Max.	250A Max.	120A Max.
Power	6 kW Max.	10 kW Max.	10 kW Max.
Pk-Pk Voltage Ripple	< 1%		
Efficiency (typical)	92% at Full Load		
Protection			
Input	<ul style="list-style-type: none"> ➤ Under voltage ➤ Over Voltage 		
Output	<ul style="list-style-type: none"> ➤ Over Current ➤ Over Voltage ➤ Over temperature ➤ Battery reverse polarity protection 		
Operating Conditions			
Ambient Temperature	0 – 40°C		
Humidity	10-90% RH non-condensing		
Interface			
Communication μ controller	Isolated RS-232 (Ethernet optional) LCD/Keypad, RS-232, IR with a PDA (Palm Pilot)		
Cooling	Forced air (fans)		
Mechanical			
Dimensions (WxDxH)	19"x8.5"x28"		
Weight	~ 90 lb		
Output Cabling	2/0 cables		
Output Connectors	SBX w/aux. contacts or Euro		
Auxiliary Contacts	Interface with a 5k Ω battery thermistor or PowerTrac SP+		
Certifications	PCiHF-10kW-48V-480VAC & PCiHF-10kW-80V-480VAC UL and cUL Listed. Other models are DTM UL 1564.		