















## HPOWER DNV-GL





New generation

Robustness

Unrivalled performance

Flexible and user-friendly

LIN & CAN-BUS interface



#### PRESENTATION

Specialized in the design of automatic battery chargers for more than 30 years, CRISTEC is proud to offer you high quality battery chargers for the toughest conditions for professional and recreational purposes: HPOWER.

#### PERFORMANCE



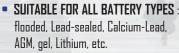
 5-STAGE CHARGING PROFILE to ensure fast and complete charging, power-supply mode available

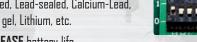


• FULL POWER up to +50°C ambient with no derating allowing rated charge for intensive use in hot or confined place



3 ISOLATED BATTERY BANKS, with no current limitation











### **WORLDWIDE USE**

- 90-265VAC/47-65HZ auto-ranging
- RATED OPERATION REGARDLESS the available AC voltage including from a genset
- MEMORY FUNCTION : in case of unstable AC network the charger will not reset to prevent battery overcharging
- BEST IN CLASS PROTECTION : removable fuses and varistor, coated circuit board for marine environment, automatic burn-in test



#### **ERGONOMICS**

- FAST AND SECURE INSTALLATION through made-tomeasure external wall fixing device
- LIGHTWEIGHT RUGGED Aluminium casing with special coating for marine environment
- OPTIMAL ACCESSIBILITY : specific secured connection compartment

#### BUILT-IN FUNCTIONALITIES

- CAN-BUS INTERFACE for data transfer
- 2,5" COLOR TOUCH-SCREEN control panel
- ON/OFF, default /battery low-voltage relays and automatic voltage drop compensation
- EASILY PROGRAMMABLE for a variety of applications and specific settings



#### OPTIONS

- PARALLEL OPERATION: up to 4 chargers through LIN-BUS
- EXTERNAL TEMPERATURE probe to monitor battery compartment

#### DNV-GL TYPE APPROVED PRODUCT

 With integrated touch-screen control panel and relays Certificate nº TAEOOOO3JC













# Innovative automatic battery chargers **HPOWER DNV-GL**





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Part number	HPO12-90-CERT	HPO24-45-CERT	HPO24-60-CERT	HPO24-80-CERT	HPO24-100-CERT
Model	12V/90A 600-1200Ah	24V/45A  300-600Ah	24V/60A  500-800Ah	24V/80A 700-1000Ah	24V/100A 800-1300Ah
Recommended battery bank (Pb)	000-1200AH	300-000AH	300-800AH	700-1000AII	000-1300AH
INPUT		<b>5</b>	00 to 265 / 46 de alemante		
Voltage Frequency		From	90 to 265VAC single-phase aut From 47 to 65Hz automatic	omatic	
Input current consumption					
230/115VAC	6.0A/12.0A	6.0A/12.0A	8.0A/16.0A	11.0A/18.0A	14.0A/26.0A
Recommended power for a generator	1600W	1600W	2100W	2800W	3520W
Power factor	1				
Efficiency	87% typical				
Removable input fuses	2 x 20A 250Vac (6.3x32)(F1/F2)		2 x 25A 250Vac (6.3x32) (F1/F2)		2 x 32A 250Vac (6.3x32) (F1/F2)
OUTPUT					
Number of battery banks	3 (including one for the engine battery) : +BAT E, +BAT 1 et +BAT 2 (integrated) 1 negative -BAT Each bank can be used individually and deliver the rated current				
Connection on threaded rods		٨	16		M8
Rated current / power	90A/1282W	45A/1282W	60A/1710W	80A/2280W	100A/2850W
Charging curve		hrough internal dip switches (Bo			
Battery type	Lead-sealed as factory setting - Gel, AGM, Calcium Lead, LiFePO4, DC power-supply mode, etc. Specific request on demand				
Boost voltage	14.4VDC as factory setting for Lead-sealed 28,8VDC as factory setting for Lead-sealed				
Floating voltage	13.8VDC as factory setting for Lead-sealed 27,6VDC as factory setting for Lead-sealed				
Regulation tolerance before output diode and fuse	< 1 % (at rated conditions)				
Peak to peak ripple			< 1 % (at rated conditions)		
Automotive fuse in the minus pole -BAT	4 x 30A/32V	2 x 30A/32V	3 x 25A/32V	4 x 25A/32V	5 x 25A/32V
ENVIRONMENT					
		Electric f	an controlled in temperature a	nd current	
Cooling		Electric f	an controlled in temperature an < 50 dBa at 1 m	nd current	
Cooling Sound level	Rated charge from -20°C	Electric f	< 50 dBa at 1m		when temperature decreases
Cooling Sound level Operating temperature	Rated charge from -20°C		< 50 dBa at 1m		when temperature decreases
Cooling Sound level Operating temperature Storage temperature	Rated charge from -20°C	to +50°C, derating above 50°C.	< 50 dBa at 1m Automatic charger switch off al		when temperature decreases
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Cooling Sound level Deparating temperature Storage temperature Relative humidity  CASING	Rated charge from -20°C	to +50°C, derating above 50°C.	< 50 dBa at 1m Automatic charger switch off al From -20°C to +70°C		when temperature decreases
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Cooling Sound level Deparating temperature Storage temperature Relative humidity  CASING Material Dimensions (lenght, height, depth) / Weight	Rated charge from -20°C	to +50°C, derating above 50°C.	< 50 dBa at 1m  Automatic charger switch off al From -20°C to +70°C  00% with condensation  Aluminium painted  270 x 360 x 130 mm / 6.8 kg	bove 60°C; automatic restart '	
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Cooling Sound level Operating temperature Storage temperature Relative humidity  CASING Material Dimensions (lenght, height, depth) / Weight Fixing screw (wall) Protection factor PCB protection  STANDARDS EC / EMC EC / LVD	Rated charge from -20°C	4 x M6 rou NF EN 6100 Against leaking input surge by	< 50 dBa at 1m  Automatic charger switch off al From -20°C to +70°C  00% with condensation  Aluminium painted  270 x 360 x 130 mm / 6.8 kg  nd screws. Mounting kit + secul  IP23  Water-repellent varnish  0-6-1 / NF EN 61000-6-2 / NF EN NF EN 60335-2-29	uring screws	270x410x130 mm/9.0 kg
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Cooling Cound level Coperating temperature Storage temperature Relative humidity  CASING Material Commensions (lenght, height, depth) / Weight Fixing screw (wall) Protection factor CB protection  STANDARDS EC / EMC	Rated charge from -20°C	4 x M6 rou  Against leaking input surge by	< 50 dBa at 1m  Automatic charger switch off al From -20°C to +70°C  00% with condensation  Aluminium painted  270 x 360 x 130 mm / 6.8 kg  nd screws. Mounting kit + secul IP23  Water-repellent varnish  0-6-1 / NF EN 61000-6-2 / NF EN NF EN 60335-2-29  VVDR (Voltage Dependant Resion output polarity reversal by fusions)	uring screws N 61000-6-4 stor) - Not covered by warrar e rupture	270 x 410 x 130 mm / 9.0 kg
Cooling Sound level Deparating temperature Storage temperature Relative humidity  CASING Material Dimensions (lenght, height, depth) / Weight Fixing screw (wall) Protection factor PCB protection STANDARDS EC / EMC EC / LVD PROTECTIONS		4 x M6 rou  Against leaking input surge by	< 50 dBa at 1m Automatic charger switch off all From -20°C to +70°C 00% with condensation Aluminium painted 270 x 360 x 130 mm / 6.8 kg nd screws. Mounting kit + secul IP23 Water-repellent varnish 0-6-1 / NF EN 61000-6-2 / NF EN NF EN 60335-2-29 VDR (Voltage Dependant Resion output polarity reversal by fus Against short-circuit and surges	uring screws N 61000-6-4 stor) - Not covered by warrar e rupture	270 x 410 x 130 mm / 9.0 kg
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Cooling Sound level Operating temperature Storage temperature Relative humidity  CASING Material Dimensions (lenght, height, depth) / Weight Fixing screw (wall) Protection factor PCB protection STANDARDS EC / EMC EC / LVD PROTECTIONS  BUILT-IN FUNCTIONALITIE Temperature probe (option)		Against leaking input surge by Against abn  Output voltage 2.8	< 50 dBa at 1m  Automatic charger switch off al From -20°C to +70°C  00% with condensation  Aluminium painted  270 x 360 x 130 mm / 6.8 kg  nd screws. Mounting kit + secular  IP23  Water-repellent varnish  0-6-1 / NF EN 61000-6-2 / NF EN NF EN 60335-2-29  VDR (Voltage Dependant Resion output polarity reversal by fusion output pol	uring screws  N 61000-6-4  stor) - Not covered by warrar e rupture eff the charger  • 24V:-36mV/°C)	270x410x130 mm/9.0 kg
Cooling Sound level Operating temperature Storage temperature Relative humidity CASING Material Dimensions (lenght, height, depth) / Weight Fixing screw (wall) Protection factor PCB protection STANDARDS EC / EMC EC / LVD PROTECTIONS  BUILT-IN FUNCTIONALITIE Temperature probe (option) Parallel mounting (option)		Against leaking input surge by Against abn  Output voltage 2.8  KIT-HPO-LINK	< 50 dBa at 1m  Automatic charger switch off al From -20°C to +70°C  00% with condensation  Aluminium painted  270 x 360 x 130 mm / 6.8 kg  Ind screws. Mounting kit + secutives  IP23  Water-repellent varnish  0-6-1 / NF EN 61000-6-2 / NF EN NF EN 60335-2-29  IVDR (Voltage Dependant Resionate output polarity reversal by fush Against short-circuit and surger ormal overheating by cutting of the compensation (12V: -18mV/°C m: STP-HPO-2.8 • 5m:	stor) - Not covered by warrare rupture e rupture eff the charger  • 24V :-36mV/°C) O-5.0	270x410x130 mm/9.0 kg
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