

### **Presentation**

The new CRISTEC shore-power units combine, in a single cabinet, AC protection and distribution, as well as an automatic battery charger. The complete system meets the European standards in force and makes it possible to optimize size and assembly time. User protection consists of a two-pole differential RCD (Residual Current Device) and the distributions are made by 2 to 6 two-pole circuit breakers (Over Current Protection Device). The battery charger function is ensured by an HF switch-mode electronic board, stemming from the latest YPOWER+ battery charger.



#### **Silent operating**

CRISTEC offers shore-power units with natural convection (without fan). This specificity gives them a completely silent operation and an optimized lifespan.



#### Up to 4 independent outputs

The shore-power units have either 3 or 4 independent charger outputs, including one dedicated to the engine battery.



#### Worldwide use

Automatic detection of power supply network, from 90 to 265VAC and from 47 to 65Hz. You do not have to care about the AC power grid and genset voltage.



**Easy to install** 

Selection of the battery technology can be done via the front keypad or via bluetooth application or CAN-BUS communication (according to model).

### **Remote control**

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NMEA

The chargers are fitted with a CAN-Bus and a Bluetooth interface as standard. Connection to an NMEA network is also available through an optional adaptor, refer to charger's options page.



#### 5-stage charging profile

- Boost: charges batteries to 80% of full charge Absorption: slowly completes remaining charge to 100%
- Floating: maintains battery charge
- Automatic refresh: prevents sulphation and revitalizes batteries, selectable by keypad pushbutton
- Reboost: new automatic Boost phase if DC consumers and the state of batteries so require.



#### Adaptative charging



Custom-made and simultaneous recharge of either 3 or 4 battery banks.

UEPOWER+ shore-power units are compatible with all types of batteries:

- Opened classic lead
- Sealed, gel or AGM
- Spiral sealed
- Lithium Iron Phosphate (LiFePO4) with BMS

#### Low energy bluetooth

The shore-power units are equipped with a Bluetooth Low Energy (BLE), variant of "classic" Bluetooth. The major advantage of BLE is its low power consumption as it consumes half of a classic Bluetooth.

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# **SHORE-POWER DISTRIBUTION CHARGERS UEPOWER+**

				l			
AC	electrical panel				Battery charger		
uts	16A circuit breakers	10A circuit breakers	Voltage	Nominal current	Recommended battery bank (1)	Number of outputs	
		2					
	-	3		20A	100-200Ah	3	
		4					Ş

Model	Main RCD	AC outputs	16A circuit breakers	10A circuit breakers	Voltage	Nominal current	Recommended battery bank (1)	Number of outputs
UEYPOPL/12-20/2D*		2		2				
UEYPOPL/12-20/3D*		3	-	3		20A	100-200Ah	3
UEYPOPL/12-20/4D*		4		4				
UEYPOPL/12-30/2D*	20 4 (1/4	2		2				
UEYPOPL/12-30/3D*	30mA / 16A	3	-	3	]	30A	200-300Ah	3
UEYPOPL/12-30/4D*		4		4				
UEYPOPL/12-40/3D		3		3	12V			
UEYPOPL/12-40/4D		4	-	4	]	40A	300-400Ah	4
UEYPOPL/12-40/4D3	30mA / 32A	4	3	1				
UEYPOPL/12-60/3D	20 4 (1/4	3		3				
UEYPOPL/12-60/4D	30mA / 16A	4	-	4		60A	400-600Ah	4
UEYPOPL/12-60/4D3	30mA / 32A	4	3	1				

Model	UEPOWER+12V-20A	UEPOWER <sup>+</sup> 12V-30A	UEPOWER+12V-40A	UEPOWER+12V-60A				
Casing								
Material	Frame and cover of EZ steel / Anodized aluminium heatsink							
Dimensions (length, height, depth)	350 x 241 x 171mm (13,77 x 9,48 x 6,73in)							
Weight	7Kg (15,43lbs)							
Fixing center distance	180 x 133mm (7,08 x 5,23in)							
Fixing screw (wall)	4 x M5 round head screws							
Protection factor		IP2	20					
Input								
Voltage	115VAC <sup>(2)</sup> / 230VAC +/-15% single-phase							
Frequency	50/60Hz <sup>(2)</sup>							
Current consumed 230/115VAC	1.3/2.6A	2/4A	2.7/5.6A	4.4/8.7A				
Efficiency	92.8% in 240VAC & 91% in 120VAC							
Output								
Number of battery banks	3 separate positive terminals: +BAT E, +BAT 1 and +BAT 2 (integrated MOSFET splitter) 1 negative terminal : -BAT Each bank can be used individually and delivers the rated current 4 separate positive terminals : +BAT E, +BAT 1, +BAT 2 and + (integrated MOSFET splitter) 1 negative terminal : -BAT Each bank can be used individually and delivers the rated current							
Nominal current (+/-7%) @ rated power	20A/276W	30A/356W	40A/570W	60A/855W				
Charging curve	Charging curve selection by keypad, Bluetooth application or CAN-BUS communication							
Battery type	Sealed lead, Gel, AGM as factory setting - Other selections by pushbutton : calcium lead, LiFePO4, DC power-supply mode, etc. Specific request on demand							
Automotive fuses mounted in series in minus pole -BAT	1 x 30A/32V	2 x 30A/32V	3 x 30A/32V	4 x 30A/32V				
Electrical protections								
Against transient input overvoltage by varistor (not covered by warranty) / Against output polarity reversal by fuses / Against abnormal overheating								
Environement								

Environement					
Sound level	0 dB				
Bluetooth	Low energy bluetooth (BLE) - Power: +9dBm (frequency: 2412-2484MHz)				
Standards					
CE / EMC	NF EN61000-6-1, NF EN61000-6-2				
Communication					
	CAN-Bus / Low Energy Bluetooth (BLE)				
Option					
Temperature probe	Output voltage compensation -18mV/°C (ref: 2.8m: STP-UNI-2.8 or 5m: STP-UNI-5.0)				

<sup>(2)</sup> Overall battery capacity recommended for lead-type batteries, C/10. For Lithium batteries, C/3, consult us if needed. <sup>(2)</sup> Consult CRISTEC for any use at 115VAC/60Hz \* Planned avaibility 2025

# **SHORE-POWER DISTRIBUTION CHARGERS UEPOWER**<sup>+</sup>

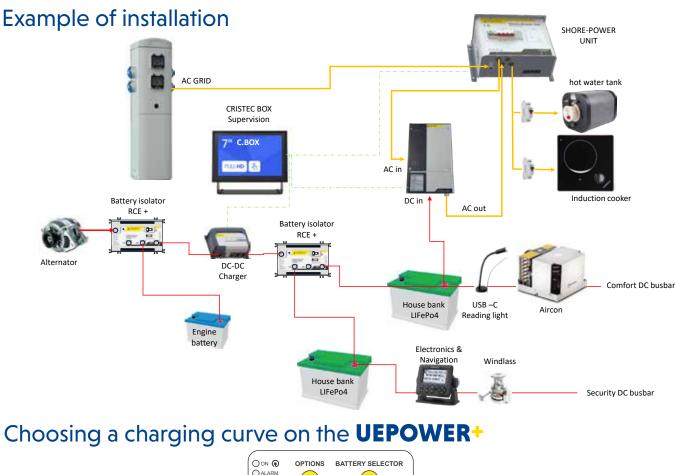


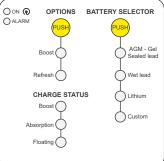
	AC electrical panel				Battery charger				
Model	Main RCD	AC outputs	16A circuit breakers	10A circuit breakers	Voltage	Nominal current	Recommended battery bank <sup>(1)</sup>	Number of outputs	
UEYPOPL/24-35/3D*	20 4 (1(4	3		3					
UEYPOPL/24-35/4D*	30mA / 16A 30mA / 32A	30mA / 16A		-	4	24V	35A	200-400Ah	4
UEYPOPL/24-35/4D3*		4	3	1					

Model	UEPOWER+ 24V-35A					
Casing						
Material	Frame and cover of EZ steel / Anodized aluminium heatsink					
Dimensions (length, height, depth)	350 x 241 x 171mm (13,77 x 9,48 x 6,73in)					
Weight	7Kg (15,43lbs)					
Fixing center distance	180 x 133mm (7,08 x 5,23in)					
Fixing screw (wall)	4 x M5 round head screws					
Protection factor	IP20					
Input						
Voltage	115VAC <sup>(2)</sup> / 230VAC +/-15% single-phase					
Frequency	50/60Hz <sup>(2)</sup>					
Current consumed 230/115VAC	4.4/8.7A					
Efficiency	92.8% in 240VAC & 91% in 120VAC					
Output						
Number of battery banks	4 separate positive terminals : +BAT E, +BAT 1, +BAT 2 and +BAT 3 (integrated MOSFET splitter) 1 negative terminal : -BAT Each bank can be used individually and delivers the rated current					
Nominal current (+/-7%) @ rated power	30A/855W					
Charging curve	Charging curve selection by keypad, Bluetooth application or CAN-BUS communication					
Battery type	Sealed lead, Gel, AGM as factory setting - Other selections by pushbutton : calcium lead, LiFePO4, DC power-supply mode, etc. Specific request on demand					
Automotive fuses mounted in series in minus pole -BAT	4 x 30A/32V					
Electrical protections						
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Environement						
Sound level	0 dB					
Bluetooth	Low energy bluetooth (BLE) - Power: +9dBm (frequency: 2412-2484MHz)					
Standards						
CE / EMC	NF EN61000-6-1, NF EN61000-6-2					
Communication						
	CAN-Bus / Low Energy Bluetooth (BLE)					
Option						
Temperature probe	Output voltage compensation -36mV/°C (ref: 2.8m: STP-UNI-2.8 or 5m: STP-UNI-5.0)					

<sup>(1)</sup> Overall battery capacity recommended for lead-type batteries, C/10. For Lithium batteries, C/3, consult us if needed. <sup>(2)</sup> Consult CRISTEC for any use at 115VAC/60Hz \* Planned avaibility 2025

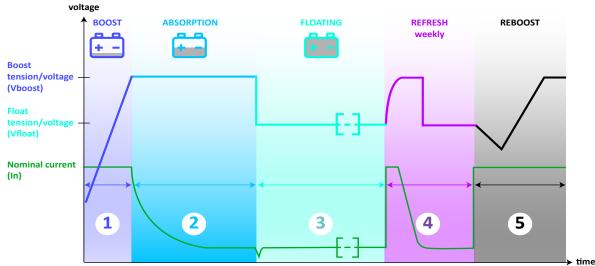
# **SHORE-POWER DISTRIBUTION CHARGERS**





With the PUSH button of the BATTERY SELECTOR you can choose the battery technology and its associated charging curve. If you use the Bluetooth Cristec Connect application on your mobile phone or tablet and choose a different charging curve the CUSTOM led switches on.

When choosing any battery technology above, the BOOST charging curve from the OPTIONS menu is selected by default. When the PUSH button is pressed again, you select the **5-step charging curve** with BOOST and REFRESH as follows :



5-step charge curve IUoU with automatic weekly refresh

If no OPTIONS are selected (no green led is lit on the OPTIONS menu) the charging curve starts with the Float voltage.