

CATALOGUE 2022



BATTERY CHARGERS

CONVERTERS

BATTERY RELATED PRODUCTS

OTHER EQUIPMENT



www.cristec.fr

CATALOGUE 2022

Specifications may change without prior notice.

CRISTEC specializes in energy conversion. Founded in 1983 in Annecy, the company belongs to the ENAG group and has been based in Quimper in Brittany for nearly 30 years.

CRISTEC is an independent and innovative electric systems manufacturer. Versatile, with a policy of putting people first, our teams participate enthusiastically in the development of the company. Our products are manufactured in France which is a guarantee of reliability and a major advantage for all our customers .

CRISTEC offers expertise on an international scale via its range of standard and customized products mainly for on-board applications.

Thanks to our network of agents and distributors who are present in over 50 countries we can guarantee our clients reliable universal solutions for use in extreme environmental conditions.

Our automatic H.F. chargers, an innovative technology in which CRISTEC was the precursor, and all our products relating to battery charging meet the whole host of international standards and norms.

The design of our latest equipment benefits from unrivalled feedback on almost 200.000 HF chargers in use.



2022 novelties



**3KVA
inverters
KERSINE**

**12V 40A & 60A
AC-DC chargers
YPOWER+**

**36 & 48V
DC-DC chargers
YPOWER**

**48V & 3-phase
AC-DC chargers
HPOWER**

**Shunt CAN
FLEXCAN**

 **CRISTEC**
on-board energy



HPOWER BATTERY CHARGERS



High power chargers
With integrated CAN-BUS as standard
Robustness & performance



NEW

NEW

NEW

NEW

NEW

Description	Reference
12VDC range	
12V/90A/3 banks	HPO12-90
24VDC range	
24V/45A/3 banks	HPO24-45
24V/60A/3 banks	HPO24-60
24V/60A/3 banks/ 400V 3-phase ⁽¹⁾	HPO24-60-TRI
24V/80A/3 banks	HPO24-80
24V/100A/3 banks	HPO24-100
24V/100A/3 banks/ 400V 3-phase ⁽¹⁾	HPO24-100-TRI
48VDC range	
48V/30A/3 banks	HPO48-30
48V/50A/3 banks ⁽²⁾	HPO48-50
48V/50A/3 banks/ 400V 3-phase ⁽¹⁾	HPO48-50-TRI
Accessories	
2.5" Touch-screen control panel	UNI-DISPLAY-R
Temperature probe 2.8m	STP-UNI-2.8
Temperature probe 5m	STP-UNI-5.0
Parallelization kit	KIT-HPO-LINK

⁽¹⁾ Availability Q3 2022

⁽²⁾ Availability Q1 2022

DNV-GL CERTIFIED MODELS



Professional application with integrated colour touch-screen remote control panel and relays board as standard
Certificate on request

Description	Reference
12VDC range	
12V/90A/3 banks	HPO12-90-CERT
24VDC range	
24V/45A/3 banks	HPO24-45-CERT
24V/60A/3 banks	HPO24-60-CERT
24V/80A/3 banks	HPO24-80-CERT
24V/100A/3 banks	HPO24-100-CERT
Accessories	See above



YPOWER+ BATTERY CHARGERS

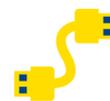


NEW
NEW

Performance in a confined environment
4 outputs - fanless - Bluetooth⁽³⁾ - Integrated CAN-BUS



silence



Description	Reference
12V/40A	YPO12-40STPL ⁽²⁾
12V/60A	YPO12-60STPL ⁽¹⁾
Accessories	
2.5" touch-screen control panel	UNI-DISPLAY-R
Temperature probe 2.8m	STP-UNI-2.8
Temperature probe 5m	STP-UNI-5.0

⁽¹⁾ Availability YPO12-60STPL Q1 2022

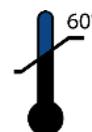
⁽²⁾ Availability YPO12-40STPL Q2 2022

⁽³⁾ Not available on OE version

YPOWER BATTERY CHARGERS



The must
Our bestsellers
5 years guarantee



silence

Description	Reference
12VDC range	
12V/16A/3 sorties — sans ventilateur	YPO12-16ST
12V/25A/3 sorties — sans ventilateur	YPO12-25ST
12V/40A/3 sorties — sans ventilateur	YPO12-40ST ⁽¹⁾
12V/60A/3 sorties	YPO12-60ST ⁽¹⁾
24VDC range	
24V/12A/3 sorties — sans ventilateur	YPO24-12ST
24V/20A/3 sorties — sans ventilateur	YPO24-20ST
24V/30A/3 sorties	YPO24-30ST
Accessories	
2.5" Touch-screen control panel ⁽²⁾	YPO-DISPLAY-R
Temperature probe 2.8m	STP-UNI-2.8
Temperature probe 5m	STP-UNI-5.0
Charger ON/OFF remote control	G-ON/OFF-R

Plug & Play connection

Supplied with AC input and DC output connectors (except OE version)



⁽¹⁾ Gradual replacement by model **YPOWER+** - interchangeable

⁽²⁾ not compliant with YPOWER chargers with integrated option (Relays/CAN-BUS)

YPOWER BATTERY CHARGERS WITH OPTION BOARD ⁽¹⁾



Even smarter chargers!

Integrated relays board : low battery voltage and charger fault



silence

Description	Reference
12VDC range	
12V/16A/3 banks — Fanless	YPO12-16RELST
12V/25A/3 banks — Fanless	YPO12-25RELST
12V/40A/3 banks — Fanless	YPO12-40RELST
12V/60A/3 banks	YPO12-60RELST
24VDC range	
24V/12A/3 banks — Fanless	YPO24-12RELST
24V/20A/3 banks — Fanless	YPO24-20RELST
24V/30A/3 banks	YPO24-30RELST

Integrated CAN-BUS board : displays battery voltage, charger current, AC input voltage and frequency, etc.



Description	Reference
12VDC range	
12V/16A/3 banks — Fanless	YPO12-16COMST
12V/25A/3 banks — Fanless	YPO12-25COMST
12V/40A/3 banks — Fanless	YPO12-40COMST ⁽²⁾
12V/60A/3 banks	YPO12-60COMST ⁽²⁾
24VDC range	
24V/12A/3 banks — Fanless	YPO24-12COMST
24V/20A/3 banks — Fanless	YPO24-20COMST
24V/30A/3 banks	YPO24-30COMST

⁽¹⁾ Warning : models not compliant with optional touch-screen control panel

⁽²⁾ Gradual replacement by model **YPOWER+** (serial CAN-BUS)

YPOWER SHORE-POWER UNITS



One single cabinet integrating the AC circuit protection and an automatic battery charger :

- 1 residual current circuit breaker 16A/30mA**
- 2, 3 or 4 single pole breakers 10A**



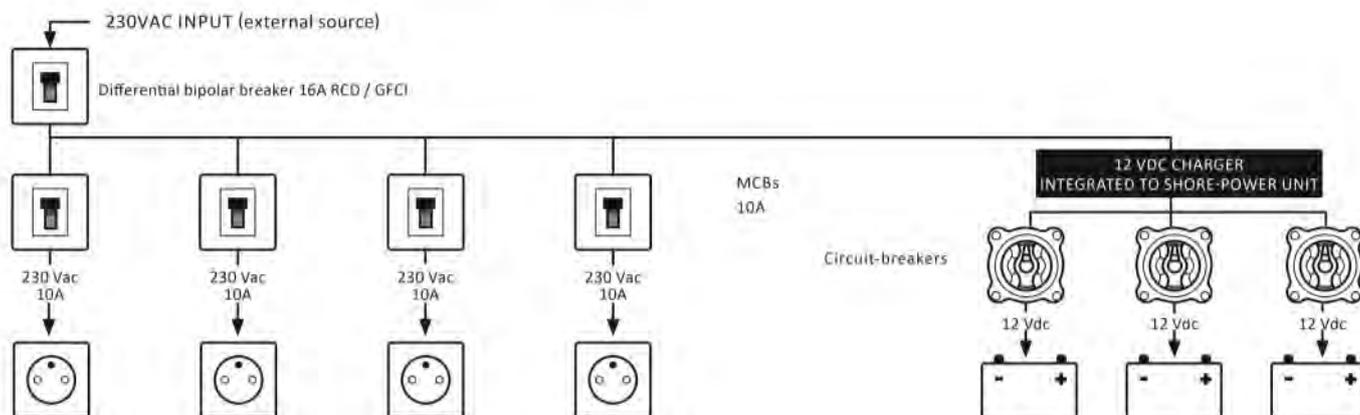
silence



Description	Reference
12V/16A/3 banks - 2 departures	UEYPO/12-16/2D
12V/16A/3 banks - 3 departures	UEYPO/12-16/3D
12V/16A/3 banks - 4 departures	UEYPO/12-16/4D
12V/25A/3 banks - 2 departures	UEYPO/12-25/2D
12V/25A/3 banks - 3 departures	UEYPO/12-25/3D
12V/25A/3 banks - 4 departures	UEYPO/12-25/4D
12V/40A/3 banks - 3 departures	UEYPO/12-40/3D
12V/40A/3 banks - 4 departures	UEYPO/12-40/4D
Accessories	
2.5" Touch-screen control panel	YPO-DISPLAY-R
Temperature probe 2.8m	STP-UNI-2.8
Temperature probe 5m	STP-UNI-5.0
Charger ON/OFF remote control	G-ON/OFF-R

CONFIGURATION EXAMPLE OF SHORE-POWER UNIT

Distribution and protection of 230VAC current on board ; 2, 3 or 4 independant outputs
12VDC YPOWER battery charger



4 protected outputs for on-board equipment operating in 230VAC : boiler, TV, tooling, mobile or PC charger, electric shaver, etc.

3 protected banks to charge
3 on-board batteries

YPOWER DC-DC BATTERY CHARGERS



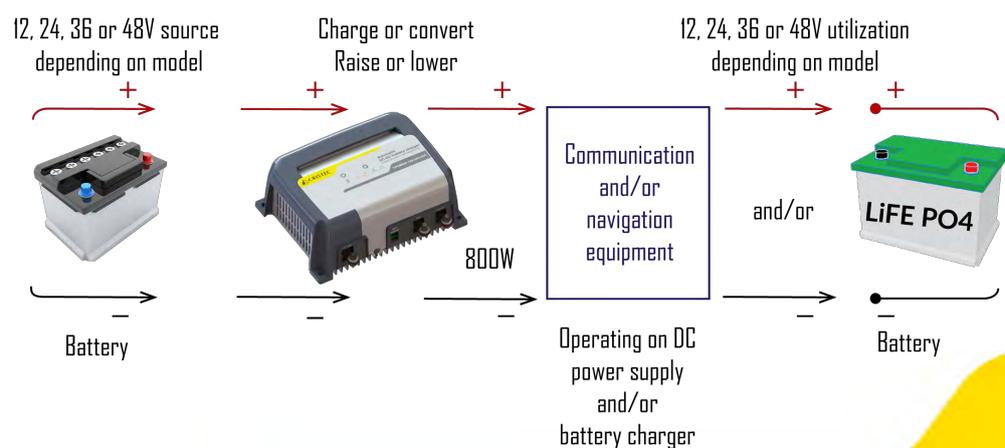
Can be used as stabilized converters
LiFePO4 compliant
800W unitary, up to 4 in parallel
Integrated BUS-CAN



Description	Reference
12VDC range	
12V-12V DC-DC battery charger	YPO12-12/60
12V-24V DC-DC battery charger	YPO12-24/30
12V-36V DC-DC battery charger	YPO12-36/15
12V-48V DC-DC battery charger	YPO12-48/10
24VDC range	
24V-12V DC-DC battery charger	YPO24-12/60
24V-24V DC-DC battery charger	YPO24-24/30
24V-36V DC-DC battery charger	YPO24-36/20
24V-48V DC-DC battery charger	YPO24-48/15
36VDC range	
36V-12V DC-DC battery charger	YPO36-12/40
36V-24V DC-DC battery charger	YPO36-24/30
36V-36V DC-DC battery charger	YPO36-36/20
36V-48V DC-DC battery charger	YPO36-48/15
48VDC range	
48V-12V DC-DC battery charger	YPO48-12/40
48V-24V DC-DC battery charger	YPO48-24/30
48V-36V DC-DC battery charger	YPO48-36/20
48V-48V DC-DC battery charger	YPO48-48/15
Accessories	
2.5" Touch-screen control panel	UNI-DISPLAY-R
Temperature probe 2.8m	STP-UNI-2.8
Temperature probe 5m	STP-UNI-5.0
Charger ON/OFF remote control	G-ON/OFF-R

NEW

NEW



OPTIONS FOR SHORE-POWER UNITS AND BATTERY CHARGERS

	YPOWER+	HPOWER	YPOWER		
	Chargers	Chargers	Chargers Indexes N4 & more	Shore-power units	DC-DC chargers & MPPT regulators
Remote touch-screen control panel 2.5"	UNI-DISPLAY-R		YPO-DISPLAY-R		UNI-DISPLAY-R
ON/OFF remote control		-	G-ON/OFF-R ⁽¹⁾		
External varistor for unstable AC Mains			VAR-AC		-
Temperature probe 5m	STP-UNI-5.0				
Temperature probe 2.8m	STP-UNI-2.8				
HPOWER parallelization kit		KIT-HPO-LINK	-		
AC input connector WAGO WINSTA ⁽²⁾	30024064	-	30024064		-
DC 3 outputs connector PHOENIX CONTACT ⁽²⁾					
All YPOWER models except 12V/60A	-	-	30033787		-
YPOWER 12V/60A	-	-	30033788	-	-
DC 4 outputs connector PHOENIX CONTACT ⁽²⁾	30037678	-			
Parallelization kit 1M (Microfit cable 3.0 6 contacts— 2 Microfit caps 3.0 120 ohms) ⁽³⁾	SEEL030319	-	SEEL030319 (COMST)	-	SEEL030319 (DC-DC)
Parallelization kit 3M (Microfit cable 3.0 6 contacts— 2 microfit caps 3.0 120 ohms) ⁽³⁾	SEEL030320	-	SEEL030320 (COMST)	-	SEEL030320 (DC-DC)

⁽¹⁾ not compatible with YPO12-16 12-25 & 24-12

⁽²⁾ for cable beam external to the charger

⁽³⁾ parallel mounting via CAN-BUS to increase the current



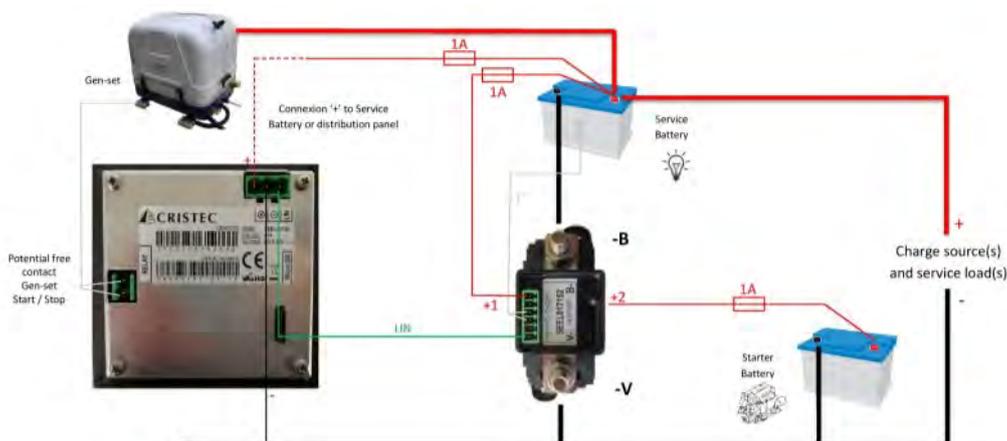
3.5" TOUCH-SCREEN BATTERY MONITOR 12, 24V, 36 and 48V



Allows to monitor battery or DC source flow
Standard : 1 shunt + 1 dry contact NO/NC + 1 bank in voltage
Option : up to 2 extra shunts



Description	Reference
Battery monitor (screen + 1 shunt 300A)	BAT-MON-3.5-3 ⁽¹⁾
Accessoires	
Additional shunt 300A	SHUNT-300-3.5-3 ⁽¹⁾
Wiring kit	SEEL017153
Temperature probe 2.8m	STP-UNI-2.8
Temperature probe 5m	STP-UNI-5.0



⁽¹⁾ References 12 - 24V : BAT-MON-3.5 and SHUNT-300-3.5

FLEXCAN CAN-BUS INTERFACE SHUNT ⁽²⁾



Ideal for monitoring all parameters related to batteries: voltage, current, remaining capacity and time, average discharge depth, unavailable capacity and number of charge/discharge cycles



NEW

Description	Reference
FLEXCAN 300A CAN-bus interface shunt	SHUNT-300-CAN

⁽²⁾ to be used separately from BAT-MON

KERSINE SINEWAVE INVERTERS ⁽¹⁾



New 50 or 60Hz high power range
Temperature performance
115V models on request
Up to 4 in parallel



NEW

NEW

Description	Reference
KERSINE 3000VA 12VDC inverter	KER12-230/3000
KERSINE 3000VA 24VDC inverter	KER24-230/3000
ON-OFF remote control	KER-ON-OFF

⁽¹⁾ Availability Q2 2022

SOLO SINEWAVE INVERTERS



230V/60Hz models
115V/60Hz on request



Description	Reference
12VDC range	
12V/200VA	SEEL006054B
12V/400VA	SEEL006056B
12V/800VA ⁽¹⁾	SEEL006072
12V/2000VA ⁽¹⁾	SEEL006088
24VDC range	
24V/300VA	SEEL006050B
24V/500VA	SEEL006052B
24V/1000VA ⁽¹⁾	SEEL006074
24V/2000VA ⁽¹⁾	SEEL006090
24V/2300VA	SEEL006092
24V/3300VA	SEEL006822
48VDC range	
48V/300VA	SEEL006954
48V/500VA	SEEL008368
48V/1200VA	SEEL006082
48V/2300VA	SEEL006094
48V/3500VA	SEEL006096
⁽¹⁾ Remote control for SOLO 800, 1000 & 2000 VA	SEEL007130



RCE ELECTRONIC BATTERY ISOLATORS (MOSFET)



12V & 24V — No voltage drop

Description	Reference
100A/1 input - 2 outputs - IG ⁽¹⁾	RCE/100-1E-2IG
100A/1 input - 3 outputs - IG ⁽¹⁾	RCE/100-1E-3IG
100A/2 inputs - 3 outputs	RCE/100-2E-3
150A/1 input - 2 outputs - IG ⁽¹⁾	RCE/150-1E-2IG
150A/1 input - 3 outputs - IG ⁽¹⁾	RCE/150-1E-3IG
180A/1 input - 2 outputs - IG ⁽¹⁾	RCE/180-1E-2IG
180A/1 input - 3 outputs - IG ⁽¹⁾	RCE/180-1E-3IG
200A/1 input - 3 outputs - IG ⁽¹⁾	RCE/200-1E-3IG
Isolator kit ⁽²⁾	SEEL010604

⁽¹⁾ Integrated ignition alternator terminal

⁽²⁾ For DC source requiring a voltage reference to start

DC-DC CONVERTERS



Galvanic isolation and adjustable output voltage
SD converter can operate as a battery charger
200W - parallel-mounting to increase the available current

Description	Reference
12VDC input voltage	
12V/12V/16A - SD203-I1-DD-AL	25000160DD
12V/24V/08A - SD206-I1-DD-AL	25000163DD
12V/48V/04A - SD208-I1-DD-AL	25000166DD
24VDC input voltage	
24V/12V/16A - SD203-I2-DD-AL	25000161DD
24V/24V/08A - SD206-I2-DD-AL	25000164DD
24V/48V/04A - SD208-I2-DD-AL	25000167DD
48VDC input voltage	
48V/12V/16A - SD203-I3-DD-AL	25000162DD
48V/24V/08A - SD206-I3-DD-AL	25000165DD
48V/48V/04A - SD208-I3-DD-AL	25000168DD

YPOWER MPPT SOLAR CHARGE REGULATORS



High power 800W
Integrated CAN-BUS



silence



Description	Reference
12V MPPT regulator - Fanless	YPO12-60/MPPT
24V MPPT regulator - Fanless	YPO24-30/MPPT
Accessories	
2.5" Touch-screen control panel	UNI-DISPLAY-R
Temperature probe 2.8m	STP-UNI-2.8
Temperature probe 5m	STP-UNI-5.0
Charger ON/OFF remote control	G-ON/OFF-R

VOLTAGE GUARD



To protect your battery against :

- ◆ **Deep discharge**
- ◆ **Overvoltage**
- ◆ **Overload**



Description	Reference
Voltage Guard 12V/24V - 70A	VLTG-70

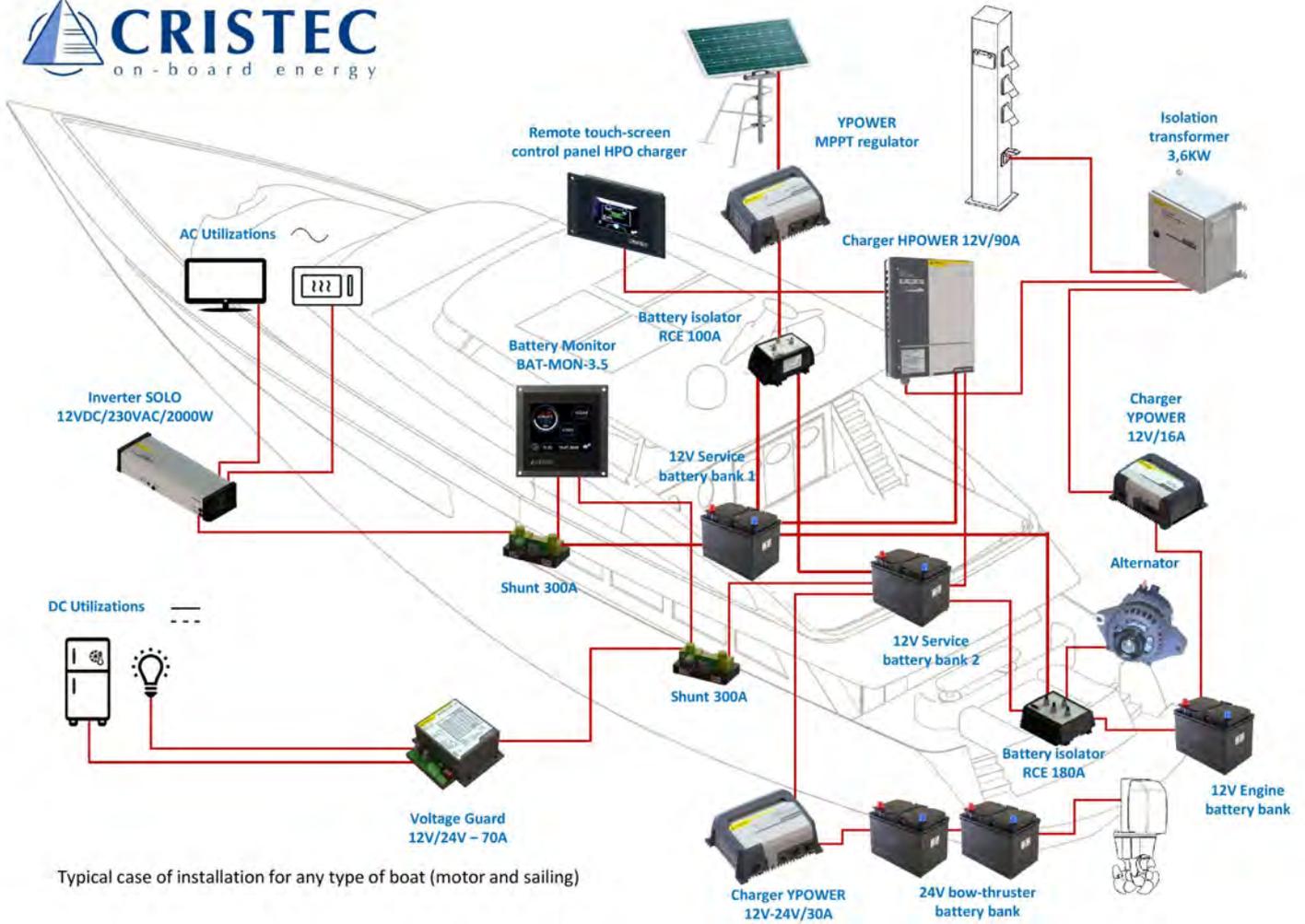
ISOLATION TRANSFORMERS



Isolation transformer with integrated Softstart
115/230VAC by manual switching or automatic recognition
of the input network



Description	Reference
3600W Transformer - Manual	IT-3600-M
3600W Transformer - Automatic	IT-3600-A



CRreation
Innovation
Scientific and
TEChnical

CRISTEC GENERAL CONDITIONS OF SALE

Clause 1: Object and Scope

All orders imply that the buyer accepts without reserve and fully adheres to these general conditions of sale which take precedence over any document belonging to the buyer, and in particular over any general conditions of purchase. These general conditions of sale apply to all sales made by the company CRISTEC SAS, hereafter known as "CRISTEC".

Consequently, by placing an order, the client fully adheres to these general conditions of sale, unless special conditions have been granted to the buyer in writing by CRISTEC. All other documents aside from these general conditions of sale, and in particular catalogues, brochures, advertisements and leaflets, are only informative and indicative in nature, rather than contractual.

Clause 2: Intellectual Property

All technical documents given to the client remain the exclusive property of CRISTEC. CRISTEC is the sole holder of the intellectual property rights to these documents. These documents must be returned to CRISTEC on request. The client undertakes to make no use of these documents which is likely to infringe on CRISTEC's industrial or intellectual property rights, and undertakes not to divulge them to any third parties.

Clause 3: Orders

All orders must include the complete reference, the name and the number for the items. Orders placed by telephone must be confirmed in writing. Purchase orders must be signed by the client and clearly indicate the invoice and delivery addresses.

The client cannot revoke orders sent to CRISTEC, unless CRISTEC agrees in writing.

Clause 4: Price

The prices and conditions applied are those that are applicable on the day the order is placed. They are displayed in EUROS and include shipment from the factory, EXCLUDING TAXES, and including standard packaging. They will be increased by the VAT rate and the transport costs that are applicable on the day of the order. Special packaging, for exports or sea transport, is invoiced as extra. CRISTEC has the right to change its prices at any time. However, CRISTEC undertakes to invoice for the goods ordered according to the prices set out on the confirmation of order receipt.

Clause 5: Terms of Payment

1 - Payment:

The price will be payable by the following methods:

- Either by cheque;
 - Or by bank transfer;
 - Or by accepted and domiciled bill of exchange. Bills of exchange sent for acceptance must be returned within the legal time limit of 48 hours, increased to 8 days to include postal delivery times. The name and date cannot be changed unless by prior agreement.
 - Or credit card (Distance Selling). The cards accepted are Visa, MasterCard and Amex. The debit of the card is done at the order.
- No discount will be given for early payment.

The choice of the method of payment and the time limit for payment will be agreed upon in advance – if not specified on the valid quotation or commercial bid – by CRISTEC

2 - Late payment: partial or total non-payment will automatically lead immediately and without prior warning to:

- The outstanding balance being demanded, regardless of the agreed method of payment.
- The payment of penalties automatically due, the day following the settlement date shown on the invoice in cases where the amounts payable are settled after that date. Unless there is a provision to the contrary, which cannot however set an interest rate at less than three times the legal interest rate, the penalty interest rate for late payment shall be equal to the 3-month EURIBOR rate, plus five percentage points.
- A penalty clause being demanded: in the event of a contentious intervention, the application of compensation equivalent to 15% of the unpaid sum as damages, on top of the legal fees and legal interest.
- The cancellation of the sale and the retention of title without prejudice to all damages; CRISTEC will keep any deposits that have been paid.

Clause 6: Delivery Times

The delivery time set out on the confirmation of order receipt is given as an indication only and cannot in any way be guaranteed, as it depends notably on the availability of carriers and the order in which orders are placed. CRISTEC endeavours to respect the delivery times that it sets out on the order acceptance note, depending on the reference logistic time, and to perform the orders, except in the event of force majeure or circumstances out of its control, such as strikes, extreme cold, fire, storms, floods, epidemics and supply problems, without this list being exhaustive.

Delivery delays cannot give rise to any penalties or compensation, nor can they be cause for order cancellation. Any delay compared to the indicative delivery time initially set out cannot be a justification for cancelling an order that has been placed by the client and recorded by CRISTEC.

Clause 7: Delivery

Delivery is made in the following ways:

- Either the goods are delivered directly to the buyer;
- Or a note is sent to the buyer, alerting him/her that the goods are available in the shop;
- Or the goods are delivered to a location given by the buyer on the purchase order.

The risks pertaining to the goods sold are transferred to the buyer when the goods are passed over either to the buyer or to the carrier. The buyer bears all transport risks. In the event that goods go missing or are damaged in transit, the buyer must notify all the necessary reservations to the carrier. In accordance with article L133-3 of the commercial code, if the carrier has not received notification of reservations by registered post with acknowledgement of receipt within 3 days of the delivery of the goods, and if a copy of these reservations has not been simultaneously sent to CRISTEC, it will be considered that the client has accepted the goods.

Clause 8: Termination

If, within fifteen days following the application of clause 5-2 "Late payment", the buyer has not paid the remaining sums due, the sale will automatically be cancelled and the way can be opened for the allocation of damages payable to CRISTEC.

Clause 9: Retention of Title

CRISTEC remains the owner of the goods sold until payment in full of the principle and other charges. Therefore, if the buyer goes into administration or is under court-supervised liquidation, CRISTEC reserves the right to claim for the goods sold that have not been paid for, within the framework of a class action.

Clause 10: Warranty

The warranty conditions are set out in the technical leaflets (user manuals) included with the products. As part of this warranty, defective parts are replaced and repairs are carried out free in our workshops in Quimper. On the other hand, the warranty does not cover:

- Accidents linked to flood damage;
- Accidents linked to lightning;
- Assembly and disassembly costs;
- Breakdowns resulting from use or installation that does not conform to the instructions given in the technical leaflets (falls, incorrect feed, faulty assembly etc.);
- Breakages caused by the actions of an unauthorised person;
- Transport costs;
- And all other charges (travel, goods transport, handling, downtime, time in dry dock etc.).

Clause 11: Force Majeure

CRISTEC cannot be held liable if it cannot perform or is delayed in performing one of its obligations set out in these general conditions of sale due to a case of force majeure. Force majeure refers to all exterior events that are unforeseeable or irresistible in the sense of article 1148 of the Civil Code.

Clause 12: Jurisdiction

Any dispute relating to the interpretation and the performance of these general conditions of sale is subject to French law, to the exclusion of any other law and, additionally, to the Vienna Convention (The United Nations Convention on Contracts for the International Sale of Goods). If the dispute cannot be resolved amicably, it will be brought before the Commercial Court of Quimper.





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