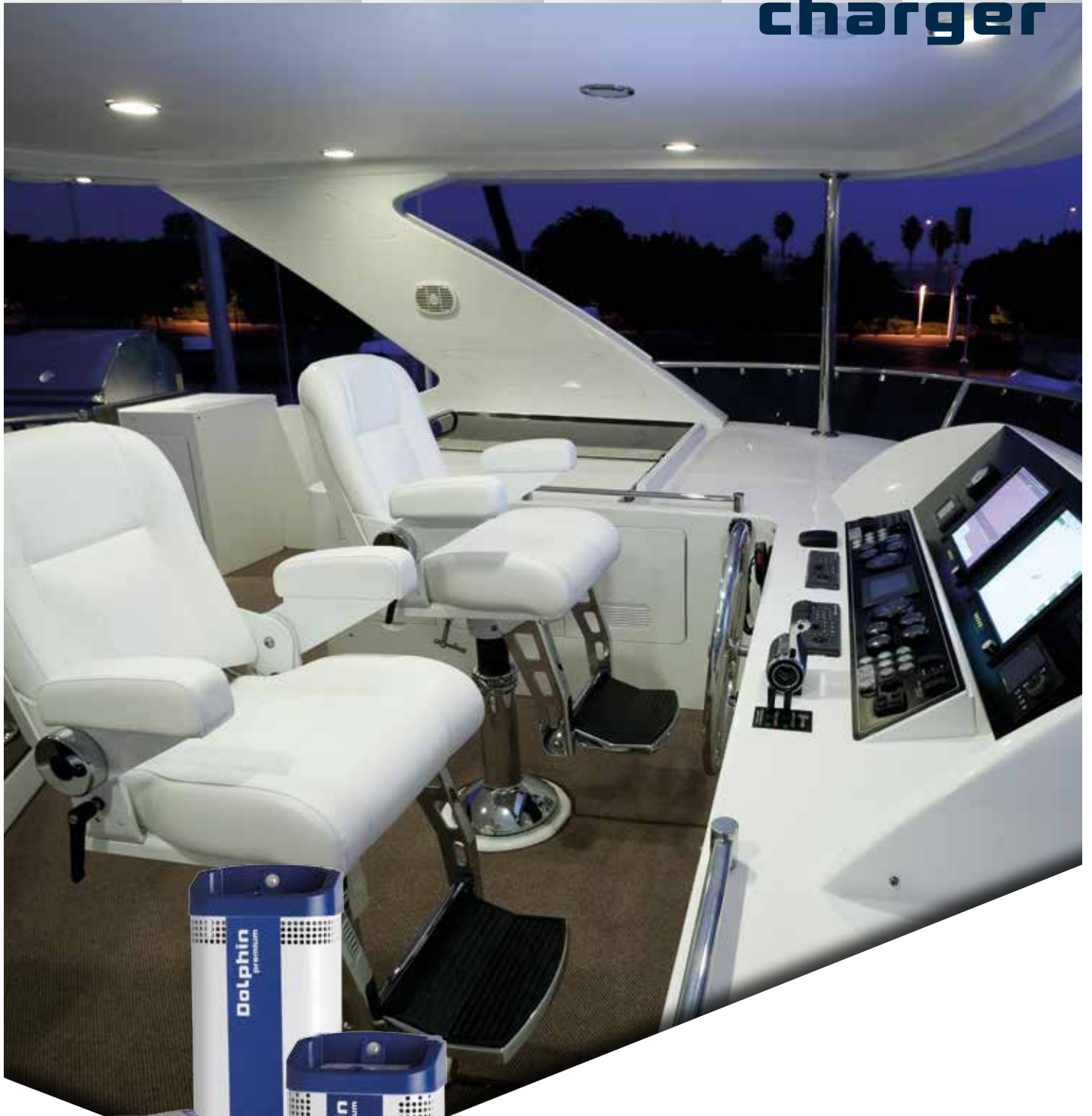


# Dolphin

## charger



**COMBI (INVERTER/CHARGER)  
BATTERY CHARGERS  
AND ACCESSORIES**

# 20 YEARS OF EXPERTISE IN POWER ELECTRONIC



100%  
of specific  
products



100%  
accomplished  
projects



100% of  
products are  
tested

In France, we are leading actor on the power electronics segment with Cats Power Design. The company designs electronic systems on specifications.

All products are made in France.

Project management organization according to ISO 9001 around the following key functions :

Through its productions in France and «low cost» area, we manufactures its developments at optimized costs.

Member of EIGHT LAKES since 2015.  
International group specialized in electronics and mechatronics business



Business engineer



Project manager



Hardware and software engineer



Qualification and certification engineer



Industrial, purchase and quality manager



Sales administration

## INDUSTRIALIZATION AND PRODUCTION



We industrialize your product and ensure set quality goals achievement based on OEM's needs.



Industrialization method

Definition of wiring tools and integration process.



Purchasing management

Supply contracts implementation according to industrial and commercial plan over a sliding 12-month period.



Production tests

Production control tools configuration. AOL, INSITU...  
Realization of tests: functional, dielectric, error correction.



First series

First series manufacturing, production process audit, and industrial validation.



Serial life

Production batch manufacturing, quality indicators monitoring and obsolescence management.



# COMBI (INVERTER/CHARGER)

- True sinewave AC output
- Robust industrial design
- High surge power output
- Powerful 4-stage two output battery charger
- 3 charging setting available (Flooded, GEL, AGM)
- Power factor corrected AC input
- Ultra Fast 30A AC transfer switch
- AC Input Power Boost / AC Input Current Limit
- Protected against high/low battery voltage, high temperature, overload, short circuit, high ripple voltage and low AC input voltage
- Automatic Standby function to reduce no-load power consumption
- Variable speed fan for silent operation



NEW

- Remote on/off capability
- Two Configurable alarm 250V/16A relay
- Versatile trigger input
- Easy to access connection bay for AC-DC and control wiring

	DOLPHIN COMBI SW 12 / 1600	DOLPHIN COMBI SW 24 / 3800
USP		
Power Boost		Yes
Ultra Fast AC transfer	Yes 16 A	Yes 30 A
AC Input Current Limit		Yes
Input		
DC Input Voltage	10,5 - 16 Vdc	21 - 32 Vdc
AC Input	185 - 270 Vac / 45 - 65 Hz / PF > 0,95	
Efficiency	92%	93%
Inverter Output		
Continous Output Power at 25°C	1300 W	2800 W
10 mn Output Power at 25°C	1600 W	3800 W
Peak Output Power at 25°C	2500 W	6500 W
Voltage / Frequency	230 Vac (+/- 2%) / 50Hz or 60Hz (+/- 0,05%)	
Form	True sinewave (THD < 5 %)	
Max efficiency	92%	93%
No Load consumption	<10 W	< 20 W
Transfer time (typical)	< 5 ms	
Charger Output		
Max continuous charging current	60 Amp	70 Amp (4 Amp aux)
Flooded charge voltage (bulk / float @ 25°C)	14,4 V / 13,5 V	28,8 V / 27 V
GEL charge voltage (bulk / float @ 25°C)	14,2 V / 13,5 V	28,6 V / 26,6 V
AGM charge voltage (bulk / float @ 25°C)	14,3 V / 13,3 V	28,6 V / 26,6 V
Battery temperature sensor	Yes	
Protection		
	High/Low battery voltage, Output current limited / Short circuit / Overload / Reverse polarity / High temperature	
General		
Display	Multi LED display with status & alarme information	
Operating temperature	-20°C to +50°C	
Storage temperature	-40°C to +80°C	
Humidity	10% to 95% (without condensation)	
IP	IP21	
Ventilation	Force fan adjustable speed cooling	
Marking	CE Marked meeting EMC directive 2004/108/EC and LVD 2006/95/EC	
Safety	EN 60335-1	
EMC	EN 55016, IEC 61000	
Housing	White Powder coating aluminium	
Mounting	Wall mounted 4 x M4 Screws	
Dimensions D x W x H (mm)	260 x 405 x 139	450 x 400 x 120
Weight	11 Kg	20 Kg
AC Connection	3-point cage terminal 10mm² max	
DC Terminal	M8 Terminals	M10 Terminals
Output alarm contact	1A 30V NO	Two 250V/16A
Optional connections		
External DIGITAL control panel	RJ45	
CAN Bus connection	2 Micro-Fit & RJ11 with optional module	
Code	399210	399220



## PLUG AND PLAY BATTERY CHARGER



- New robust and compact casing
- 3 completely isolated battery outputs
- Easy wiring and connection thanks to the Winsta (Wago) and Phoenix contact connectors
- Digital management with up to date microcontroller
- 4 charging programs including one for lithium-ion-iron-phosphate with integrated BMS
- Full power at temperatures up to 50°C
- Automatic weekly equalisation for all charging programs
- Automatic 115/230V switchover (12V 25A, 12V 40A & 24V 20A only)
- Night mode : silent - without fan (12V 25A, 12V 40A & 24V 20A only)
- Conformal coating of PCB to prolong the life of the battery charger



# COMPACT CASING



# PLUG-AND-PLAY



# RETAIL PACKAGING



# DOLPHIN PREMIUM 12V 60A

- Premium 12V 60A includes CAN BUS J1939 feature



## ROBUST CASING



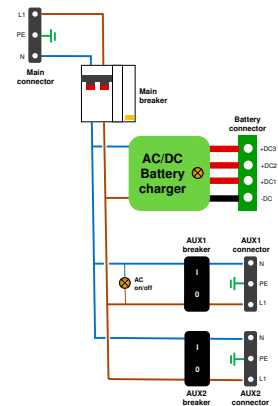
		12V					24V
		10A	15A	25A	40A	60A	20A
Input							
Input Voltage	230V (+/-15%) 115V available on request			115V/ 230V (+/-15%) Automatic Switchover			
Frequency	50Hz/60Hz (+/-10%)						
Cos	0,6 typ			0,9 typ			
Efficiency	80% typ						
Max. Current 115V/230V	NA/1,3A	NA/1,9A	4A/2A	7A/3,5A	12A/6A	7A/3,5A	
Fuse (5x20mm)	T2A 250V	T3,15A 250V	T6A 250V	T10A 250V	T16A 250V	T10A 250V	
Output							
Number of outputs	3 isolated outputs						
Number of charging curves	4 programs, position selected by dip switch NEW - one of which is LiFeSO4 with integrated BMS						
Charging curve	IUUo + weekly automatic equalisation						
Weekly equalisation	Automatic						
Voltage share	+/-2%						
Ripple	< 1% pp (BW < 20MHz)						
Fuse (automotive mini)	F15A 32V	F20A 32V	2 x F15A 32V	2 x F25A 32V	3 x F25A 32V	2 x F15A 32V	
Protection							
	In case of output overload, Excessive internal temperature Charging voltage too high, Reverse battery polarity (fuse)						
General							
Display	Tricolour LED						
Night/Silent mode	By button						
Operating temperature	-10°C to +50°C						
Storage temperature	-20°C to +70°C						
Humidity	10% to 90% (without condensation)						
Ventilation	Natural			Forced fan cooling			
Security	EN60335-2-29 (2002)						
Housing	Powder coating aluminium						
Mouting	2 screws 4 mm			4 screws 4 mm		2 screws 4 mm	
Dimensions	96 x 120 x 238 mm		96 x 120 x 354 mm		274 x 240 x 107 mm	96 x 120 x 354 mm	
Weight	1,30 Kg		1,90 Kg		3 Kg	1,90 Kg	
Input terminals	20A 230V, 4mm² max WINSTA - WAGO 770.813/G11-000				4 Poles 35mm², 125amp max clamp terminals		20A 230V, 4mm² max WINSTA - WAGO 770.813/G11-000
Battery terminal	40A 630V, 10mm² max PHOENIX CONTACT PC6-16/4-G1F,16						
CAN BUS	No				Yes		No
Code	399000	399010	399020	399030	399050	399040	



## ALL-IN-ONE AC DISTRIBUTION SYSTEM & BATTERY CHARGER



- Cost effective All in One concept
- Includes AC protection, two 10 amps AC circuit breakers and a smart 12 volts DOLPHIN PREMIUM battery charger
- Ensures AC safety : RCD (Residual Current Breaker), Double Pole Main Breaker and 2 x single pole breakers
- The internal charger is similar to either the 25 or 40A DOLPHIN PREMIUM unit
- DC and AC connectors have been carefully designed to meet the highest quality and safety standard
- Conformal coating of PCB to prolong the life of the battery charger





	12V	12V
	25A	40A
Main power characteristics		
Voltage	230V +/- 10% 230V +/- 10%	
Frequency	50 - 60Hz +/- 10%	
Charger consumption	2,5A	4,0A
Auxiliaries consumption	Max. 10A total for both outputs	
Display	LED on front panel (yellow)	
Differential circuit breaker	16A 30mA	
Charger fuse	T6,3AT10A	
Display	On/Off LED on front panel (yellow)	
Battery charger characteristics		
Voltage	85V - 265V	
Frequency	50 - 60Hz +/- 10%	
Number of outputs	3 isolated outputs	
Charging programs	Total 8	
Charge selector	Toggle switch inside case	
Voltage tolerance	+/- 2%	
Ripple	< 1%	
Max. current	25A +/- 5%	40A +/- 5%
DC fuse	F30A	2x F30A
Protection	By fuse, in the event of internal overheating, abnormal output voltage, output short-circuit or reverse polarityBy fuse, in the event of internal overheating, abnormal output voltage, output short-circuit or reverse polarity	
Display	3-colour LED on front panel Yellow : Boost mode / Green : Float mode / Red : Fault3-colour LED on front panel Yellow : Boost mode / Green : Float mode /Red : Fault	
AC auxiliary output characteristics		
Number of outputs	2	
Voltage	Same as mains power voltage	
Frequency	Same as mains power frequency	
Max. current	10A	
Protection	10A magnetic thermal circuit breaker	
General		
Operating T°	-10°C to +55°C	
Storage T°	-20°C to +70°C	
Relative humidity	Max. 90% (without condensation)	
Cooling	Forced (thermostat-controlled fan)	
Standards	EN61000-6-1, EN61000-6-3, EN60335	
Case	Wall-mounted in painted aluminium alloy	
Mounting	By 3 screws (diameter 4 mm)	
Dimensions (mm)	395 x 188 x 103 mm	
Weight	< 3 kg	
Mains power connector	Type WINSTA (WAGO), 3 x 2,5 mm2	
AC output connector	Type WINSTA (WAGO), 3 x 2,5 mm2	
Battery connector	Type PC6/4 (Phoenix Contact), 4x16 mm2	
Code	399121	399123

# Dolphin booster



## CHARGE DC BATTERY FROM ANOTHER



- When there is a requirement to charge one DC battery from another the DOLPHIN DC/DC BOOSTER provide excellent performance
- It can be named as DC-DC intelligent battery charger, DC-DC Booster charger, DC-DC isolated power booster, isolated switch mode power conditioner
- Product range : 12 volts & 24 volts charging at 30 amp and 24 volts & 24 volts charging at 30 amp
- Galvanic isolated means you can connect to any loads without interruption from the input to the output
- Typical application : charge an auxiliary battery from a single battery bank, commercial and leisure boat, vehicles including fire, police, ambulance
- These smart DOLPHIN DC/DC BOOSTER provide 4 stage charging program as well as automatic protection against battery source drainage
- Advanced and unique 4 charging program can be selected based on battery specification (lead/acid, gel, agm and LifeSo4)
- Conformal coating of PCB to prolong the life of the battery charger

## DOLPHIN BOOSTER SUBSYSTEM



	12V	24V
	30A	
Input		
Input Voltage	13V +/-3V	26V +/-6V
Max. Current	70A	35A
Efficiency	85% to 90%	
Fuse	4 x F30A	
Output		
Number of outputs	1 output	
Battery voltage	24V	
Battery capacity	50 to 200Ah	
Output voltage	26,5V to 30V +/-1%	
Max. Current	30A +/-5%	
Number of charging curves	4 programs, position selected by dip switch Lead Acid, AGM, Gel, LiFeSO4	
Charging curve	IUUo	
Ripple	< 1%	
Fuse	2 x F25A	
Protection		
	In case of output overload Excessive internal temperature Reverse battery polarity (fuse)	
General		
Display	Tricolour LED	
Operating temperature	-10°C to +55°C	
Storage temperature	-20°C to +70°C	
Humidity	10% to 90% (without condensation)	
Ventilation	Forced fan cooling	
Dimensions	250 x 150 x 80 mm	
Weight	< 2Kg	
Input connection	M8 bolts	
Battery connection	M8 bolts	
Option		
	Can Bus connection with Touchview or Navicolor RJ11 and/or Micro-Fit connection	
Code	399201	399202

# Dolphin pro



## ROBUST AND POWERFUL MARINE BATTERY CHARGER



- Can operate up to 65°C without D rating
- Internal diode isolator without voltage drop
- User friendly design : a solid casing in aluminium, mounting by 4 easily accessible screws
- A front cover allowing easy access to the charge selector and the wiring connections (4 solid M8 terminals for the battery outputs)
- A cable gland for the input cable and a cable grommet with a waterproof seal
- Integrated Control Panel : LED display indicating the charging curve (boost, absorption, floating), as well as anomalies and faults (temperature, voltage, fuses...)
- Automatic switchover : equipped with 3 isolated outputs, automatic switchover 115V / 230V, 50Hz / 60Hz
- 9 charging programs (including 2 winterizing and 1 power supply) depending on battery type, makes this charger suitable for all charging needs
- Optional extras : external touch screen control panel Touchview and a battery temperature sensor allowing a charging level adjustment
- Conformal coating of PCB to prolong the life of the battery charger
- Using Built-in CAN BUS J1939 interface, the Dolphin Pro can be connected to any monitoring system





	12V		24V				48V	
	70A	90A	40A	60A	80A	100A	25A	50A
Input								
Input Volatge	115/230V (+/-15%)				230V (+/-15%)		115/230V (+/-15%)	230V (+/-15%)
Frequency	50/60 hz							
Cos	> 0,9							
Efficiency	83%		87%					
Max. Current 115V/230V	13A/6A	16A/7A	14A/6A	15A/9A	15A	17A	12A/9A	17A
Fuse (6,3x32mm)	T20A	T20A	T20A	T20A	T20A	2T20A	T20A	2T20A
Output								
Number of outputs	3							1
Number ofcharging curves	Open lead acid / Sealed lead acid / Lead calcium / calcium calcium / Spiral cell AGM / Winterizing open lead acid / Winte-rizing sealed lead acid / GEL AGM/ Power supply / LifeSo4 + BMS							
Charging curve	I.U.U.o							
Volatge share	+/-2%							
Ripple	< 1% (BW < 20MHz)							
Fuse (auto mini)	4F30A	4F30A	3F25A	3F25A	5F25A	5F25A	2F20	4F20
Protection								
	Output current limited / Output short circuit / Overload output voltage / Reverse polarity / Over temperature							
General								
Display	LED display or optional touch multi-colour Touchview							
Operating temperature	-10°C to +55°C							
Storage temperature	-20°C to +70°C							
Humidity	10% to 95% (without condensation)							
IP	IP22							
Ventilation	Force fan adjustable speed cooling							
Safety	EN 60335-1							
EMC	EN 55016, IEC 61000							
Housing	White Powder coating aluminium							
Mounting	Wall mounted 4 x M4 Screws							
Dimensions D x W x H (mm)	128 x 346 x 358				196 x 346 x 358		128 x 346 x 358	196 x 346 x 358
Weight	6 Kg				11,5 Kg		6 kg	11,5 Kg
AC Connection	3-point cage terminal 10mm² max							
DC Terminal	4M8 Terminals							2M8 Terminals
Output alarm contact	1A 30V NO							
Optional connections								
Battery temperature sensor	2-point 1,5mm² cage terminal							
External touch screen control panel (Touch-view)	RJ45							
CAN Bus connection	2 Micro-Fit & RJ11							
Code	399145	399150	399160	399170	399177	399180	399190	399200

# Dolphin pro HD+



## TOUGH ENVIRONMENT DNV-GL\* TYPE APPROVED

- Dedicated to commercial and offshore market
- Type-approved by Det Norske Veritas (DNV-GL)
- DOLPHIN PRO HD+ will be delivered with its Touchview display as a standard, measuring AMP/VOLT of battery charger, showing charging mode and alarms (temperature, fuse, battery)
- The HMI touchscreen control panel is a real innovation in the battery charger environment
- Using built-in CAN BUS J1939 interface, the DOLPHIN PRO HD+ can be connected to any monitoring system
- Built-in alarm relay is included for remote alarm system
- Conformal coating of PCB to prolong the life of the battery charger
- Compatible with MARBLE Automation NL (approved oct 14)

\* Certificate No: E-14112 / File No 822.20 / Job ID/ 262.1-018698-1

Type tests in accordance with IEC 60335-1 & IEC 60335-2-29. Low temperature & Vibration tests in accordance with Sfc No. 2.4 Class A, Humidity / Damp heat tests in accordance with Sfc No. 2.4 Class B. EMC in accordance with Sfc No. 2.4 Class A



		24V		
		40A	60A	100A
Input				
Input Voltage	115V/ 230V (+/-15%) Automatic Switchover		230V (+/-15%)	
Frequency	50Hz/60Hz (+/-10%)			
Cos	0,9 typ			
Efficiency	0.85		0.88	
Max. Current 115V/230V	12A/6A	12A/9A		15A
Fuse (5x20mm)	T20A		2xT20A	
Output				
Number of outputs	3 isolated outputs			
Number of charging curves	9 programs, position selected by dip switch 00-Liquid Lead Acid batteries (open) 01-Sealed Lead batteries 02-Lead Calcium batteries 03-«Delphi» batteries 04- «Optima/Maxima» batteries 05-Winterizing 06-Batteries Gel&AGM 07-Power supply 08-LiFeSo4 batteries			
Charging curve	IUUo 3 modes			
Voltage share	+/-2%			
Ripple	< 1%			
Fuse (automotive mini)	3F30A		5F30	
Protection				
	In case of output overload, Excessive internal temperature, Charging voltage too high Reverse battery polarity (fuse), Excessive battery temperature, Temperature sensor default, AC over and under voltage			
General				
Display	Touch screen control panel			
Operating temperature	-10°C to +65°C			
Storage temperature	-20°C to +85°C			
Humidity	10% to 95% (without condensation)			
Ventilation	Forced fan adjustable speed cooling			
Security	EN60335-29-2			
EMC	Emission EN55014-1			
Housing	Powder coating aluminium and composites materials (LED display)			
Mouting	wall mounted 4 x M4 screws			
Dimensions	346 x 360 x 125 mm		346 x 360 x 190 mm	
Weight	6 Kg		12 Kg	
DC connection	4 M8 terminals			
Battery terminal	2 pins max 10mm² terminal, M6 bolt for ground			
Output alarm contact	1A 30V NO			
Optional connections				
Battery temperature sensor	2 pins terminal 1,5 mm² max			
CAN bus connection	RJ11			
Code	399165	399175	399185	

# Dolphin

## charger

### NEW DOLPHIN PRO 24.150



The DOLPHIN PRO battery charger is dedicated for tough environment applications, commercial, and marine fields. Evolution of DOPHIN 2 series with 16 years of experience and more than 100 000 units installed worldwide the DOLPHIN PRO is more compact, more efficient and more technologically advanced than his predecessor.

Perfect evolution of DOLPHIN 2 series battery charger the DOLPHIN PRO series use low-loss built-in blocking diode for a better efficiency and high temperature components providing full power up-to 50 Celsius degree.

A new innovative ergonomic casing made with high grade aluminum material. Easy mounting with 4 screws only and front access for user.

#### Features

The new DOLPHIN PRO battery chargers have new exclusive feature. Display with AMP/VOLT of battery charger, charging mode (floating, absorption, boost) and alarms (temperature, fuse, battery)

Using built-in CAN BUS J1939 interface the DOLPHIN PRO can be connected to any monitoring system without any external device. Built-in alarm relay is included for remote alarm systems.

9 charging programs for all type of battery (lead acid, agm, gel, LiFeO4...) winterizing battery programs and power supply mode First HMI innovative TOUCH SCREEN 85mm diameter panel

#### Application :

Onboard charging systems for Multi purpose offshore vessel, LCS (littoral combat ship), IPV (inshore patrol vessel), OPV (offshore patrol vessel), OCV (offshore construction vessel), PSV (platform supply vessel), Fast crew supplier, Pilot vessel, Tug, Workboat, deep water anchor handler, water taxi, water bus, Fast ferries, Fishing vessels, megayachts...

#### Why DOLPHIN PRO?

- Over 15 years experience designing and producing smart battery charger for trouble free application
- Unique high temperature specification without derating
- Triple outputs with no-loss built-in blocking diode
- Unique can bus interface with innovative touch-screen remote panel
- Possibility to parallel operation system using CAN BUS interface up to 10 units
- High quality standard with individual test under TUV Rheinland certification
- 3 years warranty

	150 AMP	
INPUT		
Voltage (+/-15%)	230 Vac 1 Phase	400 Vac 3 Phase + Neu- tral
Frequency	50/60 Hz (+/- 15%)	
Max consumption	25 Amp	9 Amp
Power Factor	0.9 typ	
Efficiency	85%	
Fuses	3x15 Amp slow (6.3x32mm glass type)	
OUTPUT		
Number	3 isolated (no loss splitter)	
Max current	150 Amp adjustable from Touch Display ( 105 Amp / 75 Amp / 45 Amp)	
Temperature compensation	Yes with external Temp Sensor +/- 25Mv / °C	
Fuses	200 Amp (On Negative Leg)	
Floating and Boost Voltage	Based on charging program selected (Lead acid, Lead/Calcium, Calcium/Calcium maintenance free/ AGM Spiral cell/ Gell/AGM/Winterizing/Power supply	
Voltage tolerance	+/- 2%	
Protections	Over and under voltage / Overload and short circuit / Over internal and battery temperature / Reverse polarity	
Communication	CANBUS J1939 open	
Display	Touch panel 2.5"	
Alarm relay	Free contact output 10 Amp	
Technical specifications		
Operating temperature	-10 ° C to +55° C	
Storage temperature	-20 ° C to +70° C	
Max humidity	90%	
Cooling	Variospeed thermostated fans	
Enclosure	IP22	
Dimensions (mm)	356 Width x 407 Height x 243 Depth	
Weight	19 kg	

Standards	
EMC	EN 55016-2-1, EN 55016-2-1/A1, CISPR 16-2-1, EN 55016-2-3
	IEC 61000-4-3 + A1 + A2
	IEC 61000-4-2, IEC 61000-4-6, IEC 61000-4-5, IEC 61000-4-4
Environment	IEC 60068-2-30 & IEC 60068-2-1
	IEC 60068-2-52 salt spray
Mechanical	IEC 60068-2-6 & IEC 60068-2-64 Vibrations
	IEC 60529 IP
Safety	EN 60335-1
Part Number	399186 399187



# TOUCH VIEW CONTROL PANEL



- External touch screen control panel for Dolphin Pro range
- Tactile, with Can Bus connection
- You can supervise your charger and your battery bank
- 5 languages
- Instructions menu : temperature, error messages, charging current, charging curve selected, charging phase (boost, absorption, float), power max delivered



12/24V

## General information

Screen size	round diameter 2,4" - 6,1 cm
LCD Type	a-Si TFT
Color configuration	RGB vertical stripe
Backlight	White LED
Interface	16-bit interface for i80system
Conformity	ROHS
Code	399033

# BAT VIEW 2.0 BATTERY MONITOR

- At the touch of a button, you will be able to monitor a host of important information
- Simple to connect
- Automatically detects the input voltage (12 VDC or 24 VDC)
- CanBus SAE J1939 interface
- Flush fitted, diameter Ø 52 mm
- The BAT VIEW 2.0 battery monitor analyses battery voltage, battery efficiency, temperature and capacity on 2 battery banks (by means of an optional second shunt) also the voltage on 2 additional banks



12/24V

10 - 5000 Ah

## Power supply

Voltage	10-30 VDC
Consumption	10mA approx. (normal mode) 30mA approx. (alarm mode)

## Display functions

Display type	Graphic OLED display 4 lines
Parameter selection	5 way navigation keypad

## Parameters displayed

Batteries 1 & 2	Voltage, Current, Temperature & Capacity
Batteries 3 & 4	Voltage

## Alarm functions

Batteries 1 & 2	Battery undervoltage (adjustable) Battery overvoltage Excessive temperature Low capacity
Batteries 3 & 4	Battery undervoltage (adjustable) Battery overvoltage
Alarm output	Dry loop, 1 inv - 1 Amp max.

## Supplied with

Temperature sensor	1 electric sensor
Shunt	1 shunt 300 Amps/100mV

## General information

Security	Delayed fuse 100 mA on +
Operating temperature	- 10°C to + 50°C
Storage temperature	- 20°C to + 70°C
Convection	Natural
Presentation	Flush mounted Ø 52 mm
Dimensions	70x70x32mm
Weight	< 500g
Connection	2 screw terminals
Code	399032

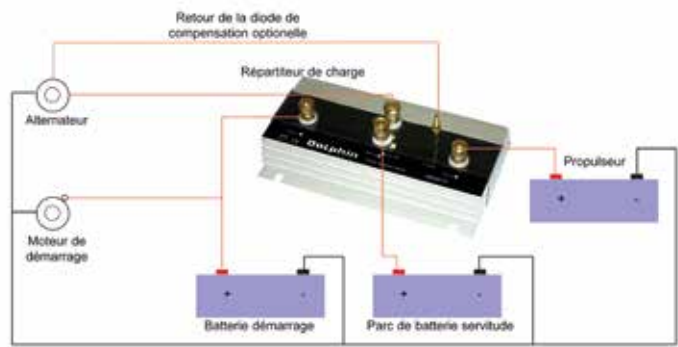
# DOLPHIN DIODE

## BATTERY ISOLATOR

### Schottky diodes

The Dolphin battery isolators feature a low voltage drop thanks to the use of Schottky diodes

At low current the voltage drop is approximately 0,3 V and at the rated output approximately 0,45



	DB70-2C	DB90-3C	DB120-2C	DB120-3C	DB160-2C	DB160-3C
General						
Max. Charge Current	50 A	70 A	100 A	100 A	130 A	130 A
Max. Alternator Current	70 A	90 A	120 A	120 A	160 A	160 A
Input	1	1	1	1	1	1
Outputs	2	3	2	3	2	3
Connection	M6	M8	M8	M8	M8	M8
Diode connection	M4	M4	M4	M4	M4	M4
Weight	0,6 Kg	1,2 Kg	0,8 Kg	1,2 Kg	1,2 Kg	1,5 Kg
Dimensions HxWxL	60 x 120 x 80 mm	60 x 120 x 150 mm	60 x 120 x 100 mm	60 x 120 x 150 mm	60 x 120 x 150 mm	60 x 120 x 200 mm
Code	512000	512001	512002	512003	512004	512005



# PROTECT YOUR BOAT AND YOUR SAFETY WITH INDUSTRY-LEADING GALVANIC ISOLATION

When you connect to shore power at any port, you may be placing your boat—and your safety—at risk due to galvanic corrosion and inadequate AC grounding.

But with DOLPHIN's industry-leading fail-safe galvanic isolators, you can prevent galvanic corrosion and assure the safety of continuous grounding.

Our galvanic isolators are independently tested to exceed the requirements of ABYC A-28. They offer high-fault current and lightning current ratings for safety, and their solid-state design requires no maintenance or monitoring system.

- Rated from 30A to 200 A
- Fail-safe construction featuring Fail-Safe Plus® technology
- Certified to ABYC A-28 July 2008 publication
- CE Marked - Marine ISO 8846
- No monitoring system required
- Highest AC fault current ratings available
- Lightning current rated (Not required by ABYC A-28)
- Ignition protected
- Maintenance-free solid-state design
- Rated for high levels of lightning current
- Very low DC leakage current allowed



Part Number	Product
501001	30A Galvanic Isolator FSP
501002	50/60A Galvanic Isolator FSP
501003	100A Galvanic Isolator FSP
501004	200A Galvanic Isolator FSP

## Dolphin Uncompromising Energy

### FULL RANGE OF MARINE BATTERIES FOR ALL APPLICATIONS ON BOARD

#### DOLPHIN FIRST Starter battery

- Without maintenance, free electrolyte lead-based technology
- Magic eye on all models
- Available in 50, 60, 70, 90 and 120A

#### DOLPHIN PRO Mixed start/servitude battery

- Waterproof, without maintenance, lead-calcium technology
- Wire terminals and charge indicator on the 108A model
- Original equipment quality tray for an easy replacement
- Handles on all models
- Semi-traction battery for 140, 180 and 230A models.
- Available in 54, 71, 85, 108, 140, 180 and 230A



# DOL phin

**FOR MORE INFORMATIONS  
VISIT OUR NEW WEBSITE**

**[www.dolphin-charger.com](http://www.dolphin-charger.com)**