

# Dolphin charger



**Marine Battery Chargers  
PRODUCT GUIDE 2017**



# Dolphin charger

Dolphin marine battery chargers were developed by the French manufacturer Power First and launched in 1995. The first generation chargers, many of which are still in operation today, featured cutting edge design and technology and were quickly adopted by professional and leisure boaters alike.

The second generation was launched in 2001. The electronic technology shifted to surface mount design and considerable focus was placed on the aesthetics in order to combine both form and function. It proved to be a successful recipe and was reflected in the Dolphin chargers' growth around the world in the following years.

The third generation series concept was to develop the product along two separate lines; an elementary range for lower power applications and a professional range for high power demand. Thus the Premium and Pro ranges were born, the former released in 2011 and the latter in 2012. The new range is the culmination of many years of experience gained from an in-depth knowledge and understanding of the marine industry.

In 2017 Amelec Australia will celebrate 20 years partnership with Dolphin as the Australian and New Zealand distributor.





**Dolphin**  
premium

12V 10A  
12V 15A

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**Dolphin**  
premium

12V 25A  
12V 40A  
24V 20A

4-5



**Dolphin**  
premium

12V 60A  
24V 30A

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**Dolphin**  
pro

12V 70A  
12V 90A  
24V 40A  
24V 60A  
24V 80A  
24V 100A  
24V 150A

8-12



**Dolphin**  
pro HD+

24V 40A  
24V 60A  
24V 100A

13-15



**Touch View**  
Control Panel

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# Dolphin premium

## PLUG AND PLAY BATTERY CHARGER



The third generation Dolphin range includes the new Premium model, a selection of high quality, value-for-money chargers up to 60 Amps in 12V and 20 Amps in 24V. The Dolphin Premium range features:

- Compact and robust aluminium and plastic housing;
- A total of three independent and isolated charging outputs;
- Easy connectivity utilising wireable plug and socket connectors;
- Four user-selectable charging programs for common battery types;
- Rated for full current output at 50° ambient before de-rating;
- Automatic weekly equalisation over all charging programs;
- Automatic changeover from 115VAC to 230VAC input (except 12V 10A and 15A model);
- Fan cooling models feature silent mode for quiet night time operation;
- All PCBAs are conformally coated to provide corrosion resistance;
- Automatic protection against output overload, excessive operating temperature and high voltage on output;
- Fuse protected against reverse polarity connection on output.

## 12V 10A Charger

## 12V 15A Charger

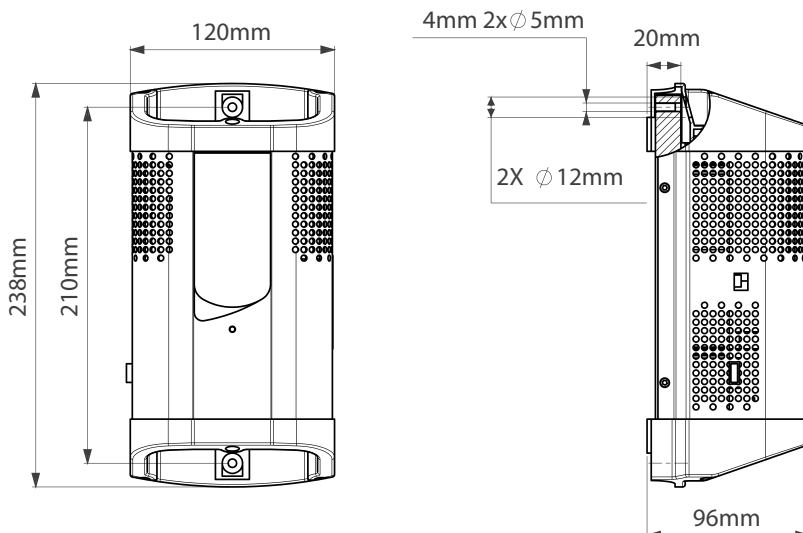


### Specifications

Input Voltage	230V (+/- 15%) (115V available on request)
Frequency	50Hz / 60Hz (+/-10%)
Cos	0.6 typ
Efficiency	80% typ
Max. Current 230V	<b>12.10:</b> 1,3A   <b>12.15:</b> 1,9A
Input Fuse (5x20mm)	<b>12.10:</b> T2A 250V   <b>12.15:</b> T3, 15A 250A
Outputs	3 isolated outputs
Charging curves	4 programs, position selected by dip switch - one of which is for LiFeSO4 batteries with an integrated BMS
Charging curve	IUUo + weekly automatic equalisation
Weekly equalisation	Automatic
Voltage share	+/-2%
Ripple	< 1% pp (BW < 20MHz)
Output Fuse (auto. mini)	<b>12.10:</b> F15A 32V   <b>12.15:</b> F20A 32V
Display	Tricolour LED
Night/Silent Mode	Manual switch
Operating Temperature	-10°C to +50°C
Operating Humidity	10% to 90% (without condensation)
Ventilation	Natural
Security	EN60335-2-29 (2002)
Housing	Powder coated aluminium
Mounting	2 screws 4mm
Input terminals	20A 230V, 4mm <sup>2</sup> max WINSTA - WAGO 770.813 / G11-000
Battery terminal	40A 630V, 10mm <sup>2</sup> max PHOENIX CONTACT PC6-16/4-G1F,16
CAN BUS	No
Dimensions	96 x 120 x 238 mm
Weight	<b>12.10:</b> 1,20 Kg   <b>12.15:</b> 1,30 Kg



### Dimensions



Part No.	Model
399000	12V 10A
399010	12V 15A



## 12V 25A Charger

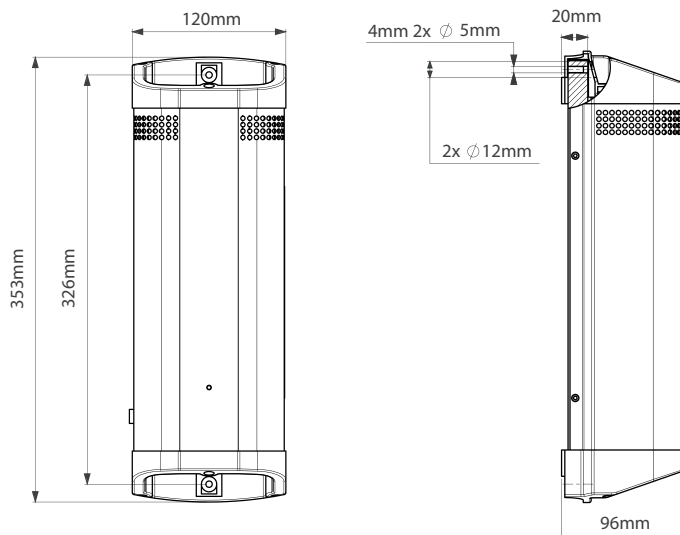
## 12V 40A Charger



### Specifications

Input Voltage	115V / 230V (+/- 15%) Automatic Switchover
Frequency	50Hz / 60Hz (+/-10%)
Cos	0.9 typ
Efficiency	80% typ
Max. Current 115V/230V	<b>12.25:</b> 4A / 2A   <b>12.40:</b> 7A / 3.5A
Input Fuse (5x20mm)	<b>12.25:</b> T6A 250V   <b>12.40:</b> T10A 250V
Outputs	3 isolated outputs
Charging curves	4 programs, position selected by dip switch - one of which is for LiFeSO4 batteries with an integrated BMS
Charging curve	IUUo + weekly automatic equalisation
Weekly equalisation	Automatic
Voltage share	+/-2%
Ripple	< 1% pp (BW < 20MHz)
Output Fuse (auto. mini)	<b>12.25:</b> 2 x F15A 32V   <b>12.40:</b> 2 x F25A 32V
Display	Tricolour LED
Night/Silent Mode	Manual switch
Operating Temperature	-10°C to +50°C
Operating Humidity	10% to 90% (without condensation)
Ventilation	Forced fan cooling
Security	EN60335-2-29 (2002)
Housing	Powder coated aluminium
Mounting	2 screws 4mm
Input terminals	20A 230V, 4mm <sup>2</sup> max WINSTA - WAGO 770.813 / G11-000
Battery terminal	40A 630V, 10mm <sup>2</sup> max PHOENIX CONTACT PC6-16/4-G1F,16
CAN BUS	No
Dimensions	96 x 120 x 353 mm
Weight	<b>12.25:</b> 2,05 Kg   <b>12.40:</b> 2,25 Kg

### Dimensions



Part No.	Model
399020	12V 25A
399030	12V 40A

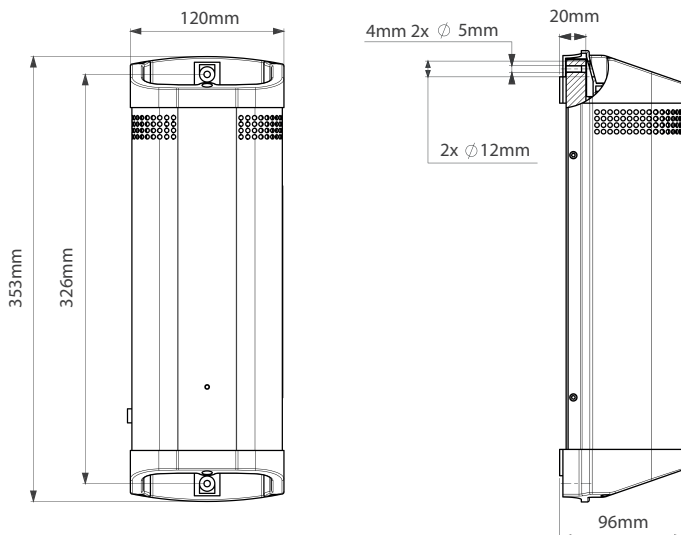
## 24V 20A Charger

### Specifications

Input Voltage	115V / 230V (+/- 15%) Automatic Switchover
Frequency	50Hz / 60Hz (+/-10%)
Cos	0.9 typ
Efficiency	80% typ
Max. Current 115V/230V	7A / 3.5A
Input Fuse (5x20mm)	T10A 250V
Outputs	3 isolated outputs
Charging curves	4 programs, position selected by dip switch - one of which is for LiFeSO4 batteries with an integrated BMS
Charging curve	IUUo + weekly automatic equalisation
Weekly equalisation	Automatic
Voltage share	+/-2%
Ripple	< 1% pp (BW < 20MHz)
Output Fuse (auto. mini)	2 x F15A 32V
Display	Tricolour LED
Night/Silent Mode	Manual switch
Operating Temperature	-10°C to +50°C
Operating Humidity	10% to 90% (without condensation)
Ventilation	Forced fan cooling
Security	EN60335-2-29 (2002)
Housing	Powder coated aluminium
Mounting	2 screws 4mm
Input terminals	20A 230V, 4mm <sup>2</sup> max WINSTA - WAGO 770.813 / G11-000
Battery terminal	40A 630V, 10mm <sup>2</sup> max PHOENIX CONTACT PC6-16/4-G1F,16
CAN BUS	No
Dimensions	96 x 120 x 353 mm
Weight	2,20 Kg



### Dimensions



**Part No.** 399040    **Model** 24V 20A

## 12V 60A Charger



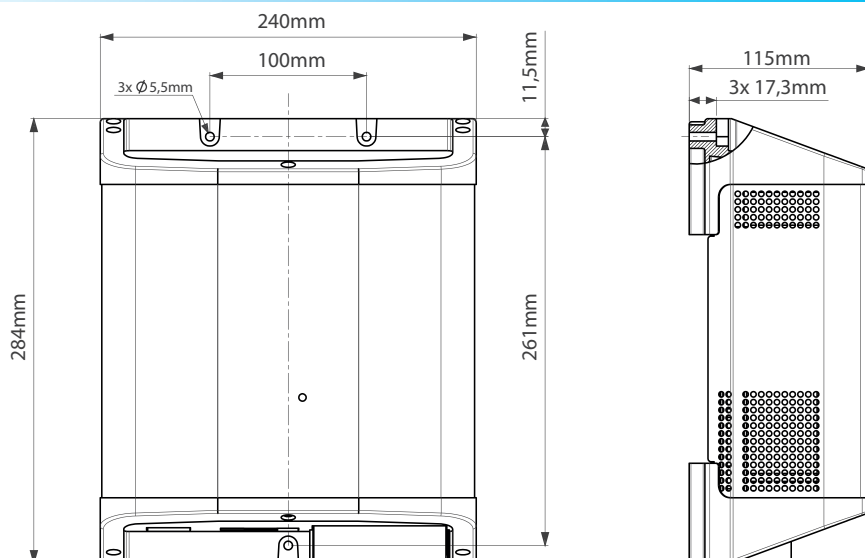
**NEW**

### Specifications

Input Voltage	115V / 230V (+/- 15%) Automatic Switchover
Frequency	50Hz / 60Hz (+/-10%)
Cos	0.9 typ
Efficiency	80% typ
Max. Current 115V/230V	12A / 6A
Input Fuse (5x20mm)	T16A 250V
Outputs	3 isolated outputs
Charging curves	4 programs, position selected by dip switch - one of which is for LiFeSO4 batteries with an integrated BMS
Charging curve	IUJo + weekly automatic equalisation
Weekly equalisation	Automatic
Voltage share	+/-2%
Ripple	< 1% pp (BW < 20MHz)
Output Fuse (auto. mini)	3 x F25A 32V
Display	Front LED or remote TOUCH View (option)
Night/Silent Mode	Manual switch
Operating Temperature	-10°C to +50°C
Operating Humidity	10% to 90% (without condensation)
Ventilation	Forced fan cooling
External com	CANbus
EMC	EN61000-6-3, EN61000-6-1
Security	EN60335-2-29 (2002)
Housing	Powder coated aluminium
Mounting	3 x 4mm screws
Input terminals	3 points, 20A 230V, 4mm <sup>2</sup> max. Ref.:770.813/G11-000 (WINSTA - WAGO)
BAT acces	4 points, 60A, 35mm <sup>2</sup> max
Other acces	TOUCH (RJ11, 4 points), CAN (Micro-Fit, 6 points), UART (RJ12, 6 points)
Dimensions	284 x 240 x 115 mm
Weight	3,15 Kg



### Dimensions



**Part No. Model**  
399050 12V 60A



## 24V 30A Charger

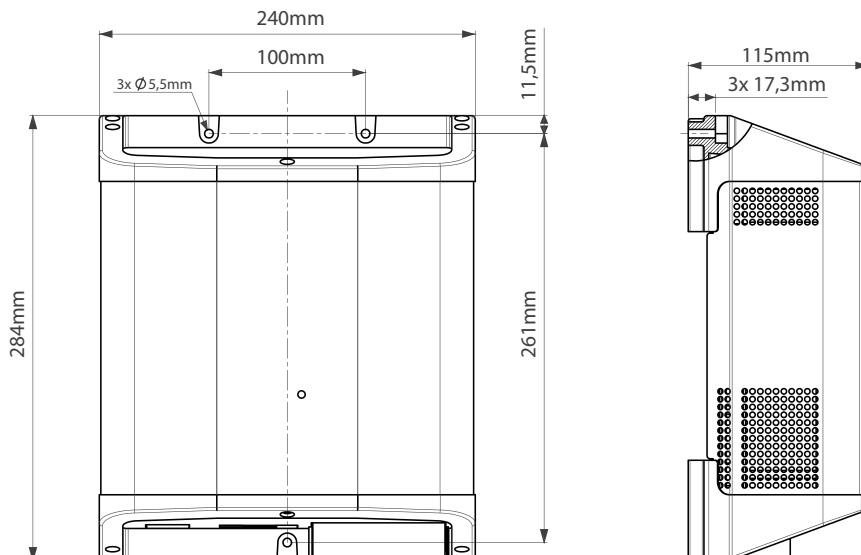


### Specifications

Input Voltage	115V / 230V (+/- 15%) Automatic Switchover
Frequency	50Hz / 60Hz (+/-10%)
Cos	0.9 typ
Efficiency	80% typ
Max. Current 115V/230V	12A / 6A
Input Fuse (5x20mm)	T16A 250V
Outputs	3 isolated outputs
Charging curves	4 programs, position selected by dip switch - one of which is for LiFeSO4 batteries with an integrated BMS
Charging curve	IUJo + weekly automatic equalisation
Weekly equalisation	Automatic
Voltage share	+/-2%
Ripple	< 1% pp (BW < 20MHz)
Output Fuse (auto. mini)	3 x F15A 32V
Display	Front LED or remote TOUCH View (option)
Night/Silent Mode	Manual switch
Operating Temperature	-10°C to +50°C
Operating Humidity	10% to 90% (without condensation)
Ventilation	Forced fan cooling
External com	CANbus
EMC	EN61000-6-3, EN61000-6-1
Security	EN60335-2-29 (2002)
Housing	Powder coated aluminium
Mounting	3 x 4mm screws
Input terminals	3 points, 20A 230V, 4mm <sup>2</sup> max. Ref.:770.813/G11-000 (WINSTA - WAGO)
BAT acces	4 points, 60A, 35mm <sup>2</sup> max
Other acces	TOUCH (RJ11, 4 points), CAN (Micro-Fit, 6 points), UART (RJ12, 6 points)
Dimensions	284 x 240 x 115 mm
Weight	3,15 Kg



### Dimensions



**Part No.** 399060  
**Model** 24V 30A

# Dolphin pro

## ROBUST AND POWERFUL MARINE BATTERY CHARGER



Like the new Premium models the third generation Dolphin range includes the powerful new Pro version for both professional and leisure applications. The Dolphin Pro range features:

- Heavy duty construction in powder coated aluminium and stainless steel;
- User-friendly design for ease of installation, set-up and operation;
- Integrated control panel features LED indication of charging stages and errors;
- A total of three diode isolated charging outputs without voltage drop;
- Nine, user-selectable charging programs for complete flexibility in battery type;
- Will operate in high ambient environments up to 50° before de-rating;
- All PCBAs are conformally coated to provide corrosion resistance;
- Automatic protection against output overload, excessive operating temperature and high voltage on output;
- Fuse protected against reverse polarity connection on output;
- Incorporates open CAN BUS interface for connection to standard J1939 monitored systems;
- Touchview remote control and monitoring panel readily available as an option.

## 12V 70A Charger

## 12V 90A Charger

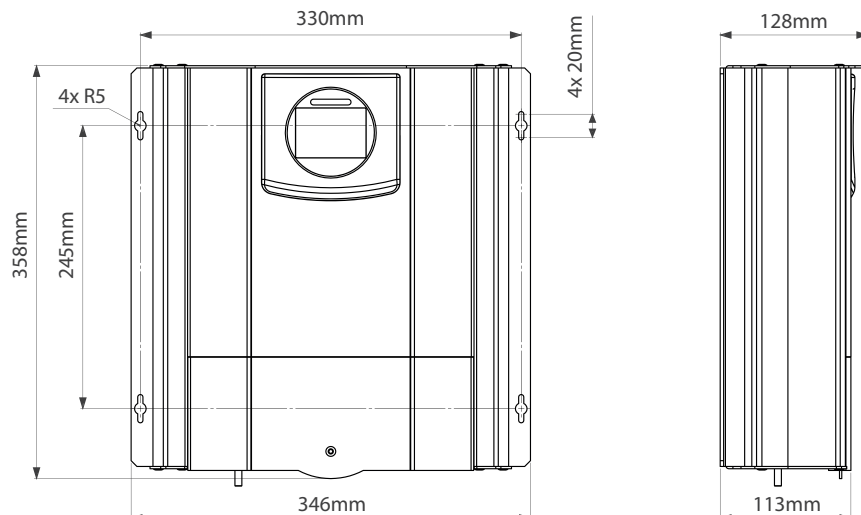


### Specifications

Input Voltage	115V / 230V (+/- 15%) Auto Switch
Frequency	50Hz / 60Hz (+/-10%)
Cos	> 0.9 typ
Efficiency	0.83
Max. Current 115V/230V	<b>12.70:</b> 13A / 6A   <b>12.90:</b> 16A / 7A
Input Fuse (6.3x32mm)	T20A
Outputs	3 isolated outputs
Charging curves	9 programs, position selected by dip switch
Charging curve	IUUs 3 modes
Voltage share	+/-2%
Ripple	< 1% (BW < 20MHz)
Output Fuse (auto. mini)	4 x F30A
Display	LED display or optional touch multi-colour Touchview
Operating Temperature	-10°C to +50°C
Operating Humidity	10% to 95% (without condensation)
IP	IP22
Ventilation	Forced fan adjustable speed cooling
Safety	EN 60335-1
EMC	EN 55016, IEC 61000
Housing	Powder coated aluminium
Mounting	Wall mounted 4 x M4 screws
Dimensions	346 x 358 x 128 mm
Weight	6 Kg
AC Connection	3-point cage terminal 10mm <sup>2</sup> max
DC Terminal	4 M8 terminals
Output alarm contact	1A 30V NO
Battery temp. sensor	2-point 1,5 mm <sup>2</sup> cage terminal
External touch screen control panel (Touchview)	RJ45
CAN Bus connection	2 Micro-Fit & RJ11



### Dimensions



Part No.	Model
399145	12V 70A
399150	12V 90A



## 24V 40A Charger

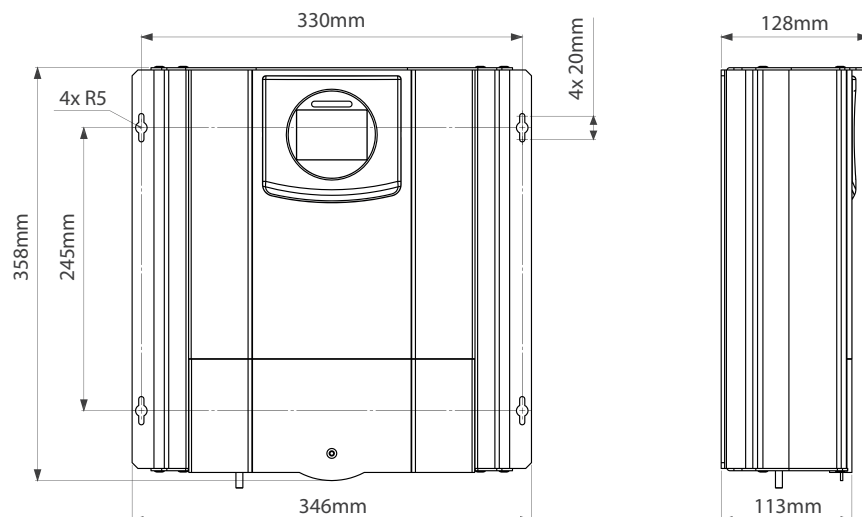
## 24V 60A Charger



### Specifications Pro Touch

Input Voltage	115V / 230V (+/- 15%) Auto Switch
Frequency	50Hz / 60Hz (+/-10%)
Cos	> 0.9 typ
Efficiency	0.87
Max. Current 115V/230V	<b>24.40:</b> 14A / 6A   <b>24.60:</b> 15A / 9A
Input Fuse (6.3x32mm)	T20A
Outputs	3 isolated outputs
Charging curves	9 programs, position selected by dip switch
Charging curve	IUuo 3 modes
Voltage share	+/-2%
Ripple	< 1% (BW < 20MHz)
Output Fuse (auto. mini)	3 x F25A
Display	Multi-colour Touchview
Operating Temperature	-10°C to +50°C
Operating Humidity	10% to 95% (without condensation)
IP	IP22
Ventilation	Forced fan adjustable speed cooling
Safety	EN 60335-1
EMC	EN 55016, IEC 61000
Housing	Powder coated aluminium
Mounting	Wall mounted 4 x M4 screws
Dimensions	346 x 358 x 128 mm
Weight	6 Kg
AC Connection	3-point cage terminal 10mm <sup>2</sup> max
DC Terminal	4 M8 terminals
Output alarm contact	1A 30V NO
Battery temp. sensor	2-point 1,5 mm <sup>2</sup> cage terminal
External touch screen control panel (Touchview)	RJ45
CAN Bus connection	2 Micro-Fit & RJ11

### Dimensions



Part No.	Model
399460	24V 40A
399470	24V 60A

## 24V 80A Charger

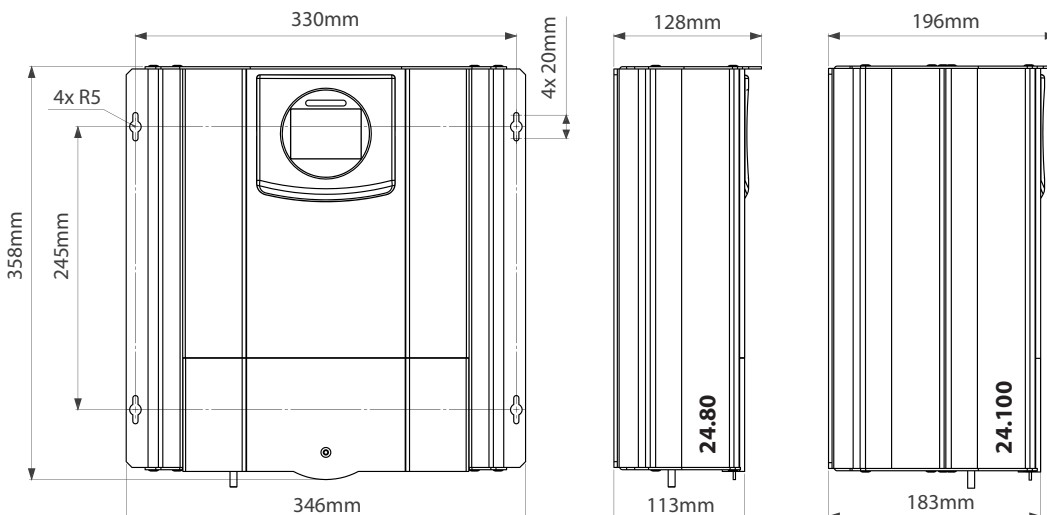
## 24V 100A Charger



### Specifications

Input Voltage	230V (+/-15%)
Frequency	50Hz / 60Hz (+/-10%)
Cos	> 0.9 typ
Efficiency	0.87
Max. Current 230V	<b>24.80:</b> 15A   <b>24.100:</b> 17A
Input Fuse (6.3x32mm)	<b>24.80:</b> T20A   <b>24.100:</b> 2 x T20A
Outputs	3 isolated outputs
Charging curves	9 programs, position selected by dip switch
Charging curve	IUUs 3 modes
Voltage share	+/-2%
Ripple	< 1% (BW < 20MHz)
Output Fuse (auto. mini)	5 x F25A
Display	LED display or optional touch multi-colour Touchview
Operating Temperature	-10°C to +50°C
Operating Humidity	10% to 95% (without condensation)
IP	IP22
Ventilation	Forced fan adjustable speed cooling
Safety	EN 60335-1
EMC	EN 55016, IEC 61000
Housing	Powder coated aluminium
Mounting	Wall mounted 4 x M4 screws
Dimensions	<b>24.80:</b> 346 x 358 x 128 mm   <b>24.100:</b> 346 x 358 x 196 mm
Weight	<b>24.80:</b> 6 Kg   <b>24.100:</b> 11,5 Kg
AC Connection	3-point cage terminal 10mm <sup>2</sup> max
DC Terminal	4 M8 terminals
Output alarm contact	1A 30V NO
Battery temp. sensor	2-point 1,5 mm <sup>2</sup> cage terminal
External touch screen control panel (Touchview)	RJ45
CAN Bus connection	2 Micro-Fit & RJ11

### Dimensions



Part No.	Model
399177	24V 80A
399180	24V 100A

**24V 150A 1 Phase**

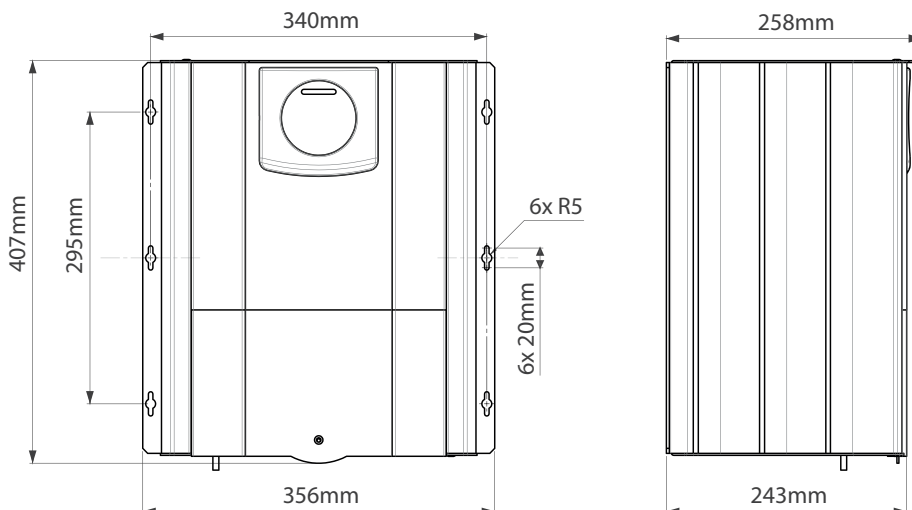
**24V 150A 3 Phase**

## Specifications

Input Voltage	<b>1 Phase:</b> 230 Vac 1 Phase <b>3 Phase:</b> 400 Vac 3 Phase + Neutral
Frequency	50Hz / 60Hz (+/-15%)
Power Factor	0.9 typ
Efficiency	0.85
Max. Consumption	<b>1 Phase:</b> 25A   <b>3 Phase:</b> 9A
Input Fuses	3x15 Amp slow (6.3x32mm glass type)
Outputs	3 isolated (no loss splitter)
Max current	150 Amp adjustable from Touch Display (105 Amp / 75 Amp / 45 Amp)
Temp. compensation	Yes with external Temp Sensor +/- 25Mv / °C
Floating & 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%
Communication	CANBUS J1939 open
Alarm relay	Free contact output 10 Amp
Display	Touch panel 2.5"
Operating Temperature	-10°C to +50°C
Max Humidity	90%
IP Enclosure	IP22
Cooling	Variospeed thermostated fans
Safety	EN 60335-1
EMC	EN 55016-2-1, EN 55016-2-1/A1, CISPR 16-2-1, EN 55016-2-3.
Dimensions	356 x 407 x 258 mm
Weight	19 Kg



## Dimensions



Part No.	Model
399186	24V 150A 1Phase
399187	24V 150A 3Phase



# Dolphin pro HD+

**TOUGH ENVIRONMENT  
DNV-GL\* TYPE APPROVED**



The new HD+ is the type-approved version of the Dolphin Pro for commercial and offshore applications. The Dolphin Pro HD+ range features:

- DNV-GL (Det Norske Veritas) type-approved for vessels under survey;
- Inbuilt HMI touch screen for comprehensive battery charger management;
- Delivered with Touchview remote control and monitoring panel as standard;
- A total of three diode isolated charging outputs without voltage drop;
- Nine, user-selectable charging programs for complete flexibility in battery type;
- Will operate in high ambient environments up to 50° before de-rating;
- Incorporates independent alarm relay for external remote alarm indication;
- Automatic protection against output overload, excessive operating temperature, excessive battery temperature, AC input over/under voltage and output high voltage protection;
- Fuse protected against reverse polarity connection on output;
- Incorporates open CAN BUS interface for connection to standard J1939 monitored systems.

\* 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 Charger

## 24V 60A Charger

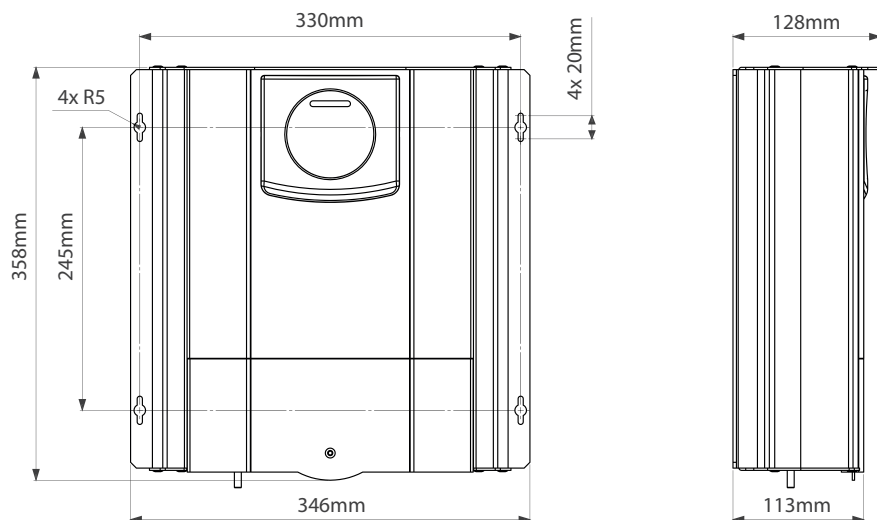


### Specifications

Input Voltage	115V/230V (+/-15%) Automatic Switchover
Frequency	50Hz / 60Hz (+/-10%)
Cos	0.9 typ
Efficiency	0.85
Max. Current 115V/230V	<b>24.40:</b> 12A / 6A   <b>24.60:</b> 12A / 9A
Fuse (5x20mm)	T20A
Outputs	3 isolated outputs
Charging curves	9 programs, position selected by dip switch
Charging curve	IUuO 3 modes
Voltage share	+/-2%
Ripple	< 1%
Fuse (automatic mini)	3 x F30A
Display	Touch screen control panel
Operating Temperature	-10°C to +50°C
Operating Humidity	10% to 95% (without condensation)
Ventilation	Forced fan adjustable speed cooling
Security	EN60335-29-2
EMC	Emission EN55014-1
Housing	Powder coated aluminium and composite materials (LED display)
Mounting	Wall mounted 4 x M4 screws
Dimensions	346 x 358 x 128 mm
Weight	6 Kg
DC connection	4 M8 terminals
AC connection	2 pins max 10mm <sup>2</sup> terminal, M6 bolt for ground
Output alarm contact	1A 30V NO
Battery temp. sensor	2 pins terminal 1,5 mm <sup>2</sup> max
CAN bus connection	RJ11



### Dimensions



Part No.	Model
399165	24V 40A
399175	24V 60A

## 24V 100A Charger

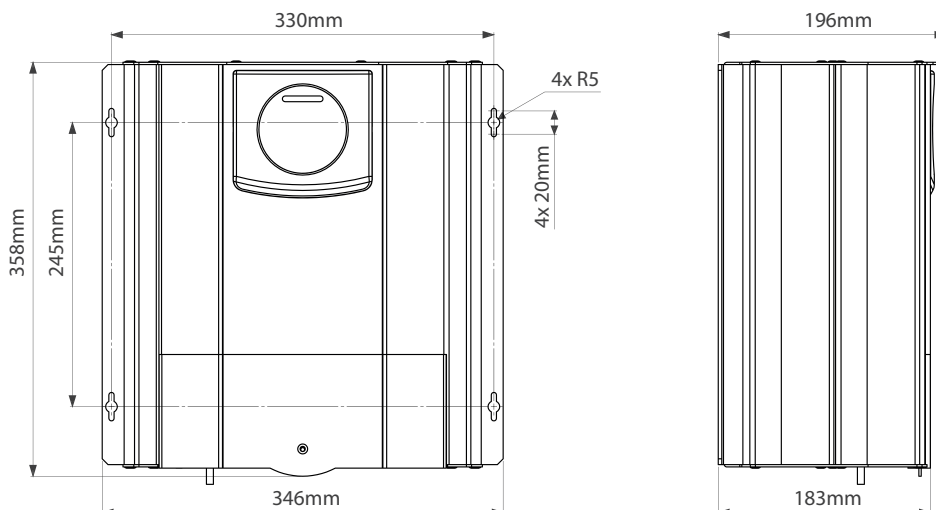


## Specifications

Input Voltage	230V (+/-15%)
Frequency	50Hz / 60Hz (+/-10%)
Cos	0.9 typ
Efficiency	0.88
Max. Current 230V	15A
Fuse (5x20mm)	2 x T20A
Outputs	3 isolated outputs
Charging curves	9 programs, position selected by dip switch
Charging curve	IU <sub>U</sub> 3 modes
Voltage share	+/-2%
Ripple	< 1%
Fuse (automatic mini)	5 x F30A
Display	Touch screen control panel
Operating Temperature	-10°C to +50°C
Operating Humidity	10% to 95% (without condensation)
Ventilation	Forced fan adjustable speed cooling
Security	EN60335-29-2
EMC	Emission EN55014-1
Housing	Powder coated aluminium and composite materials (LED display)
Mounting	Wall mounted 4 x M4 screws
Dimensions	346 x 358 x 196 mm
Weight	12 Kg
DC connection	4 M8 terminals
AC connection	2 pins max 10mm <sup>2</sup> terminal, M6 bolt for ground
Output alarm contact	1A 30V NO
Battery temp. sensor	2 pins terminal 1,5 mm <sup>2</sup> max
CAN bus connection	RJ11



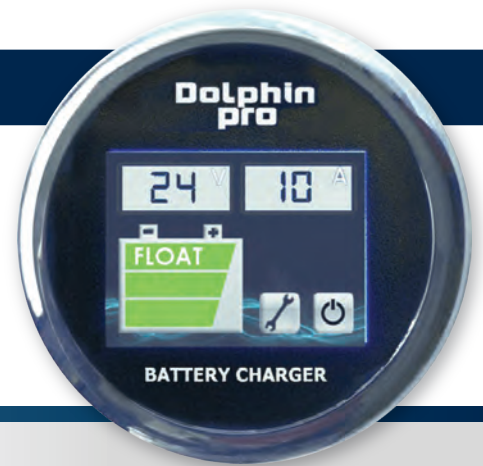
## Dimensions



**Part No.** 399185    **Model** 24V 100A



## Touch View - Control Panel



### Specifications

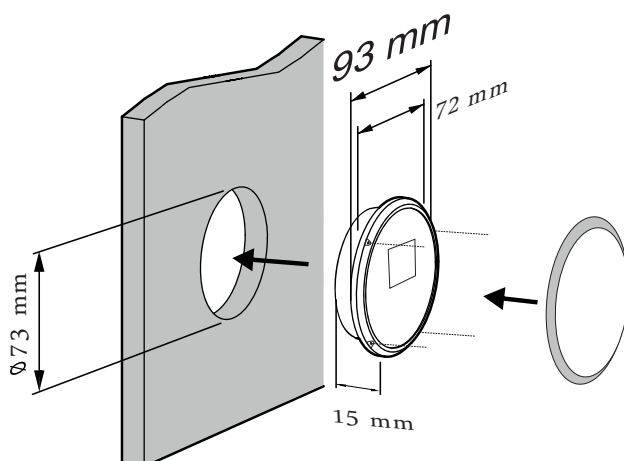
Application	12/24V Dolphin Pro series
Supply voltage	Regulated by battery charger
Power consumption	
- max brightness	150 mA approx.
- screen turned off	50 mA approx.
Display type	2.4" (6.1 cm) a-Si TFT screen
Display resolution	320 x 240 pixel
Parameter selection	Touch screen
Languages	English, French, Italian, Spanish, German
Screen background	Configurable: three available colours
Screen brightness	Adjustable
Interface	16-bit interface for i80system
Alarm 1	Battery or electronics temperature fault
Alarm 2	Charger supply voltage fault
Alarm 3	Fuse fault
Alarm 4	Charger output voltage fault
Alarm 5	CAN bus fault
Operating Temperature	-10°C to +50°C
Operating Humidity	10% to 70% without condensation
Convection	Natural
Presentation	Flush mounted Ø 93mm
Flush mounting	72 mm dia. (use a 73 mm hole saw) depth 15 mm
Dimensions	93 x 93 x 23mm
Weight	< 500g
Conformity	ROHS
Connection	RJ9 connector

- 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

#### SUPPLIED WITH

Temperature sensor (1 electric sensor) and Shunt (1 shunt 300 Amps/100mV)

### Dimensions



**Part No.** 399033    **Model** Touch View

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# Dolphin

charger



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