

# Battery chargers - CDS4 12V and 24V Range

ENAGs new generation of battery chargers are designed to replace the popular CDS3 range.

This latest addition to our product range with new functionalities is simple to use.

Polyvalent, it can be used as a battery charger, a DC power supply or integrated into your back up power supply systems.

Adapted for all types of applications such as: marine, defense, industrial...



With ENAGs new range of automatic battery chargers you are assured of:

## ● Efficiency:

- A wide input voltage range
- Works at temperatures of up to 60°C without derating
- Plug and play function
- Three outputs with distribution of the load current
- CAN bus communication (option)

## ● Reliability :

- Battery type selection: AGM, GEL, Open lead/acid, Lead-calcium, Lithium, etc...
- Charge cycle selection: Boost, Absorption, Floating, Automatic Refresh, Reboost.

## ● Ruggedness :

- Boards marine tropicalized
- Efficient thermal dissipation
- Thermoplastic packaging (recyclable)



## Temperature probe :

The STP-NEW-2.8 temperature probe allows compensation of the charge voltage in function of the ambient temperature in the battery room.

The voltage compensation applied is :

- -18mV/°C for 12V batteries
- -36mV/°C for 24V batteries



## Alarm board :

This option allows two alarms (dry contacts: normally-open or normally closed) to be transmitted to an external monitoring system.

**Alarm «battery (+BAT1) low»** is triggered if the voltage of the battery bank is less than:

- 10.2V±5% (for 12V models).
- 20.4V±5% (for 24V models).

**Alarm «charger fault»** is triggered if:

- The charger is off ;
- The charger fails ;
- The output fuse has blown ;
- The charger voltage (before the charge divider) is less than :
  - 11V±5% (for 12V models )
  - 22V±5% (for 24V models).



## CAN interface :

With its **CAN bus interface**, the CDS4 charger can communicate with a monitoring system or other peripherals using this mode of communication .



FC-CDS4-EN-E

The information contained in this leaflet is not of a contractual nature. ENAG reserves the right to amend the technical details of its products without advance notice.

## External analog displays:

### Analog voltmeters:

The voltage values of +BAT1, +BAT2 and +BATD can be remotely displayed on analog voltmeters .

### Analog ammeter :

An analog ammeter can be used to measure the output current of the charger (battery + user)

This option requires also the alarm board option



## Touch screen numeric display:

This 2.5' color touch screen display allows visualization of all the charge parameters while the charger is working and can also be used to supervise the batteries when the charger is off.

Intuitive and easy menu navigation which :

- **gives access to the following information:**

- battery voltage (up-to 3)
- AC network : voltage and frequency
- Charger - total current
- Charge status (Boost, Absorption, Floating)
- Battery bank temperature (if probe is connected)
- Day/night mode controlled by a double press on the screen

- **allows adjusting of the following parameters :**

- ON/OFF charger
- Back-light (luminosity)
- Charger current adjustment from 100% to 30%
- Number and description of the batteries (up to 3 : service, start-up, propulsion, etc.)
- Charger parameters (battery type, Boost ON/OFF, etc.)
- Alarms : battery voltage low, battery overvoltage, etc.
- Night mode : allows temporary shutdown of the charger fan (if present)
- Language : German, English, Spanish and French)



FC-CDS4-EN-E

The information contained in this leaflet is not of a contractual nature. ENAG reserves the right to amend the technical details of its products without advance notice.

# Technical Specification:

DESCRIPTION	CDS4-12/25	CDS4-12-40	CDS4-12-60	CDS4-24/12	CDS4-24/20	CDS4-24/30
Part Number	SEEL015511	SEEL015521	SEEL015531	SEEL015512	SEEL015522	SEEL015532
Model	12V/25A	12V/40A	12V/60A	24V/12A	24V/20A	24V/30A
<b>INPUT</b>						
Voltage	From 90 to 265 VAC single phase					
Frequency	From 47 to 65 Hz					
Input current 230/115 VAC	1,7/3,4 A	2,7/5,4 A	4,4/8,8 A	1,7/3,4 A	2,9/5,8 A	4,5/9A
Power factor	1					
Efficiency	90 % typical					
Fuses	T6,3 A/250V-6,3x32	T15 A/250 V - 6,3x32		T6,3 A/250 V 6,3x32	T15 A/250 V - 6,3x32	
<b>OUTPUT</b>						
Current / power	25 A/356 W	40 A/570 W	60 A/855 W	12 A/342 W	20 A/570 W	30 A/855 W
Number of outputs	3 positive outputs – 1 negative pole Each output can be used on its own and draws the nominal current from the charger					
Charging curve	Select IU or IUoU using internal switches (Boost – factory setting)					
Battery type	Can be configured for all types (internal configuration)					
Floating voltage	13,6 VDC			27,2 VDC		
Regulation	< 2% before output diode and fuse					
Ripple	< 2% peak to peak					
Automotive type fuse	1 x 30V/32V	2 x 25V/32V	3 x 25V/32V	1 x 15V/32V	1 x 25V/32V	2 x 20V/32V
<b>ENVIRONNEMENT</b>						
Cooling	Natural except for 12v/60A and 24V/30A models(temperature and current controlled ventilation)					
Sound level	0	< 50 dB à 1 m	0	< 50 dB à 1 m		
Operating temperature	From -20 to 60°C without derating - Automatic switch off at 65 °C ( automatic restart)					
Storage temperature	From -20 to + 70 °C					
Relative Humidity	Up to 70 % (95% without condensation)					
PCB protection	Tropicalized (water repellent varnish)					
<b>PRESENTATION</b>						
Case	Aluminum heat sink frame with thermo-plastic cover, aluminum clasp					
Dimensions(lhp mm) Weight	236x180x96 2,1Kg	289x195x106 3,5 Kg		236x180x96 2,1 Kg	289x195x106 3,5 Kg	
Fixing center distance	219x155	272x170		219x155	272x170	
Protection factor	IP22					
<b>STANDARDS</b>						
CE/EMC	EN 61204 - 3					
CE/security	EN 60335-2-29					
<b>PROTECTION</b>						
	Against input surges by varistor (not covered by warranty), Against polarity reversal by fuse, Against output short circuit, Against overheating by automatic charger switch off (automatic restart)					
<b>OPTION</b>						
Temperature Probe	Voltage compensation: -18 mV/°C			Voltage compensation: -36 mV/°C		
Alarm board	Low battery (+BAT1) alarm and battery fault					
Communication	CAN-BUS interface					
Analog displays	Up-to 3 voltmeters and 1 ammeter : voltage measurement of each battery and charger current					
Touch screen display	2.5' colour touch screen numeric display					

The information contained in this leaflet is not of a contractual nature. ENAG reserves the right to amend the technical details of its products without advance notice. Please consult us before installing the units.

The information contained in this leaflet is not of a contractual nature. ENAG reserves the right to amend the technical details of its products without advance notice.

FC-CDS4-EN-E