

BATTERY CHARGERS CDS4

12V – 24V – 48V
HIGH POWER RANGE



ENAGs new generation of CDS4 battery chargers continues to evolve with the introduction of a high power range.

Enhanced functionalities, more efficient battery charging with the option of voltage compensation to correct line drops. Polyvalent, it can be used as a battery charger, a DC power supply or integrated into your back up power supply systems.

The new range is adapted for rugged environments in marine, defence or industrial applications

ADVANTAGES OF CDS4

■ Efficiency

- High charging current
- Compensation of voltage line drops.
- Fan speed control: low noise levels
- Large of input voltage range with overvoltage protection board (easily replaced)
- Works at temperatures of up to 50°C without derating
- Three outputs with distribution of load current
- CAN bus communication

■ Reliability

- Battery type selection: AGM, GEL, Open lead/acid, Lead Calcium, Lithium...
- Charge cycle selection: Boost, Absorption, Floating, Refresh, Reboost.
- Temperature sensor

■ Ruggedness

- Aluminium case painted to withstand marine conditions
- Boards marine tropicalized
- Efficient thermal dissipation
- Option to mount 4 chargers in parallel with current balancing



CDS4 - TECHNICAL SPECIFICATIONS

DESCRIPTION	CDS4 - 12/90	CDS4 - 24/45	CDS4 - 24/60	CDS4 - 24/80	CDS4 - 24/100
Part Number	SEEL013541-1A	SEEL013542-1A	SEEL013552-1A	SEEL013562-1A	SEEL013572-1A
Model	12V/90A	24V/45A	24V/60A	24V/80A	24V/100A
INPUT					
Voltage	From 90 to 265 VAC single-phase				
Frequency	From 47 to 65 Hz				
Input current 230/115Vac	6,0/16,0A		9,0/20.0 A	11.0/20.0 A	15.0/30.0A
Power factor	1				
Efficiency	87 % typical				
Fuses	2x20A/250 V - 6,3x32		2x25A/250 - 6,3x32		2x32A/250 V -
OUTPUT					
Current	90A	45A	60A	80A	100A
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 (factory setting)				
Battery type	Lead acid by default - Can be configured for all types (internal switch configuration)				
Floating voltage	13,8 Vdc	27,6 Vdc			
Regulation	< 1% before output diode and fuse				
Ripple	< 1% peak to peak				
Automotive type fuse	4 x 30A/32V	2 x 30A/32V	3 x 25A/32V	4 x 25A/32V	4 x 30A/32V
Alarm board	Low battery (+BAT1) alarm and « charger fault » with dry contacts				
Communication	Isolated Bus CAN by default				
ENVIRONMENT					
Cooling	Temperature and current controlled ventilation				
Sound level	< 50 dB at 1 m				
Operating temperature	From -20 to +50 °C – Derating above 50°C – Automatic switch off at 60 °C with automatic restart				
Storage temperature	From -20 to +70 °C				
Relative humidity	96% no condensation				
PCB protection	Tropicalized (water repellent varnish)				
PRESENTATION					
Case	Aluminium frame and heat sink / Aluminium cover				
Dimensions (lhp mm)	270 x 360 x 130				270 x 410 x 130
Weight	6,8 kg				9.0 kg
Wall mounting	4 x M6 screws – (Mounting kit with screws)				
Relative humidity	96% non-condensation				
Protection factor	IP23				
NORMS					
Security / CE / CEM Marking	EN 60335-2-29 / EN 61204 - 3				
PROTECTION					
	Against input surges by varistor (not covered by warranty), polarity reversal by fuse, output short circuit, overheating by automatic charger switch off (automatic restart)				
OPTION					
Temperature probe	Voltage compensation -18 mV/°C	Voltage compensation -36 mV/°C			
Analog & digital displays	Up-to 3 voltmeters and 1 ammeter: voltage measurement of each battery and charger current				
Touch screen display	2.5’’ colour touch screen display remote				
Voltage compensation	Line voltage drop compensation				
Remote control	Isolated on/off remote control				

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.

FC-CDS4-H-EN-H

DESCRIPTION	CDS4 - 48/30	CDS4 - 48/50
Part Number	SEEL013554-1A	SEEL013574-1A
Model	48V/30A	48V/50A
INPUT		
Voltage	From 90 to 265 VAC single-phase	
Frequency	From 47 to 65 Hz	
Input current 230/115Vac	9.0/20.0A	15.0/30.0A
Power factor	1	
Efficiency	87% typical	
Fuses	2 x 25A 250V (6,3x32) (F1/F2)	2 x 32A 250V (6,3x32) (F1/F2)
OUTPUT		
Number of battery banks	3 (including one for the engine): +BAT E, +BAT 1, +BAT 2 (integrated Mosfet splitter) 1 -BAT Each bank can be used individually and deliver the rated current	
Connection on threaded rods	M6	
Total rated current (+/-7%) / Rated power	30A/1710W	50A/2850W
Charging curve	IU or IUoU through internal dip switches (boost, absorption, floating – factory setting) Selectable automatic refresh	
Battery type	Sealed Lead as factory setting – Gel, AGL, Calcium Lead, LiFePO4, DC power-supply mode, etc. Specific request on demand.	
Boost voltage	57,6 VDC for Lead sealed battery (factory setting)	
Floating voltage	55,2 VDC for Lead sealed battery (factory setting)	
Regulation	< 1% before output splitter and fuse	
Ripple	< 1% peak to peak	
Automotive type fuse	2 x 20A/80V	3 x 20A/80V
Alarm board	Low battery (+BAT1) alarm and «charger fault » with dry contacts	
Communication	Isolated Bus CAN by default	
ENVIRONMENT		
Cooling	Electric fan controlled in temperature and current	
Sound level	< 50 dB at 1 m	
Operating temperature	From -20 to +50 °C – Derating above 50°C Automatic charger switch off above 60 °C Automatic restart when temperature decreases	
Storage temperature	From -20 to +70 °C	
Relative humidity	Up to 96% without condensation	
PRESENTATION		
Material	Painted Aluminium	
Dimensions (lhp mm) Weight	270 x 360 x 130 mm / 6.8kg	270 x 410 x 130 mm / 9.0kg
Wall mounting	4 x M6 screws – (Mounting kit with screws)	
Protection factor	IP23	
PCB protection	Water-repellent varnish	
STANDARDS		
Security / CE / CEM Marking	EN 60335-2-29 / EN 61204 - 3	
PROTECTION		
<div>- Against over voltage on input by VDR rupture (voltage dependent resistor) - Not covered by warranty</div> <div>- Against output polarity reversal by fuse rupture</div> <div>- Against short circuit and surge</div> <div>- Against abnormal overheating by turning off the charger</div>		
OPTION		
Temperature probe	Output voltage compensation: -72mV/°C (2,8m: SEEL017410 or 5m: SEEL017411)	
Analog & digital displays	1 ammeter: charger current	
Touch screen display	2.4'' colour display integrated or remote (SEEL016358)	
Remote control	Remote control ON/OFF (SEEL008765)	

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