



## 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 - 24/30                            | CDS4 - 24/45  | CDS4 - 24/60                          |
|---|---|---|---|---------------------------------------|
| Part Number   | SEEL013541-1A   | SEEL031480                              | SEEL013542-1A   | SEEL013552-1A                         |
| Model   | 12V/90A   | 24V/30A                                 | 24V/45A   | 24V/60A                               |
| <b>INPUT</b>  |   |   |   |                                       |
| Voltage   | From 90 to 265 VAC single-phase   |   |   |                                       |
| Frequency   | From 47 to 65 Hz  |   |   |                                       |
| Input current   | 6.0/16.0A   | 4.4/8.7A                                | 6.0/16.0A   | 9.0/20.0A                             |
| Power factor  | 1   |   |   |                                       |
| Efficiency  | 87 % typical  | 92,8% en 240 VAC et<br>91 % en 120VAC   | 87 % typical  |                                       |
| Fuses   | 2x20A/250 V- 6,3x32   | LITTELFUSE<br>(326015P,                 | 2X20A/250 V - 6,3x32  | 2x25A/250 V - 6,3x32                  |
| <b>OUTPUT</b>   |   |   |   |                                       |
| Current   | 90A   | 30A                                     | 45A   | 60A                                   |
| Number of outputs   | 3 positive outputs - 1<br>negative pole   | 4 positive outputs - 1<br>negative pole | 3 positive outputs - 1 negative pole                              |                                       |
|   | Each output can be used on its own and draws the nominal current from the charger |   |   |                                       |
| Battery type  | Select IU or IUoU using internal switches (factory setting)                       |   |   |                                       |
| Floating voltage  | 13.8VDC   | 27.6VCC                                 |   |                                       |
| Ripple  | < 1% peak to peak   | < 2% peak to peak                       | < 1% peak to peak   |                                       |
| Automotive type fuse  | 4 x 30A/32V   | 2 x 30A/32V                             | 2 x 30A/32V   | 3 x 25A/32V                           |
| Alarm board   | Low battery (+BAT1) alarm and «<br>charger fault » with dry contacts              | No                                      | Low battery (+BAT1) alarm and « charger fault » with dry contacts |                                       |
| Communication   | Isolated Bus CAN by default   | Option                                  | Isolated Bus CAN by default                                       |                                       |
| <b>ENVIRONMENT</b>  |   |   |   |                                       |
| Cooling   | Temperature and<br>current controlled   | without ventilation                     | Temperature and<br>current controlled                             | Temperature and<br>current controlled |
| Sound level   | < 50 dB at 1 m  | 0dB                                     | < 50 dB at 1 m  | < 50 dB at 1 m                        |
| Operating temperature   | From -20 to +50 °C – Derating above 50° - Derating from 40°C for 24/30            |   |   |                                       |
| Storage temperature   | From -20 to +70 °C  |   |   |                                       |
| Relative humidity   | Up to 96% without condensation  |   |   |                                       |
| PCB protection  | Tropicalized (water repellent varnish)  |   |   |                                       |
| Protection factor   | IP23  | IP 22                                   | IP23  |                                       |
| <b>PRESENTATION</b>   |   |   |   |                                       |
| Housing   | Painted Aluminium   |   |   |                                       |
| Dimensions (lhp mm)   | 270 x 360 x 130   | 195 x 288 x 105                         | 270 x 360 x 130   |                                       |
| Weight  | 6.8Kg   | 3,5Kg                                   | 6.8Kg   |                                       |
| Wall mounting   | 4 screws M5 or M6   |   |   |                                       |
| <b>NORMS</b>  |   |   |   |                                       |
| Security / CE / CEM<br>Marking  | EN 60335-2-29 / EN 61204 – 3  |   |   |                                       |
| <b>PROTECTION</b>   |   |   |   |                                       |
| Against : input surges by varistor (not covered by warranty); polarity reversal by fuse;<br>output short circuit; overheating by automatic charger switch off (automatic restart) |   |   |   |                                       |
| <b>OPTION</b>   |   |   |   |                                       |
| Temperature probe   | Voltage compensation :<br>-18mV/°C  | Voltage compensation : -36mV/°C         |   |                                       |
| Touch screen display  | 2.4" colour display remote (except 24/30 integrated)                              |   |   |                                       |
| Remote control  | Isolated on/off remote control  |   |   |                                       |

Les caractéristiques de cette plaque commerciale n'ont pas de caractères contractuels, la société ENAG se réservant le droit de les modifier sans préavis.  
Nous consulter avant l'intégration technique.

FC-CDS4-EN-L

| DESCRIPTION   | CDS4 - 24/80   | CDS4 - 24/100         | CDS4 - 48/30                      |
|---|--|-----------------------|-----------------------------------|
| Part Number   | SEEL013562-1A  | SEEL013572-1A         | SEEL013554-1A                     |
| Model   | 24V/80A  | 24V/100A              | 48V/30A                           |
| <b>INPUT</b>  |  |                       |                                   |
| Voltage   | From 90 to 265 VAC single-phase  |                       |                                   |
| Frequency   | From 47 to 65 Hz automatic   |                       |                                   |
| Input current 230/115Vac  | 11.0/20.0A   | 15.0/30.0A            | 9.0/20.0A                         |
| Power factor  | 1  |                       |                                   |
| Efficiency  | 87% typical  |                       |                                   |
| Fuses   | 2x25A/250 - 6,3x32   | 2 x 32A/250V - 6,3x32 | 2 x 25A/250V - 6,3x32             |
| <b>OUTPUT</b>   |  |                       |                                   |
| Current   | 80A  | 100A                  | 30A                               |
| Number of outputs   | 3 positive outputs - 1 negative pole<br>Each output can be used on its own and draws the nominal current from the charger  |                       |                                   |
| Battery type  | Lead acid by default - Can be configured for all types (internal switch configuration)                                     |                       |                                   |
| Floating voltage  | 27.6 VDC   |                       | 55.2VDC                           |
| Regulation  | < 1%   |                       |                                   |
| Ripple  | < 1% peak to peak  |                       |                                   |
| Automotive type fuse  | 4 x 25A/32V  | 4 x 30A/32V           | 2 x 20A/80V                       |
| Alarm board   | Low battery (+BAT1) alarm and « charger fault » with dry contacts  |                       |                                   |
| Communication   | Isolated Bus CAN by default  |                       |                                   |
| <b>ENVIRONMENT</b>  |  |                       |                                   |
| Cooling   | Temperature and current controlled ventilation   |                       |                                   |
| Sound level   | < 50dB at 1m   |                       |                                   |
| Operating temperature   | From -20°C to +50°C, Derating above 50°C. Automatic switch off above 60 °C<br>Automatic restart when temperature decreases |                       |                                   |
| Storage temperature   | From -20°C to +70°C  |                       |                                   |
| Relative humidity   | Up to 95% without condensation   |                       |                                   |
| PCB protection  | Tropicalized (water repellent varnish)   |                       |                                   |
| Protection factor   | IP23   |                       |                                   |
| <b>PRESENTATION</b>   |  |                       |                                   |
| Housing   | Painted Aluminium  |                       |                                   |
| Dimensions (lhp mm)   | 270 x 360 x 130  | 270 x 410 x 130       | 270 x 360 x 130                   |
| Weight  | 6.8kg  | 9.0kg                 | 6.8kg                             |
| Wall mounting   | 4 x M6 screws – (Mounting kit with screws)   |                       |                                   |
| <b>NORMS</b>  |  |                       |                                   |
| Security / CE / CEM Marking   | EN60335-2-29 / EN 61204-3  |                       |                                   |
| <b>PROTECTION</b>   |  |                       |                                   |
| Against : input surges by varistor (not covered by warranty); polarity reversal by fuse;<br>output short circuit; overheating by automatic charger switch off (automatic restart) |  |                       |                                   |
| <b>OPTION</b>   |  |                       |                                   |
| Temperature probe   | Voltage compensation<br>-36 mV/°C  |                       | Voltage compensation<br>-72 mV/°C |
| Touch screen display  | 2.4" colour display integrated or remote   |                       |                                   |
| Remote control  | Isolated on/off remote control   |                       |                                   |

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