
TECHNICAL SPECIFICATION

CDR 2.0

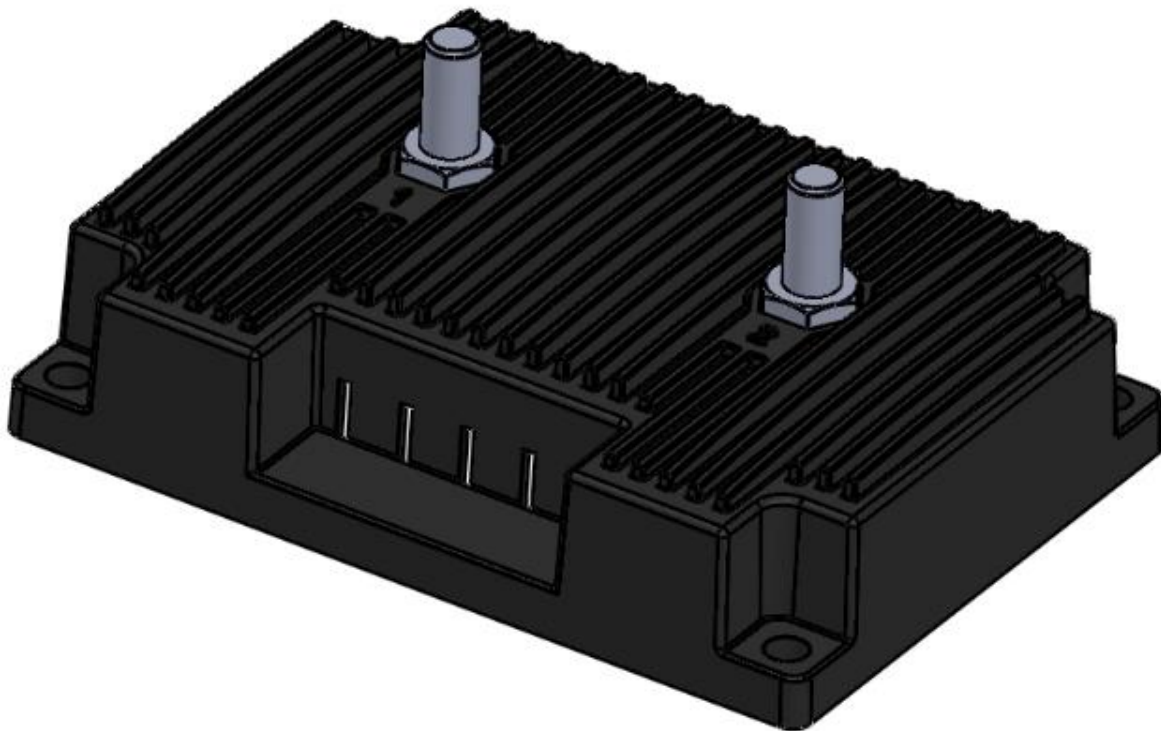


TABLE OF CONTENT

- CRITICAL INFORMATION 2
 - General..... 3
 - Theory of operation 3
 - Features 3
 - Description of features, PIN configuration. 3
- APPROVEMENTS 4
- TECHNICAL SPECIFICATION..... 5
- ELECTRICAL CHARACTERISTICS 5



CRITICAL INFORMATION

The technical data, information and illustrations have been carefully compiled and corresponds to the product status at the time of printing this manual. The manufacturer reserves the right to improve or modify the product, specifications, and documentation at any time without prior notice, if it is not considered necessary for technical reasons.

Descriptions have been prepared very carefully and in detail, yet it is never possible to completely rule out wrong. Under no circumstances will the manufacturer be held responsible for errors or damages resulting from wrong use or from misinterpretation.

The content of this documentation may not be copied, reproduced, translated, or otherwise passed on to third parties in any form without the express written consent of Micropower.



Warning!

Failure to follow these safety instructions could result in personal injury, property damage or impair the function of the product.



Important Information!

To avoid operator error, read this manual carefully before installing and using the product and follow the appropriate instructions. Keep this manual near the product so that it can be referred to later.



This product is not intended for use by persons (including children) with reduced physical sensory or mental capabilities, or lack of knowledge or experience, unless they have received instructions or information on how to use the product by a person responsible for their safety. Children should be supervised to ensure that they do not play with the product.



General

This Micropower product is designed to separate batteries in a dual battery system.

When connected to an alternator or other charging device the charging current is highly effectively distributed with very voltage drop. The product is suitable in automotive and marine applications.

Theory of operation

The Micropower CDR 2.0 is a highly effective device using a double battery system. The voltage drop occurred by use of a conventional diode splitter is eliminated by using a more sophisticated technology based on MOSFET technology. Safe and current limited compared to a relay-based device. The result is maintained charging voltage in amplitude and a cool running system with very high efficiency.

Features

- Microprocessor controlled function
- Max Current
 - 12V/200A
 - 24V/100A
 - 12V/40A
- Low voltage drops
- On/off status indication via external LED
- Waterproof and shock resistant, IP67
- Plastic housing
- Compact and easy to install
- On/Off function
- Selectable between Bidirectional / Unidirectional
- Overvoltage switch-off
- All voltage levels (on, off, over voltage) programmable during production

Description of features, PIN configuration.

Pin	Function	Description	Connect/signal
1	External indication (LED)	Connect LED to GND. (Internal 1k resistor.) Indication when the CDR is ON	Connect an external LED to GND (max 5mA)
2	Bipolar to Unipolar mode	Change between bipolar to Unipolar mode (Default is bipolar activate for unipolar mode)	Connect to GND to activate unipolar mode
3	Forced OFF	Switch off the CDR to prevent starter battery from being overcharged by a fully charged LION battery. Forced OFF (Pin 3) switches the CDR OFF. Like an emergency button. This regardless if the Pin 2 is activated or not	Connect to GND to Turn CDR OFF
4	Forced ON	Activates/deactivates CDR's voltage detection. Forced ON (Pin 2) disables the voltage detection function. It locks the CDR in ON position regardless of the voltage. (Forced ON) In OFF mode the CDR works normally with the voltage window	Connect to GND to Force ON the CDR
5	GND	Always connected to ground	Connect to GND in application

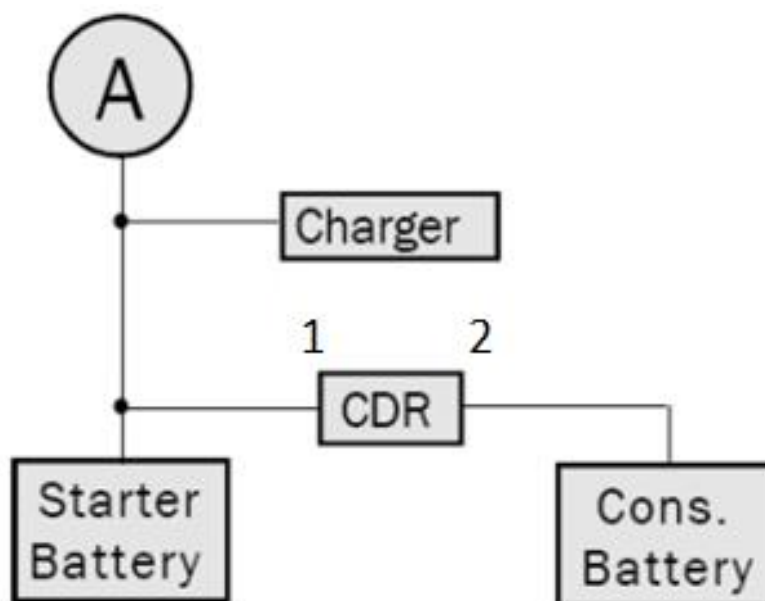


APPROVEMENTS

EMC Directive, 2014/35/EC, including amendments by the CE marking Directive, 93/68/EEC. 2011/65/EU RoHS Directive 2006/1907/EU REACH Directive + Annex XIV & Annex XVII

ECE E5*10R06/00*0461*00

Installation description CDR 2.0



PART NUMBER	0171480	
MODEL	12V 200A	24V 100A
INPUT OVER VOLTAGE	16VDC	29VDC
Turn ON Voltage (+/-2%)	13,5V	27,5V
Turn OFF Voltage (+/-2%)	12,8V	25,6V
QUIESCENT CURRENT OFF	<1mA	
CURRENT HANDLING CAPACITY	200A	100A
MAX POWER LOSS	15W	15W
EFFICIENCY	>94%	
OPERATING TEMPERATURE	-40°C to +60°C Reduced output from +40°C	
STORAGE TEMPERATURE	-40°C to +95°C	
HUMIDITY	0-100% RH	
MECHANICAL VIBRATION	According to standard IEC 60068-2-6	
INGRESS PROTECTION	IP67	
MOUNTING HOLES	4 x M6	
MAXIMUM MOUNTING TORQUE	1,5 Nm	
FINISH		
POWER TERMINALS	M8 bolts	
MAXIMUM TORQUE POWER TERMINALS	20 Nm	
HOUSING, Isolated	PFTE	
SIGNAL INTERFACE TERMINALS	6.3mm Flat Pin connectors (fast on)	
WEIGHT	700gr	
MEASUREMENTS L x W x H	132 x 94 x 31mm	

TECHNICAL SPECIFICATION

ELECTRICAL CHARACTERISTICS

Unless otherwise stated, conditions apply to full temperature range and full input voltage range.



