MDC1230 / MDC1250

DC-DC Battery Charger



MDC1230

12 V / 30 A



MDC1250

12 V / 50 A

Customer _____

Total Pages: 6

MDC1230 / MDC1250

Contents and Approval

Contents	Page
Revision History and Overview	3
Electrical Specifications	4
Charging and Environmental Specifications	5
MDC1250 Additional Specifications	6

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Customer Approval

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QA Department		
R&D Department		
Approval		

MDC1230 / MDC1250

Revision History and Overview

Model	Revision	Date
MDC1230	R2	2026-11-13
MDC1250	R2	2026-11-13

This specification covers the product functions and principal technical parameters of the MDC1230 and MDC1250 DC-DC battery chargers.

Automatically selects between alternator and solar inputs.

Charges a 12 V house battery from a 12 V or 24 V starter-battery system.

Built-in MPPT solar charging control.

Multi-stage bulk, absorption and float charging with load-aware regulation.

Supports GEL, AGM, flooded, lithium and custom Program profiles.

Selectable charging current and adjustable Lithium / Program charging voltages.

LCD display and local controls with CAN / RV-C communication.

MDC1230 / MDC1250

Electrical Specifications

Parameter	MDC1230	MDC1250
Maximum charging current	30 A	50 A
Maximum output power	465 W	775 W
Nominal output voltage	12 VDC	12 VDC
Minimum operating battery voltage	8.0 VDC	8.0 VDC
Selectable charging current	5 / 10 / 20 / 30 A	5–50 A (5 A steps)
Alternator input (12 V)	10.5–16.0 VDC	10.5–16.0 VDC
Alternator input (24 V)	21–32 VDC	21–32 VDC
Input system selection	12 / 24 V Auto	12 / 24 V Auto
Solar input voltage	14.5–50 VDC	14.5–50 VDC
Maximum solar input current	30 A	30 A
Solar input power / 24 V panels	500 W (600 W max.)	750 W (800 W max.)
Solar input power / 12 V panels	500 W (600 W max.)	500 W (600 W max.)
Efficiency	95%	95%
House-battery draw (ON)	<70 mA	<70 mA
House-battery draw (OFF)	<0.2 mA	<0.2 mA
Communication	CAN / RV-C	CAN / RV-C

MDC1230 / MDC1250

Charging and Environment

Parameter	MDC1230	MDC1250
Battery profiles	GEL / AGM / Flooded / Lithium / Program	GEL / AGM / Flooded / Lithium / Program
GEL bulk / float voltage	14.4 / 13.7 VDC	14.4 / 13.7 VDC
AGM bulk / float voltage	14.6 / 13.6 VDC	14.6 / 13.6 VDC
Flooded bulk / float voltage	14.4 / 13.3 VDC	14.4 / 13.3 VDC
Lithium charging voltage	13.9–14.6 VDC	13.9–14.6 VDC
Program charging voltage	13.8–14.8 VDC	13.8–14.8 VDC
Operating temperature	−20 to 60°C	−20 to 60°C
Storage temperature	−40 to 70°C	−40 to 70°C
Relative humidity (non-condensing)	5–95% RH	5–95% RH
Overall dimensions (L × W × H)	223.0 × 170.0 × 81.5 mm	223.0 × 170.0 × 81.5 mm
Net weight	1.85 kg	2.06 kg

MDC1230 / MDC1250

MDC1250 Additional Specifications

Parameter	MDC1250
Ingress protection	IP32
Maximum alternator input current	50 A
Restart voltage (GEL / AGM / Flooded / Program)	12.5 VDC
Restart voltage (Lithium)	13.3 VDC
Equalization voltage (flooded batteries only)	15.5 VDC
Equalization charging current	10% of bulk current setting
Charging control (GEL / AGM / Flooded / Program)	Two or three stages
Charging control (Lithium)	Three stages only
DC output bank	Single
Battery temperature setting	Low / Normal / High; overridden by optional BTS