

Dingo D8040N

80A Solar Charge Controller

Introduction

The Dingo D8040 is a solar charge controller for 12-48V off grid systems. It handles charge currents of up to 80A and has a load disconnect switch rated to 40A. The D8040 is negative ground and uses protected Mosfet switches. It uses 3 charge stages - boost, absorption and float. A periodic equalisation can also be enabled if required. The user can select PWM or slow speed switching control of the charge current. Slow switching is useful for low noise radio sites.

All the settings are user adjustable and held in non volatile memory. There are 4 programs with preset levels and one which is fully user adjustable.

The user interface allows the user to see the battery voltage, charge current, load current, daily charge Ah, daily load Ah, and daily minimum and maximum battery voltages. The D8040 records daily history data. It keeps 1 years worth of data in a revolving non volatile memory.

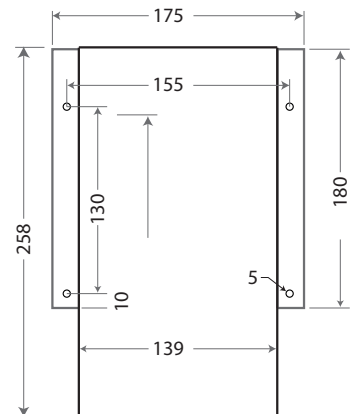
Adjustable low voltage load disconnection is provided. There is a back up generator controller which can be based on voltage or state of charge and includes a generator exercise function. An auxiliary output ('G terminal') is provided via an optically isolated solid state relay. This can be assigned to generator, event or load control.

A flexible event controller is included which allows conditional events to be programmed.

External shunts can be added to capture other system currents and there is a Modbus based serial computer interface. A battery temperature sensor can be added to improve regulation accuracy.

Features

- Rated to 50°C ambient
- IEC62109 certification from TUV Rheinland
- User selectable PWM or slow switching control
- Improved thermal performance in hot conditions



Specifications

Nominal system voltages	12,24,32,36,48	V
Maximum voltage BAT+ to BAT-	100	V
Maximum short term voltage BAT+ to BAT- (2 minutes)	120	V
Maximum voltage SOL+ to BAT- (for a 48V system)	100	V
Maximum voltage LOAD+ to BAT+	70	V
Maximum voltage between the 'G' relay terminals	90	V
Maximum voltage B+ sense to BAT+	+/- 30	V
Maximum continuous charge current (SOL+)	80	A
Maximum continuous load current (LOAD+)	40	A
Maximum short term load current (5 minutes)	50	A
Maximum 'G' relay contact current	300	mA
Battery temperature sensor operating range	-20 to +70	°C
Maximum storage temperature	70	°C
Supply current (device only, battery at 12V)	<13	mA
Supply current (device only, battery at 60V)	<16	mA
Maximum supply current (with accessories)	27	mA
Meter accuracy	<+/-2% +/- 1 digit	
Solar and battery mounting stud size	M6	
Recommended stud tightening torque	5 Nm	
Maximum wire entry size (load terminals)	16mm ² (6 AWG)	
Wire size, Green terminal block	0.2-1.3mm ² (26 -16 AWG)	



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