



UniCharge 50

Automatic Battery Charger

DS-381/6

UniCharge 50 Automatic battery chargers provide a cost effective solution to most industrial battery charging requirements. Utilising the latest high efficiency switch-mode technology the UniCharge 50 is suitable for continuous float charging of sealed or vented batteries, for example sealed lead acid VRLA / AGM, Gel, flooded lead acid, Ni-Cad etc. The two stage constant current - constant voltage characteristic ensures accurate and efficient battery charging and is designed for permanent connection to the batteries maintaining them in a fully charged condition without overcharging. UniCharge 50 is fully protected against overload, reverse battery connection, over voltage and over temperature as standard.



Input Specification

Voltage Range, V_{IN}	85 - 264V AC
Frequency	47 - 63Hz
Input Current	1.5A@115V 0.75A@230V
Inrush Current	30A @ 115V 60A @ 230V (Cold Start)
Leakage Current	<1.0mA @ 240V AC

Output Specification

Voltage / Current	12V Types: 13.6V / 4.0A pk. (3.5A continuous) 24V Types: 27.2V / 2.5A pk. (2.0A continuous) <i>Other Voltages Available on Request</i>
Ripple & Noise	<0.5%
Line Regulation	±1%
Load Regulation	±1%
Efficiency	77% - 80%
Overload Protection	Constant Current Limit
Over Voltage Protection	115% - 135% Shutdown
Over Temp. Protection	Tj 135°C - Shutdown
Reversed Battery Protection	Internal diode with external 'automotive type' mini-blade fuse.
Setup, Rise, Hold Up	800ms, 60ms, 50ms (at 230V AC)

Isolation

Withstand Voltage	Input – Output 1.5kV AC Input – Earth 1.5kV AC Output – Earth 500V DC
Isolation Resistance	500V DC / 100M Ohms (Output-Earth)

FEATURES

- COST EFFECTIVE
- HIGH RELIABILITY
- FULLY AUTOMATIC OPERATION
- 100% CONTINUOUS OPERATION
- COMPACT SIZE
- SOFT-START CIRCUIT, LIMITING AC SURGE CURRENT
- SHORT CIRCUIT PROTECTED
- OVERLOAD PROTECTED
- OVER VOLTAGE PROTECTED
- REVERSE BATTERY PROTECTED
- OVER TEMP. PROTECTED
- WORLDWIDE AC INPUT RANGE
- LOW RIPPLE OUTPUT
- SEALED ELECTRONIC CONSTRUCTION
- NATURALLY COOLED
- AVAILABLE WITH 12 OR 24 VOLT NOMINAL OUTPUTS
- OPTIONAL CHARGER FAIL ALARM & LED
- UL CERTIFIED - UL1236 7th Ed. BBGQ2
- cUL CERTIFIED - UL1236 7th Ed. BBGQ8

APPLICATIONS

- STANDBY GENERATORS
- AUTOMOTIVE
- ALARM SYSTEMS
- MARINE
- INDUSTRIAL CONTROL SYSTEMS
- ROBUST PSU
- ELECTRIC VEHICLES

Environmental Specification

Working Temperature	-10°C to +50°C
Working Humidity	20% - 90% RH
Storage Temperature	-20°C - +80°C
Storage Humidity	10% - 95% RH
Unpacked Weight	1 Kg.

Ordering Information

Rating	Part No.	Charger Fail Alarm
12V Nominal (13.6V float) 4.0A pk	JE/UC50-12-FD	No
12V Nominal (13.6V float) 4.0A pk	JE/UC50-12-FDC	Yes
24V Nominal (27.2V float) 2.5A pk	JE/UC50-24-FD	No
24V Nominal (27.2V float) 2.5A pk	JE/UC50-24-FDC	Yes

Note: Standard output voltages shown. For other output voltages and customised products please contact us.

Finish

Black ABS plastic case - Fine Spark Erode

Termination

AC input and DC output connections terminate to rising clamp screw terminals and will accept a maximum 4.0mm² stranded cable.

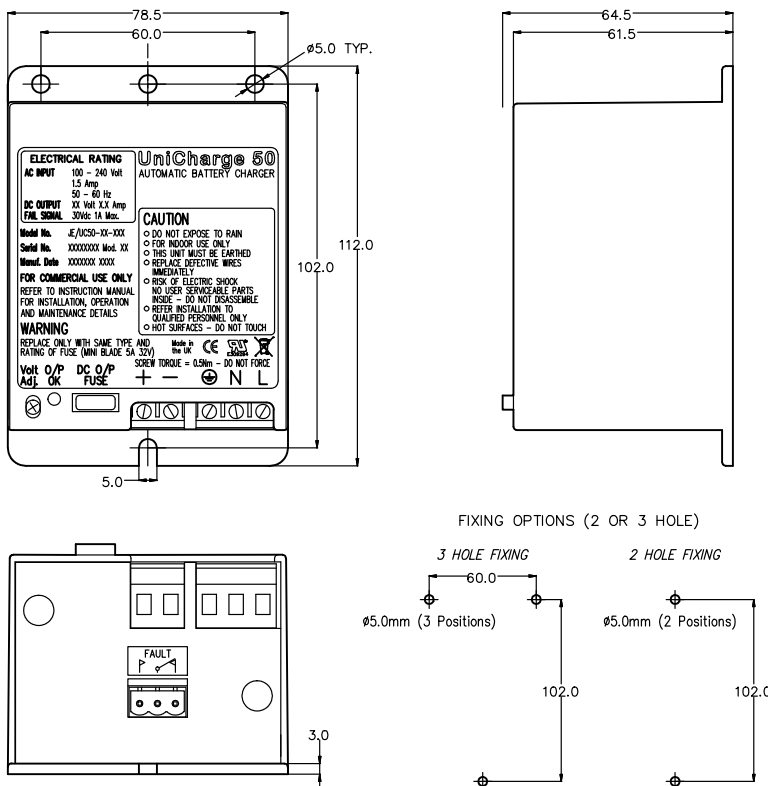
Optional alarm connections terminate to a 2-part plug / socket connector and will accept a maximum 2.5mm² stranded cable.

Charger Fail (Optional)

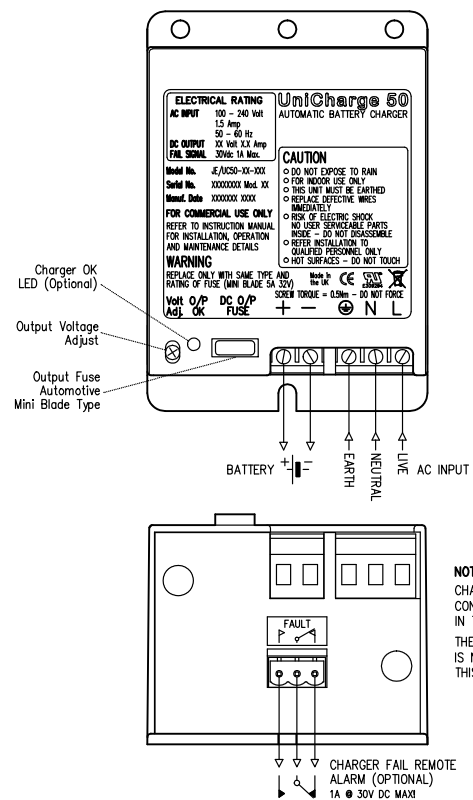
1 set of volt-free form C contacts for charger fail signalling. The contacts will de-energise if the charger's input or output fails, the output fuse blows or the battery polarity is incorrect.

A green "O/P OK" LED is also fitted for visual status of the charger's output.

General Arrangement



External Connection



NOTE: CHARGER FAIL ALARM CONTACTS ARE SHOWN IN THE FAILED STATE. THE MATING CONNECTOR IS NOT DETAILED IN THIS DRAWING.