

# DSE9450

## INTELLIGENT BATTERY CHARGER

### 50 AMP 48 V

#### FEATURES



The DSE9450 is an intelligent battery charger that can be programmed for different charging curves to maximise the life of the battery.

The DSE9450 is programmed using the user-friendly DSE Configuration Suite PC software.

The charger is mounted to the chassis using the fixing holes that are built into the case and via a supplied bracket. The chargers' stylish design includes three coloured LEDs to indicate charging status and fault conditions.

Multiple chargers can be linked together to provide a larger current output.

#### ENVIRONMENTAL TESTING STANDARDS

##### ELECTRO-MAGNETIC COMPATIBILITY

BS EN 61000-6-2  
EMC Generic Immunity Standard for the Industrial Environment  
BS EN 61000-6-4  
EMC Generic Emission Standard for the Industrial Environment

##### OPERATING TEMPERATURE RANGE

BS EN 60068-2-1  
Ab/Ae Cold Test -30 °C  
BS EN 60068-2-2  
Bb/Be Dry Heat +70 °C  
\* Refer to de-rating curve in the DSE9450 Operator Manual

##### VIBRATION

BS EN 60068-2-6  
Ten sweeps in each of three major axes  
5 Hz to 8 Hz ar +/-7.5 mm,  
8 Hz to 500 Hz at 2 gn

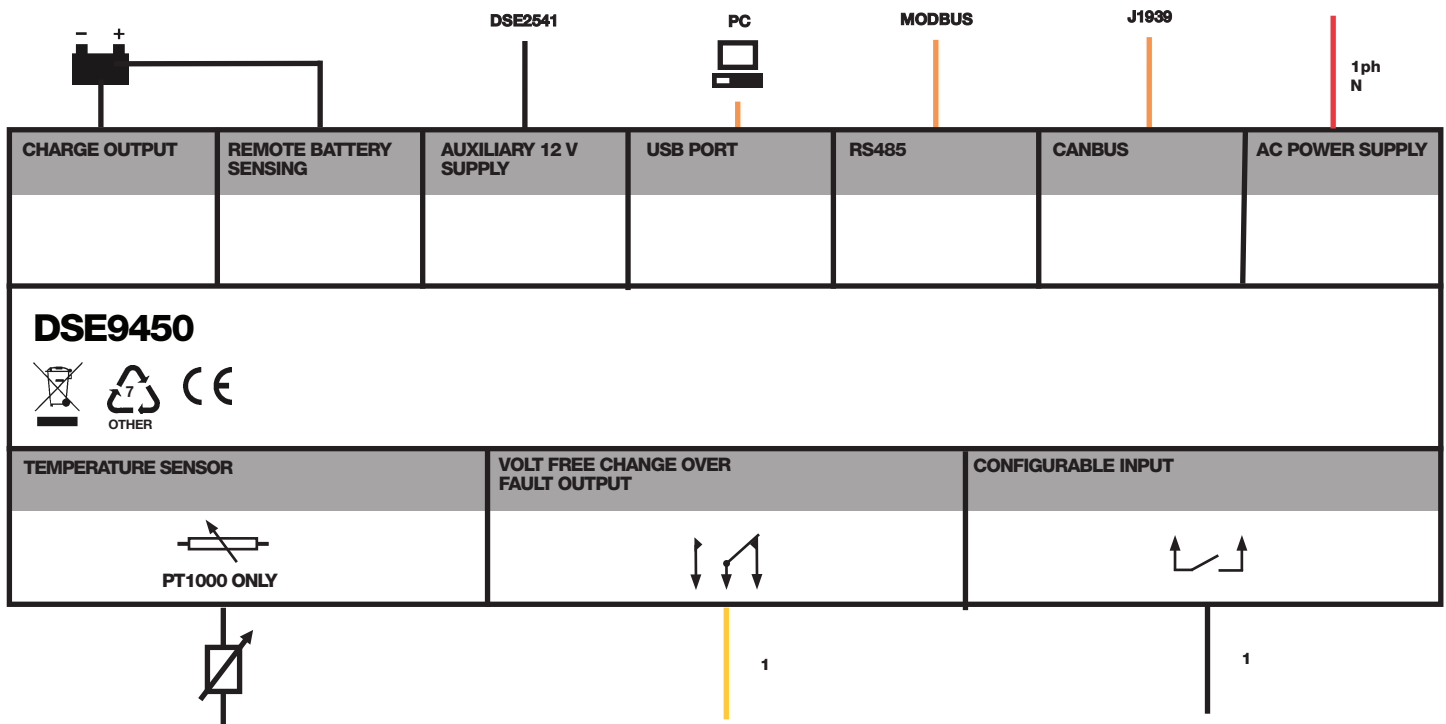
##### HUMIDITY

BS EN 60068-2-30  
Db Damp Heat Cyclic 20/55 °C at 95% RH 48 Hours  
BS EN 60068-2-78  
Cab Damp Heat Static 40 °C at 93% RH 48 Hours

##### SHOCK

BS EN 60068-2-27  
Three shocks in each of three major axes  
15 gn in 11 ms

### COMPREHENSIVE FEATURE LIST TO SUIT A WIDE VARIETY OF BATTERY CHARGER APPLICATIONS



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#### ADVANCED FEATURES

- Intelligent two, three and four stage charging profiles
- Remote voltage sensing to compensate for voltage drop
- Adjustable current limit (Maximum 50 A)
- Can be used as a battery charger, power supply or both at the same time
- Additional auxiliary 12 V supply output
- Automatic or manual boost and storage charge functions to help maintain battery condition
- Digital microprocessor technology
- Temperature compensation for battery charging
- Low output ripple and superb line regulation
- Three LEDs indication

#### Full Protection

- AC input under voltage
- AC input over voltage
- Battery charger output over voltage

- Battery charger output over current
- Battery low voltage detection
- Battery temperature compensation with over temperature protection
- Output short circuit and inversion polarity with auto recovery
- Automatic power de-rating at high ambient temperatures.
- Optional battery temperature compensation using PT1000 temperature sensor

#### Automatic Boost Mode

- Boosts and equalises cell charge improving battery performance and life

#### Power Save Mode

- Once the battery is fully charged the chargers switch to eco-power to save energy

#### Communication

- Can be integrated in to external systems through MODBUS RTU using RS485 & J1939 using CANBUS

- Fully configurable via DSE Configuration Suite PC Software
- External remote LCD option - DSE2541

#### KEY BENEFITS

- Fully flexible to maximise the life of the battery
- Suitable for a wide range of battery types
- Switched mode design
- Charge fail output
- Minimum 90% efficiency throughout full operating range
- Manual / Automatic boost mode
- Multiple chargers can be linked together to provide larger current output
- Can be permanently connected to battery and AC supply. No need to disconnect through high load conditions.

#### SPECIFICATION

##### AC SUPPLY

**NOMINAL VOLTAGE RANGE**  
90 V to 305 V (L-N)

##### FREQUENCY RANGE

45 Hz to 65 Hz (L-N)

##### CHARGE OUTPUT

**RATING AT 180 V TO 305 V SUPPLY**  
50 A DC at 48 V DC

##### RATING AT 90 V TO 170 V SUPPLY

30 A DC at 48 V DC

##### RIPPLE AND NOISE

1%

##### EFFICIENCY

>90%

##### REGULATION

##### LINE

1%

##### LOAD

3%

##### AUXILIARY SUPPLY

100 mA DC at 12 V DC

##### TEMPERATURE SENSOR INPUT

PT1000

##### PROTECTIONS

Short Circuit  
DC Under & Over Voltage  
DC Over Current  
Reverse Polarity  
Over Temperature  
AC Under & Over Voltage

##### CHARGE FAILURE RELAY

3 A 30 V DC volt free relay

##### DIMENSIONS

**OVERALL**  
523 mm x 275 mm x 131 mm  
20.2" x 10.3" x 4.9"

##### WEIGHT

8.5 kg

##### OPERATING TEMPERATURE RANGE

-30 °C to +70 °C  
-22 °F to +158 °F

##### STORAGE TEMPERATURE RANGE

-30 °C to +70 °C  
-22 °F to +158 °F

#### RELATED MATERIALS

##### TITLE

DSE9400 Series Configuration Suite PC Software Manual  
DSE Configuration Suite Installation & Operator Manual  
DSE9450 Installation Instructions  
DSE9450 Operator Manual

##### PART NO'S

057-159  
057-151  
053-178  
057-240

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