DSEPower®

# DSE9470 MKII

24 Volt, 10 Amp Battery Charger

SUPPORTS LI-ION
CHARGING PROFILE



NFPA 20
(QWIR2)

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## ADVANCED FEATURES

- Intelligent three and four stage charging profiles
- Configurable to suit 12V and 24V applications
- Adjustable current limit
- Can be used as a battery charger, power supply or both at the same time
- 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 LED indicators
- Switched mode design
- Fully customisable battery charging curves
- Battery health check
- Battery voltage sensing
- Deep sleep mode
- PSU only mode
- Automatic voltage detection
- Wide output current range

### Full Protection

- AC input under voltage
- AC input over voltage
- Battery charger output over voltage
- Battery charger output over current
- Battery under voltage alarm
- Automatic battery detection
- Automatic battery charger self test
- Output short circuit and inversion polarity with auto recovery
- Max current mode
- SCADA digital input status information
- Automatic power de-rating at high ambient temperatures.
- Optional battery temperature compensation using PT1000 temperature sensor with over temperature protection

### 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 into external systems through MODBUS RTU using RS485
- Fully configurable via DSE Configuration Suite PC Software
- External remote display option - DSE2541

## KEY BENEFITS

- Fully flexible to maximise the life of the battery
- Suitable for a wide range of battery types
- Minimum 86% efficiency throughout full operating range
- No external intervention for boost mode
- Multiple chargers can be linked together to provide larger current output
- Can be permanently connected to a battery and AC supply. No need to disconnect through high load conditions such as cranking or when the engine is running.

## SPECIFICATIONS

**AC SUPPLY**
**VOLTAGE RANGE**
90 V to 305 V (L to N)

**FREQUENCY RANGE**
48 Hz to 64 Hz (L to N)

**DC OUTPUT**
**DSE9470 MKII OUTPUT**
10 A DC at 24 V DC (Configurable)

**RIPPLE AND NOISE**
<1%

**EFFICIENCY**
>86%

**REGULATION**
**LINE**
<0.5%

**LOAD**
2%

**TEMPERATURE SENSOR INPUT**
PT1000

**PROTECTIONS**
Short circuit
DC over voltage
DC over current
Reverse polarity
Over temperature
AC under & over voltage

**CHARGE FAILURE RELAY**
3 A at 30 V DC volt free relay

**DIMENSIONS**
**OVERALL**
70 mm x 200 mm x 130 mm
2.7” x 7.9” x 5.1”

**WEIGHT**
0.75 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 | PART NO. |
|---|---|
| DSE9400 Series Configuration Suite PC Software Manual | 057-159 |
| DSE Configuration Suite Installation & Operators Manual | 057-151 |
| DSE9000 Series Installation Instructions | 053-049 |
| DSE9000 Series Operators Manual | 057-085 |

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# DSE9470 MKII

## 24 Volt, 10 Amp Battery Charger

The DSE9470 MKII is an intelligent battery charger fully configurable for use at 12 V or 24 V / 5 Amp or 10 Amp.

The charger features automatic voltage detection and battery voltage sensing down to 1 Volt and has an output current range down to 1 A. The charger can also be easily programmed for different charging curves, to maximise the life of a battery.

The charger can be DIN rail or chassis mounted, using the fixing holes that are built into the case. The chargers stylish design includes three coloured LEDs to indicate charging status and fault conditions.

The chargers do not include any moving parts for additional durability and reliability. Each charger will continue to operate during engine running.

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

The battery chargers are programmed using the user-friendly DSE Configuration Suite PC software.

**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

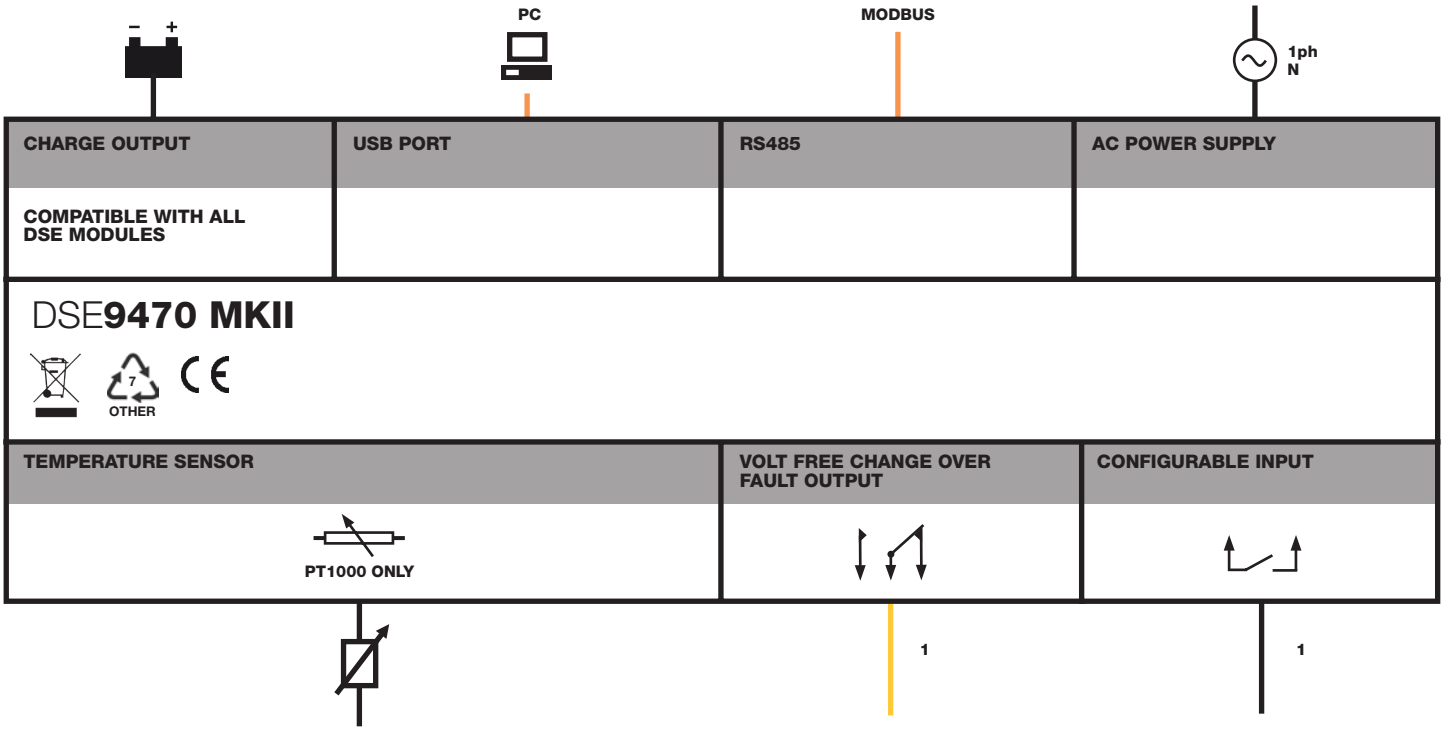
**OPERATING TEMPERATURE RANGE**
BS EN 60068-2-1
Ab/Ae Cold Test -30 °C
BS EN 60068-2-2
Bb/Be Dry Heat +80 °C
* Refer to de-rating curve in the DSE9000 Operator Manual

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

**HUMIDITY**
BS EN 60068-2-30
Db Damp Heat Cyclic 20/55 oC @ 95% RH 48 Hours
BS EN 60068-2-78
Cab Damp Heat Static 40 oC @ 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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