

DSE9470 MKII, DSE9472 MKII

DSE9480 MKII, DSE9481MKII

INTELLIGENT BATTERY CHARGERS 5 AMP & 10 AMP - 12 & 24 VOLT



**Supports
Lithium Iron
Charging Profile**



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 tight line & load regulation
- Three LED indicators
- Switched mode design
- Fully customisable battery charging curves
- Configurable soft start feature using configuration suite software
- View remaining charge time via SCADA
- Digital input within SCADA
- Manual boost function
- Configurable bulk to absorption transition

- Lithium Iron charging profile
- Auto voltage detection, detects if a 12V or 24V battery is connected

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
- Automatic power de-rating at high ambient temperatures.
- Optional battery temperature compensation using PT1000 temperature sensor with over temperature protection
- Configurable charge termination

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 including Lithium Iron
- 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 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

DSE9472 MKII OUTPUT
5 A DC at 24 V DC

DSE9476 OUTPUT
20 A DC at 24 V DC

DSE9480 MKII OUTPUT
10 A DC at 12 V DC

DSE9481 MKII OUTPUT
5 A DC at 12 V DC

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 +80 °C
-22 °F to +176 °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 & Operator Manual	057-151
DSE9000 Series Installation Instructions	053-049
DSE9476 Installation Instructions	053-185
DSE9000 Series Operator Manual	057-085

DEEP SEA ELECTRONICS PLC UK
Highfield House, Hunmanby Industrial Estate, Hunmanby YO14 0PH
TELEPHONE +44 (0) 1723 890099 **FACSIMILE** +44 (0) 1723 893303
EMAIL sales@deepseapl.com **WEBSITE** www.deepseapl.com

DEEP SEA ELECTRONICS INC USA
3230 Williams Avenue, Rockford, IL 61101-2668 USA
TELEPHONE +1 (815) 316 8706 **FACSIMILE** +1 (815) 316 8708
EMAIL sales@deepseausa.com **WEBSITE** www.deepseausa.com

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INTELLIGENT BATTERY CHARGERS 5 AMP & 10 AMP, 12 VOLT & 24 VOLT

The DSE9400 series is a range of intelligent battery chargers that can be programmed for different charging curves to maximise the life of the battery.

The chargers do not include any moving parts to give added durability and reliability. They continue to operate during engine running.

The DSE9400 series of intelligent battery chargers are programmed using the user-friendly DSE Configuration Suite PC software. The chargers can be either DIN rail or chassis mounted, using the fixing holes that are built into the case. The charger's stylish design includes three coloured LEDs to indicate charging status and fault conditions.

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

This range of chargers features a lithium iron charging profile to support lithium batteries.

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

