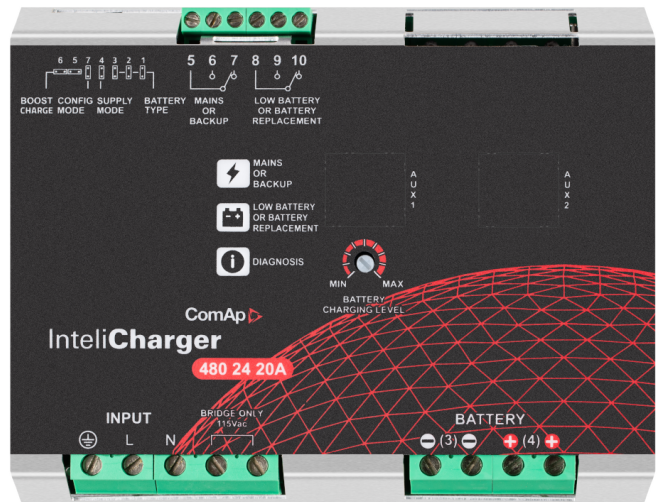


# InteliCharger 480 24 20A



Order code: BC224V20BOB

## Automatic charger for 24 V batteries

# Datasheet

### Product description

Advanced battery charger 24 V / 20 A with charging fail relay, mains fail relay, Modbus RTU communication, and temperature compensation.

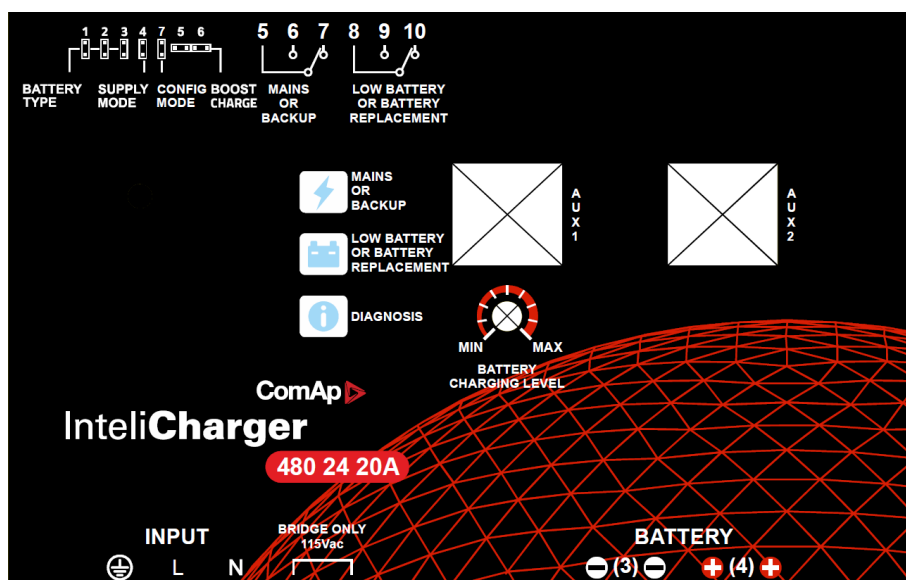
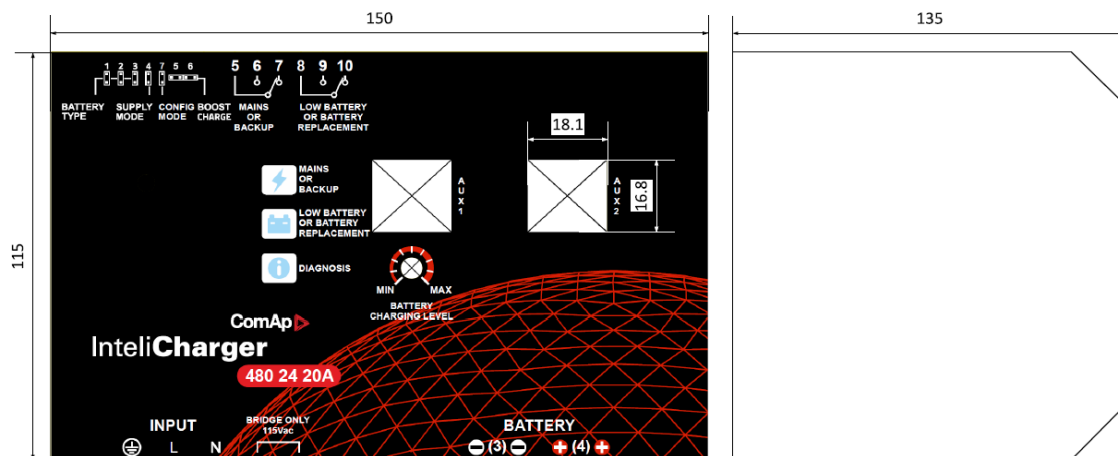
The InteliCharger 480 24 20A is an advanced, automatic, multi-stage battery charger using “Switched mode technology” and “Battery care technology”, suited to meet the most advanced requirements of battery manufacturers. The real time auto-diagnostic system monitors battery faults such as cells in short circuit, accidental reverse polarity connection, disconnection of the battery. The charger is convenient for Open Lead Acid, Sealed Lead Acid, Gel, NiCd–NiMH, and Li-ion battery types. It can be also used in power supply mode. A rugged casing with bracket for DIN rail mounting provides IP20 protection degree.

### Key features

- > 24 V / 20 A nominal output
- > Micro-processor control
- > Fully automatic operation
- > Suited for the following battery types: Open Lead Acid, AGM, GEL, Ni-Cd–NiMH, Li-Ion
- > Charger stages: Recovery, Bulk, Absorption, Float
- > Fast charge (Boost) with external contact

- > Protections: Short-circuit, Overload, Over voltage, Over temperature, Reverse battery
- > Diagnosis: Reverse polarity, Short Circuit, Battery disconnection, Wrong battery voltage
- > Signal output terminal and LED indicator indicating fault Battery / Charger (Voltage free contact)
- > Signal output terminal and LED indicator indicating fault Mains (Voltage free contact)
- > Blink code diagnostic LED indicator
- > Adjustable max. charging current
- > High efficiency  $\geq 91\%$
- > Power Supply mode (can be used as a standalone power supply)
- > Passive cooling
- > Universal AC input ranges
- > DIN rail mounting
- > MODBUS RTU communication
- > Temperature compensated charging
  - >> The temperature sensor is provided separately.

## Dimensions, terminals and mounting



**Note:** All dimensions are in mm.

**Note:** It must be ensured that the battery charger is mounted vertically for proper function of passive cooling of the charger.

# Technical data

## Battery charger input

Nominal Input Voltage	115 .. 230 .. 277 V <sub>AC</sub>
Input Voltage range	90 .. 135 / 180 .. 305 V <sub>AC</sub>
Inrush Current (Vn and In Load) I <sup>2</sup> t	≤ 35 A ≤ 5 ms
Frequency	47 – 63 Hz, ±6%
Input Current (115 .. 277 V <sub>AC</sub> )	9 .. 4.5 A
Internal Fuse	10 A
Recommended external fuse	16 A (MCB curve B)

## Battery charger output

Float Charge cell voltage (Open Lead; AGM Lead; GEL Lead - 12 cells)	2.23; 2.25; 2.3 V/cell
Float Charge cell voltage (NiCd - 20 cells)	1.4 V/cell
Float Charge cell voltage (Li-Ion - 8 cells)	3.45 V/cell
Float Charge voltage	26.76 .. 28 V
Boost Charge cell voltage (Lead Acid; NiCd; Li-Ion)	2.35; 1.45; V/cell
Boost Charge voltage (Lead Acid; NiCd; Li-Ion)	28.8; 30; 29.2 V
Recovery Charge	2 .. 16 V <sub>DC</sub>
Charging Current Max I <sub>batt</sub> < 50 °C (In)	25 A ± 5%
Power De-rating T <sub>amb</sub> > 50 °C	-2.5 % (In) / °C
Nominal Power	480 W

## Operating Conditions

Operating temperature	-25 .. +70 °C
Storage temperature	-40 .. +85 °C
Operating humidity (25 °C, no condensation)	95%
Cooling	Auto Convention
Protection Class	IP20

## General parameters

Charging current limiting I <sub>adj</sub>	10 .. 100 % of I <sub>n</sub>
Efficiency (50% of In)	91 %
Charging Curve	IUoU 3 stage (DIN41773)
Over Voltage protection	Typ. 32.5 V <sub>DC</sub>


## Dimensions

Case	A rugged aluminium case for DIN rail mounting with top and bottom perforation for auto convention cooling.
Dimension (w×h×d)	150 mm × 115 mm × 135 mm (5.92" × 4.52" × 5.31")
Weight	approx. 1.5 kg (2.5 lbs)

## Battery & Mains fault relays

Max. 30 Vdc 1 A, Max. 60 Vac 1A, Min. 5 Vdc 1 mA
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# Certificates and standards

<ul style="list-style-type: none"><li>&gt; IEC60068-2-1</li><li>&gt; IEC60068-2-2</li><li>&gt; IEC60068-2-6</li><li>&gt; IEC60068-2-27</li><li>&gt; IEC60068-2-30</li></ul>	<ul style="list-style-type: none"><li>&gt; 61000-6-2</li><li>&gt; 61000-6-4</li><li>&gt; UL 1236</li><li>&gt; DIN41773 (Charging cycle)</li></ul>	<div>CE</div> <div>UK CA</div> <div>C<sup>®</sup>  US</div>
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