Battery Charger R&S®IC 3000

ROHDE&SCHWARZ

General description

The R&S®IC 3000 is a charger for the R&S®M3TR Li-Ion Battery Packs R&S®IB 3001. It can charge up to 8 batteries simultaneously. The battery charger is intended for indoor use, e.g. workshops or shelters. Mains power supply allows input voltages from 100 V to 240 V AC at 50 Hz to 60 Hz.

The R&S®IC 3000 provides comprehensive battery maintenance functionality. This includes capacity measurement, battery status read-out, charging to C/2 for storage or controlled discharging. After a battery has been charged to the desired level, the charger automatically stops charging. Batteries can therefore remain in the charger without any risk of overcharging.

If a non-rechargeable battery (e.g. R&S®IC 3002 Li-S battery) is accidentally connected to the charger, the type of battery is detected automatically, and no charging takes place.

Because R&S®M3TR batteries store their operating parameters in their own memory, it is possible to read out battery data such as available battery capacity, state of charge, temperature, battery chemistry, etc.

Functions

The charger provides four main functions. These functions can be selected for each battery slot independently:

◆ CH: charging to full capacity
◆ C/2: charging or discharging to 60 % capacity (recommended charge for battery storage)
◆ CAP: discharging with capacity measurement, subsequently charging to full capacity
◆ READ: read-out of battery data

Display and user interface

Information stored in each battery pack can be read out. A two-line graphic LC display provides information about the battery in the selected slot. A display will show the following information (see following page):

	Display	Meaning
1	no battery	no battery pack in selected slot
2	measure capacity	measurement of remaining capacity (possible only in discharge mode)
3	state of charge	battery pack charge level in % and mAh
4	battery voltage	battery pack voltage
5	charging current	– charging current in mode CH – charging or discharging current in mode C/2 and CAP
6	battery temperature	battery pack temperature
7	design capacity	battery pack nominal capacity
8	device name	battery pack designation
9	device chemistry	type of battery
10	manufacture date	date of manufacture
11	manufacture name	name of manufacturer

The desired information (1 to 11) can be selected by using a rotary switch. In addition, each battery slot is equipped with a red and a green LED providing the following information:

LED status	Meaning
both LEDs off	no battery pack connected
green LED on	charging
red and green LEDs on	discharging
green LED flashing	charging/discharging completed
red LED on	different position of function switch as compared with its position at the beginning of the function
red LED flashing	non-rechargeable battery pack or other error

Specifications

Power supply	
Voltage	100 V to 240 V ±10 %, 50 Hz to 60 Hz ±5 %
Current	
Max. current primary	10 A
No load current	0.5 A
Primary fuse	acc. to IEC 127-2/V T10 A (The primary fuse can be replaced from outside.)
Charging	
Charging current	2.5 A
Charger voltage	32.8 V (−0%/+1%)
Conditions for start of charging	
Temperature of battery	+0 °C to +60 °C
Conditions for end of charging	
Time limit	7 h
Temperature limit	+60 °C
Undercurrent limit	100 mA
Discharging	
Discharging current	400 mA
Environmental specifications	
Temperature range	
Operating temperature range	−10 °C to +55 °C
Storage temperature range	−25 °C to +55 °C
Humidity (without condensation)	98 % at 40 °
Vibration	acc. to MIL-STD-810E
Shock	acc. to MIL-STD-810E
Class of protection	IP 30
Mechanical specifications	
Colour	black
Dimensions (W × H × D)	430 mm × 250 mm × 285 mm
Weight (without front panel and cables)	11 kg

Ordering information

Designation	Type	Order No.
Battery Charger	R&S®IC 3000	6098.2257.02
A power supply cable is supplied with each charger.		

Certified Quality System
ISO 9001
DQS REG. NO 1954 QM

Certified Environmental System
ISO 14001
DQS REG. NO 1954 UM

Certified Quality System
AS 9100
DQS REG. NO 1954 AS

Certified Quality System
AQAP-110
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