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DATA SHEET

*lab*PWR I.3 (Code 3713)

HEAD*lab* Power box for the power supply of *lab*HSU, HEAD*lab* systems up to 35 W and SQuadriga III

Overview

*lab*PWR I.3 provides an uninterruptible power supply for *lab*HSU, HEAD*lab* systems (up to 35 W) or SQuadriga III. Even without external power supply the integrated battery supplies
HEAD*lab* systems for several hours, depending on configuration.
The implemented features allow for remote power up of pre-configured measurement systems or timer controlled power on and power off (with *lab*HSU).
*lab*PWR I.3 is equipped with comprehensive safety features for operation and charging. Thus it offers maximum safety.

The noiseless and robust power box is ideally suited for mobile and stationary use.

Features

- Uninterruptible power supply for HEAD*lab* systems with up to 35 W power consumption
- 10 - 30 V DC input voltage
- 24 V DC output voltage
- Rechargeable Battery (Lilon) with 50 Wh output energy
- Seamless switching between external power supply and battery mode
- Automatic standby mode extends battery runtime
- Auto on function allows for activation of a measurement system by switching an external power supply. (e.g. in a wind tunnel)
- In conjunction with *lab*HSU the auto on feature enables timer based power up for scheduled measurements (e.g. in a scheduled interval)
- Comprehensive safety functions for charging and operation
- Robust construction
- LED indication of battery level (in 20% steps)
- Indication of battery level via controller (in 1% steps)
- Direct power supply via vehicle electrical system is possible
- Galvanic isolation between Input and outputs
- Noiseless operation without fan
- Integrated mechanical locking mechanism (easy and safe connection to other HEAD*lab* modules)

Scope of supply

- *lab*PWR I.3 (Code 3713)
  Power box for HEAD*lab* systems (up to 35 W)
- CLO X.3 (Code 3782-3)
  Voltage supply cable
  2 x terminal lug <> LEMO 2 pin., 3 m [DC voltage supply <> *lab*PWR I.3]

Optional accessories

- CLL XI.xx (Code 3781-xx)
  Voltage supply cable
  LEMO 4-pin <> LEMO 4-pin
  [*lab*PWR I.3 <> *lab*CTRL I.2]
- Power supply unit
  24 V, 60 W, LEMO 2-pin
- Power supply unit for
  24 V, 144 W, LEMO 2-pin

Power consumption HEAD*lab*- and compact-modules:

*lab*CTRL I.2 (controller):	10 W
*lab*V6 / *lab*VF6:	4.8 W
*lab*V6HD:	7 W
*lab*V12 / *lab*V12-V1 / *lab*V12-V2:	7.5 W
*lab*M6 / *lab*M6-V1:	10 W
*lab*HMS:	2.5 W
*lab*T6:	2 W
*lab*SG6:	9.5 W
*lab*DX (Vers. A):	2.5 W
*lab*DX (Vers. B):	7 W
*lab*CF6:	8 W
*lab*HRT6:	10 W
*lab*HSU (w/o USB-Device)	10 W
SCU I6	10 W
*lab*P2 / *lab*P2-V1:	10 W
*lab*O2 / *lab*O2-V1:	10 W
*lab*COMPACT12:	14 W
*lab*COMPACT24:	20 W

Technical data

Terminals:	2 x LEMO 4-pol. (out) 1 x LEMO 2-pol. (in)
Input voltage:	10 – 30 V DC
Output voltage:	24 V DC
Maximum output power:	35 W
Output energy (battery):	50 Wh
Battery type:	LiIon
Charging time after complete discharge (at 20° C)	2.5 h (*lab*PWR I.3 switched off); 4 h (*lab*PWR I.3 in standby-mode)
Charge cycles:	>500
Efficiency with power supply unit	> 80 %
Efficiency in battery mode	> 90 %
Galvanic isolation input/output:	Yes
Seamless switching external power supply/battery:	Yes
Quiescent current in standby-mode	< 5 mA
Automatic standby-mode if load < 1 W	Yes
Battery indication LED:	In 20 % steps
Battery indication via controller:	In 1 % steps
Cooling:	Convection, fanless
Dimension: incl. locking mechanism and rubber feet:	140 x 180 x 42 mm (WxDxH) 148 x 180 x 48 mm (WxDxH)
Weight:	1.3 kg
Charging temperature:	10 °C – 45 °C
Operation temperature:	-18 °C – 60 °C (output power ≤25 W) 0 °C – 55 °C (output power ≤35 W)
Storage temperature:	-20 °C – 60 °C

Power supply units for *lab*PWR I.3

PS 24-60-L2

Input voltage:	90 – 275 V AC, 50 – 60 Hz
Input current:	1.5 A at 110 V AC; 0.75 A at 230 V AC
Output voltage:	24 V DC +/-5 %
Output current:	2.5 A
Output power:	60 W
Leakage current:	<100 µA
Terminals AC-In: DC-Out:	 IEC connector (IEC60320-C14) 2pin. LEMO connector, type 1S

PS 24-144-L2

Input voltage:	90 – 264 V AC, 50 – 60 Hz
Input current:	4 A max. at 115 V AC; 2 A max. at 230 V AC
Output voltage:	24 V DC +/-5 %
Output current:	6.25 A max.
Output power:	150 W max.
Leakage current:	<100 µA
Terminals AC-In: DC-Out:	 IEC connector (IEC60320-C14) 2pin. LEMO connector, type 1S

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