EPS - Datasheet

Series <u>EPS/EL 9000B 3U/6U</u>

EPS's programmable electronic DC loads »EPS/EL 9000B« series are especially suitable for test systems and industrial controls due to their compact construction of a 19" enclosure with 3+6 height units (3U+6U). The DC input range features new voltages up to 750V, currents up to 1020A at power ratings with 14,4kW. Apart from basic functions of electronic loads, set point curves can be produced in the integrated function generator (sine, rectangular, triangular and other curve types). Arbitrary curves can even be stored on and uploaded from a USB flash drive.
In the battery test mode, a battery can be discharged with a constant current, - power or - resistance until the battery voltage reaches an adjustable final discharge voltage. If this threshold is exceeded, the load input is automatically switched off (deep discharge protection). The discharge time and consumed charge (Ah) are measured and displayed. An integrated MPP tracking function simulates solar inverters in 4 different processes.

For remote control using a PC or PLC the devices are provided as standard with a USB-B slot on the back side as well as a galvanically isolated analog interface.
Via optional plug-in interface modules other digital interfaces such as Profibus, ProfiNet, ModBus TCP, CANopen, CAN and more can be added. These enable the devices to be connected to standard industrial buses simply by changing or adding a small module. The configuration, if at all necessary, is simple. Thus the loads may, for example, be operated with other loads or even other types of equipment or controlled by a PC or PLC, all using the digital interfaces. The control software EPS/PC for Windows allows remote control of multiple similar or different devices (optional, up to 20). It has a clear display for all set and actual values, as well as direct input mode of SCPI and ModBus commands and a firmware update function.

In addition the e-loads offer the possibility to connect to compatible power supplies via a Shared Bus, in order to create a so-called two-quadrants system. This operation mode uses the source-sink principle for testing devices, components and other parts in many industrial areas. A genuine master-slave connection with totalling of the slave units is also provided as standard. Operating in this way allows up to 16 units to be combined to a single system with a total power of up to 320 kW at 16320 A.

All models have a FPGA/DSP based digital control. These enable an exact and fast measurement and display of actual values. On request also Slave modules are available.

As an option are preconfigured cabinet systems and Multicontrol (Controlling up to 20 units at the same time) possible, too.

Energy Efficiency: Temperature regulated fans

Scope of delivery:
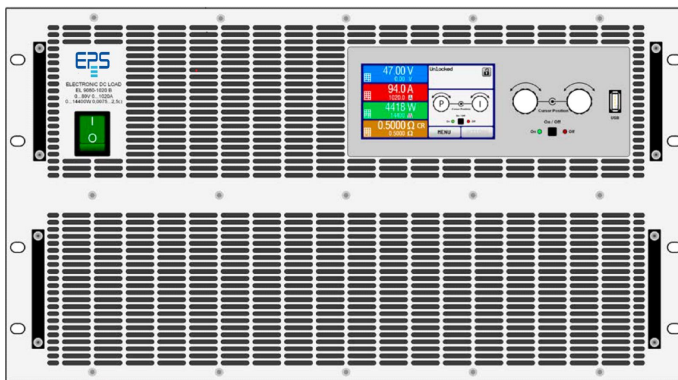El. Load
Operation Manual
AC mains cord
Share-Bus plug
Remote sense plug
USB-cable 1.8m
Set DC-terminal cover(s)
USB stick "Drivers&Tools"

EPS/EL 9750-120 B 6U
Electronic Load

EPS/EL 9000B 6U

General data

Technology	Switching
Operation modes	CC.CV.CP.CR
Mains	115/230 VAC +10%/-15%
Input frequency	45-65Hz
Input Current Limitation	Standard
Display	TFT-Touch Panel HMI
Voltage resolution	0,1V
Voltage accuracy	<=0,1% N.
Voltage Stability Load	<0,05% Un
Current Resolution	0,01 A
Current Accuracy	<=0,2%
Current Stability Load	<0,1% In
Rise time Current	<18µs (10-90% In)
Power Accuracy	<0,5% N.
Overheat protection	Standard
Isolation In-/Output	2500V max.
Isolation Output/Enclosure	+-400V max.
Parallel operation	Master/Slave
Current sharing	Standard
Cooling	Fan
Operation temperature	0-50°C
Storage temperature	-20...70°C
Humidity	<80% n.c
Attitude	2000m /NN
Design	19 inch
Standards	EN61010-1,EN61000-6-2/3

Series EPS/EL 9000B 3U/6U

Power fail	Standard
Alarmmanagement	Standard
Function generator	+arbitrary
Memory	5 Profile

Interfaces
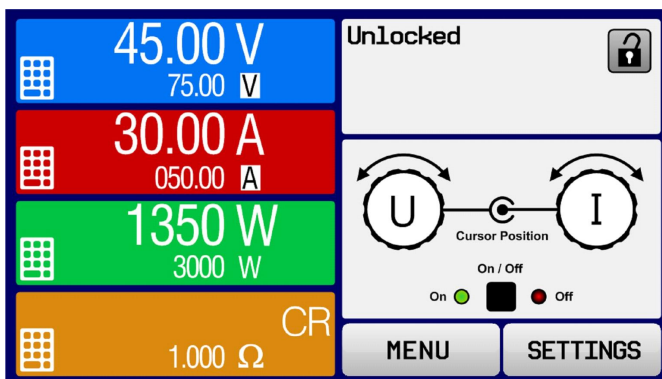
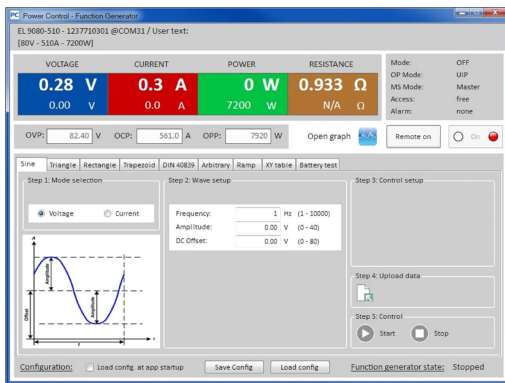|	
Analog Isolation	Standard (intern)
Accuracy Interface	0-5V <0,4% / 0-10V <0,2%
Remote Control	U/I/P/R
Input Signal	Intern/extern,Input on/off,R mode
USB Interface	Standard
RS232 Interface	Option EPS/IF-AB R
CAN Interface	Opt.EPS/IF-AB-CAN/Co
Profibus	Option EPS/IF-AB-PBUS
Ethernet Interface	Standard, Opt.IF-ETH2P
Ethercat Interface	Option EPS/IF-AB-ECT
Software	Standard EPS/PC, Option EPS/MC

Technical data

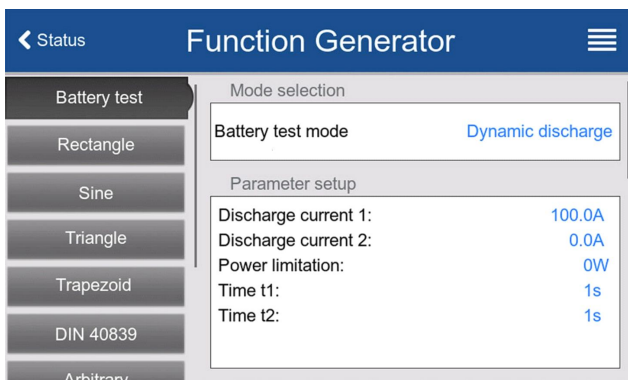|	
Input Power	7200W
Input Voltage	0-750 VDC
Input Current	0-120 A
Resistance Adjustment Range 1	0,6-180 Ohm
Resistance Resolution Range 1	0,01 Ohm
Remote Sensing	max. 5% Unenn
Dimensions in mm (WxHxD)	19" x 267 x 464
Weight	33 kg
Order code	300189

Options

Option 1	Extended Warranty 2 / 3 / 5 years EPS/G2/3/5
Option 2	Calibration EPS/EL 9000B CAL

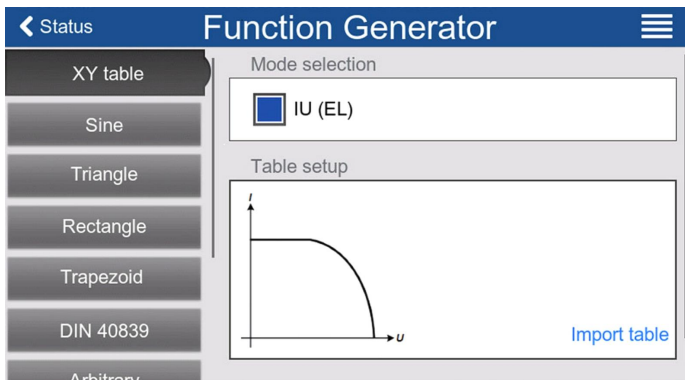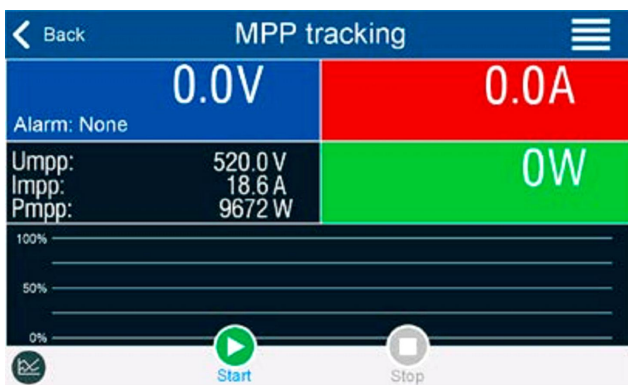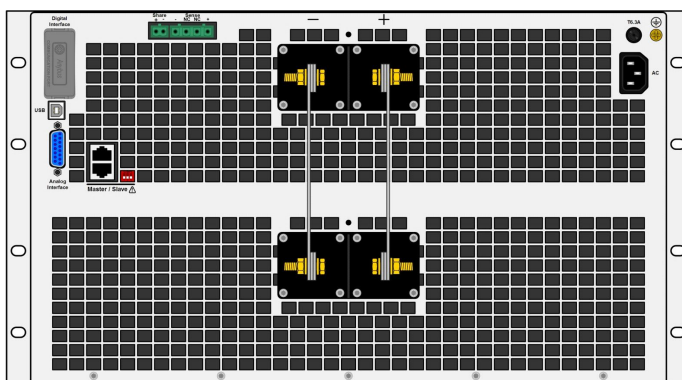EPS/EL 9000B TFT_HMI Touch panel

EPS_Power Control Software

EPS_Battery dynamic-discharge-function

Series EPS/EL 9000B 3U/6U

EPS_XY-Tabelle -table

EPS_MPP Tracking

EPS/EL9000B rear_6U