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Card for inserting in power supply



External Module

PSC-ETH-2 - Ethernet Power Supply Controller

Interface between Ethernet IP Network and Power Supply

- IP-address configurable by user
- Build-in Card or External Module

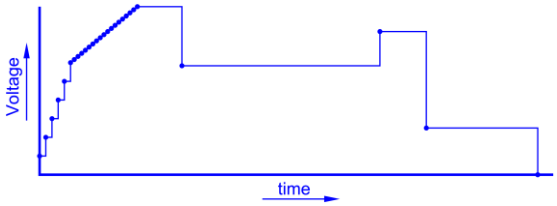
Features

- Accurate Programming & Monitoring
- Web Interface
- Digital user in and outputs (isolated)
- Change power supply modes (Remote/Local etc.)
- Read-back of status signal
- DHCP Operation
- Integrated Sequencer
- Software Calibration
- SCPI commands

Integrated sequencer



Arbitrary Waveform generator or standalone automation. The sequencer is integrated in the Ethernet controller. User defined Waveforms can be stored in the sequencer.



- Converts a power supply into an Arbitrary Waveform Generator
- Ideal for repetitive testing and automotive
- Can work like a PLC or stand-alone automation: steps interact with the actual in- and outputs
- Waveform generator independent of computer Stand-alone operating possible
- Battery voltage simulation, Surges, Function generator, etc.
- 25 free sequences having max. 2000 steps each
- Combination of fast and very slow sequences
- Steps from 1 ms till hours

Web Interface



- Setting & Monitoring of voltage and current, actual and set values
- Setting & Monitoring Output On/Off
- Monitoring Status Icons: DC-fail, CC-mode, PSOL, Over Temp etc.
- Sequencer Uploading and Selecting
- Running, Pausing, Stopping and Triggering of Sequences
- Running in Single Step Mode

Sequencer

The PSC-ETH can control the power supply by a sequence without the need of an external computer.
The sequencer can even control the user outputs and read the user inputs.
A sequence is built from user programmable steps (or program lines).

A sequence step can do the following:

- Set the output Voltage and Current
- Jump to defined step number, unconditional or under condition of: Digital outputs or inputs, Variable, output voltage or current.
- Increment or Decrement output Voltage, Current or Variable
- Possibility to create loops, subroutines, ramps etc.
- Set a Digital output (8 available)
- Wait for trigger from Computer or Pause
- Set an internal Variable or internal Timer (resp. 8 or 2 available)

Sequences can be started / paused / stopped by: Commands via Ethernet (software) or by User Inputs (hardware) or Web.

Using digital user inputs for starting or stopping a sequence, makes it possible to choose the sequences by selecting the corresponding input, without being connected to a computer.

Analog inputs and outputs

The 2 analog in- and outputs have a 16 bits resolution. Offset and full scale can be software calibrated. Factory calibration is within +/- 0.1%. Note that for the external module, the accuracy of the connected power supply must also be considered. Input linearity error is +/- 1 LSB, output linearity error is +/- 2 LSB. TC typical is 10 ppm / °C. Each analog in- and output can be set or read. Analog voltages are standardized on 0 - 5 VDC (with optional Power Sink I_{mon} = –5 - 5 VDC). Analog in- and outputs have a common zero.

Status monitoring

The PSC provides logic status inputs to monitor the status signals of the power supply:
CC mode, current or voltage limit, DC fail, AC fail, Over Temperature, PSOL, etc.

Controls

Remote ShutDown: Enables / disables the output voltage of the power supply.
REMOTE: Switches from manual control to remote control (not on PSC-ETH-2 module).

Digital User Inputs and Outputs

The PSC-ETH-2 provides eight 60VDC opto-isolated logic inputs with common zero for custom use.
The input impedance is 1800 Ohm, Logic high = 2.5 - 30VDC, Logic low = 0V.
The PSC-ETH-2 provides also eight 60VDC opto-isolated, logic, open drain outputs with common zero for custom use.
The output impedance is 7Ohm, maximum rating is 30VDC / 200mA.

Software & Accessories

Example software and manual in PDF format can be downloaded from the website via **link**.
The PSC-ETH-2 module is supplied with a Analog Programming Cable and a Line Cord.

General

Temperature:	Operating temperature –20 - 50 °C, Storage temperature –40 - +70 °C.
Humidity:	Max. 95% RH, non-condensing, up to 40 °C, max. 75% RH, non-condensing, up to 50 °C.
Insulation:	LAN & Logic I/O to Case 60 VDC (functional insulation).
	LAN & Logic I/O to 'minus' DC power terminal 60 VDC (functional insulation).

Warning! *LAN & Logic I/O connectors are at safety level of the 'minus' DC power terminal of the power supply they are build in.*
For Reinforced Insulation between LAN & Logic I/O and DC power terminals, build in an ISO-AMP and use external Module PSC-ETH-2 EXT.

External Module PSC-ETH-2 EXT

Enclosure

Dimensions (h x w x d): 89 x 85.5 x 118.5 mm
Weight: 0.7 kg
Degree of protection: IP20

Insulation

LAN & Analog & Logic I/O to case: 60 VDC
Mains input to case: 2500 VAC

Input Power

Rated voltage: 230VAC, wide range 98 - 264 VAC, 48 - 62 Hz
Power consumption: 10 W
Hold-up time @ 110 VAC : 80 ms, @ 230 VAC : 300 ms

EMC

Emission : EN 61326-1, class B equipment (for use in domestic establishments)
Immunity : EN 61326-1, equipment for use in industrial and domestic establishments

Ordering Information

Models	Order Code	Description	Digital User I/O	Comments
ES150	Option P150	ES150 Series with Build-in Card	Not available	Analog programming connector removed
ES300	Option P179	ES300 Series with Build-in Card	Not available	Analog programming connector removed
SM800	Option P256	SM800 Series with Build-in Card	Available	Analog programming connector still available
SM1500	Option P177	SM1500 Series with Build-in Card	Available	Analog programming connector still available
SM6000	Option P157	SM6000 Series with Build-in Card	Available	Analog programming connector still available, except on models SM300-20 & SM600-10.