Art.-No.
EPS-4M+-EU
EPS-4M+-UK
EPS-4M+-CH

Datasheet

ePowerSwitch 4M+

The ePowerSwitch 4M+ is the most demanded Power Distribution Unit of the ePowerSwitch product family. The compact design with an embedded webserver and i’ts flexible expandability up to 36 controllable power outlets make it together with the possibilities in the field of environmental monitoring to be an excellent tool in data centers – and beyond.

Art.-No.
EPS-4M+-EU
EPS-4M+-UK
EPS-4M+-CH

Description

The ePowerSwitch 4M+ offers with it's compact dimensions numerous applications – not only to the IT environment. A total of 4 IEC320 power outlets are available that can be switched individually and as any group.

The special xBus connection (standard RJ45) is available for extensions (ePowerSwitch 8XS, ePowerSwitch 1XS, sensors, etc.). The system is extendable up to 36 IEC320 power outlets by this way.

The master device has an integrated webserver and provides the convenient configuration via a web browser.

Rear connection features

- 1 IEC320 input
- 4 IEC320 outputs

Front connection features

Status-LED for all ports
RJ45 network connection
RS232 connection
xBus connection

Power Distribution

Each network switch can be switches on/off and restarted via IP or RS232 interface. This can be done by the web interface, a KVM switch, SNMP, or any serial interface. They can also be switched single or as individually created group of outlets – including connected expansion units. The sequential on and off switching of each outlet prevents resulting peak loads within the IT environment.

The power outlets are equipped with extremely robust HiAmp relay for high inrush currents. Individual delays (1-255 seconds when you next switch, 1-3600 seconds when restarting) can be configured for the switching process.

Monitoring

Device monitoring

The ePowerSwitch 4M+ can monitor up to 40 IP addresses with ping or scan commands and send a message (SNMP trap, e-mail, syslog) in case of a crash automatically. If the monitored IP devices are powered by the ePowerSwitch they can be automatically restarted. The combination of the Neol ePowerSwitch and VizioGuard products are possible.

By using the ePowerSwitch 4M+ remote actions on a different ePowerSwitch or VizioGuard system may be triggered over Internet automatically too. The figure shows an example with 2 different stations, the operation of the power switch via the Internet and at the same time an environmental monitoring.

Environmental monitoring

With the xBus interface on the front side of the device up to 4 sensors or detectors can be connected by standard CAT cable. The transmission of signals is fully digital and the maximum range is up to 200m. The use of an existing cable infrastructure is easily assured. The inputs can be used in definable rules to trigger automatically any appropriate emergency actions.

Sensors and detectors can be flexibly combined and placed at any desired location in the surveillance area. For example, the optimization of a larger demilitarized zone (eg. hotspots in the air-conditioned area) is possible with only a little effort.

A special function of the device provides an easy integration with your own programs to control the power outlets. With or without authentication, depending on your needs.

Management

The management and control of the device using the integrated web server through the web browser is quite simple. Moreover, it is possible to send switching commands via a connected KVM switch or a terminal console.

Authentication
All current ePowerSwitch devices use a nonce (cryptographic nonce) and a hash function for authentication so the access cannot be reconstructed or manipulated. To support fully encrypted transmission of data corresponding devices are available (eg. ePowerSwitch 8XM or VizioGuard).

User accounts
The administrator can create up to 40 user accounts with different rights via the web interface. Access to the webserver is protected by 32-character user names and passwords. In addition, up to 40 users may simultaneously access the ePowerSwitch and all connected xBus peripherals.

Grouping of power outlets
The grouping of power outlets allows a server with redundant power supplies or multiple devices to be turned on/off with a command sent through a web browser or by SNMP. With the ePowerSwitch 4M+ it is possible to create any groups. Connected expansion devices (for example, the ePowerSwitch 8XS) are captured and managed too. The number of power outlets within the group is arbitrary.

Programmable rules
Up to 32 rules can be configured to monitor analog values and digital inputs. Pre-programmed actions will be triggered on alarm state which will switch eg. relay or sockets. Optional e-mails, SNMP traps or syslog messages can be sent.

Timer and scheduler
The device offers the possibility to automatically operate the power outlets by a timer and/or a scheduler function. Individual power outlets but also groups will be turned on/off at defined times. It is also possible to automatically send e-mail, SNMP traps and syslog messages with the scheduler. By using a Internet connection the option to trigger an action on remote ePowerSwitch devices is given.

Designations
Up to 32 characters long names can be set to all devices and sensors connected. This unique identification simplifies the programming of rules, groups and the associated actions.

Online help
An intuitive interface and context-sensitive online help allow administrators to quickly enable various and powerful features of the system. Detailed instructions and explanations are listed in the operating instructions.

Art.-No.
EPS-4M+-EU
EPS-4M+-UK
EPS-4M+-CH

Features at a glance

- Remote control of 4 outlets or outlet groups.
- Sequential power-up to avoid inrush currents.
- Arbitrary names for ePowerSwitch, a single socket, groups or rules…
- Control and configuration via IP or RS232 port.
- Monitoring of 4 IP devices with automatic restart after lockup.
- Soft Shutdown of a server via RS232 serial port.
- 1 administrator account and 40 user accounts with concurrent access.
- Simple and fast configuration.
- Compact metal housing, 19“ rack mounting kit optional.
- LED for status display power, network and power outlets.
- Detailed log files.
- Online help.
- Firmware update via LAN network.
- Operating temperature: 0 to 40℃, operating Humidi ty: 10 to 80% (non-condensing)
- Storage temperature: -20℃ to 60℃, storage humidit y: 10 to 90% (non-condensing)

Supported peripherals

Up to 4 peripheral devices can be connected to the ePowerSwitch 4M+ directly.

Sensors

- Temperature sensor (T-Sensor)
- Temperature and humidity sensor (TRH-Sensor)
- Temperature and ambient light sensor (TL-Sensor)
- Temperature and proximity sensor (TP-Sensor)
- Temperature sensor tiny (T-Sensor Tiny)

Detectors

- Optical liquid detector (LIQ DET)
- Optical smoke detector (SMOKE DET)
- Movement detector (MOVE DET)
- Magnetic reed contact (MAGNETIC CON)

Interfaces

- Dual 0-10V with temperature sensor (0-10 T-Sensor)
- Dual 4-20mA with temperature sensor (4-20 T-Sensor)
- PT100 for platinum measuring resistor (PT100 T-Sensor)

Expansion & Cascade

- 1 power outlet (ePowerSwitch 1XS)
- 8 power outlets (ePowerSwitch 8XS)
- 8 power outlets with 2 x 16A inputs and voltage monitoring (8XS /32)

I/O-Modules

- 8-way terminal with dry input contacts (Digital input module)
- 8-way terminal with dry output contacts (Digital output module)
- Push button with dual action (Push button)

Current probe

- For 1 output (CP IEC)

Art.-No.
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EPS-4M+-UK
EPS-4M+-CH

Technical data

- Power input 1 x IEC320 EN60320 C14 (M) 10A
- Nominal voltage: 230V / 50Hz
- Max. current: 10A
- Power output 4 x IEC320 EN60320 C13 (F)
- Nominal voltage: 230V / 50Hz
- Max. current/outlet: 10A
- Network standards IEEE 802.3, 10/100 Mbit/s
- Network protocols TCP/IP, HTTP
- Network connection RJ45 for UTP CAT5
- Max. network cable length 100 m
- Terminal connection RS232, SUB D9 female
- Connection Bus RS485, RJ45
- LED Power, Network, Socket
- Operating temperature 0℃ to +40℃
- Operating humidity 10% to 80%
- Dimensions (W x H x D) 230 x 42x112
- Weight 1 kg
- Approvals CE, EN55022 & EN55024, RoHS
- Guarantee 2 years repair/replace

Package contents

- 1 EPS 4M+-XX (where XX is the specification of the power plug)
- 1 power cord, 1,80 meters IEC-320-C13 / EU, CH or UK standard - EU = SCHUKO/Europe, CH = Swiss, UK = United Kingdom
- 1 Network cable
- 1 serial cable (SUB-D9 male/female) 1,80 meters
- 1 CD-ROM with english manual and Windows IP configuration tool
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ePowerSwitch 4M+ with optional 19“ Rackmount

Application example