

PS-24V

SmartX Controller

Power supply

Introduction

The PS-24V power supply module is designed to accommodate the specific power requirements of the SmartX server and its connected I/O modules.

Features

The PS-24V is a power supply module that accommodates 24 VAC or 24 VDC input power.

Reliable consistent output power

Each power supply module delivers reliable and consistent output power of 24 VDC to the terminal base.

30 W rating

This power supply module can supply power for loads up to 30 W. The consumption of downstream modules can vary. A PS-24V can deliver power to one SmartX server and a number of I/O modules calculated from the Power Budget table. If more I/O modules are needed, another power supply can be added to the bus. The output power delivered by the previous power supply on the bus is interrupted in the terminal base of the next power supply while also providing communication and ground pass-through.

Power Budget

Module	DC input supply power
SmartX AS-P server	10 W
Automation Server	7 W
DI-16	1.6 W
UI-16	1.8 W
RTD-DI-16	1.6 W
DO-FA-12(-H)	1.8 W
DO-FC-8(-H)	2.2 W
AO-8(-H)	4.9 W
AO-V-8(-H)	0.7 W
UI-8/DO-FC-4(-H)	1.9 W
UI-8/AO-4	3.2 W



Module	DC input supply power
UI-8/AO-V-4(-H)	1.0 W

Modular and scalable system

The modules are part of a modular system that delivers power and communications on a common bus. Connecting modules is a one-step process: just slide the modules together using the built-in connectors.

Polarity independent

The main AC/DC input (L/+ and N/-) is galvanically isolated from the DC output (to the I/O bus). This removes the risk of damage due to earth currents and permits the input power to be wired without concern for polarity matching.

Overload protection

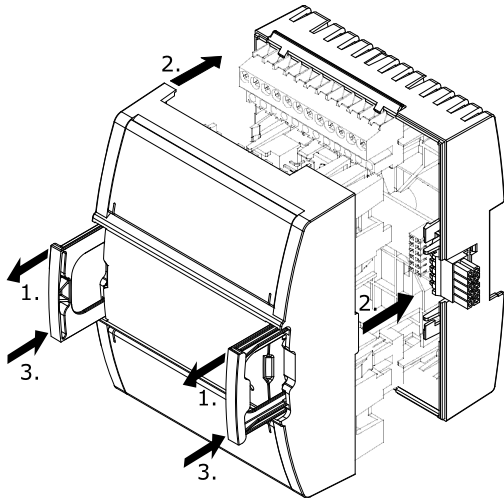
When a power supply module's load (total load of SmartX server, I/O modules, and communication modules) exceeds its rating, the power supply module will protect itself from being damaged.

Patented two-piece design

Each module can be separated from its terminal base to allow the site to be wired prior to the installation of the electronics. The patented locking mechanism serves as handles for removing the module from its base. All critical components have a protective cover that permits convection cooling to occur.

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Two-piece design

Auto-addressing

The auto-addressing feature eliminates the need for setting DIP switches or pressing commission buttons. Each module automatically knows its order in the chain and assigns itself accordingly – significantly reducing engineering and maintenance time.

Simple DIN-rail installation

Fasteners easily snap into a locked position for panel installation. The fastener has a quick-release feature for easy DIN-rail removal.

Accommodates multiple row panel installations

The SmartX devices use built-in connectors for single row connectivity, side by side. If a panel size requires multiple rows, extension cords are available.

LED status indicators

The front panel of the PS-24V module includes status LEDs for input and output power. The LED for input power indicates the status of the main power. The output power indicator shows if the power supply output is within the proper range.

Specifications

DC output

Voltage	24 VDC
Accuracy	+/-1 VDC
Maximum power	30 W

AC input

Nominal voltage.....	24 VAC
Operating voltage range.....	+/-20 %
Frequency	50/60 Hz
Maximum current.....	2.5 A rms
Recommended transformer rating.....	60 VA or higher

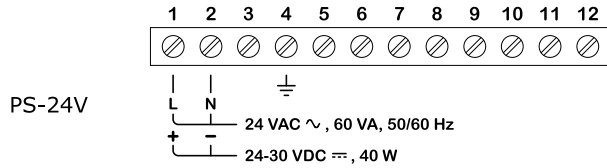
DC input

Nominal voltage.....	24 to 30 VDC
Operating voltage range	21 to 33 VDC
Maximum power consumption	40 W

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Terminals



Environment

Ambient temperature, operating0 to 50 °C (32 to 122 °F)

Ambient temperature, storage-20 to +70 °C (-4 to +158 °F)

Maximum humidity.....95 % RH non-condensing

Material

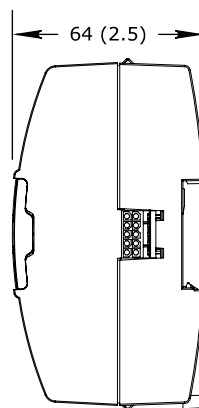
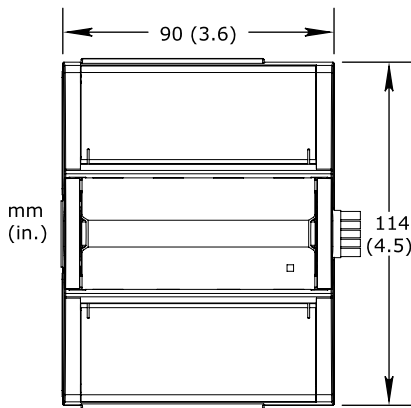
Plastic flame ratingUL94-5VB

EnclosurePC/ABS

Ingress protection ratingIP 20

Mechanical

Dimensions including terminal base90 W x 114 H x 64 D mm (3.6 W x 4.5 H x 2.5 D in.)



Weight including terminal base0.285 kg (0.63 lb)

Weight excluding terminal base0.186 kg (0.41 lb)

Agency compliances

Emission.....RCM; EN 61000-6-3; EN 50491-5-2; FCC Part 15, Sub-part B, Class B

ImmunityEN 61000-6-2; EN 50491-5-3

SafetyEN 60730-1; EN 60730-2-11; EN 50491-3; UL 916 C-UL US Listed

ProductEN 50491-1

Smoke control product safetyUL 864

Access control system unit safetyUL 294

Part numbers

PS-24V Power Supply 24 VAC/VDCSXWPS24VX10001

TB-PS-W1, Terminal Base for Power Supply (Required for each power supply)SXWTBPSW110001

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Regulatory Notices

FC Federal Communications Commission

FCC Rules and Regulations CFR 47, Part 15, Class B

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference. (2) This device must accept any interference received, including interference that may cause undesired operation.

Industry Canada

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

Regulatory Compliance Mark (RCM) - Australian Communications and Media Authority (ACMA)

This equipment complies with the requirements of the relevant ACMA standards made under the Radiocommunications Act 1992 and the Telecommunications Act 1997. These standards are referenced in notices made under section 182 of the Radiocommunications Act and 407 of the Telecommunications Act.

CE - Compliance to European Union (EU)

2014/30/EU Electromagnetic Compatibility Directive

2011/65/EU Restriction of Hazardous Substances (RoHS) Directive

This equipment complies with the rules, of the Official Journal of the European Union, for governing the Self Declaration of the CE Marking for the European Union as specified in the above directive(s) per the provisions of the following standards: EN 50491-1 Product Standard; EN 60730-1, EN 60730-2-11, and EN 50491-3 Safety Standards.



WEEE - Directive of the European Union (EU)

This equipment and its packaging carry the waste of electrical and electronic equipment (WEEE) label, in compliance with European Union (EU) Directive 2012/19/EU, governing the disposal and recycling of electrical and electronic equipment in the European community.



UL 916 Listed products for the United States and Canada, Open Class Energy Management Equipment. UL file E80146.



UL 864 Listed products for the United States. 10th Edition Smoke Control System. UL file S5527.



UL 294 Recognized Component. UL file BP6537.