

ioPAC 6500 Series (65M) Power Modules

Power modules for modular programmable IIN controllers



Features and Benefits

- Supports multiple IT/OT protocols for seamless communication between SCADA, Plant Information System, and cloud applications
- Tool-free hardware installation and hot-swappable design, maximizing operation efficiency
- Fully modular design for maximum deployment flexibility
- Turbo Ring, Turbo Chain, and RSTP/STP for network redundancy
- IINxpress IDE utility combines IEC 61131-3 programming, configuration, and protocol services to streamline workflow and reduce programming efforts
- Developed according to IEC 62443-4-2 SL2 standards to ensure a secure foundation for critical applications

Certifications



Introduction

The ioPAC 6500 Series is a new generation of Linux-based controllers featuring a built-in Layer-2 managed switch. Equipped with an Arm Cortex-A53 quad-core CPU, the ioPAC 6500 Series delivers robust performance.

6C Competencies

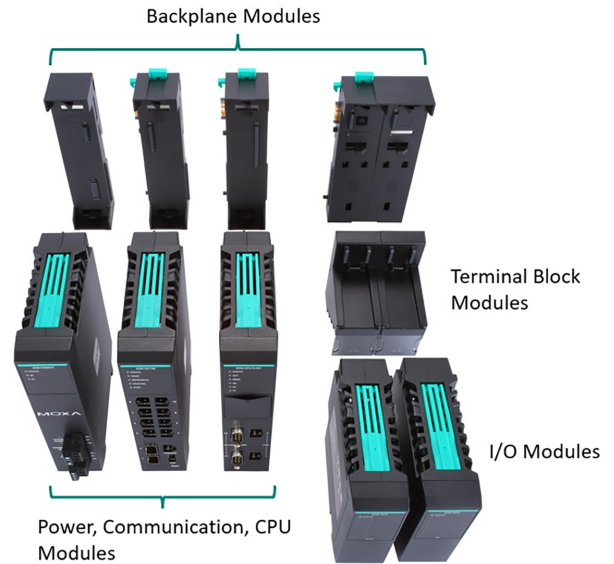
The ioPAC 6500 Series delivers the following competencies to your projects:

- **Control:** Precision control of your equipment
- **Communication:** Protocol support to connect to other devices and systems
- **Computing:** Applications for computing and data processing
- **Connectivity:** Versatile set of media interface supported by the ioPAC 6500 Series
- **Cloud:** Cloud connectivity and cloud edge computing
- **Cybersecurity:** Security features to protect the devices and data



Fully Modular Design

The ioPAC 6500 Series features a unique Lego-like mechanical design that allows for flexible deployment while minimizing installation efforts. The series can be divided into the components: Backplane modules, power modules, communication modules, CPU modules, I/O modules, and terminal-block modules.



IEC 61131-3 Automation Programming

IoPAC 6500 Series features IEC 61131-3 automation programming for flexibility in automation design and consistency in syntax and semantics, promoting interoperability between systems, thereby reducing development complexity in automation projects. Five languages are available: LD, FBD, SFC, IL, and ST, allowing automation professionals to choose the programming language that best suits their needs.

Specifications

System Power Parameters

Power Connector	Screw-fastened Euroblock terminal
No. of Power Inputs	1
Input Voltage	Nominal value: 24 VDC Acceptable range: 21.6 to 26.4 VDC
Input Current	4 A (max.)
Inrush Current	20 A (max.)
Internal Fuse Rating	10 A
Output Voltage	12 VDC
Output Current	6.25 A (max.)
Output Power	75 W (max.)
Output Hold-up Time	10 ms (min.)
Output Startup Delay Time	100 ms (max.)
Over-Voltage Protection	15.6 VDC (max.)
Over-Current Protection	9 A (min.)
Efficiency	87%
Isolation	3k VDC (input to output) 3k VDC (system to field power)

Field Power Parameters

Power Connector	Screw-fastened Euroblock terminal
No. of Power Inputs	1

Input Voltage	Nominal value: 24 VDC Acceptable range: 21.6 to 26.4 VDC
Input Current	3 A (max.)
Internal Fuse Rating	8 A
Output Voltage	3 A (max.) [Input Voltage - 0.4] VDC (max., matching diode drop at 3 A)
Over-voltage Protection	29 VDC (max.)
Over-current Protection	5 A (min.)

Physical Characteristics

Housing	Plastic
Dimensions	42 x 177 x 149.4 mm (1.65 x 6.97 x 5.88 in)
Weight	713 g (1.57 lb)
Installation	DIN-rail mounting Rack mounting (with optional kit)

Standards and Certifications

EMC	EN 55032/35 EN 61000-6-2/-6-4
EMI	CISPR 32, FCC Part 15B Class A
EMS	IEC 61000-4-2 ESD: Contact: 4 kV; Air: 8 kV IEC 61000-4-3 RS: 80 MHz to 1 GHz: 10 V/m IEC 61000-4-4 EFT: Power: (DC) 1 kV; Signal: 1 kV IEC 61000-4-5 Surge: Power: (DC) 0.5 kV L-N, 1 kV L/N-PE; Signal: 1 kV; IO: 0.5 kV IEC 61000-4-6 CS: Power: (DC) 10 Vrms; Signal: 10 Vrms IEC 61000-4-8 PFMF: 30 A/m
Safety	UL 61010-1 UL 61010-2-201
Shock	IEC 60068-2-27 Half sine wave; acceleration: 15 g; time: 11 ms
Vibration	IEC 60068-2-6 DIN-rail mounted: 7 mm peak-peak (p-p) (2 to 8.42 Hz), 1 g (8.42 to 150 Hz) Rack mounted (with optional kit): 7 mm peak-peak (p-p) (2 to 8.42 Hz), 0.5 g (8.42 to 150 Hz)
Package Vibration Test	ISTA 1A
Package Drop Test	ISTA 1A

MTBF

Time	954,606 hrs
Standards	Telcordia Standard SR-332

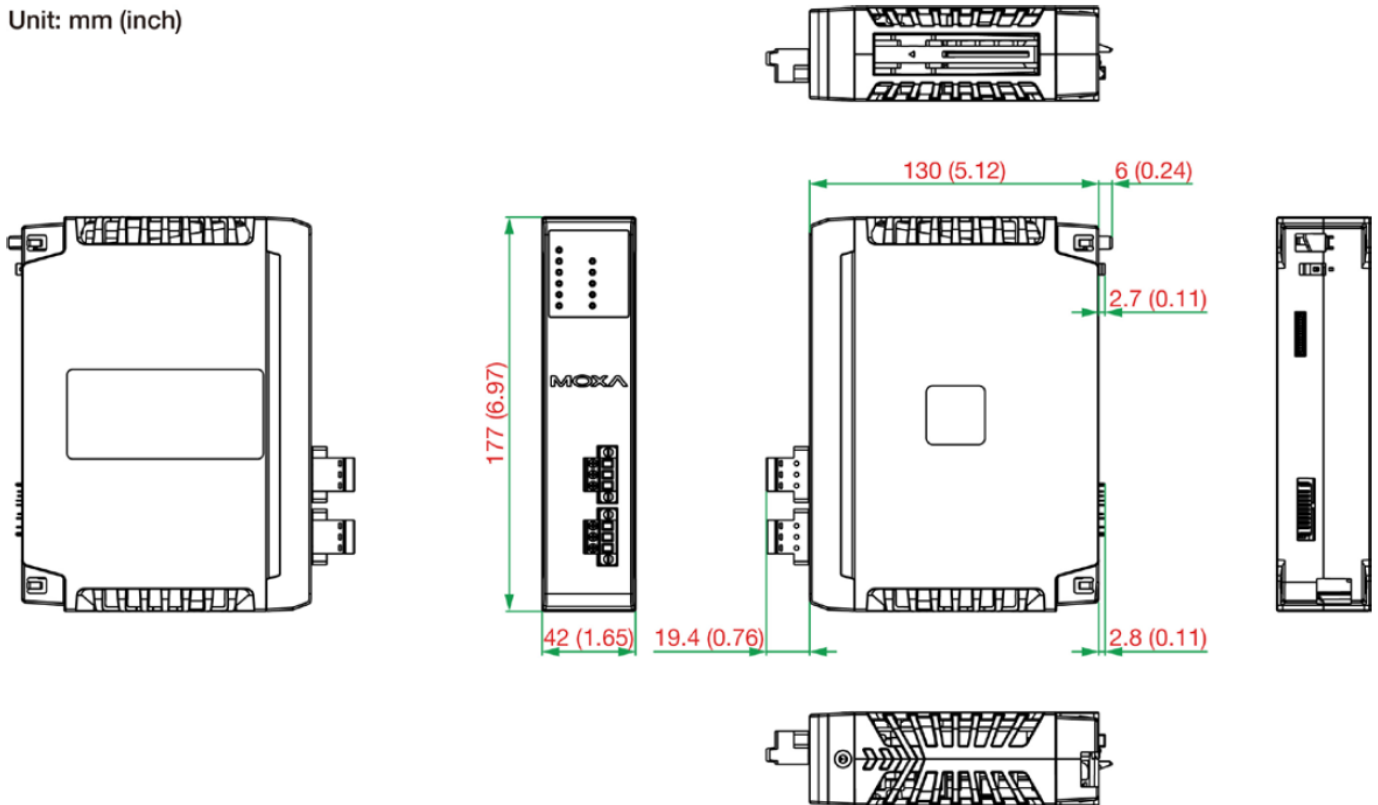
Environmental Limits

Operating Temperature	-40 to 75°C (-40 to 167°F) Note: Proper airflow is required in an environment with temperature > 65°C
Storage Temperature (package included)	-40 to 85°C (-40 to 185°F)

Ambient Relative Humidity	5 to 95% (non-condensing)
Altitude	Up to 2000 m
Warranty	
Warranty Period	5 years
Details	See www.moxa.com/warranty
Package Contents	
Device	1 x ioPAC 6500 Series (65M) Power Module
Documentation	1 x warranty card 1 x quick installation guide

Dimensions

Unit: mm (inch)



Ordering Information

Model Name	System Power	Conformal Coating	Operating Temperature
65M-PW0075-CT-T	75 W	Yes	-40 to 75°C

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