

FIEPOS

FIELD MOUNTED POWER SUPPLIES
FOR DECENTRALIZED APPLICATIONS

ON
MACHINE
ON DEMAND
SAVE
MONEY

IP65 / IP67

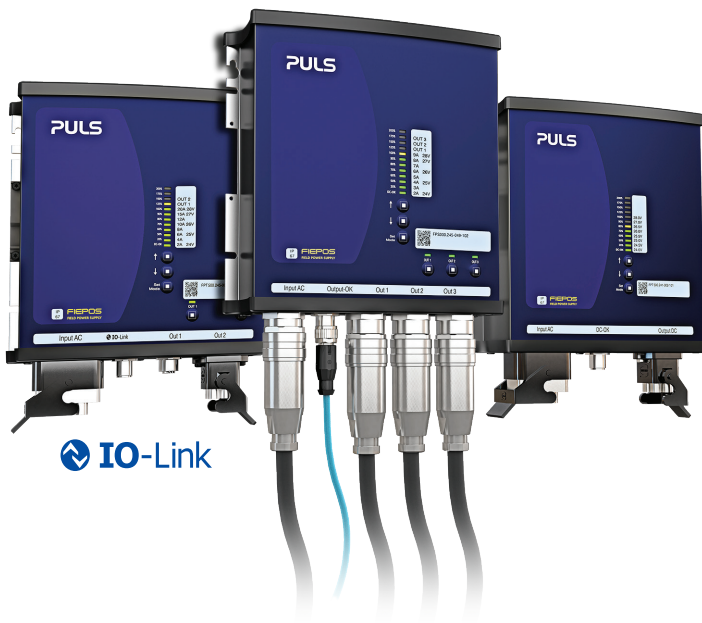


PULS

pulspower.us

STRAIGHT FROM THE CABINET TO THE FIELD

With the **FIEPOS Basic Series**, PULS is relocating the power supply from the cabinet directly into the field to offer an all-in-one power supply system for decentralized systems design.



Flexibility

The compact housing with a high degree of IP protection (IP65 & IP67) and various connection options facilitates flexible positioning directly on the machine.

Cost Savings

FIEPOS makes it possible to use shorter cables and smaller wire gauges. This not only saves on the costs of copper, but also on the installation work for the cabling.

Ease of Use

The output voltage and the current-limited outputs (eFused Series) can be monitored and set directly via the LED interface and the push buttons on the front of the device or remotely via IO-Link.

Environmentally-Friendly

The high degree of efficiency of >95 % keeps the device cool. This means there is no need for any harmful potting compound and extends the lifetime of the product.

DECENTRALIZED POWER SUPPLY WITH CURRENT-LIMITED OUTPUTS

With the **FIEPOS eFused Series**, it couldn't be easier to establish selective current distribution, protection and monitoring directly in the field. This provides a decentralized alternative to power supplies protected by either an external, electronic four-channel protection module, four circuit breakers or four external fuses.

The selective current distribution makes the eFused versions ideal for simultaneously supplying electro-mechanical loads (e.g., motors) and sensitive devices, such as PLCs or sensors using a decentralized, fused power supply unit. In addition, the selective shut-down of faulty outputs ensures a high level of operational reliability. eFused devices continue to gain popularity due to the clear benefits they offer over other solutions on the market.

Space Savings

The integrated, current-limited outputs result in no additional protection modules being required. The high degree of protection (IP65 & IP67) facilitates decentralized use directly on the machine.

Excellent System Availability

The selective protection means only faulty outputs are switched off, which ensures system availability.

Ease of Operation

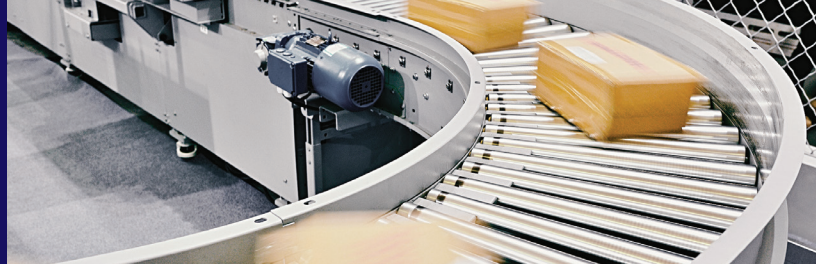
Tasks such as setting tripping currents, resetting faulty circuits and monitoring can all be completed via IO-Link or directly on the front of the device.

Straightforward Administration & Logistics

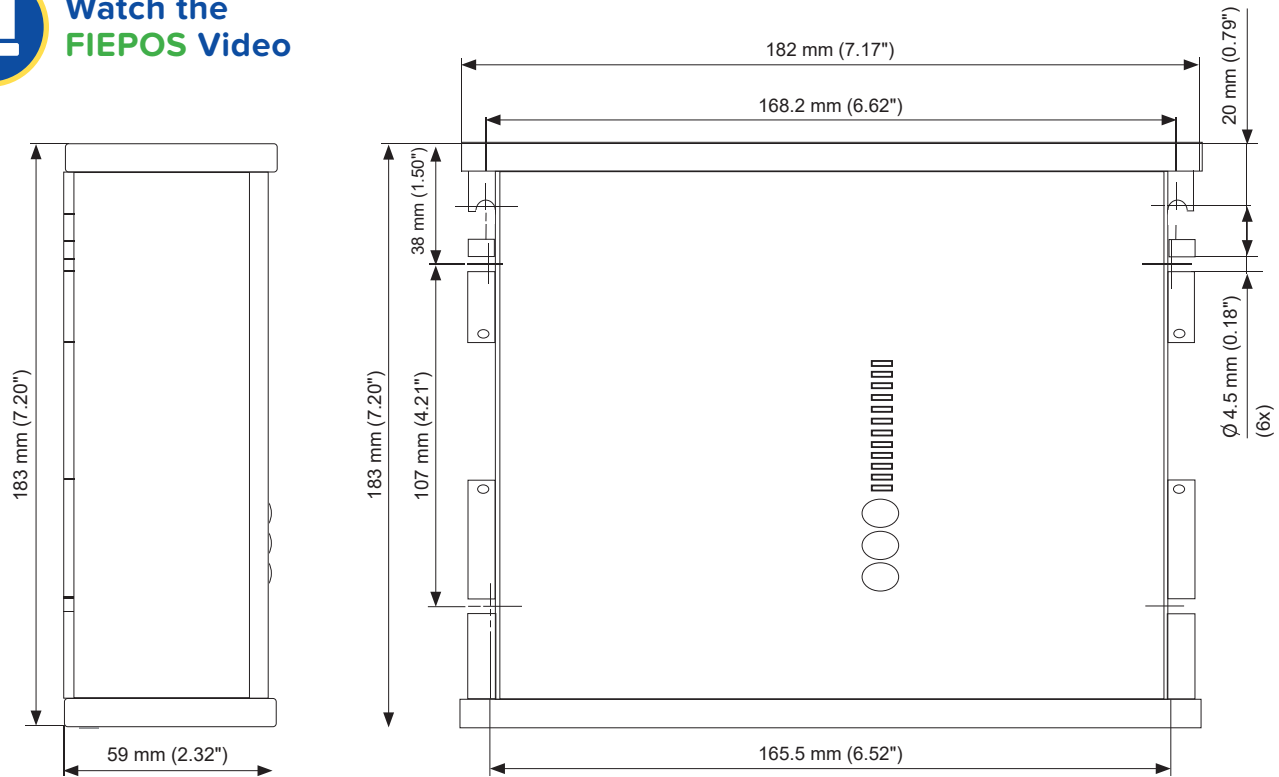
Instead of several different components, an all-in-one solution provides easier troubleshooting with local diagnostics, fewer part numbers to manage and increased system reliability.



FIEPOS DIAGRAMS



Watch the
FIEPOS Video



AC Bus

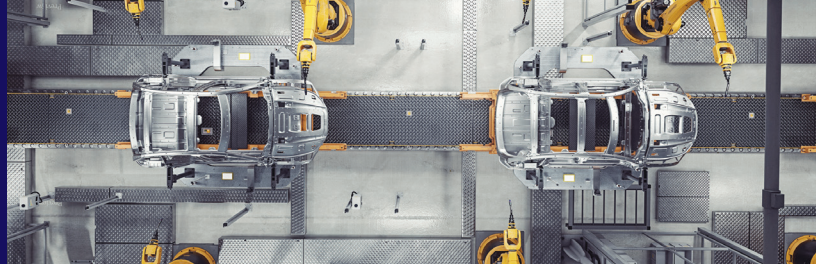
DC Bus



PART NUMBER ORDERING GUIDE

Catalog Number	Input Voltage (VAC)	Output Voltage (VDC)	Output Power	Outputs	Input Connector	Status M12-A 5pin	Output 1 Connector	Output 2 Connector	Output 3 Connector	Output 4 Connector	Notes		
Basic													
FPS300.241-002-101	100-240	24-28	360 W	1	HAN Q4/2	DC-OK	HAN Q4/o	-	-	-			
FPT300.242-002-101	380-480	24						-	-	-			
FPT300.242-008-102		24					QuickON	-	-	-	Mounting Bracket Included		
FPT500.241-002-101		24-28	600 W	1	HAN Q4/2	DC-OK	HAN Q4/o	-	-	-			
FPT500.241-006-104							1m AS-i Cable	-	-	-			
FPT500.241-010-108							HAN Q2/o	-	-	-			
eFused													
FPH500.245-024-103	200-240	24-28	600 W	3	7/8" 3pin	IO-Link	M12-L	M12-L	M12-L	-	Highline Input Voltage		
FPH500.245-047-104				4		DC-OK	7/8" 4pin	7/8" 4pin	-	-			
FPS300.245-016-101	100-240	24-28	360 W	2	M12-S	IO-Link	7/8" 5pin	-	-	-	2x U _a & U _s		
FPS300.245-034-105				4			7/8" 3pin	DC-OK	7/8" 4pin	7/8" 4pin		-	-
FPS300.245-047-103												-	-
FPS300.245-047-111				3	7/8" 3pin	DC-OK	7/8" 4pin	7/8" 4pin	7/8" 4pin	-			
FPS300.245-049-102									-				
FPS300.245-049-112				4	IO-Link	7/8" 5pin	7/8" 5pin	-	-	2x U _a & U _s			
FPS300.245-055-109						M12-L	M12-L	M12-L	-				
FPS300.246-036-104			300 W	3	7/8" 3pin	DC-OK	7/8" 4pin	7/8" 4pin	7/8" 4pin	-	3x NEC Class 2		
FPS300.246-049-102							7/8" 5pin	7/8" 5pin	7/8" 5pin	-			
FPS300.246-049-106							7/8" 5pin	7/8" 5pin	7/8" 5pin	-			
FPS300.246-073-156							7/8" 5pin	7/8" 5pin	7/8" 5pin	-			
FPS300.247-060-101			380-480	24-28	360 W	2	M12-S	DC-OK	M12-A 5pin	M12-L 5pin	-	-	1x Bulk Power 1x NEC Class 2
FPT300.246-042-101					4	HAN Q5/o	M12-A		M12-A	M12-A	M12-A	Mounting Bracket Included 4x NEC Class 2	
FPT500.245-018-103	M12-S 4pin	IO-Link					7/8" 4pin	7/8" 4pin	-	-	2x U _a & U _s		
FPT500.245-034-105					M12-L 5pin	M12-L 5pin	-	-					
FPT500.245-034-106	2	7/8" d			DC-OK	7/8" 5pin	7/8" 5pin	-	-				
FPT500.245-053-113								-	-				
FPT500.245-055-158	4	7/8" 4pin			IO-Link	M12-L	M12-L	-	-	2x U _a & U _s			
FPT500.245-062-117		M12-S						-	-				
FPT500.245-070-161	2	7/8" 4pin			DC-OK	M12-L 5pin	M12-L 5pin	-	-				
FPT500.245-070-162								-	-				
FPT500.247-064-102	3	7/8" d			IO-Link	M12-A 5pin	7/8" 5pin	7/8" 5pin	-	2x Bulk Power 1x NEC Class 2			
Accessories													
ZM.FPMBA-10	Qty=1 L-Shaped Metal Mounting Bracket with Input Power Lockout / Tagout Capability												
ZM.FPDRA-10	Qty=1 DIN Rail Mounting Bracket												

FIEPOS MODEL GALLERY



FPS300.245-016-101
360 W / 24 V / 15 A / 1-Phase / IO-Link



FPT500.245-034-105
600 W / 24 V / 25 A / 3-Phase / IO-Link



FPS300.246-049-102
360 W / 24 V / 15 A / 1-Phase / IO-Link

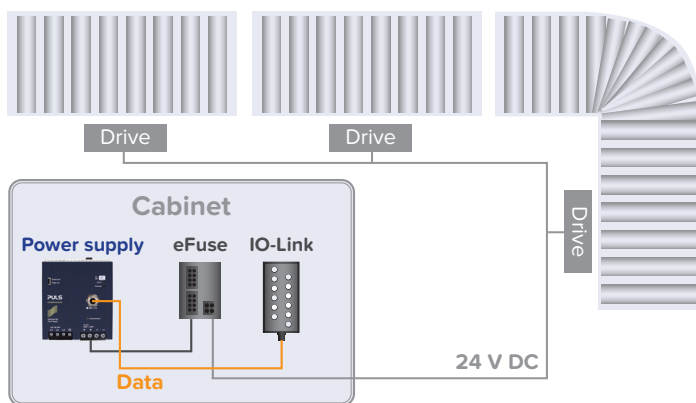


FPT500.241-002-101
600 W / 24 V / 25 A / 3-Phase

SPECIFICATIONS AT-A-GLANCE

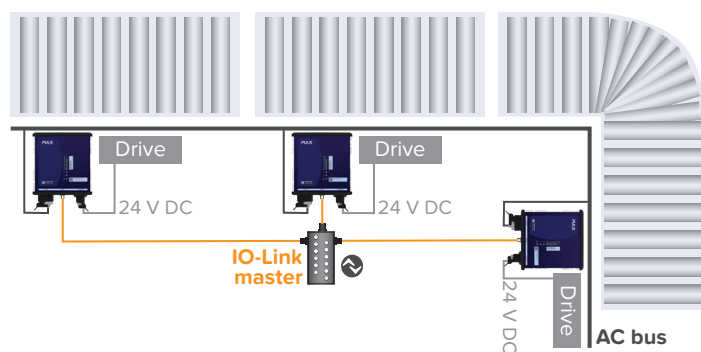
	3-Phase 360 W	3-Phase 600 W	1-Phase 360 W	1-Phase 600 W
OUTPUT				
Output Voltage Nominal	24 V	24 V	24 V	24 V
Adjustment Range	24 V, 24-28 V	24-28 V	24-28 V	24-28 V
Output Power Nominal	360 W	600 W	360 W	600 W
Output Bonus Power	600 W (1 s)	1000 W (5 s)	600 W (1 s)	1000 W (5 s)
Output Power Boost	450 W (60 s)	600 W max. 45° C	360 W max. 40° C	600 W max. 40° C
Output Peak Current	45 A (12 ms)	45 A (12 ms)	30 A (12 ms)	30 A (12 ms)
INPUT				
AC Input Voltage Nominal	380-480 VAC	380-480 VAC	100-240 VAC	200-240 VAC
AC Inrush Current Typical	< 2 A at 400/480 VAC cold start	< 2 A at 400/480 VAC cold start	< 6 A at 230 VAC cold start	< 6 A at 230 VAC cold start
GENERAL				
Efficiency	>95 %	>95 %	>95 %	>95 %
Lifetime Expectancy	100 000 h at 40° C ambient	74 000 h at 40° C ambient	>50 000 h at 40° C ambient	>50 000 h at 40° C ambient
Operating Temperature	-25° C to 70° C	-25° C to 70° C	-25° C to 70° C	-25° C to 70° C
Dimensions W x H x D	182 x 183 x 57 mm	182 x 183 x 57 mm	182 x 183 x 57 mm	182 x 183 x 57 mm
Weight	< 1200 g	< 1200 g	< 1200 g	< 1200 g

Without FIEPOS – Centralized



When utilizing centralized power supplies to power field devices, long cable runs with a large wire gauge are required to prevent voltage drop.

With FIEPOS – Decentralized



There are numerous applications that would benefit from decentralized power supplies. The energy efficient, compact design provides machines and systems modularity and flexibility.

Q&A

Where can the FIEPOS devices be used?

There are numerous applications that can benefit from FIEPOS, including modular applications in conveyor systems, storage technology, robotics, automated assembly and testing, material handling and packaging.

What degree of protection is available for FIEPOS products?

FIEPOS is available with IP54 (dust-protected, splash-proof), IP65 (dust-tight, jet-proof) or IP67 (dust-tight, temporarily immersible) protection, making them well protected against moisture, dust and other contaminants.

Do FIEPOS devices have power reserves?

For example, the FPT500 units can provide 200 % for up to 5 seconds. The product datasheet and other documentation online provide specific details for each unit.

What temperature range can the devices be used in?

FIEPOS products can be operated in ambient temperatures ranging from -25° C to +45° C without any loss of performance. Temperatures of up to +70° C are allowed with derating.

Which plug connectors are available?

FIEPOS devices are available with a variety of connector types. Examples include 7/8", M12-A/L/S and HAN Q Series.

What are the mounting options for FIEPOS?

All FIEPOS devices can be installed in three different ways: by attaching it to a DIN rail, by hanging and fixing it in place via the integrated keyholes or by screw mounting. No matter which option you choose, no additional accessories are required.

What happens in the event of a fault?

The device selectively switches off the faulty outputs only and reports this via IO-Link or output OK signal. Faults are also locally displayed on the intuitive LED interface located on the front of FIEPOS units. Active current limitation means all other outputs continue to be supplied with voltage without restrictions. This is particularly important for sensitive and safety-critical loads.

Can the faulty electric circuits be reset remotely?

Yes, the electric circuits can be reset by IO-Link or directly on the device.

Which information is available via the IO-Link interface?

Via IO-Link, FIEPOS provides information about alarms of overload, a faulty DC voltage or even if channels are triggered. Important parameters such as service life, temperature, voltage and current are also available. Remote access is possible, which enables the device to be switched on and off remotely, the voltage and tripping currents to be set and tripped channels to be reset.

How do you adjust the tripping circuits?

You can set your preferred tripping currents easily using the buttons on the device or remotely via IO-Link.

Is it possible to create NEC Class 2 compliant circuits?

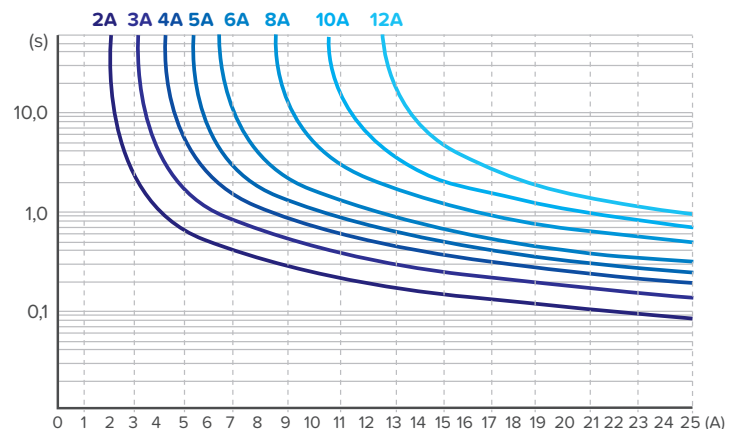
Yes, it's possible with the FIEPOS eFused Series. You can set the tripping current to the NEC Class 2 standard either directly on the device or via IO-Link. In the event of an overload, the current is limited for a set period. The current limitation then intervenes to ensure that the maximum permissible power peak of 100 VA defined for NEC Class 2 is not exceeded at any point.

What has to be taken into consideration in terms of the order of the outputs?

The devices have a selectivity function that enables prioritized protection of sensitive loads. Output 1 has the highest priority, Output 4 has the lowest. If the current budget is exceeded, the device switches off the outputs with the lowest priority first.

Which tripping characteristics are the devices based on?

A different characteristic curve applies in each case depending on the set tripping current. For example: if the tripping current is set to 4 A, the output allows 5 A for 5 seconds and then switches off.



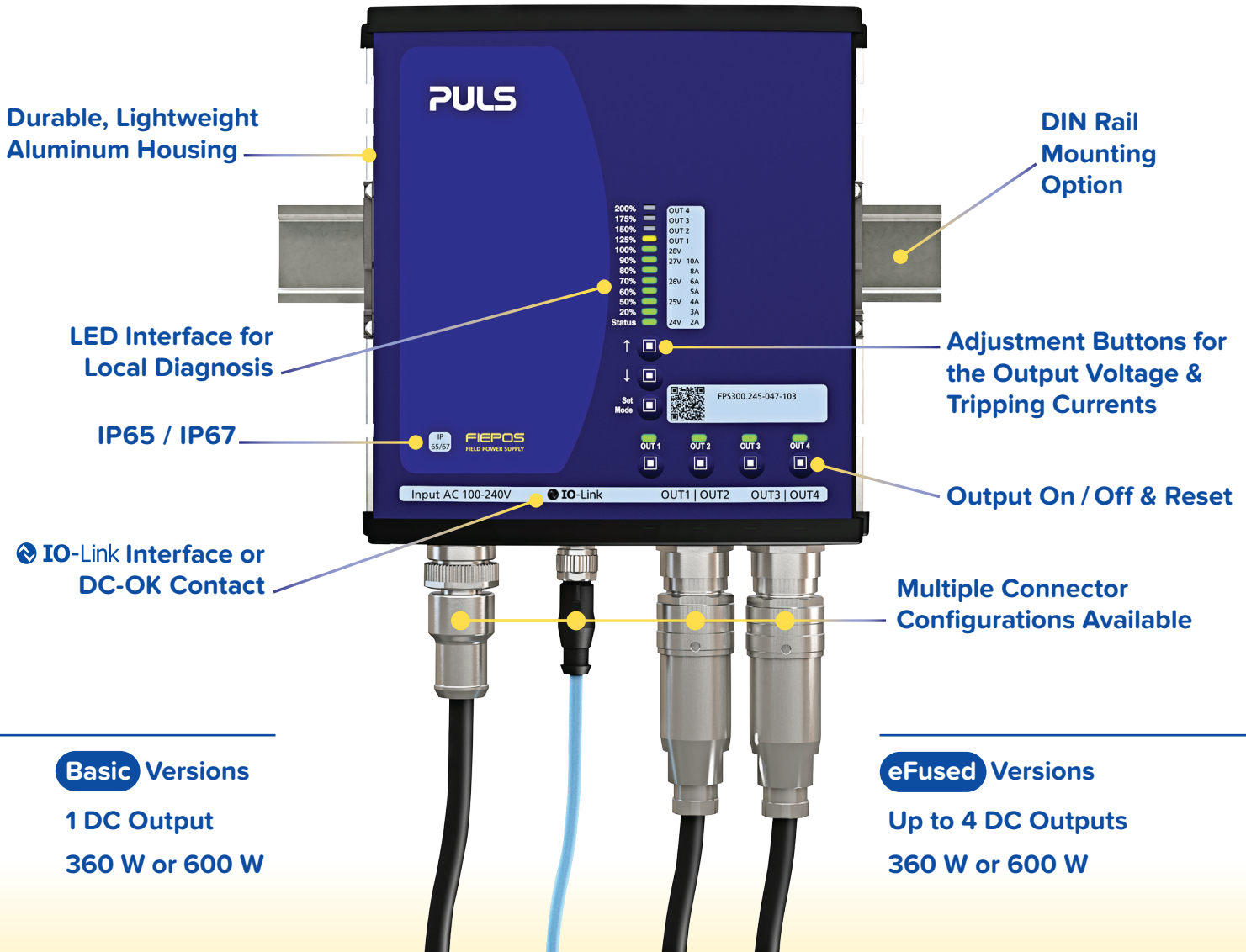
The graphic above shows the characteristic curves that form the basis for shutting down the outputs. A different characteristic curve applies in each case, depending on the set tripping current.

FIEPOS

FIELD POWER SUPPLY

FLEXIBLE POWER

- ✓ On Machine
- ✓ On Demand
- ✓ Save Money
- ✓ Reliable
- ✓ Durable
- ✓ Cabinet-Free



Have Technical Questions?
Contact Application Engineering
appengr@puls-us.com



Check Lead Time or Availability?
Contact Customer Service
630.587.9780 or
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