

# PULS The Technology Leader

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Efficient, Innovative, Different,

When I founded PULS over 40 years ago, we were a handful of developers with a common goal: We wanted to revolutionise power supply technology.

Today PULS is a global market and technology leader in the field of industrial power supplies. This was made possible by our focus and a clear understanding of the applications and challenges which our customers face in their daily business.

I am proud of our global team that naturally strives for the next stage of product innovation as well as for an excellent technical service and customer support.

PULS power supplies are developed by a highly skilled R&D team at our inspiring head-quarters in Munich / Germany as well as our growing innovation lab in Vienna / Austria.

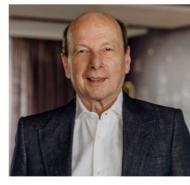
Production is carried out in our own smart and environmentally friendly factories in Czechia, Germany and China. The entire value chain runs entirely under our supervision, as this level of control is very important to us. In customer audits, our factories are repeatedly praised for their efficiency, streamlined structure and sustainable objectives.

I am proud of what we have achieved for our customers over the past decades. The future promises many more exciting innovations in the field of industrial power supplies.

We invite you to take full advantage of it!

Bernhard Erdl

CEO, Chief Developer and Founder









# Reliability

- Three company-owned factories in Czechia, Germany and China
- Highly-skilled technical application support
- Global sales and distribution network
- High delivery reliability
- Long product availability



## **Products**

- Wide product portfolio
- Focus on efficiency
- High MTBF and long lifetime
- Cool-design for low temperatures
- Compact and lightweight
- High peak output current
- Easy to use



- All resources focus on industrial power supply solutions
- High performing and sustainable organisational structure
- Decades of competence









# The perfect power supply for your application



### 

Efficient, compact and durable IP20 DIN rail power supplies. Highest performance with multiple variants, features and approvals.



# FIEPOS

**FIELD POWER SUPPLY** 

Flexible Field Power Supplies with IP54 or IP65 / IP67 rating for decentralised applications. A unique alternative to the control cabinet.



#### PIANO

Cost-optimised DIN rail power supplies with focus on basic features – without compromising quality and reliability.



#### **MiniLine**

Ultra-compact DIN rail power supplies for low-power applications.



#### **PISA**

Multi-channel electronic circuit breakers designed for current distribution and protection of DC 24 V load circuits.



	<b>DIMENSION</b> Full features	PIANO Basic features	FIEPOS Decentralised	MiniLine Low-power
Input voltage				
AC	AC 100-240 V 2AC 380-480 V 3AC 380-480 V	AC 100-240 V AC 200-240 V	AC 100-240 V AC 200-240 V 3AC 380-480 V	AC 100-240 V AC 200-240 V 2AC 380-480 V
DC	DC 12 / 24 / 48 / 600 V DC 110-150 V DC 110-300 V	-	DC 110-300 V DC 200-300 V	DC 110-300 V DC 290 V
Output voltage (DC)	12 / 24 / 36 / 48 V	12 / 24 / 48 V	24 V	5 / 10 / 12 / 24 / 48 V
Output power	80-960 W	36-480 W	360 W, 600 W	15-100 W
Power reserves	20 % or 50 %	-	600 or 1,000 W (up to 5 s)	-
Protection Class	IP20	IP20	IP54 IP65/67	IP20
Communication	DC OK Display versions IO-Link version	DC OK	LED interface IO-Link versions Output OK versions	DC OK
Terminal options	Screw, Push-in, Spring clamp	Screw, Push-in	7/8", M12-L/-T/-A, Han Q series, Quickon	Screw
Special versions	<ul> <li>Conformal coating</li> <li>Enhanced DC input</li> <li>Remote shutdown</li> <li>2 MOPP for medical applications</li> <li>EN 50155 for railway applications</li> </ul>	<ul> <li>Conformal coating</li> <li>Highline input voltage (AC 200-240 V)</li> <li>NEC Class 2</li> </ul>	<ul> <li>Up to 4 current limited outputs</li> <li>Highline input voltage (AC 200-240 V)</li> <li>NEC Class 2</li> </ul>	<ul> <li>Conformal coating</li> <li>-40 °C operation</li> <li>NEC Class 2</li> </ul>

	DIMENSIO	ON	PIANO		FIEPOS		MiniLine	
Product series		page		page		page		page
1-phase power supplies	CP, CPS, CS, QS, POE	10-12	PIC, PIM	10-12	FPS, FPH	15	ML	10
3-phase power supplies	CT, QT, XT	12			FPT	15	ML	12
DC/DC converters	CD, QTD	13						
DC-UPS & buffer modules	UB, UC, UF	17						
Redundancy modules	YR	16	PIRD	16			MLY	16
Electronic circuit breakers	PISA	17						
Mounting brackets	ZM	16						



# DIMENSION Power supplies with integrated display

All data at a glance directly in your application. Our highly efficient 240 and 480 W DIN-rail power supplies with integrated power supply condition display (PSCD) enable faster fault diagnosis.

#### Real-time data

Input and output voltage, output current, operating hours and temperature inside the device

#### Recorded data

Number of transients on the input side, minimum and maximum voltage and temperature values

#### Pro tip

The PSCD is a helpful tool in the prototype phase of a new machine to learn more about the behaviur of the system.

# DIMENSION DC-UPS control units

Prevent costly downtime, time-consuming restarts, and the loss of data. Our uninterruptible power supply units and buffer modules enable the reliable bridging of power failures and voltage fluctuations.

#### Flexible 1-Battery-Concept

Charge and monitor each 12 V battery separately. No need to match batteries. Ensure the longest possible battery life.

#### Smart diagnosis and monitoring

Pre-warning signal for low battery for maximum uptime. Temperature-controlled charging of batteries for optimised battery life.



Find more information about power supplies with integrated display via this QR code.



Find more information on our DC-UPS solutions via this QR code.



#### PISA-B Electronic circuit breakers

The all new PISA-B multi-channel electronic circuit breakers help you to optimise the availability of your DC 24 V systems right away and grow with your application.



Find more information about PISA B directly via this QR code.



# **Higher availability**Identify and isolate individual faulty branches



#### Higher reliability

Fast trouble-shooting via real-time LED matrix and alarm signal



#### **Higher flexibility**

Easy system expansion – up to 64 output channels via bus bar connection



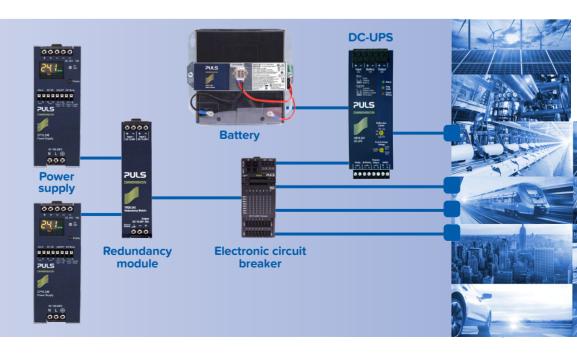
#### Higher packing density

8 channels, including + and - terminals, in a 52 mm wide unit

# Think of your power supply as a system

A power supply system includes more than just the power supply unit itself. DC UPS, fuses and redundancy or buffer modules contribute to a holistic solution.

PULS provides all necessary products to plan an efficient and reliable power supply system for your cabinet.





Flexible, Reliable, Durable,

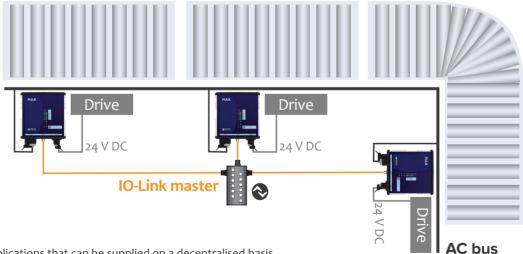
#### **Decentralised Power Supplies**

The decentralised FIEPOS Field power supplies with a high degree of ingress protection IP54 or IP65 / IP67 were developed for flexible use directly in the field.

The field power supplies are available for one-phase and three-phase systems and in various versions: for example, with a variety of different connectors (e.g. 7/8", Han Q series, M12) and IO-Link as the communication interface.

Also unique on the market are the eFused versions, which are equipped with up to four current-limited outputs. These devices allow very easy realisation of selective current distribution, protection, and monitoring directly in the field.

#### Application example for a FIEPOS powered conveyor belt:



There are many applications that can be supplied on a decentralised basis and in an energy-efficient and flexible manner. Individual system parts can be put together in a modular way, allowing them to be extended, maintained, and converted more effectively.



flexible positioning directly in the field.



#### **Excellent system availability**

The selective protection means only faulty outputs are switched off, which makes for excellent system availability.



#### **Environmentally friendly**

The high degree of efficiency of > 95 % keeps the device cool. This means there is no need for an environmentally harmful potting compound for cooling the electronic components.



#### 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.



You can find all products listed on page 15. More information about FIEPOS: www.pulspower.com or directly via this QR code.



# Overview - Power supplies IP20

#### 100-240 V Power Supplies **3**

Output I	oc	Article number	Power	Input AC	Input DC	Special features
5 V	3 A	ML15.051	15 W	AC 100-240 V	DC 110-300 V	NEC Class 2
	5 A	ML30.101	25 W		DC 110-300 V	NEC Class 2
12 V	1.3 A	ML15.121	15 W	AC 100-240 V	DC 110-300 V	NEC Class 2
	2.5 A	ML30.102	30 W		DC 110-300 V	NEC Class 2
	4.2 A	ML50.102	50 W		DC 110-300 V	NEC Class 2
	4.5 A	ML60.121	54 W		DC 110-300 V	NEC Class 2
		ML60.122			DC 110-300 V	-40 °C to +70 °C
	5 A	PIM60.121	60 W			Push-in terminals, NEC Class 2
		PIM60.125				Screw terminals, NEC Class 2
	7.5 A	ML100.102	90 W	AC 100-120 / 220-240 V	DC 290 V	
	10 A	CP5.121	120 W	AC 100-240 V	DC 110-150 V	
	15 A	QS10.121	180 W		DC 110-150 V	
	16 A	CP10.121	192 W		DC 110-150 V	Remote ON/OFF
		CP10.122			DC 110-300 V	Enhanced DC input range, remote ON/OFF
	30 A	CPS20.121	450 W	-		
±12 V	2.5 A	ML30.106	36 W	AC 100-240 V	DC 110-300 V	Dual-output voltage, NEC Class 2
24 V	0.63 A	ML15.241	15 W	AC 100-240 V	DC 110-300 V	NEC Class 2
	1.3 A	ML30.100	30 W		DC 110-300 V	NEC Class 2
		ML30.241			DC 110-300 V	NEC Class 2
		PIM36.241	36 W	-		Push-in terminals
	2.1 A	ML50.100	50 W		DC 110-300 V	NEC Class 2
		ML50.101			DC 110-300 V	NEC Class 2
		ML50.111			DC 110-300 V	With plug connector
	2.5 A	ML60.241	60 W		DC 110-300 V	NEC Class 2
		ML60.242			DC 110-300 V	-40 °C to +70 °C
		PIM60.241				Push-in terminals, NEC Class 2
		PIM60.245				DC OK LED, NEC Class 2
	3 A	ML70.100	72 W	AC 100-120 / 220-240 V	DC 290 V	NEC Class 2
	3.3 A	CS3.241	80 W	AC 100-240 V	DC 110-300 V	NEC Class 2
	3.4 A	QS3.241			DC 110-300 V	
	3.75 A	PIM90.241	90 W			Push-in terminals
		PIM90.245				Screw terminals
		PIM90.245-L1				NEC Class 2
	3.8 A	QS5.DNET	91 W		DC 110-300 V	DeviceNet approved
	3.9 A	ML95.100	95 W	AC 100-120 / 220-240 V	DC 290 V	NEC Class 2
	4.2 A	ML100.100	100 W		DC 290 V	

DIMENSION	C, Q, U, X, Z
PIANO	PIC, PIM, PIRD
MiniLine	ML



Output DO	-	Article number	Power	Input AC	Input DC	Special features
24 V			DC 110-150 V	Screw terminals		
24 0	CP5.241-S1	.20	. 10 100 240 1	DC 110-150 V	Spring clamp terminals	
		CP5.241-S2			DC 110-150 V	Push-in terminals
		CS5.241		AC 100-120 / 200-240 V		Screw terminals
		CS5.241-S1		, ,		Spring clamp terminals
		CP5.242		AC 100-240 V	DC 110-300 V	Enhanced DC input range
		CS5.243		AC 100-120 V		Reduced input voltage range
		CS5.244		AC 200-240 V		Reduced input voltage range
		PIC120.241C				Reduced input voltage range
		PIC120.242C				Reduced input voltage range, no DC OK relay
		PIC120.241D		AC 100-120 / 200-240 V		Dual input range
		QS5.241		AC 100-240 V	DC 110-300 V	
	8 A	QS10.DNET	192 W		DC 110-150 V	DeviceNet conform
	10 A	CP10.241	240 W	AC 100-240 V	DC 110-150 V	Screw terminals
		CP10.241-S1			DC 110-150 V	Spring clamp terminals
		CP10.241-S2			DC 110-150 V	Push-in terminals
		CP10.242			DC 110-300 V	Enhanced DC input range
		CP10.248			DC 110-150 V	Power supply condition display
		PIC240.241C		AC 200-240 V		Reduced input voltage range
		PIC240.241D		AC 100-240 V		Wide input voltage range
		CS10.241		AC 100-120 / 200-240 V		Dual input voltage range
		CS10.241-S1				Spring clamp terminals
		CS10.242				PFC Class A (EN 61000-3-2) compliant
		CS10.243		AC 100-120 V		Reduced input voltage range
		CS10.244		AC 200-240 V		Reduced input voltage range
		QS10.241		AC 100-240 V	DC 110-150 V	
_		QS10.241-D1			DC 110-300 V	Enhanced DC input range
	20 A	CP20.241	480 W	AC 100-240 V	DC 110-150 V	Screw terminals
		CP20.241-S1			DC 110-150 V	Spring clamp terminals
		CP20.241-S2			DC 110-150 V	Push-in terminals
		CP20.241-V1			DC 110-150 V	Remote ON/OFF
		CP20.248			DC 110-150 V	Power supply condition display
		PIC480.241C		AC 200-240 V		Reduced input voltage range
		PIC480.241D		AC 100-240 V		Wide input voltage range
		CPS20.241				
		QS20.244		AC 200-240 V		Reduced input voltage range
_		QS20.241		AC 100-240 V	DC 110-150 V	
	40 A	A QS40.241 960 W	AC 100-240 V			
		QS40.244		AC 200-240 V		Wide input voltage range

# Overview - Power supplies IP20

#### 100-240 V Power Supplies #

Output D	C	Article number	Power	Input AC	Input DC	Special features
30 V	8 A	QS10.301	240 W	AC 100-240 V	DC 110-150 V	Spring clamp terminals
36 V	6.7 A	CP10.361		AC 100-240 V	DC 110-150 V	Screw terminals
	13.3 A	CPS20.361	480 W			
		QS20.361			DC 110-150 V	
	26.7 A	QS40.361	960 W			
48 V	1.1 A	ML50.105	50 W	AC 100-240 V	DC 110-300 V	Enhanced DC input range
	2.1 A	ML100.105	100 W	AC 100-120 / 220-240 V	DC 290 V	Dual input voltage range
	2.5 A	CP5.481	120 W	AC 100-240 V	DC 110-150 V	
	5 A	CS10.481	240 W	AC 100-120 / 200-240 V	<del></del>	Dual input voltage range
		QS10.481		AC 100-240 V	DC 110-150 V	
		QS10.481-D1			DC 110-300 V	Enhanced DC input range
	5.4 A	CP10.481	260 W	_	DC 110-150 V	
	10 A	CP20.481	480 W		DC 110-150 V	
		CPS20.481				
		PIC480.481D				
		QS20.481			DC 110-150 V	
	20 A	QS40.481	960 W		DC 110-150 V	
		QS40.484		AC 200-240 V	DC 110-150 V	

#### 380-480 V Power Supplies **380-480** V Power Supplies

Output D	С	Article number	Power	Input AC	Special features
12 V	8 A	CT5.121	96 W	2AC 380-480 V	
24 V	3.75 A	ML90.200	90 W	2AC 380-480 V	NEC Class 2
	4.2 A	ML100.200	100 W		
	5 A	CT5.241	120 W		
	10 A	CT10.241	240 W	3AC 380-480 V	
	20 A	QT20.241	480 W	-	
	40 A	QT40.241	960 W		
		QT40.242			Enhanced lifetime
		XT40.241		3AC 400 V	Semi-regulated
		XT40.242		3AC 480 V	Semi-regulated
36 V	13.3 A	QT20.361	480 W	3AC 380-480 V	
	26.6 A	XT40.361	960 W	3AC 400 V	Semi-regulated
		XT40.362		3AC 480 V	Semi-regulated
	26.7 A	QT40.361		3AC 380-480 V	
48 V	5 A	CT10.481	240 W	3AC 380-480 V	
	10 A	QT20.481	480 W	-	
	20 A	QT40.481	960 W		
		XT40.481		3AC 400 V	Semi-regulated
		XT40.482			Semi-regulated
72 V	13.3 A	XT40.721		3AC 400 V	Semi-regulated
		XT40.722		3AC 480 V	Semi-regulated





#### DC/DC converters #

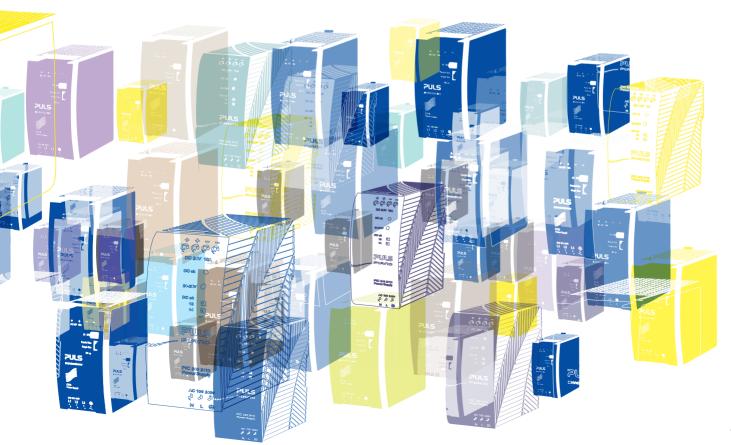


Output DO	c	Article number	Power	Input DC	Special features
5 V	10 A	CD5.051	50 W	DC 18-32.4 V	
12 V	8 A	CD5.121	96 W	DC 24 V	
24 V	3.8 A	CD5.241-L1	92 W	DC 24 V	Spring clamp terminals, NEC Class 2
_	4 A	CD5.243	96 W	DC 12 V	Screw terminals
	5 A	CD5.241	120 W	DC 24 V	Screw terminals
		CD5.241-S1		DC 24 V	Spring clamp terminals, input "low" signal
_		CD5.242		DC 48 V	Screw terminals
	10 A	CD10.241	240 W	DC 24 V	
_		CD10.242		DC 48 V	
	20 A	CPS20.241-D1	480 W	DC 110-300 V	
_		QTD20.241		DC 600 V	For intermediate DC bus
48 V	5 A	CD10.482	240 W	DC 48 V	
	10 A	CPS20.481-D1	480 W	DC 110-300 V	Enhanced DC input range

#### Power supply with IO-Link #



Output DC		Article number	Power	Input	Special features
24 V	40 A	QT40.241-B2	960 W	3AC 380-480 V	IO-Link





#### Conformally coated power supplies **P**

Output Do		Article number	Power	Input AC	Input DC	Special features
24 V	2.1 A	ML50.109	50 W	AC 100-240 V	DC 110-290 V	NEC Class 2
_	4.2 A	ML100.109	100 W	AC 100-120 / 220-240 V	DC 290 V	
	5 A	CP5.241-C1			DC 110-150 V	
		CS5.241-C1	120 W			
		QS5.241-A1		AC 100-240 V	DC 110-300 V	ATEX
	10 A	CP10.241-C1	240 W	AC 100-240 V	DC 110-150 V	
		CP10.241-R2-C1			DC 110-150 V	*
		QS10.241-C1			DC 110-150 V	
		QS10.241-A1			DC 110-150 V	ATEX
_		CT10.241-C1		3AC 380-480 V		
	20 A	CP20.241-C1	480 W	AC 100-240 V	DC 110-150 V	
		CP20.241-R2-C1			DC 110-150 V	
		CPS20.241-C1				*
		QS20.241-A1			DC 110-150 V	ATEX
	QS20.241-C1			DC 110-150 V		
		PIC480.241C-C1		AC 200-240 V		
_		QT20.241-C1		3AC 380-480 V		ATEX
	40 A	QS40.241-C2	960 W	AC 100 - 240 V		

<sup>\*</sup> Output decoupling for redundancy, plug connectors

#### Medical applications − IEC 60601-1 compliant, 2 MOPP **P**

Output DC		Article number	Power	Input AC	Input DC
24 V	5 A	CP5.241-M1	120 W	AC 100-240 V	
	10 A	CP10.241-M1	240 W		DC 110-150 V
	20 A	CP20.241-M1	480 W		DC 110-150 V

#### Railway applications – EN 50155 compliant

Output DO	:	Article number	Power	Input DC
24 V	4.2 A	QS5.241-60	100 W	DC 110 V
	8.3 A	CP10.241-60	200 W	DC 96-110 V
24.5 V	16.3 A	CPS20.241-60	400 W	DC 110 V

#### **DeviceNet power supplies**

Output DO	2	Article number	Power	Input AC	Special features
24 V	3.8 A	QS5.DNET	91 W	AC 100-240 V	DC 110-300 V, NEC Class 2
	8 A	QS10.DNET	192 W		DC 110-150 V

DIMENSION	C, Q, U, X, Z
FIEPOS	FPS, FPH, FPT
PIANO	PIC, PIM, PIRD
MiniLine	ML



# Overview -Power supplies IP54, IP65 / IP67

#### 1-phase IP54-67 power supply #

Output	DC	Article number	Power	Input AC	Input DC	Special features
24 V	12.5 A	FPS300.241-002-101	360 W	AC 100-240 V	DC 110-300 V	DC OK, input: Han Q 4/2, output: Han Q 4/0
		FPS300.245-016-101				IO-Link, 2 channel, input: 7/8" - 3 pin, output: 1 x 7/8" 5 pin
		FPS300.245-034-105				IO-Link, 4 channel, input: M12-S, output: 2 x M12-L
		FPS300.245-047-103				IO-Link, 4 channel, input: 7/8" 3 pin, output: 7/8" 4 pin
		FPS300.245-049-102				Output OK, 3 channel, input: 7/8" 3 pin, output: 3 x 7/8" 4 pin
		FPS300.246-049-102				IO-Link, 3 NEC Class 2, input: M12-S, output: 3 x M12-L
		FPS300.245-055-109				IO-Link, 4 channel, input: 7/8" 3 pin, output: 2 x 7/8" 5 pin
		FPS300.241-010-104				DC OK, input: Han Q 4/2, output: Han Q 2/0
		FPS300.245-049-112				IO-Link, 3 channel, input: 7/8" 3 pin, output: 3 x 7/8" 4 pin

#### 1-phase IP54-67 power supply with highline input voltage

Output	DC	Article number	Power	Input AC	Input DC	Special features
24 V	20.8 A	FPH500.245-024-103	600 W	AC 200-240 V	DC 200-300 V	IO-Link, 3 channel, input: 7/8" 3 pin, output: 3 x M12-L
		FPH500.245-047-104				Output OK, 4 channel, input: 7/8" 3 pin, ouput: 2 x 7/8" 4 pin

#### 3-phase IP54-67 power supply #

Output	DC	Article number	Power	Input AC	Input DC	Special features
24 V	12.5 A	FPT300.242-002-101	360 W	AC 380-480 V	DC 200-300 V	DC OK, input: Han Q 4/2, output: Han Q 4/0
	20.8 A	FPT500.241-001-102	600 W			Input: Han Q 4/2, output: Han Q 4/0
		FPT500.241-002-101				DC OK, input: Han Q 4/2, output: Han Q 4/0
		FPT500.241-006-104				DC OK, input: Han Q 4/2, output: ASi cable
		FPT500.241-010-108				DC OK, input: Han Q 4/2, output: Han Q 2/0
		FPT500.245-018-103				IO-Link, 4 channel, input: M12-S, output: 2 x 7/8" 4 pin
		FPT500.245-034-105				IO-Link, 4 channel, input: M12-S, output: 2 x M12-L
		FPT500.245-034-106				Output OK, 2 channel, input: M12-S, output: 2 x M12-L
		FPT500.245-062-117				IO-Link, 4 channel, input: M12-S, output: 2 x 7/8" 5 pin
		FPT500.247-064-102				IO-Link, 3 channel, input: 7/8", output: 1 x M12-A, 2 x 7/8" 5 pin
		FPT500.245-053-113				Output OK, 2 channel, input: 7/8"d 4 pin, output: 2 x 7/8" 5 pin

# Overview - Supplementary units

#### **DIODE** redundancy modules **@**

Output DC		Article number	Input	Version
12-28 V	20 A	PIRD20.241	DC 12-28 V 2 x 1 0 A	Dual-input
12-48 V	10 A	MLY10.241	DC 12-48 V 2 x 5 A	Dual-input
		MLY02.100	DC 12-48 V 2 x 5 A	Dual-input
	20 A	YR2.DIODE	DC 12-48 V 2 x 10 A	Dual-input
24-48 V	20 A	YRM2.DIODE	DC 24-48 V 2 x 10 A	Dual-input

#### **MOSFET** redundancy modules

Output DC		Article number	Input	Version
12-28 V	20 A	YR20.242	DC 12-28 V 2 x 20 A	Dual-input
	40 A	YR40.242	DC 12-28 V 2 x 20 A	Dual-input
		YR40.241	DC 24-28 V 2 x 20 A	Dual-input
		YR40.245	DC 12-28 V 1 x 40 A	Single-input
	80 A	YR80.241	DC 24-28 V 2 x 40 A	Dual-input
		YR80.242	DC 12-28 V 2 x 40 A	Dual-input
24-28 V	20 A	YR20.246	DC 24-28 V 2 x 10 A	Dual-input Dual-input
24-56 V	40 A	YR40.482	DC 24-56 V 2 x 20 A	Dual-input Dual-input

#### Power supplies with integrated decoupling function **P**

Output DC		Article number	Power	Input AC	Input DC	Special features
24 V	10 A	CP10.241-R1	240 W	AC 100-240 V	DC 110-150 V	Spring clamp terminals
		CP10.241-R2			DC 110-150 V	Plug connectors
		CP10.241-R2-C1			DC 110-150 V	Conformal coating
		CP10.242-R2		_	DC 110-300 V	Enhanced DC input range, plug connectors
	20 A	CP20.241-R1	480 W		DC 110-150 V	Spring clamp terminals
		CP20.241-R2			DC 110-150 V	Plug connectors
		CP20.242-R2			DC 110-300 V	Plug connectors
		CP20.241-R2-C1			DC 110-150 V	Plug connectors

#### **Mounting brackets**

Article number	Description
ZM1 – ZM3.WALL, ZM1.UBC10	Mounting bracket for a direct wall or panel mounting without a DIN rail
ZM10.WALL	Mounting bracket for a direct wall or panel mounting without a DIN rail
ZM11.SIDE – ZM15.SIDE	Brackets for sideways installation with or without a DIN rail

#### **DC-UPS** for batteries

Output DC		Article number	Battery	Version
24 V	10 A	UB10.241	external, 12 V, 3.9-40 Ah	DC-UPS control unit
		UB10.242	external, 12 V, 17-130 Ah	DC-UPS control unit
		UB10.245	external, 12 V, 3.9-40 Ah	Additional 12 V output
		UBC10.241	built-in 12 V, 5 Ah	Built-in battery included
		UBC10.241-N1	built-in 12 V, 5 Ah	Built-in battery not assembled
	20 A	UB20.241	external, 24 V, 3.9-150 Ah	DC-UPS control unit
	40 A	UB40.241	external, 24 V, 12-200 Ah	DC-UPS control unit

#### **DC-UPS** with capacitor storage

Output DC		Article number	Capacitor storage
24 V	15 A	UC10.241	6 kWs, typ. buffer time 9 s at 15 A
		UC10.242	12 kWs, typ. buffer time 18 s at 15 A

#### **Buffer modules with capacitor storage**

Output DC		Article number	Capacitor storage
24 V	20 A	UF20.241	o.2 kWs, typ. buffer time 310 ms at 20 A
	40 A	UF40.241	o.32 kWs, typ. buffer time 250 ms at 40 A
48 V	20 A	UF20.481	0.2 kWs, typ. buffer time 150 ms at 20 A

#### **Electronic circuit breakers**



Article number	Special features
PISA-B-8CL2-B1	8 output channels: 8 x NEC Class 2, 3.75 A per channel, Common alarm signal
PISA-B-8CL2-B4	8 output channels: 8 x NEC Class 2, 3.75 A per channel, Digital coded alarm signal
PISA-B-812-B1	8 output channels: 2 x 1-12 A, 6 x 1-10 A; Common alarm signal
PISA-B-812-B4	8 output channels: 2 x 1-12 A, 6 x 1-10 A; Digital coded alarm signal
PISA11.401	4 output channels: 4 x 1 A
PISA11.402	4 output channels: 4 x 2 A
PISA11.403	4 output channels: 4 x 3 A
PISA11.404	4 output channels: 4 x 4 A
PISA11.406	4 output channels: 4 x 6 A
PISA11.410	4 output channels: 4 x 10 A
PISA11.203206	4 output channels: 2 x 3 A and 2 x 6 A
PISA11.206212	4 output channels: 2 x 6 A and 2 x 12 A
PISA11.CLASS2	4 output channels: 4 x NEC Class 2, 3.75 A per channel



DIMENSION	C, Q, U, X, Z
PIANO	PIC, PIM, PIRD
PISA	PISA-B, PISA11
MiniLine	ML

## Applications for PULS power supplies



## Approvals & product compliance

Region specific:















Application specific:







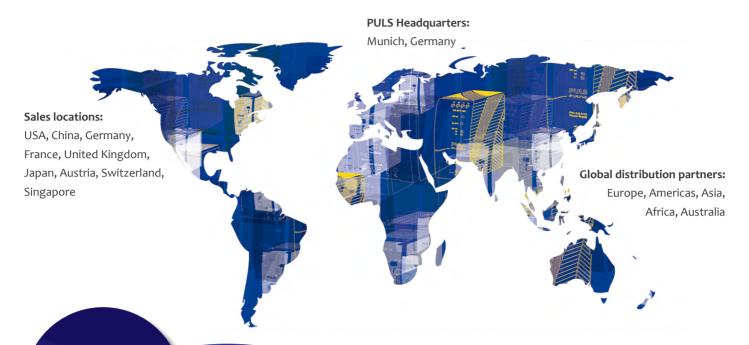
IECEx SEMIF47

**IECEE** CR SCHEME

EN 50155 IEC 61558-2-16 IEC 60068-2-60 IEC 60601-1



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