

PULS

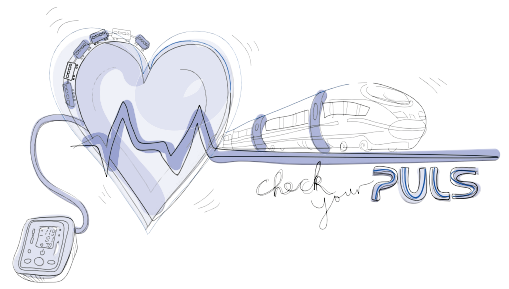
POWER SUPPLY SOLUTIONS  
AT A GLANCE



# PULS

## The Technology Leader

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, setting standards in DIN rail power supplies, decentralised Field Power Supplies, and pioneering wireless charging systems. 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 headquarters 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



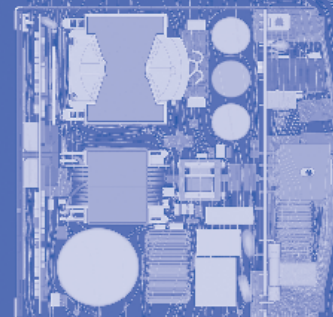
Headquarters  
Munich





## 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

## Focus

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

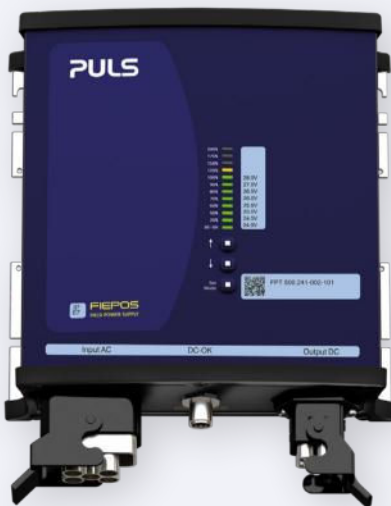


# The perfect power supply for your application



## DIMENSION

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, IP65 and IP67 rating for decentralised applications.  
A unique alternative to the control cabinet.



## PIANO

Cost-optimised DIN rail power  
supplies with focus on basic fea-  
tures – 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	<b>PIANO</b> Basic features	<b>FIEPOS</b> Decentralised	<b>MiniLine</b> Low-power
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**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
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**Output power**

80-960 W	36-480 W	360 W, 600 W	15-100 W
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**Power reserves**

20 % or 50 %	–	600 or 1,000 W (up to 5 s)	–
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**Protection Class**

IP20	IP20	IP54 IP65 and IP67	IP20
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**Communication**

DC OK Display versions IO-Link versions	DC OK	LED interface IO-Link versions Output OK versions	DC OK
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**Terminal options**

Screw, Push-in, Spring clamp	Screw, Push-in	7/8", M12-L/T-/A, Han Q series, Quickon	Screw
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**Special versions**

<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>• Conformal coating</li> <li>• Highline input voltage (AC 200-240 V)</li> <li>• NEC Class 2</li> </ul>	<ul style="list-style-type: none"> <li>• Up to 4 current limited outputs</li> <li>• Highline input voltage (AC 200-240 V)</li> <li>• NEC Class 2</li> </ul>	<ul style="list-style-type: none"> <li>• Conformal coating</li> <li>• -40 °C operation</li> <li>• NEC Class 2</li> </ul>
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	<b>DIMENSION</b>	<b>PIANO</b>	<b>FIEPOS</b>	<b>MiniLine</b>
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**Product series**

1-phase power supplies	CP, CPS, CS, QS 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 18			
Mounting brackets	ZM 16			

# DIMENSION

## Integrated power supply condition display



## Integrated EtherCAT Interface



### 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 design in phase of a new machine to learn more about the behaviour of the system.



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

### DIMENSION

#### Power supplies with EtherCAT

The power supply units with EtherCAT interface enable efficient and time-saving configuration, operation monitoring and remote control. For this purpose, the devices provide numerous power supply and application data, such as voltage and current parameters on the input and output side.

##### Real-time control loops

Based on the data, drives or other energy-intensive consumers can be managed in the best possible way to keep the dynamic power requirement within the capabilities of the power supply system.

This enables improved system efficiency, as the power supply units are always optimally utilised.

##### Automation

Together with other system components, the power supply units enable automated reactions to cope with unplanned operating states, which previously often led to downtime or even damage.



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

# PISA

Electronic circuit breakers



## PISA Electronic circuit breakers

The new multi-channel electronic circuit breakers PISA-M (4 channels) and PISA-B (8 channels) help you to optimise the availability of your DC power supply systems right away.



You can find all products listed on page 18. Find more information about PISA directly via this QR code.



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



**Higher reliability**  
Fast trouble-shooting via real-time LEDs and alarm signal



**Tool-free installation**  
Simple cabling thanks to push-in connections and configuration via push-button

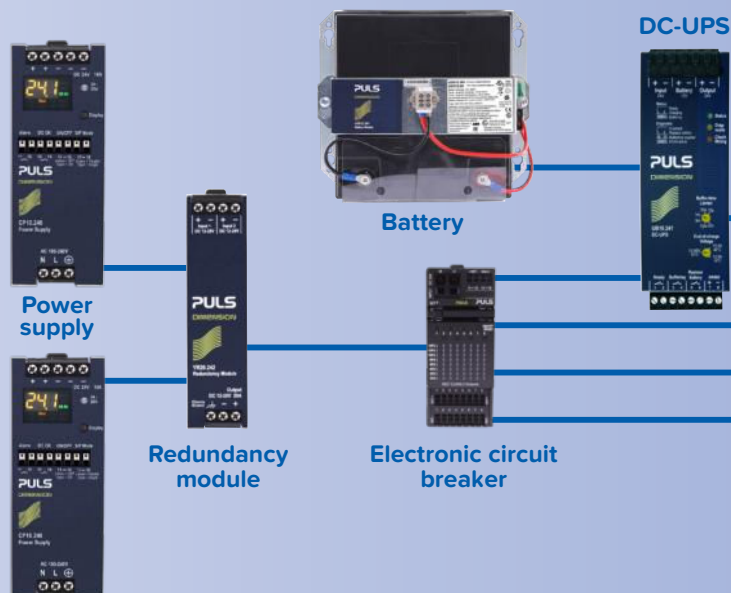


**Higher packing density**  
Immediately more space in the switch cabinet thanks to the narrow width of just 22.5 mm (PISA-M) and 52 mm (PISA-B)

## 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.



# FIEPOS

## FIELD POWER SUPPLY

IP54, IP65 and IP67



Flexible. Reliable. Durable.

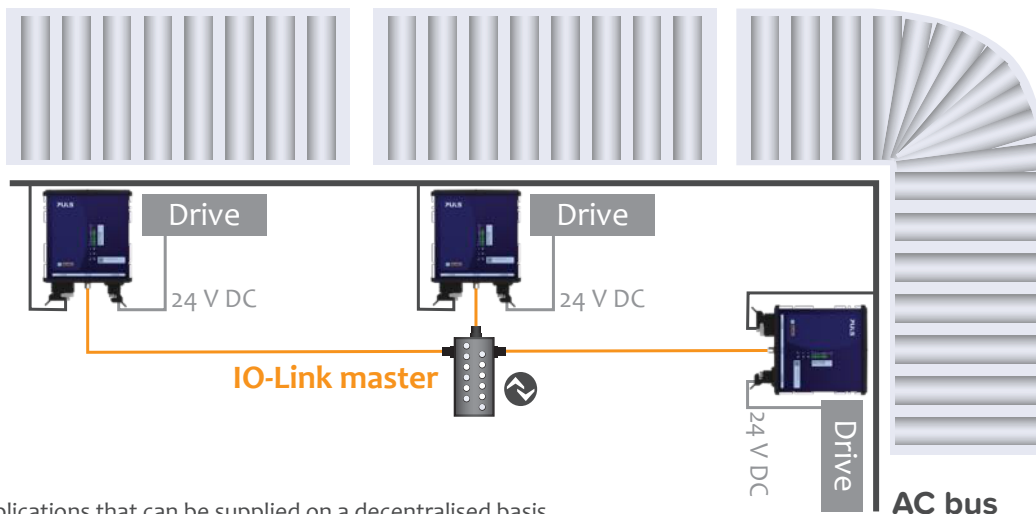
### Decentralised Power Supplies

The decentralised FIEPOS field power supplies with a high degree of ingress protection IP54, IP65 and 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 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.





### Space savings and flexibility

The compact housing with a high degree of IP protection (IP54, IP65 and IP67) and various connector options facilitates flexible use 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 in the defined temperature range.

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](http://www.pulspower.com) or directly via this QR code.

# Overview – Power supplies IP20

## 100-240 V Power Supplies

Output DC	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	405 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			

<b>DIMENSION</b>	C, Q, U, X, Z
<b>PIANO</b>	PIC, PIM, PIRD
<b>MiniLine</b>	ML



Output DC		Article number	Power	Input AC	Input DC	Special features	
24 V	5 A	CP5.241	120 W	AC 100-240 V	DC 110-150 V	Screw terminals	
		CP5.241-S1			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	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	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	QS40.241	960 W	AC 100-240 V	--	--	Wide input voltage range	
	QS40.244			AC 200-240 V	--	--	

# Overview – Power supplies IP20

## 100-240 V Power Supplies

Output DC	Article number	Power	Input AC	Input DC	Special features	
<b>30 V</b>	8 A	QS10.301	240 W	AC 100-240 V	DC 110-150 V	Spring clamp terminals
<b>36 V</b>	6.7 A	CP10.361	480 W	AC 100-240 V	DC 110-150 V	Screw terminals
	13.3 A	CPS20.361		--		
		QS20.361		DC 110-150 V		
	26.7 A	QS40.361	960 W	--		
<b>48 V</b>	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	--	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		--		
	QS40.484		AC 200-240 V	--		

## 380-480 V Power Supplies

Output DC	Article number	Power	Input AC	Special features	
<b>12 V</b>	8 A	CT5.121	96 W	2AC 380-480 V	
<b>24 V</b>	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		
<b>36 V</b>	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	
<b>48 V</b>	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	
<b>72 V</b>	13.3 A	XT40.721		3AC 400 V	Semi-regulated
		XT40.722		3AC 480 V	Semi-regulated



## Power supplies with IO-Link

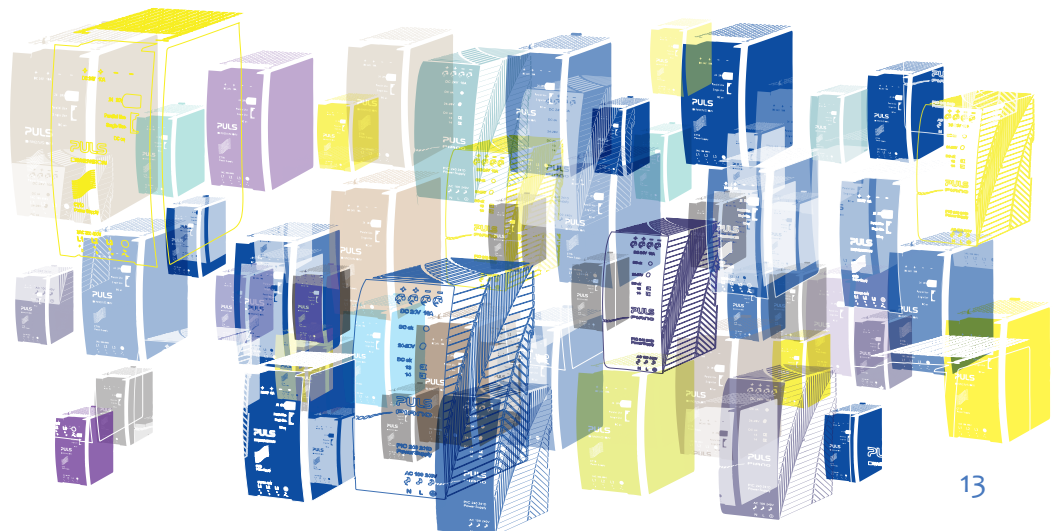
Output DC	Article number	Power	Input	Special features
24 V	20 A CP20.242-IOL	480 W	AC 100 - 240 V DC 110 - 300 V	IO-Link, extended DC range
	40 A QT40.241-IOL	960 W	3AC 380-480 V	IO-Link

## Power supplies with EtherCAT

Output DC	Article number	Power	Input	Special features
24 V	10 A CP10.241-ETC	240 W	AC 100 - 240 V DC 110 - 300 V	EtherCAT, extended DC range
	20 A CP20.241-ETC	240 W	AC 100 - 240 V DC 110 - 300 V	EtherCAT, extended DC range
48 V	10 A CP20.481-ETC	480 W	AC 100 - 240 V DC 110 - 300 V	EtherCAT, extended DC range

## DC/DC converters

Output DC	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





## Conformally coated power supplies

Output DC	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	120 W	AC 100-240 V	DC 110-150 V	ATEX
		CS5.241-C1			--	
		QS5.241-A1			DC 110-300 V	
	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	
		CT10.241-C1			3AC 380-480 V	
	20 A	CP20.241-C1	480 W	AC 100-240 V	DC 110-150 V	ATEX
		CP20.241-R2-C1			DC 110-150 V	
		CPS20.241-C1			--	
QS20.241-A1		DC 110-150 V				
QS20.241-C1		DC 110-150 V				
PIC480.241C-C1		AC 200-240 V			--	
QT20.241-C1		3AC 380-480 V			--	
40 A	QS40.241-C2	960 W	AC 100 - 240 V	--		

\* Output decoupling for redundancy, plug connectors

## Medical applications – IEC 60601-1 compliant, 2 MOPP

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 DC	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 DC	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 and IP67

### IP54, IP65 and IP67 power supplies, 100-240 V

Output DC	Article number	Power	Input AC	Input DC	Special features
24 V 15 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: 2 x 7/8" 4 pin
	FPS300.245-047-111				Output OK, 4 channel, input: 7/8" 3 pin, output: 2 x 7/8" 4 pin
	FPS300.245-049-102				Output OK, 3 channel, input: 7/8" 3 pin, output: 2 x 7/8" 4 pin
	FPS300.246-049-102				IO-Link, 3 channel NEC Class 2, input: M12-S, output: 3 x M12-L
	FPS300.245-049-112				IO-Link, 3 channel, input: 7/8" 3 pin, output: 3 x 7/8" 4 pin

### IP54, IP65 and IP67 power supplies, 200-240 V (highline)

Output DC	Article number	Power	Input AC	Input DC	Special features
24 V 25 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, output: 2 x 7/8" 4 pin

### IP54, IP65 and IP67 power supplies, 380-480 V

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

# 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 10 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 0-10 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
24-56 V	40 A	YR40.482	DC 24-56 V 2 x 20 A	Dual-input

## Power supplies with integrated decoupling function

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 kW, typ. buffer time 9 s at 15 A
		UC10.242	12 kW, 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	0.2 kW, typ. buffer time 310 ms at 20 A
	40 A	UF40.241	0.32 kW, typ. buffer time 250 ms at 40 A
48 V	20 A	UF20.481	0.2 kW, typ. buffer time 150 ms at 20 A



# Overview – Supplementary units



# PISA

## Electronic circuit breakers

Output DC	Output channels	Article number	Special features
12 V / 24 V	4 x configurable current limits 1, 2, 3, 4, 6, 8 A	PISA-M-4ADJ	Configurable, auto-voltage selection
	4 x 2 A	PISA-M-402	Automatic voltage selection
	4 x 4 A	PISA-M-404	Automatic voltage selection
	6 A per channel, total max. 20 A	PISA-M-406	Automatic voltage selection
	8 A per channel, total max. 20 A	PISA-M-408	Automatic voltage selection
24 V	2 x 1-12 A, 6 x 1-10 A	PISA-B-812-B1	Common alarm signal
	8 x NEC Class 2, 3,75 A per channel	PISA-B-8CL2-B1	Common alarm signal, NEC Class 2
	2 x 1-12 A, 6 x 1-10 A	PISA-B-812-B4	Digital coded alarm signal
	8 x NEC Class 2, 3,75 A per channel	PISA-B-8CL2-B4	Digital coded alarm signal, NEC Class 2
	4 x 1 A	PISA11.401	NEC Class 2
	4 x 2 A	PISA11.402	NEC Class 2
	4 x NEC Class 2, 3,75 A per channel	PISA11.CLASS2	NEC Class 2

PISA	B, 11, M
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# Approvals & product compliance

Region specific:



Application specific:




EN 50155

IEC 61558-2-16

IEC 60068-2-60

IEC 60601-1

# Applications for PULS power supplies



AUTOMOTIVE MACHINE BUILDING  
FACTORY AUTOMATION PROCESS INDUSTRY  
INTRALOGISTICS RENEWABLE ENERGY  
MEDICAL TECHNOLOGY RAILWAY SHIP BUILDING  
TEXTILE INDUSTRY BUILDING AUTOMATION

# Value-add system solutions

Value-add combines the advantages of standard power supplies with customer-specific flexibility.

With the Value-add platform, you get your tailor-made power supply, quickly and cost-effectively. PULS modifies proven standard power supplies and, if necessary, combines them with customer-specific modules from its subsidiary PULS Vario.

With the value-add system, you benefit from many advantages:



The time until completion of a value-add solution is significantly shorter than for development projects of purely customised power supplies.



Value-add solutions are cheaper than customised power supplies due to the existing technological foundation.



Value-add solutions are based on proven circuit designs that meet the highest technological standard. In addition, you benefit from the first-class series quality of our standard power supplies.

When does a value-add solution make sense?

Technical parameters for value-add

Application environment for value-add

Economic considerations for value-add

If your task cannot be solved with standard power supplies alone, it makes sense to consider a Value-Add solution.

- Special voltage ranges
- Very high peak load current
- Buffering DC-UPS
- Features for monitoring and regulation

- Mechanical changes
- Extreme ambient temperatures
- High vibration and shock
- Absolute reliability and system stability

- Save development costs
- Minimise risk
- Samples available quickly
- Fast access times
- Small quantity needed

Example: Value-add solution that integrates a PIANO power supply with an expanded temperature range and a customised micro DC-UPS.



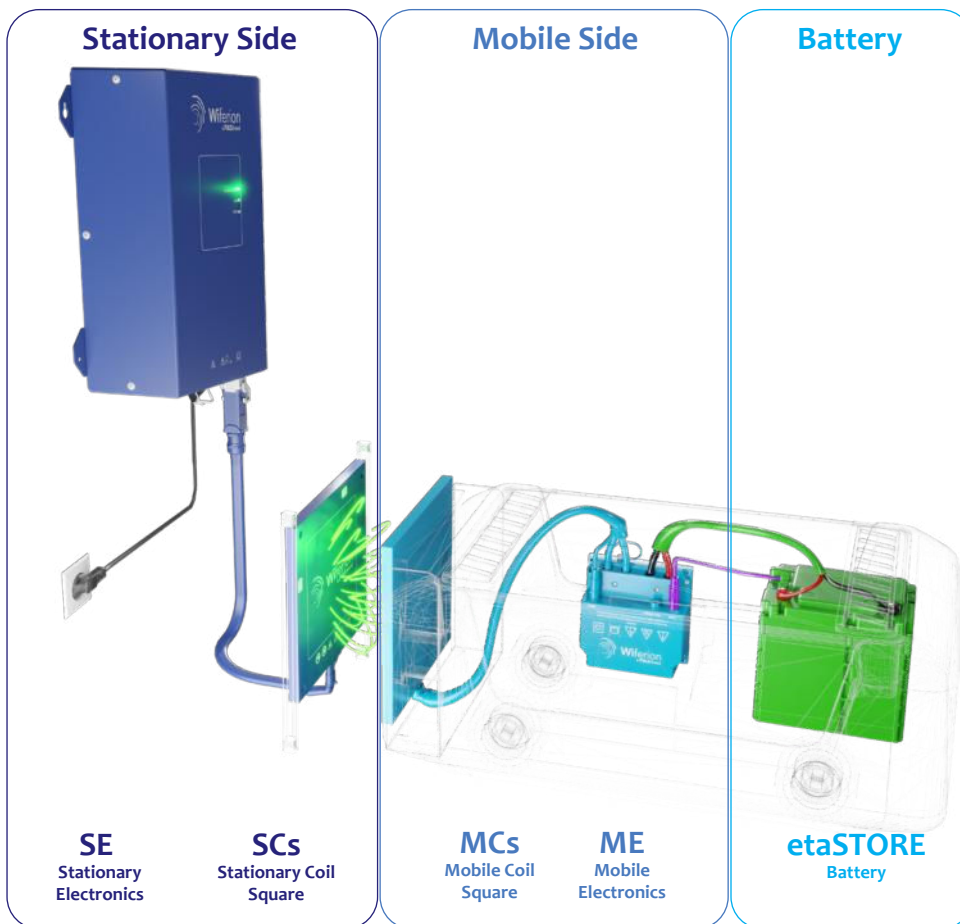
You can find more about value-add system solutions here on our website.



PULS analyses the potential of technological future fields always from the perspective of its customers. In 2023, the unique opportunity arose to acquire the innovative technology of the wireless charging specialist Wiferion for our product portfolio: Inductive charging systems for industrial driverless transport systems and mobile robots.

By including Wiferion's solutions in our portfolio, we are able to provide a complete ecosystem for the supply and wireless charging of decentralised transport systems and robots.

## Overview – Wireless Charging



You can find more about Wiferion - a PULS brand here:



# Customer support near you

**PULS Headquarters:**  
Munich, Germany

**Sales locations:**

USA, China, Germany,  
France, United Kingdom,  
Japan, Austria, Switzerland,  
Singapore

**Global distribution partners:**  
Europe, Americas, Asia,  
Africa, Australia



Find all contacts  
here:

# Shared knowledge



You can find helpful information  
about industrial power supplies  
and application examples in our  
PULS blog.



# Global Sales Team



Our qualified global sales teams are looking forward to supporting you in all questions regarding general product information, prices, availability and delivery times.

Please visit our website to find your contact person: [www.pulspower.com](http://www.pulspower.com)



## Global application engineering team

Our global application engineering team is committed to providing the best possible solution according to your requirements and assist you in overcoming technical challenges. With years of experience and access to cutting-edge tools, our technical experts are able to find solutions tailored to your exact application requirements during all project phases.

Contact us today and find out how we can assist you in choosing the perfect and reliable solution for your needs.



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