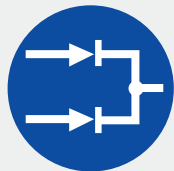


Redundancy

Power Supplies with
Integrated Redundancy
240-480W



Power Supplies with Integrated Redundancy

Redundant Systems without Redundancy Modules

With the CP series, PULS offers a unique feature: Power supplies with an integrated redundancy based on efficient MOSFET technology. This means there is no need for additional redundancy modules for 1+1 and N+1 redundant systems. These units are available with removable or with spring clamp terminals.

Space Savings

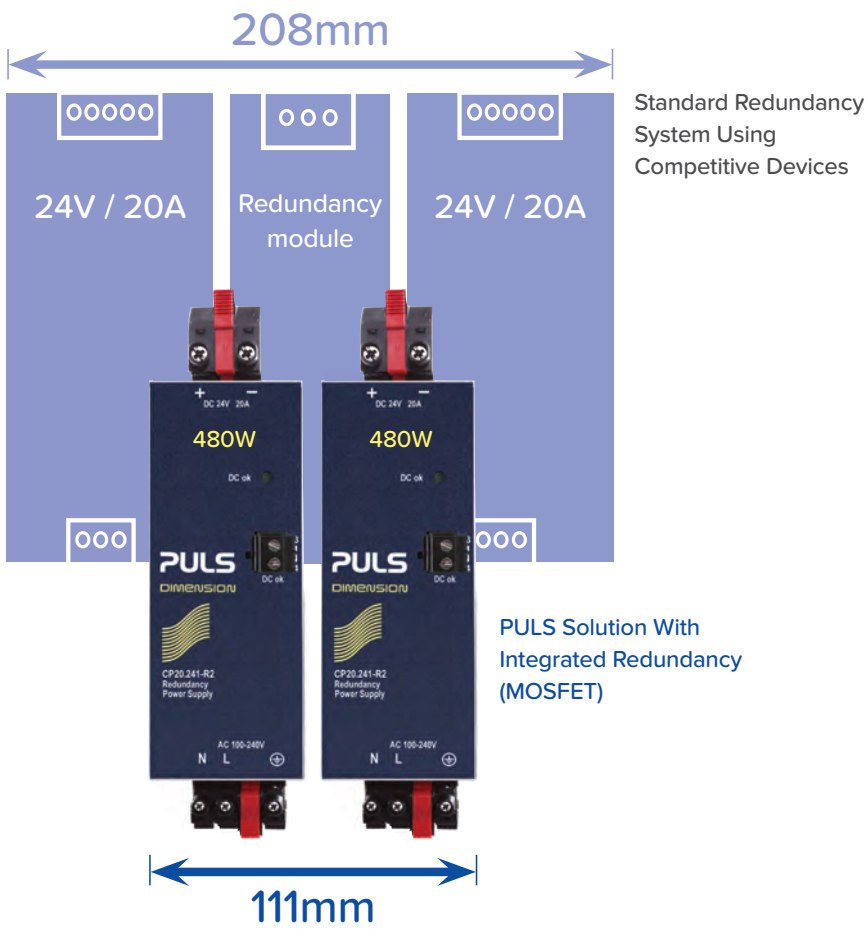
PULS integrated the decoupling feature into the standard CP-housings. This means the size of the units are identical to those of the standard CP10 (39mm) and CP20 (48mm). The small size and the elimination of the redundancy module allow space-savings of more than 45%.

On-line Replacement

These new power supplies are available with removeable terminals or spring clamp terminals. The models with removable terminals (CP10.241-R2 and CP20.241-R2) allow the replacement of devices during ongoing operation. The models with spring clamp terminals (CP10.241-R1 and CP20.241-R1) are the perfect choice for applications when heavy shock and vibrations occur.

Simplicity

These power supplies reduce system complexity and costs due to shorter installation times. Reduced wiring and no single point of failure are added benefits. Less wiring also means a lower failure risk caused by faulty connections. In addition, there is only one part number that has to be ordered.



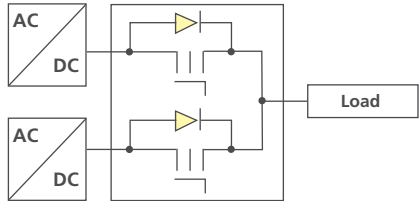
	COMING		NEW	
Output Voltage	24V		24V	
Output Current	10A		20A	
Adjustment Range	24-28V		24-28V	
Output Current	10A		20A	
Output Power	240W		480W	
Power Reserves	20%		20%	
Ripple & Noise max. [mVPP]	50mV		100mV	
AC Input Voltage	100-240VAC Wide Range		100-240VAC Wide Range	
Active Power Factor Correction	Yes		Yes	
Inrush Current (120/230)VAC)	6A/9A		10A/4.5A	
External Input Protection Recommendation (minimum)	B - 10A or C - 10A		B -10A or C - 10A	
DC Input Voltage	110-150VDC		110-150VDC	
Efficiency (Typical)	94.7%		95.2%	
Power Losses (Typical)	13.4W		24.2W	
Operating Temperature Range	-25°C to +70°C		-40°C to +70°C	
Connection Terminals	Spring Clamp	Removable Terminals	Spring Clamp	Removable Terminals
Dimensions (WxHxD)	39x124x117mm		48x124x127mm	
Weight	600g		830g	850g
DC-OK Relay Contact	Yes		Yes	
On-line Replacement	-	Yes	-	Yes
List Price (USD)	\$380.00	\$360.00	\$570.00	\$550.00
Product Family	DIMENSION		DIMENSION	
Catalog Number	CP10.241-R1	CP10.241-R2	CP20.241-R1	CP20.241-R2

Redundancy Modules

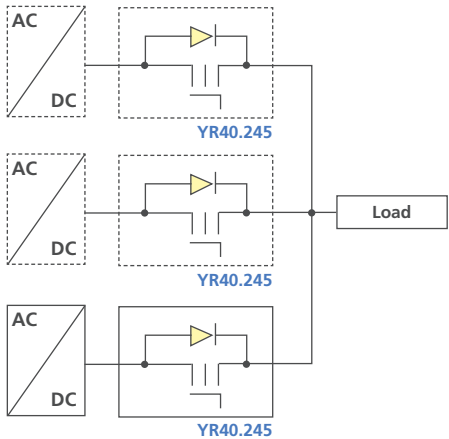
Highest System Reliability

In a redundant power supply system, two or more power supplies are wired in parallel to increase the reliability and availability of the DC voltage. The additional power supply provides backup in case one power supply fails.

The power supplies are decoupled by one or more redundancy modules. The redundancy modules isolate a fault in one power supply and protects the DC voltage for critical applications.



1+1-Redundancy



N+1-Redundancy
Single Use



NEW										NEW			
Nominal Voltage	12-28V	12-48V			24-48V	12-28V						24-28V	24-56V
Input / Output Current	2x 10A / 20A	2x 5A / 10A	2x 5A / 10A	2x 10A / 20A	2x 10A / 20A	2x 10A / 20A	2x 20A / 40A	2x 20A / 40A	1x 40A / 40A	2x 40A / 80A	2x 40A / 80A	2x 10A / 20A	2x 20A / 40A
Input Voltage Range	9-35V	9-60V	9-60V	9-60V	18-60V	8.4-36.4V	8.4-36.4V	8.4-36.4V	8.4-36.4V	8.4-36.4V	8.4-36.4V	18-35V	24.4-64.4V
Nominal Current per Input	10A	5A	5A	10A	10A	10A	20A	20A	40A	40A	40A	10A	20A
Output Current Nominal Current	20A	10A	10A	20A	20A	20A	40A	40A	40A	80A	80A	20A	40A
Voltage Drop Input - Output	560mV	900mV	900mV	850mV	850mV	110mV	140mV	140mV	150mV	95mV	145mV	500mV	120mV
Decoupling	Diode	Diode	Diode	Diode	Diode	MOSFET	MOSFET	MOSFET	MOSFET	MOSFET	MOSFET	MOSFET	MOSFET
Power Losses (Typical)	11.2W	9.0W	9.0W	17.0W	18W	2.0W	6.3W	5.9W	6.2W	8.3W	11.8W	8.7W	5.4W
Operating Temperature Range	-40°C to +70°C	-40°C to +70°C	-40°C to +70°C	-40°C to +70°C	-40°C to +70°C	-40°C to +70°C	-40°C to +70°C	-40°C to +70°C	-40°C to +70°C	-40°C to +70°C	-40°C to +70°C	-40°C to +70°C	-40°C to +70°C
Dimensions (WxHxD)	39x124x124mm	45x75x91mm	45x75x91mm	32x124x102mm	32x124x117mm	36x124x117mm	36x124x127mm	36x124x127mm	46x124x127mm	46x124x127mm	46x124x127mm	32x124x117mm	46x124x127mm
Weight	280g	140g	140g	290g	350g	250g	340g	280g	340g	440g	370g	310g	360g
Connection Terminals	Screw	Screw	Spring Clamp	Spring Clamp	Screw	Screw	Screw	Screw	Screw	Screw	Screw	Screw	Screw
Special Features					With Signal Contacts	Removable Output Terminal						With Automated Load Sharing	
List Price (USD)	\$65.00	\$60.00	\$68.00	\$105.00	\$140.00	\$110.00	\$205.00	\$140.00	\$200.00	\$340.00	\$220.00	\$170.00	\$200.00
Product Family	PIANO	MiniLine	MiniLine	DIMENSION	DIMENSION	DIMENSION	DIMENSION	DIMENSION	DIMENSION	DIMENSION	DIMENSION	DIMENSION	DIMENSION
Catalog Number a)	PIRD20.241	MLY10.241	MLY02.100	YR2.DIODE	YRM2.DIODE	YR20.242	YR40.241	YR40.242	YR40.245	YR80.241	YR80.242	YR20.246	YR40.482

a) PULS recommends consulting individual power supply data sheets for appropriate redundancy module options