EN

PIR-01
Instruction Manual

PIRD20.241 Dual Input Redundancy Module
DC 12-28V, 20A

Before operating the redundancy module, read this manual thoroughly and retain it for future reference! This device may only be installed and put into operation by qualified personnel. If damage or malfunction should occur during operation, immediately turn power off and send unit to the factory for inspection. The unit does not contain serviceable parts.

This redundancy module is designed for installation in an enclosure and is intended for general use such as in industrial control, office, communication, and instrumentation equipment. Do not use this device in equipment, where malfunction may cause severe personal injury or threaten human life.

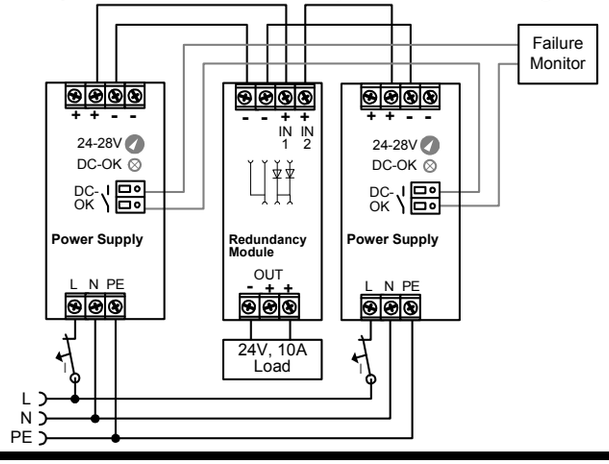
Risk of electrical shock, fire, personal injury or death:

(1) Turn power off before working on the device. Protect against inadvertent re-powering.
(2) Make sure that the wiring is correct by following all local and national codes.
(3) Do not open, modify or repair the unit
(4) Use caution to prevent any foreign objects from entering the housing.
(5) Do not use in wet locations or in areas where moisture or condensation can be expected.
(6) Do not touch during power-on, and immediately after power-off. Hot surfaces may cause burns.

Installation Notes

- Install the device on a DIN-rail according to EN 60715 with the output terminals on the bottom of the unit.
- Do not obstruct air flow as the unit is convection cooled.
  Ventilation grid must be kept free of any obstructions (min. 40mm on top, 20mm on the bottom, 5mm left and right side).
- Do not place heat sources adjacent to the device.
- Do not energize with wrong input polarity. Device might get damaged.
- Do not ground or earth the positive output pole which could prevent redundancy in case of a ground failure. Ground the negative output pole when needed.

Typical Wiring Scheme
1+1 Redundancy for 10A Output Current



Headquarters: PULS GmbH, Elektrastr. 6, 81925 Munich, Germany www.pulspower.com

Germany	+49 89 9278 0	www.pulspower.de	**Singapore**	+65 6684 2310	www.pulspower.sg
China	+86 512 62881820	www.pulspower.cn	**Switzerland**	+41 56 450 18 10	www.pulspower.ch
France	+33 478 668 941	www.pulspower.fr	**U.K.**	+44 1525 841001	www.pulspower.co.uk
Austria	+43 27 64 32 13	www.pulspower.at	**U.S.A**	+1 630 587 9780	www.pulspower.us

Technical Data [1]			PIRD20.241
Number of inputs / outputs			2/1
Decoupling Element			Diode
Suitable Power Supplies			PIC120 series and PIC 240 series
Input Voltage		nom.	DC 12-28V ±25%
Input Voltage Range			9-35Vdc
Output Current	nominal	nom.	0-20A
	up to 5 seconds	max.	20-32A
	overload, short-circuit [2]	max.	26A
Input Current	nominal	nom.	2x 0-10A or 1x 0-20A
	up to 5 seconds	max.	2x 10-16A or 1x 32A
	overload, short-circuit [2]	max.	2x 13A or 1x 26A
Peak Input Current	per input	max.	1000A per input
Reverse Current	per input	max.	4mA between -25°C and +60°C
Voltage Drop	Input to Output	typ.	0.46V at 2x 5A symmetrical input current
Power Losses	in normal mode	typ.	4.6W at 2x 5A symmetrical input current
	at no load	typ.	0W
Operational Temperature Range [3]		nom.	-40°C - +70°C
Output Derating		nom.	0.5A/°C from 55°C to +70°C
Storage Temperature Range		nom.	-40°C - +85°C
Terminals [4]	Stranded / solid wire	nom.	max. $4mm^2$ / max. $6mm^2$
	AWG	nom.	20-10AWG
	Wire stripping length	nom.	7mm, 0.28inch
	Tightening torque	nom.	1Nm, 9lb.in
Dimensions	(WxHxD, without DIN-rail)	nom.	39x124x124mm
Weight		max.	280g, 0.62lb

1) All parameters are specified at 24V input, nominal output current, 25°C ambient and after a 5 minutes run-in time unless otherwise noted.
2) Ensure that the average output current does not exceed this value. Check the short-circuit current of the power sources and if the power source can deliver more than this current combined, use an appropriate fuse on the output.
3) The operational temperature range equals the surrounding air temperature measured 2cm below the unit.
4) Use appropriate copper cables, that are designed for a minimum operating temperature of 75°C for ambient temperatures up to 55°C and 90°C for ambient temperatures up to 70°C.
Follow national installation codes and regulations! Ensure that all strands of a stranded wire enter the terminal.