



Redundancy module for PSG power supply units, 40 A

Part no. PSG960R24RM
Article no. 172889
Catalog No. PSG960R24RM

Delivery program

Product range			Power supplies PSG
Subrange			Redundancy module
Description			For decoupling power supplies of the same type that are connected in parallel on the output side for redundancy purposes
Input voltage range			22 - 60 V DC
Nominal input voltage			24 - 48 V DC
Rated output voltage			$V_{in} - 0.65 V$
Rated output current		A	40

Technical data

Input characteristics

Nominal input voltage			24 - 48 V DC
Input voltage range		V	24 - 48 V DC
Eingangsspannungsalarm_Relaiskontakt			Relay contact closed "OK" if V_{in1} & $V_{in2} > 18 V \pm 5\%$ and $< 30 V$
Nominal current	I_n	A	(1+1) Redundanz : Nom. 2 x 25 (N+1) Redundanz : Nom. 2 x 20 Einfache Nutzung : Nom. 1 x 40
Back-up fuse			3 x 6, 10, 16 A (recommended)

Output characteristics

Rated output voltage			$V_{in} - 0.65 V$
Nominal current		A	max. 40
Derating from $T_{amb} > +50$ °C			> 50 °C (2.5% / °C)
Heat dissipation		W	26
Efficiency		%	97 % norm.
Short-circuit current			$< 25 A$, no damage

General characteristics

Housing			Aluminium
MTBF (mean time between failures)			$> 800,000$ h
Height		mm	121
Width		mm	50
Depth		mm	122
Weight		kg	0.52
Terminations			Screw connection
Terminal capacity			
flexible with ferrules/solid		mm ²	3.3 - 5.3 mm ² (AWG 12 - 10)
Tightening torque		Nm	0.7
Ambient air temperature range		°C	
Operation		°C	-40 - +80
damp heat			< 95 % relative humidity at +25 °C, no condensation
Vibrations (IEC/EN 60068-2-6)			10 - 500 Hz at 30 m/s ² (3 G max) for 60 min. in X-axis, Y-axis, Z-axis directions
Mechanical shock resistance (IEC 60068-2-27)			30 g (300 m/s ²) in all directions
Pollution degree			2
Climatic class (IEC)			3K3 according to EN 60721

Safety and safety features

Insulation voltage			
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Input/PE			1.5 kV AC
Output/PE			1.5 kV AC
Degree of Protection			IP20
Protection class			Class II with PE connection

Design verification as per IEC/EN 61439

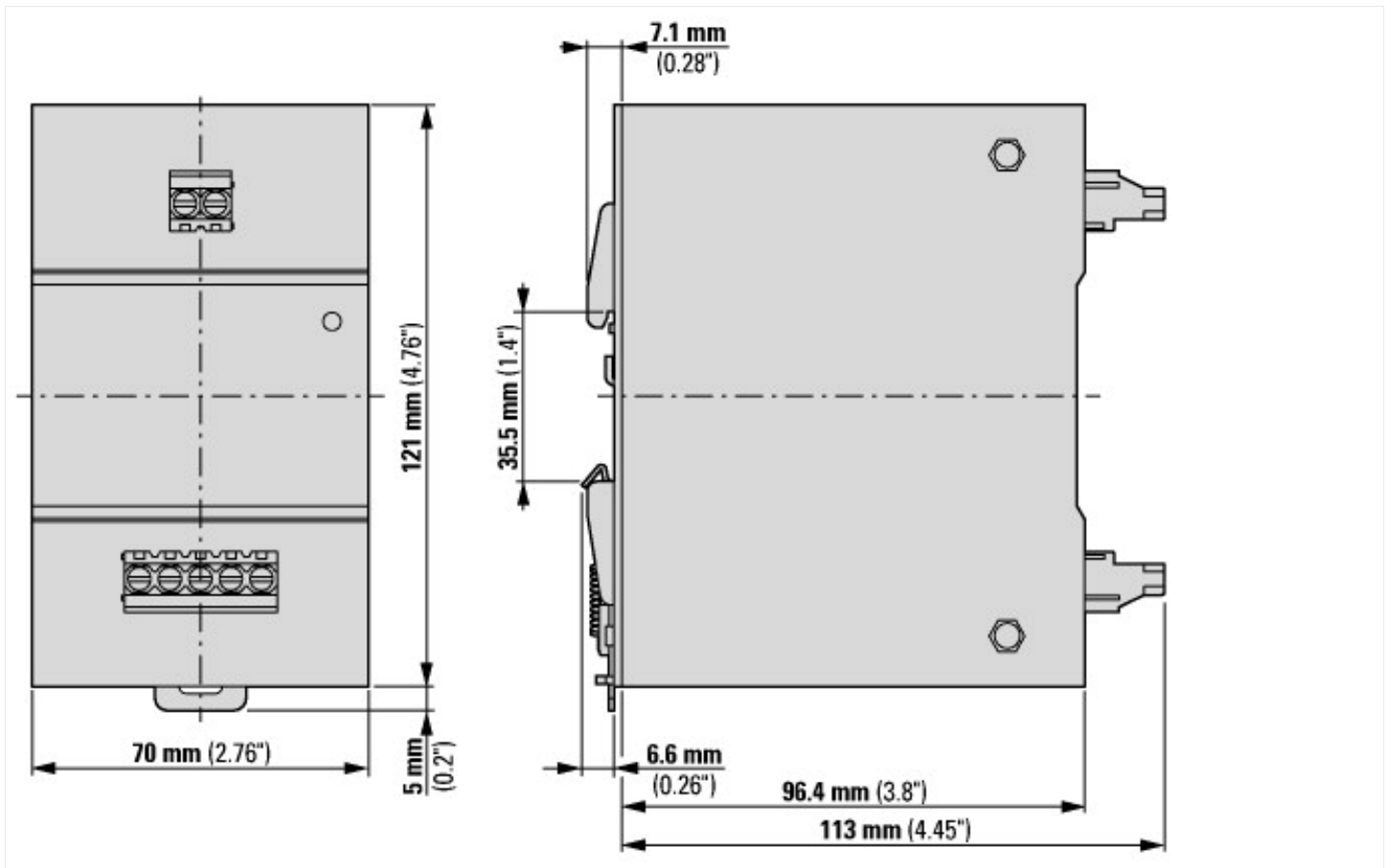
Technical data for design verification			
Rated operational current for specified heat dissipation	I_n	A	0
Heat dissipation per pole, current-dependent	P_{vid}	W	0
Equipment heat dissipation, current-dependent	P_{vid}	W	0
Static heat dissipation, non-current-dependent	P_{vs}	W	26
Heat dissipation capacity	P_{diss}	W	0
Operating ambient temperature min.		°C	-40
Operating ambient temperature max.		°C	80
IEC/EN 61439 design verification			
10.2 Strength of materials and parts			
10.2.2 Corrosion resistance			
			Meets the product standard's requirements.
10.2.3.1 Verification of thermal stability of enclosures			
			Meets the product standard's requirements.
10.2.3.2 Verification of resistance of insulating materials to normal heat			
			Meets the product standard's requirements.
10.2.3.3 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effects			
			Meets the product standard's requirements.
10.2.4 Resistance to ultra-violet (UV) radiation			
			Meets the product standard's requirements.
10.2.5 Lifting			
			Does not apply, since the entire switchgear needs to be evaluated.
10.2.6 Mechanical impact			
			Does not apply, since the entire switchgear needs to be evaluated.
10.2.7 Inscriptions			
			Meets the product standard's requirements.
10.3 Degree of protection of ASSEMBLIES			
			Meets the product standard's requirements.
10.4 Clearances and creepage distances			
			Meets the product standard's requirements.
10.5 Protection against electric shock			
			Does not apply, since the entire switchgear needs to be evaluated.
10.6 Incorporation of switching devices and components			
			Does not apply, since the entire switchgear needs to be evaluated.
10.7 Internal electrical circuits and connections			
			Is the panel builder's responsibility.
10.8 Connections for external conductors			
			Is the panel builder's responsibility.
10.9 Insulation properties			
10.9.2 Power-frequency electric strength			
			Is the panel builder's responsibility.
10.9.3 Impulse withstand voltage			
			Is the panel builder's responsibility.
10.9.4 Testing of enclosures made of insulating material			
			Is the panel builder's responsibility.
10.10 Temperature rise			
			The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices.
10.11 Short-circuit rating			
			Is the panel builder's responsibility.
10.12 Electromagnetic compatibility			
			Is the panel builder's responsibility.
10.13 Mechanical function			
			The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.

Technical data ETIM 6.0

Low-voltage industrial components (EG000017) / DC-power supply (EC002540)			
Electric engineering, automation, process control engineering / Power supply / Power supply (other) / DC-power supply (ecl@ss8.1-27-04-90-02 [AFZ644012])			
Voltage type of supply voltage			DC
1st secondary output voltage	V		21.35 - 59.35
2nd secondary output voltage	V		0 - 0
3rd secondary output voltage	V		0 - 0
Max. output current 1	A		40
Max. output current 2	A		0
Max. output current 3	A		0
Secondary voltage adjustable			No
Nominal value output voltage 1	V		24

Nominal value output voltage 2	V	0
Nominal value output voltage 3	V	0
Nominal value output current 1	A	24
Nominal value output current 2	A	0
Nominal value output current 3	A	0
Short-circuit-proof		Yes
Rated supply voltage at AC 50 Hz	V	0 - 0
Rated supply voltage at AC 60 Hz	V	0 - 0
Rated supply voltage at DC	V	22 - 60
Output voltage stabilized		No
Power consumption	VA	0
Power output	W	960
Stabilized		No
Type of electric connection		Screw connection
Rail mounting possible		Yes
Wall mounting possible		No
Modular version		Yes
Width in number of modular spacings		0
Built-in width	mm	50
Built-in height	mm	121
Direct mounting possible		No
Width	mm	50
Height	mm	121
Depth	mm	122
Suitable for safety functions		No
SIL according to IEC 61508		None
Performance level acc. to EN ISO 13849-1		None
Degree of protection (IP)		IP20

Dimensions



Additional product information (links)

IL125018EN Installation Instructions for PSG960R24RM REDUNDANCY MODULE

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PSG960R24RM REDUNDANCY MODULE

ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL125018EN2014_06.pdf