



Power supply unit, Single-phase, 85 - 264 V AC / 24 V DC, 2.5 A

Part no. PSG60E24RM
172891
EL Number 4560889
(Norway)

General specifications		
Product name		Eaton PSG power supply unit
Part no.		PSG60E24RM
EAN		4015081694792
Product Length/Depth		125 millimetre
Product height		121 millimetre
Product width		32 millimetre
Product weight		0.37 kilogram
Certifications		UL 508 EAC IEC Rated EN Listed CSA Std. C22.2 2014/30/EU Class2: UL1310 and CSA-C22.2 No. 223 Electrical Safety (of IT equipment) : SIQ to EN60950-1, UL/c-UL recognized to UL 60950-1, CSA-C22.2 No. 60950-1, CB scheme to IEC 60950-1 EN 55011 RoHS ITE: EN 55022, EN 61000-3-2, EN 61000-3-3, EN 55024 IEC/EN 61204-3 2014/35/EU Protection against electric shock: DIN 57100-410 Electrical equipment of machines: IEC60204-1 (Overvoltage category III) SELV (EN 60950) PELV (EN 60204) EN 50178/IEC 62103 Mains harmonics limitation: EN 601000-3-2
Product Tradename		PSG
Product Type		Power supply unit
Product Sub Type		None
Public Consumption		Yes
PDH Status		Active
Product Family Description		ES-PMCC-ICP-ES-PMCC-ICP-Eaton PSG and PSL Power supplies
Globally Marketable		Yes
Product Specification Details		
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.
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 Resist. of insul. mat. to abnormal heat/fire by internal elect. 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.

10.9.2 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.
Ambient operating temperature - max			80 °C
Ambient operating temperature - min			-20 °C
Ambient storage temperature - max			85 °C
Ambient storage temperature - min			-25 °C
Built-in height			121 mm
Built-in width			32 mm
Capacitive load			8000 µF max. Capacitive load starting, Output characteristics
Climatic proofing			< 95 % relative humidity at +25 °C, no condensation
Connection type			Screw terminal, pluggable
Current limitation			Overcurrent = 150 % of max. output power, at short-circuit, safety and safety features
Degree of Protection			IP20 NEMA 1
Efficiency			> 90 % (230 V AC) > 90 % (115 V AC)
EL number			4560889
Electric connection type			Screw connection
Enclosure material			Aluminum
Environmental class			3K3 (Climatic class, according to EN 60721)
Equipment heat dissipation, current-dependent Pvid			0 W
Features			Output voltage stabilized Short-circuit-proof Mains overvoltage protection (against internal overvoltage) Modular version Stabilized
Fitted with:			Not accessible internal input fuse (T3.15 AH/250 V) for device protection
Functions			Transient overvoltage protection (varistor) Secondary voltage adjustable
Heat dissipation capacity Pdis			0 W
Heat dissipation per pole, current-dependent Pvid			0 W
Input voltage at AC 50 Hz - max			264 V
Input voltage at AC 50 Hz - min			85 V
Input voltage at DC - max			375 V
Input voltage at DC - min			120 V
Inrush current			< 20 A at 115 V AC (Inrush current limitation I ² t (+25 °C)) < 35 A at 230 V AC (Inrush current limitation I ² t (+25 °C))
Insulation resistance			1.5 kV AC (routine test, input) 500 V AC (routine test, output) 1.5 kV AC (type test, output) 4 kV AC (type test, input/output) 1.5 kV AC (type test, input) 3 kV AC (routine test, input/output)
Leakage current at ground IPE - max			< 1 mA (at 240 V AC)
LED indicator			Status indication of "DC OK": Green LED
Mains failure bridging			> 125 ms (at 230 V AC) > 20 ms (at 115 V AC)
Mean time between failures (MTBF)			> 1,000,000 h
Mounting Method			Rail mounting possible
Nominal output current 1			2.5 A
Nominal output current 2			0 A
Nominal output current 3			0 A
Number of phases			1
Output			Parallel switching for redundancy, with 0 ring diode (PSG480R24RM/ PSG960R24RM)
Output current 1 - max			2.5 A
Output current 2 - max			0 A
Output current 3 - max			0 A
Output current at AC, 50 Hz - max			2.5 A
Output voltage			24 V

Output voltage 1 - max			24 V
Output voltage 1 - min			24 V
Output voltage 2 - max			0 V
Output voltage 2 - min			0 V
Output voltage 3 - max			0 V
Output voltage 3 - min			0 V
Output voltage at DC - max			28 V
Output voltage at DC - min			24 V
Overtoltage category			II
Phase			Single-phase
Pollution degree			2
Power consumption			184 VA
Power output			60 W
Product category			Power supply
Protection class			1 (with PE connection)
Ramp/run-up time			< 2000 ms
Rated frequency - max			63 Hz
Rated frequency - min			47 Hz
Rated operational current (Ie)			Max. 0.8 A at 230 V AC Max. 1.4 A at 115 V AC
Rated operational current for specified heat dissipation (In)			0 A
Rated output power			60 W
Residual ripple			< 50 mV / < 150 mV
Safety performance level (EN ISO 13849-1)			None
Shock resistance			30 g (300 m/s²) in all directions, Mechanical, According to IEC/EN 60068-2-27
Short-term interruption			100% voltage dip, 1 cycle (20 ms at 50 Hz), automatic start, Input characteristics
SIL (IEC 61508)			None
Static heat dissipation, non-current-dependent Pvs			7.4 W
Stripping length (main cable)			7 mm
Supply frequency			63 Hz, Input, max. Range 50/60 Hz, Input, Rated value 47 Hz, Input, min. Range
Supply voltage at AC, 50 Hz - max			264 V AC
Supply voltage at AC, 50 Hz - min			85 V AC
Supply voltage at AC, 60 Hz - max			264 V AC
Supply voltage at AC, 60 Hz - min			85 V AC
Supply voltage at DC - max			0 V DC
Supply voltage at DC - min			0 V DC
Terminal capacity (flexible with ferrule AWG)			22 - 12
Terminal capacity (flexible with ferrule)			0.32 - 3.3 mm²
Tightening torque			0.5 Nm, Screw terminals
Tripping characteristic			B
Vibration resistance			10 - 500 Hz at 30 m/s² (3 G max) for 60 min. in X-axis, Y-axis, Z-axis directions, (IEC/EN 60068-2-6)
Voltage tolerance			± 2 %, Rated output voltage
Voltage type			AC
Width in number of modular spacings			0

Technical data ETIM 9.0

Low-voltage industrial components (EG000017) / DC-power supply (EC002540)			
Electric engineering, automation, process control engineering / Power supply devices / Power supply device / Continuous current supply (ecl@ss13-27-04-07-01 [AFX040008])			
Voltage type (supply voltage)			AC
1st secondary output voltage		V	24 - 24
2nd secondary output voltage		V	0 - 0
3rd secondary output voltage		V	0 - 0
Max. output current 1		A	2.5
Max. output current 2		A	0

Max. output current 3	A	0
Secondary voltage adjustable		Yes
Nominal value output voltage 1	V	
Nominal value output voltage 2	V	
Nominal value output voltage 3	V	
Nominal value output current 1	A	2.5
Nominal value output current 2	A	0
Nominal value output current 3	A	0
Short-circuit-proof		Yes
Rated supply voltage AC 50 Hz	V	85 - 264
Rated supply voltage AC 60 Hz	V	85 - 264
Rated supply voltage DC	V	0 - 0
Output voltage stabilized		Yes
Power consumption	VA	184
Power output	W	60
Stabilized		Yes
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	32
Built-in height	mm	121
Direct mounting possible		No
Width	mm	32
Height	mm	121
Depth	mm	125
Suitable for safety functions		No
SIL according to IEC 61508		None
Performance level according to EN ISO 13849-1		None
Degree of protection (IP)		IP20
Degree of protection (NEMA)		1