



Power supply unit, Single-phase, 85 - 264 V AC / 24 V DC, 10 A

Part no. **PSG240E24RM**
172893
EL Number **4560891**
(Norway)

General specifications		
Product name		Eaton PSG power supply unit
Part no.		PSG240E24RM
EAN		4015081694815
Product Length/Depth		160 millimetre
Product height		145 millimetre
Product width		135 millimetre
Product weight		0.96 kilogram
Certifications		UL 508 EAC EN Listed CSA Std. C22.2 IEC Rated 2014/35/EU 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 PELV (EN 60204) RoHS EN 50178/IEC 62103 Class2: UL1310 and CSA-C22.2 No. 223 ITE: EN 55022, EN 61000-3-2, EN 61000-3-3, EN 55024 SELV (EN 60950) Electrical equipment of machines: IEC60204-1 (Overvoltage category III) IEC/EN 61204-3 EN 55011 Mains harmonics limitation: EN 601000-3-2 2014/30/EU Protection against electric shock: DIN 57100-410
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			85 mm
Capacitive load			10000 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			NEMA 1 IP20
Efficiency			> 90 % (115 V AC) > 90 % (230 V AC)
EL number			4560891
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			Short-circuit-proof Modular version Stabilized Output voltage stabilized Mains overvoltage protection (against internal overvoltage)
Fitted with:			Not accessible internal input fuse (T4 AH/250 V) for device protection
Functions			Secondary voltage adjustable Transient overvoltage protection (varistor)
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 AC 60 Hz - max			264 V
Input voltage at AC 60 Hz - min			85 V
Input voltage at DC - max			375 V
Input voltage at DC - min			120 V
Inrush current			< 35 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 (type test, output) 4 kV AC (type test, input/output) 1.5 kV AC (routine test, input) 3 kV AC (routine test, input/output) 1.5 kV AC (type test, input) 500 V AC (routine test, 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			> 20 ms (at 115 V AC) > 125 ms (at 230 V AC)
Mean time between failures (MTBF)			> 500,000 h
Mounting Method			Rail mounting possible
Nominal output current 1			10 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			10 A
Output current 2 - max			0 A
Output current 3 - max			0 A

Output current at AC, 50 Hz - max			10 A
Output current at AC, 60 Hz - max			10 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
Overvoltage category			II
Phase			Single-phase
Pollution degree			2
Power consumption			299 VA
Power output			240 W
Product category			Power supply
Protection class			1 (with PE connection)
Ramp/run-up time			< 1000 ms
Rated frequency - max			63 Hz
Rated frequency - min			47 Hz
Rated operational current (Ie)			Max. 2.5 A at 115 V AC Max. 1.3 A at 230 V AC
Rated operational current for specified heat dissipation (In)			0 A
Rated output power			240 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			30 W
Stripping length (main cable)			7 mm
Supply frequency			47 Hz, Input, min. Range 63 Hz, Input, max. Range 50/60 Hz, Input, Rated value
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)			16 - 14
Terminal capacity (flexible with ferrule)			1.3 - 2.1 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	10
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	10
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	299
Power output	W	240
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	85
Built-in height	mm	121
Direct mounting possible		No
Width	mm	135
Height	mm	145
Depth	mm	160
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