

Power supply unit, Single-phase, 90 - 264 V AC / 24 V DC, 10 A, 273 W

Part no. PSG240E24SMB  
EP-401395

General specifications		
Product name		Eaton PSG power supply unit
Part no.		PSG240E24SMB
Product Length/Depth		123.6 millimetre
Product height		116.8 millimetre
Product width		40 millimetre
Product weight		0.62 kilogram
Certifications		IEC 61000-4-4 P65 IEC 61000-4-5 CE: In conformance with EMC Directive 2014/30/EU and Low Voltage Directive 2006/95/EC EN 61010-1 IEC/EN 60950 IEC 61000-4-8: 2010 BS EN 62368-1 CISPR 35/EN 55035 IEC 62368-1 IEC 61000-4-6 EN 61000-3-2 UL 62368-1 EN IEC 63000 RoHS conform EN 55032 REACH IEC/EN 61000-4-2 TSCA EN 61000-3-3 IEC/EN 61000-4-3 EN 61000-4-11
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.
Altitude			Max. 2000 m
Ambient operating temperature - max			70 °C
Ambient operating temperature - min			-30 °C
Ambient storage temperature - max			85 °C
Ambient storage temperature - min			-40 °C
Built-in height			123.6 mm
Built-in width			40 mm
Capacitive load			8000 µF max. Capacitive load starting, Output characteristics
Climatic proofing			20 - 90 % relative humidity at +25 °C, no condensation
Degree of Protection			IP20
Efficiency			> 88 % (115 V AC)
Electric connection type			Screw connection
Enclosure material			Aluminum
Equipment heat dissipation, current-dependent Pvid			33 W
Features			Output voltage stabilized
Fitted with:			Not accessible internal input fuse (T4 AH/250 V) for device protection
Heat dissipation capacity Pdis			33 W
Heat dissipation per pole, current-dependent Pvid			33 W
Input voltage at AC 50 Hz - max			264 V
Input voltage at AC 50 Hz - min			90 V
Input voltage at AC 60 Hz - max			264 V
Input voltage at AC 60 Hz - min			90 V
Input voltage at DC - max			0 V
Input voltage at DC - min			0 V
Inrush current			< 40 A at 230 V AC (Inrush current limitation I <sup>2</sup> t (+25 °C))
Insulation resistance			1 kV AC (output) 2 kV AC (input) 3 kV AC (input/output)
Leakage current at ground IPE - max			< 0.75 mA (at 240 V AC)
LED indicator			Status indication of "DC OK": Green LED
Mean time between failures (MTBF)			> 700,000 h
Mounting Method			Rail mounting possible
Nominal output current 1			10 A
Nominal output current 2			0 A
Nominal output current 3			0 A
Nominal Output Voltage 1			24 V
Nominal Output Voltage 2			0 V
Nominal Output Voltage 3			0 V
Number of phases			1
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 current at DC - max			10 A
Output voltage			24 V
Output voltage 1 - max			26 V
Output voltage 1 - min			21.6 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			26 V

Output voltage at DC - min			24 V
Overvoltage category			II
Phase			Single-phase
Pollution degree			2
Power consumption			273 W
Power output			240 W
Product category			Power supply
Protection class			1 (with PE connection)
Ramp/run-up time			< 500 ms
Rated frequency - max			63 Hz
Rated frequency - min			47 Hz
Rated operational current for specified heat dissipation (I <sub>n</sub> )			0 A
Rated output power			240 W
Relative humidity			20 - 90% RH (non-condensing)
Safety performance level (EN ISO 13849-1)			None
Shock resistance			50 g, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 11 ms, 3 Impacts
SIL (IEC 61508)			None
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			90 V AC
Supply voltage at AC, 60 Hz - max			264 V AC
Supply voltage at AC, 60 Hz - min			90 V AC
Supply voltage at DC - max			0 V DC
Supply voltage at DC - min			0 V DC
Terminal capacity (flexible with ferrule AWG)			Secondary side: 18 - 12 Primary side: 18 - 12
Terminal capacity (flexible with ferrule)			Secondary side: 0.82 - 3.3 mm <sup>2</sup> Primary side: 0.82 - 3.3 mm <sup>2</sup>
Tripping characteristic			B
Vibration resistance			10 - 500 Hz at 30 m/s <sup>2</sup> (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
Width in number of modular spacings			2.3

## 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)			
1st secondary output voltage	V		21.6 - 26
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			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		10
Nominal value output current 2	A		0
Nominal value output current 3	A		0
Short-circuit-proof			No
Rated supply voltage AC 50 Hz	V		90 - 264
Rated supply voltage AC 60 Hz	V		90 - 264
Rated supply voltage DC	V		0 - 0

Output voltage stabilized		Yes
Power consumption	VA	273
Power output	W	240
Stabilized		No
Type of electric connection		Screw connection
Rail mounting possible		Yes
Wall mounting possible		No
Modular version		No
Width in number of modular spacings		2.3
Built-in width	mm	40
Built-in height	mm	123.6
Direct mounting possible		No
Width	mm	40
Height	mm	116.8
Depth	mm	123.6
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)		