Power supplies and transformers

Power supplies for DC control circuits
Regulated switch mode power supplies
Phaseo Modular range

Technical characteristics

Power supply type			ABL 8MEM24003	ABL 8MEM24006	ABL 8MEM24012	ABL 7RM24025
Certifications			cULus 508, cCSAus (CSA 22.2 No 950-1), TUV 60950-1, CE, C-Tick			cULus 508, CSA, TUV 60950-1, CE, C-Tick
Conformity to standards	Safety		IEC/EN 60950-1, SELV			
	EMC		IEC/EN 61000-6-2, EN 61000-6-3, IEC/EN 61204-3, EN 55022 Class B			
Input circuit						
LED indication			No			
Input values	Nominal voltage	**V**	100…240 ~			
	Limit voltage	**V**	85…264 ~ 120…250 ⎓ *(1)*			85…264 ~
	Current consumption	**A**	0.25 (100 V ~) 0.18 (240 V ~)	0.4 (100 V ~) 0.25 (240 V ~)	0.65 (100 V ~) 0.4 (240 V ~)	1.2 (120 V ~) 0.7 (240 V ~)
	Permissible frequencies	**Hz**	47…63			
	Maximum inrush current	**A**	20			90 for 1 ms
	Power factor		> 0.5			
	Efficiency at nominal load		> 78%	> 80%	> 82%	> 84%
	Dissipated power at nominal load	**W**	2	3.8	6.6	11.4
Output circuit						
LED indication			Green LED			
Nominal output values	Voltage (U_{Out})	**V**	24 ⎓			
	Current	**A**	0.3	0.6	1.2	2.5
	Power	**W**	7	15	30	60
Precision	Output voltage	**V**	Adjustable from 22.8 to 28.8			
	Line and load regulation		± 3%			
	Residual ripple - noise	**mV**	250			200
Holding time for I max.	U_{In} = 100 V ~	**ms**	⩾ 10			
	U_{In} = 230 V ~	**ms**	⩾ 150			
Protection	Against short-circuits		Permanent			
	Against undervoltages	**V**	–			< 19
	Thermal		Yes		–	
Operating and environmental characteristics						
Connections	Input	**mm²**	2 x 0.14…2.5 screw terminals (26…14 AWG)			
	Output	**mm²**	2 x 0.14…2.5 screw terminals (26…14 AWG)		4 x 0.14…2.5 screw terminals (26…14 AWG)	
Mounting			On ⊓ rail, 35 x 7.5 mm and 35 x 15 mm or on panel (2 x ∅ 4 mm)			
Operating position	On vertical plane		Vertical			
Connections	Series		Possible, see page 15			
	Parallel		Possible, see page 15			
Environment	Operating temperature	**°C**	- 25…+ 70 (derating from 55°C, see page 15)			- 25…+ 55
	Storage temperature	**°C**	- 40…+ 70			
	Relative humidity		90% during operation 95% in storage			
	Degree of protection		IP 20 conforming to IEC/EN 60529			
	Vibrations acc. to IEC/EN 61131-2		3...11.9 Hz amplitude 3.5 mm and 11.9 -150 Hz acceleration 2 g			
Protection class according to VDE 0106 1			Class II			
Dielectric strength 50 Hz for 1 min	Input/output	**V rms**	3000 ~			
Input fuse incorporated			Yes (not interchangeable)			
Emissions according to EN 61000-6-3			EN 50081-1 (generic)			
	Radiation		EN 55022 Class B			
	Conducted on the power line		EN 55022 Class B			
	Harmonic currents		IEC/EN 61000-3-2			
Immunity according to IEC/EN 61000-6-2	Electrostatic discharge		IEC/EN 61000-4-2 (6 kV contact/8 kV air)			IEC/EN 61000-4-2 (4 kV contact/8 kV air)
	Radiated electromagnetic fields		IEC/EN 61000-4-3 level 3 (10 V/m)			
	Induced electromagnetic fields		IEC/EN 61000-4-6 level 3 (10 V/m)			
	Rapid transients		IEC 61000-4-4 (4 kV)			
	Surges		IEC/EN 61000-4-5 (1 kV)			
	Primary outages		IEC 61000-4-11 (voltage dips and interruptions)			

(1) cULus 508, cCSAus and TUV 60950-1 certifications are not valid for DC input voltages.

Presentation: page 12 References: page 17 Dimensions: page 17 Schemes: page 17