



Low Profile DC-DC Converters

- ◆ Industry Standard Footprints
- ◆ Less than .35" Profile
- ◆ Wide Input Range 2:1
- ◆ Agency Approved
- ◆ 12V, 24V and 48V Inputs
- ◆ 2 year Warranty

PM Features and Benefits

Feature	Benefit
◆ Meets UL, CSA, EN, CE, ETSI standards	◆ Easier system approvals
◆ 100% SMT Technology	◆ High Reliability
◆ Fast delivery for production quantities	◆ Reduced Inventory

Specifications

MODELS		PM10	PM20	PM30
ITEMS				
DC Input	VDC	12V: 9-18V, 24V: 18-36V, 48V: 36-75V		
Input Line Transients (100ms max)	-	12V input: 25V, 24V input models 50V 48V input: 100V ETSI Standard ETS 300132 (100V 10 joules)		
No Load Input Power	-	0.4W		
Inrush Current Limiting	-	ETSI-300-132 (<50A peak)		
EMI (24V&48V I/P models) (1)	-	EN55022 B, FCC B, ANSI 63.12-1987		
Output Voltage Accuracy	-	Single output: $\pm 1\%$, Dual output: $\pm 1.5\%$		
Output Voltage Adj. Range (Trim)	-	None	Output 1: $\pm 10\%$	
Line Regulation (typical)	-	0.2%		Main 0.2%, Aux 3%
Load Regulation (typical) (2)	-	Single / main output: 1.0%, Dual: 2%, PM30xxT aux outputs: 8%		
Minimum Loading	-	A minimum load of 0.1A is required on outputs 2 and 3 in order for the converter to turn-on. Regulation values pertain to operation with output currents above 10% of rated load current on main output and above 25% of rated current on auxiliary outputs.		
Ripple and Noise (Peak to peak)	-	3V & 5V Outputs: 75mV, 12V & 15V Outputs: 100mV(3)		
Overvoltage Protection	-	Output is clamped at factory set level		
Short Circuit Protection	-	Main output: Continuous, Aux outputs: 30ms max		
Cooling	-	Convection		
Operating Temp. Range	-	-40°C to +70°C	-40°C to +60°C	-40°C to +50°C
Temperature Coefficient	-	Outputs 1 & 2: $\pm 0.015\%/^{\circ}\text{C}$, PM30xxT aux outputs: $\pm 0.03\%/^{\circ}\text{C}$		
Humidity (non condensing)	-	5% to 95% RH		
Isolation Resistance	Ohm	10M		
Isolation Voltage (Input to output)	-	12V & 24V input models: 700VDC, 48V input: 1500VDC		
Vibration and Shock	-	2.5G, 10-50Hz, 10 minutes per axis		
Remote On / Off	-	None	Low = OFF	
Safety Agency Approval	-	UL, CSA, EN60950 and CE Mark		
Size (L x W x H)	in	2x1x0.33	2x1.6x0.33	3x2.5x0.33
Warranty	-	Two Years		

Note: See Installation Manual for full details, test methods of parameters & app. notes
(1) With external filter

(2) For a 25 to 100% load change, >5W load on output 1 for PM30xxT
(3) 120mV pk pk on outputs 2 & 3 of triple output PM30

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