

PRM10 Series,10Watt

FEATURES:

- ✓ Universal input: 85~305VAC 47~63Hz
- ✓ Regulated single output
- ✓ Energy saving, standby power only less than 0.1W
- ✓ Typical efficiency 78 ... 85%
- ✓ Isolation voltage 4000VAC
- ✓ 100% burn-in test
- ✓ 3 year warranty



MODEL LIST

Model	Input voltage (Vac)	Output voltage (Vdc)	Output current (mA)	Efficiency Typ.	Maximum capacitive load
PRM10-3	85-305VAC	3.3	2500	78	6600uF
PRM10-5	85-305VAC	5	2000	82	5000uF
PRM10-9	85-305VAC	9	1111	84	3000uF
PRM10-12	85-305VAC	12	833	85	2000uF
PRM10-15	85-305VAC	15	666	85	1500uF
PRM10-24	85-305VAC	24	416	85	680uF

ELECTRICAL PARAMETER

PARAMETERS	CONDITION	MIN.	TYP.	MAX.	UNIT
Input voltage range	AC in	85	---	305	VAC
	DC in	100	---	430	VDC
Input frequency		47	---	63	Hz
Nominal input voltage		100	---	277	VAC
Input current	115VAC	---	---	0.18	A
	230VAC	---	---	0.12	A
Inrush current Cold start	115VAC	---	35	---	A
	230VAC	---	70	---	A
Leakage current	277VAC, 50Hz	---	---	0.6	mA RMS
Output voltage accuracy		---	±3	---	%
Line regulation	Full load	---	±0.5	---	%
Load regulation <small>I_{OUT}=0%~100% of I_{OUT}, rated</small>		---	±1.0	---	%
Ripple and noise <small>20MHz bandwidth, peak to peak</small>		---	150	200	mV

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Temperature efficiency		---	±0.03	---	%/°C
Standby power consumption		---	0.1	---	W
Hold up time Full load	115VAC	---	10	---	mS
	230VAC		50		
Over load protection	Automatic recovery	115	---	190	% Iout,rated
Over voltage protection	VOUT=3.3, 5V		8.5		VDC
	VOUT=9, 12V	---	20	---	
	VOUT=15V		24		
	VOUT=24V		34		
Short circuit protection	Continuous, hiccup mode, automatic recovery				
Built in fuse	2A, 300V, slow blow				
Minimum load	No minimum load is required				
Isolation voltage 1 minute, leakage current 5mA max	I/P to O/P	4000	---	---	VAC
Isolation resistance 500VDC, 25°C, 70%RH	I/P to O/P	100	---	---	M Ohm
Switching frequency		---	65	---	KHz
Operating temperature range	See "Derating Curve"	-40	---	85	°C
Storage temperature		-40	---	105	°C
Storage humidity		10	---	95	%RH
Maximum case temperature		---	---	95	°C
Soldering temperature	Wave	---	260	---	°C
Case material	Black plastic UL94-V0				
Cooling method	Free air convection				
Vibration	10Hz to 55Hz, 10G, 30 minutes along X, Y and Z axis				
Class II power	Yes, no FG				
MTBF	MIL-HDBK-217F	> 1,000,000 Hours, 25°C			

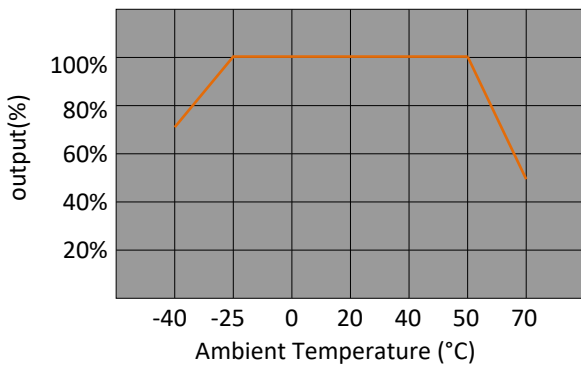
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ELECTRICAL PARAMETER

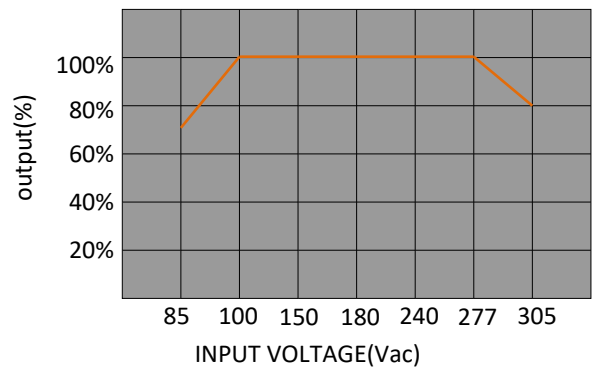
Design based on standards	RoHS & REACH directives, IEC/EN/UL 62368-1, OVC II, EN 60335-1, EN 61558-1, UKCA
Safety certifications	IEC/EN/UL 62368-1, EN 60335-1, EN 61558-1, UKCA
EMC	CE CISPR32, EN55032 Class B with "NO External Circuit"
	ESD IEC/EN61000-4-2, Contact ±8kV, Air ±15kV, Criteria B
	RS IEC/EN61000-4-3, 10V/m, Criteria A
	EFT IEC/EN61000-4-4, ±2kV, Criteria B
	Surge IEC/EN61000-4-5, Line to Line ±2kV, Criteria B
	CS IEC/EN61000-4-6, 10Vrms, Criteria A
Size, and Weight	45.7x25.4x21.5 mm, 37g
	350pcs/carton, size: 460x350x285mm, 14Kg G.W.

DERATING CURVES

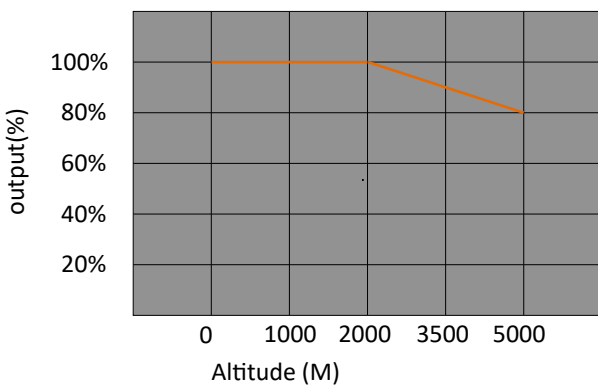
Output vs Ambient Temperature



Output vs Input Voltage

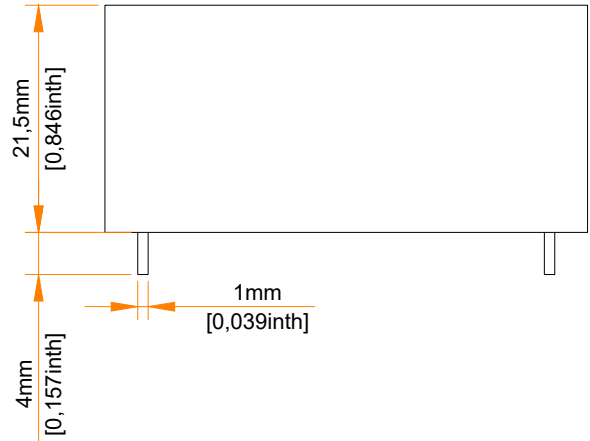
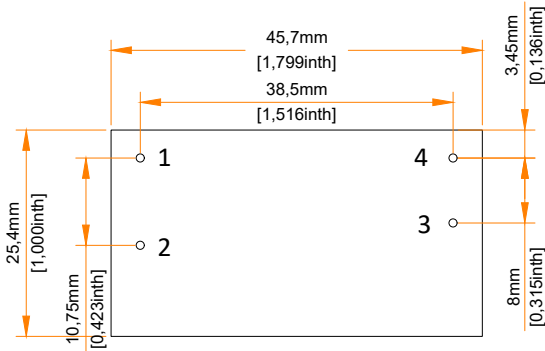


Output vs Altitude



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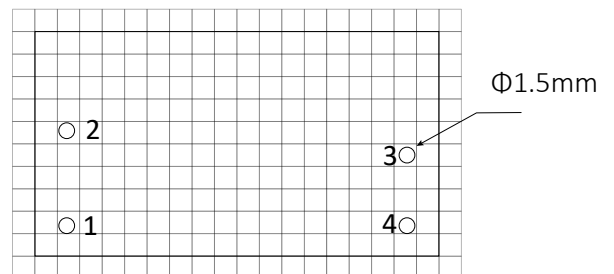
MECHANICAL SPECIFICATIONS



PIN DEFINITION

Pin #	Single Out
1	AC (L)
2	AC (N)
3	+VOUT
4	-VOUT

PCB layout



- * Unless otherwise specified unit: mm [inch]
- * General tolerance: ± 1.00 [± 0.040]
- * Pin thickness: ± 0.15 [± 0.006]
- * Pin distance: ± 0.50 [± 0.020]
- * Footprint grid 2.54 x 2.54 mm