

PRM15 Series,15Watt

FEATURES:

- ✓ Universal input: 85~305VAC 47~63Hz
- ✓ Regulated single output
- ✓ Energy saving, standby power only less than 0.1W
- ✓ Typical efficiency 81 ... 87%
- ✓ 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
PRM15-3	85-305VAC	3.3	4000	81	8000uF
PRM15-5	85-305VAC	5	3000	85	8000uF
PRM15-9	85-305VAC	9	1670	85	5400uF
PRM15-12	85-305VAC	12	1250	86	4000uF
PRM15-15	85-305VAC	15	1000	87	3000uF
PRM15-24	85-305VAC	24	625	87	1000uF

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	---	---	0.5	A
	230VAC	---	---	0.3	A
Inrush current Cold start	115VAC	---	20	---	A
	230VAC	---	45	---	A
Leakage current	277VAC, 50Hz	---	---	0.1	mA RMS
Output voltage accuracy		---	±1.5	---	%
Line regulation	Full load	---	±0.5	---	%
Load regulation IOUT=0%~100% of IOUT, rated		---	±1.0	---	%
Ripple and noise 20MHz bandwidth, peak to peak		---	100	150	mV

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Temperature coefficient		---	±0.02	---	%/°C
Standby power consumption	VOUT=24.0V	---	0.12	---	W
	Others	---	0.10	---	
Hold up time Full load	115VAC	---	8	---	mS
	230VAC	---	50	---	
Over current protection	Automatic recovery	110	---	---	% IOUT
Over voltage protection	VOUT=3.3, 5V		7.5		
	VOUT=9, 12V	---	15	---	VDC
	VOUT=15V		20		
	VOUT=24V		30		
Short circuit protection	Continuous, hiccup mode, automatic recovery				
Built in fuse	3.15A, 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	---	70	°C
Storage temperature		-40	---	85	°C
Storage humidity		10	---	95	%RH
Maximum case temperature		---	---	95	°C
Soldering temperature	Wave	---	260	---	°C
	Manual		360		
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	> 1,500,000 Hours, 25°C			

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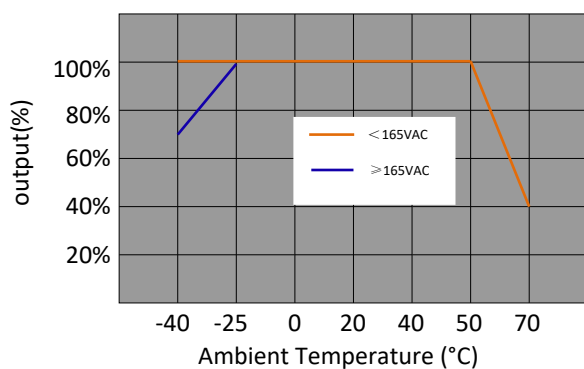
ELECTRICAL PARAMETER

Design based on standards	RoHS5 compliant, all materials meet UL94V-0, product designed to meet UL62368-1, IEC/EN62368-1, EN55032
Safety certifications	IEC/EN62368-1, UL62368-1 *Pending*
EMC	CISPR32, EN55032 Class B with NO external circuit IEC/EN61000-4-2, 3, 4, 5, 6, 8, 11
Size, and Weight	52.4x27.2x24mm, 55g

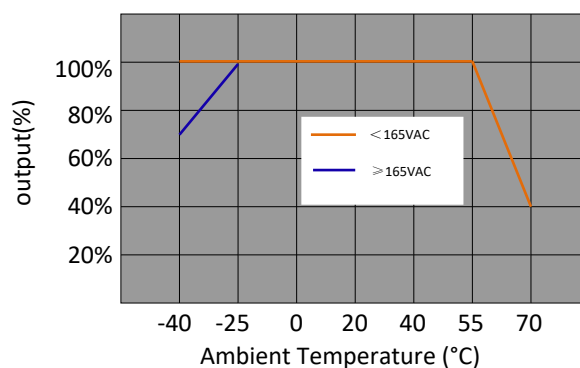
DERATING CURVES

Output vs Ambient Temperature

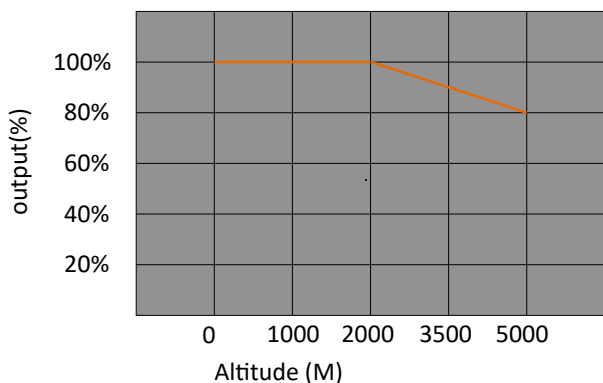
VOUT=3.3V, 5V,9V



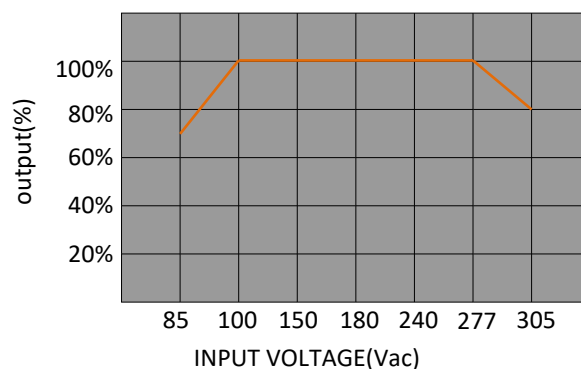
VOUT=12V, 15V, 24V



Output vs Altitude

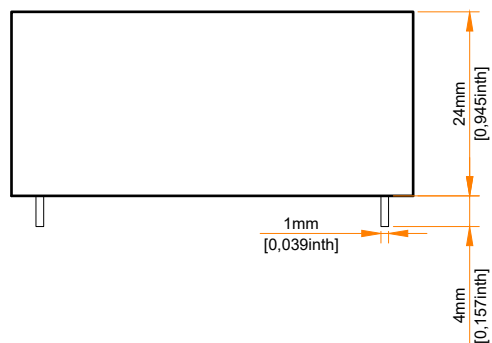
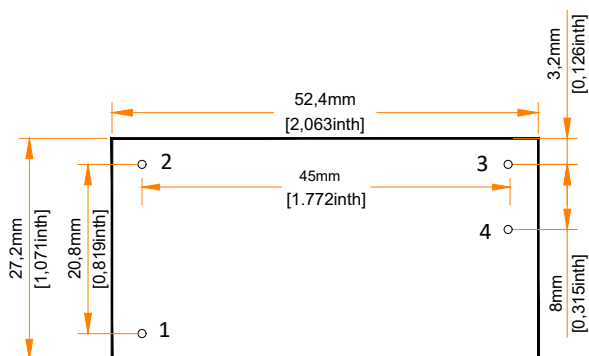


Output vs Input Voltage



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MECHANICAL SPECIFICATIONS



PIN DEFINITION

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

* 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

PCB layout

