

POWERLINE - DC/DC-Converter

M-Series, 20 Watt, Surface-Mount (Single Output)



RECOM

Features

- Output Voltage Adjustment
- Output Overvoltage Protection
- High Efficiency to 88%
- Max. Operat. Temperature: 85°C
- Five-Sided Shield
- Undervoltage Lockout
- Remote On/Off Control
- Over Current Protection, unlimited Duration

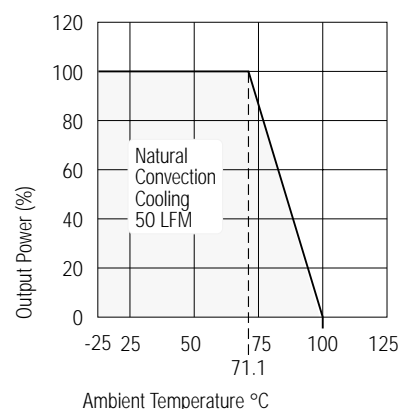


Selection Guide

Part Number	Input Range (VDC)	Output Range (VDC)	Output Current (A)	Ripple & Noise (mVp-p)	Max. Capacitor Load (µF)	Efficiency (%)
RP20-4820SM	36-75	2.0	4.00	50	1500	82
RP20-4833SM	36-75	3.3	4.00	50	1500	84
RP20-4805SM	36-75	5.0	4.00	75	1500	88
RP20-4812SM	36-75	12.0	1.67	75	330	88
RP20-4815SM	36-75	15.0	1.33	75	330	88

Specifications (typical at nominal input and 25°C unless otherwise noted)

Input Voltage Range 48V Nominal	36-75VDC	
Input Filter	LC Type	
Output Voltage Set-Point Accuracy	±1%	
Ripple and Noise (20MHz BW)	See table above	
Line Regulation, HL-LL	±0.2%	
Load Regulation (100% to 10% full load)	±0.5%	
External Trim Adjustment Range	±10% typ.	
Efficiency	See Table	
Temperature Coefficient	±0.02%/°C	
Short Circuit Protection	Continuous. auto recovery	
Transient Response Recovery Time (25% load step change)	500µ s	
Transient Voltage Peak Deviation	300mV, max.	
Control Voltage (referenced to negative (-) input)	Compatibility	CMOS, TTL
	On-Control	4.8V min. or open
	Off-control	0.4V max. or short
Switching Frequency	300kHz, typ.	
Isolation Voltage	1600VDC min.	
Isolation Resistance	10 ⁹ Ω min.	
Operating Temperature Range	-25°C to +71°C +85°C (see Graph)	
Case Temperature	100°C max.	
Storage Temperature Range	-55°C to +105°C	
Cooling	Free-air convection	
EMI / RFI	Five-sided shield	
Case Material	Non-conductive black plastic	
Dimensions	49.5 x 30.2 x 10 mm	



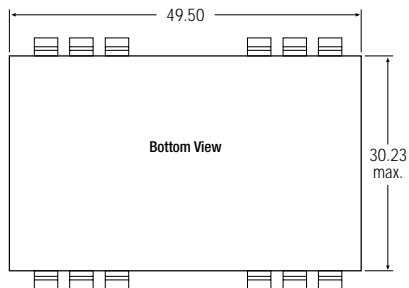
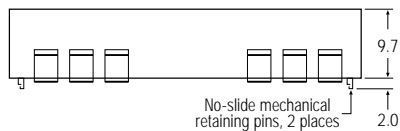
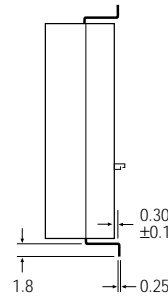
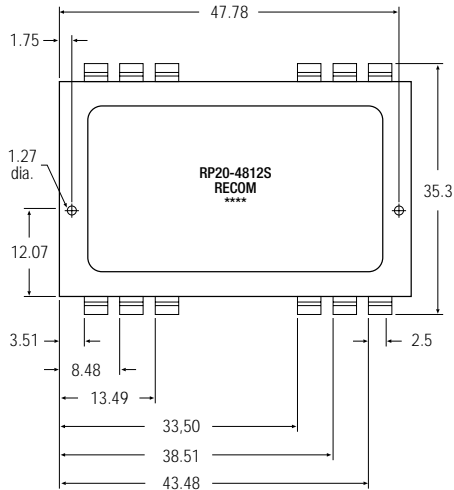
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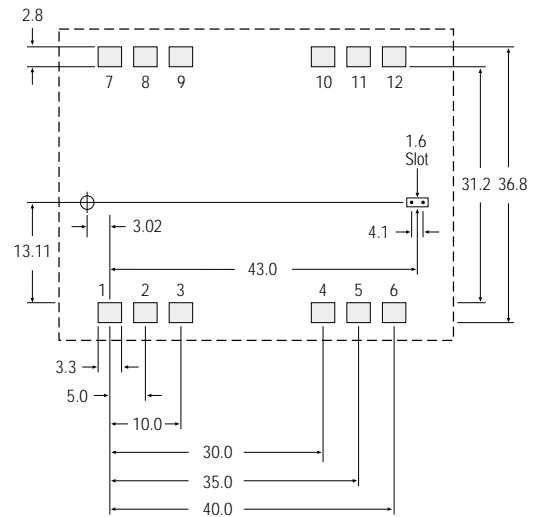
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Package Style and Pinning (mm)



Recommended Footprint Details

Caution: Care must be taken to ensure the board in the periphery of the footprint is flat.



Pin Connections

Pin #	Function	Pin #	Function
1	Vo(+)	7	Turn-On Adjustment (optional)
2	Vo(-)	8	On/Off
3	N/C+	9	Sync (optional)
4	Trim	10	N/C+
5	N/C+	11	V ₁ (-)
6	N/C+	12	V ₁ (+)

Pin Pitch Tolerances: x.x ±0.6 mm, x.xx ±0.4mm