

POWERLINE - DC/DC-Converter

H-Series, 3 Watt, Wide Input Range & High Isolation (Single & Dual Output)

RECOM

Features

- Over 2000 VRMS Input/Output Isolation
 - High Input Voltage up to 170VDC
 - Pi Input Filter
 - Wide Input Voltage Range
- Short Circuit Protection
 - 100kHz Switching Frequency
 - MTBF 2.377 x 10⁵ Hours
 - 2 Year Warranty
 - Non Conductive Black Plastic



Selection Guide 24V, 48V and 120V Input Types

Part Number	Input Range	Output Voltage	Output Current	Efficiency (%)
RP03-2405SH	10-36 VDC	5 VDC	600 mA	72
RP03-2412SH	10-36 VDC	12 VDC	250 mA	75
RP03-2415SH	10-36 VDC	15 VDC	200 mA	75
RP03-2405DH	10-36 VDC	±5 VDC	±300 mA	72
RP03-2412DH	10-36 VDC	±12 VDC	±125 mA	75
RP03-2415DH	10-36 VDC	±15 VDC	±100 mA	75
RP03-4805SH	20-75 VDC	5 VDC	600 mA	74
RP03-4812SH	20-75 VDC	12 VDC	250 mA	77
RP03-4815SH	20-75 VDC	15 VDC	200 mA	78
RP03-4805DH	20-75 VDC	±5 VDC	±300 mA	74
RP03-4812DH	20-75 VDC	±12 VDC	±125 mA	77
RP03-4815DH	20-75 VDC	±15 VDC	±100 mA	77
RP03-12005SH	40-170 VDC	5 VDC	600 mA	71
RP03-12012SH	40-170 VDC	12 VDC	250 mA	74
RP03-12015SH	40-170 VDC	15 VDC	200 mA	74
RP03-12005DH	40-170 VDC	±5 VDC	±300 mA	71
RP03-12012DH	40-170 VDC	±12 VDC	±125 mA	74
RP03-12015DH	40-170 VDC	±15 VDC	±100 mA	74

Maximum Capacitive Load

RP03-xx05SH	1000µF
RP03-xx12SH	150µF
RP03-xx15SH	100µF
RP03-xx05DH	±470µF
RP03-xx12DH	±75µF
RP03-xx15DH	±47µF

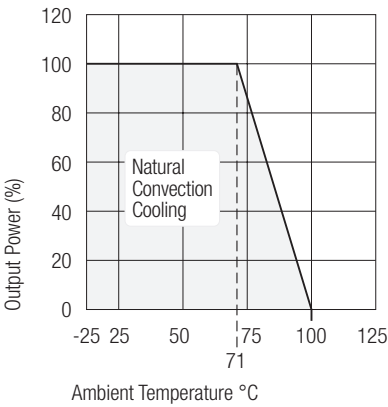
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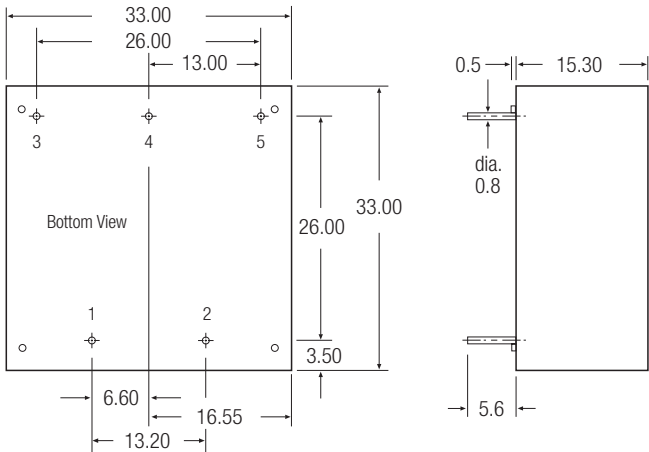
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Specifications (typical at nominal input and 25°C unless otherwise noted)

Input Voltage Range	24V types nominal	10-36V
	48V types nominal	20-72V
	120V types nominal	40-170V
Input Filter	Pi Type	
Voltage Accuracy	±3%	
Voltage Balance, Dual Outputs	1.5%	
Ripple and Noise, 20MHz BW	50mVp-p	
Line Regulation, HL-LL	±0.1%	
Load Regulation, FL-1/4FL	±0.2%	
Temperature Coefficient	±0.02%/°C	
Short Circuit Protection	Continuous	
Transient Response, 25% Load Step Change	500µsec	
Switching Frequency	100kHz, typ.	
Isolation Voltage	2kV RMS	
Isolation Resistance	10 ⁹ Ω	
Operating Temperature Range	-25°C to +71°C	
Storage Temperature Range	-55°C to +125°C	
Cooling	Free-air Convection	
Case Material	Non-Conductive Black Plastic	
Dimensions	33.1 x 33.1 x 15.3 mm	
MTBF (MIL-HDBK-217F TA = 25°C full load)	2.377 x 10 ⁵ Hours	



Package Style and Pinning (mm)



Pin Connections

Pin #	Single	Dual
1	+Vin	+Vin
2	-Vin	-Vin
3	+Vout	+Vout
4	No Pin	Common
5	-Vout	-Vout

NC = No Connection

Pin Pitch Tolerance ±0.3 mm