

# POWERLINE - DC/DC-Converter

C-Series, 3 Watt, DIP24, Regulated & Wide Input Range (Single & Dual Output)

# RECOM

## Features

- 3 Watts in DIP24 Package
- 9-18V, 18-36V, and 36-75V Input
- Typical Efficiency up to 80%
- Regulated Outputs
- Over Current Protection, Continuous
- Low Profile, 10.2 mm Height
- No Derating to 71°C
- MTBF1.179 x 10<sup>6</sup> Hours
- No other Components required
- Five-Sided EMI Shield
- 2 Year Warranty
- Standard and SMT-Pinning
- International Safety Standard Approvals
- UL 1950 E 196683 Recognized



## Selection Guide 12V, 24V and 48 V Input Types

Part Number	Input Range	Output Voltage	Output Current	Efficiency (%)
RP03-1205SC	9-18 VDC	5 VDC	500 mA	76
RP03-1212SC	9-18 VDC	12 VDC	250 mA	81
RP03-1215SC	9-18 VDC	15 VDC	200 mA	80
RP03-1205DC	9-18 VDC	±5 VDC	±250 mA	77
RP03-1212DC	9-18 VDC	±12 VDC	±125 mA	80
RP03-1215DC	9-18 VDC	±15 VDC	±100 mA	81
RP03-2405SC	18-36 VDC	5 VDC	500 mA	74
RP03-2412SC	18-36 VDC	12 VDC	250 mA	79
RP03-2415SC	18-36 VDC	15 VDC	200 mA	79
RP03-2405DC	18-36 VDC	±5 VDC	±250 mA	74
RP03-2412DC	18-36 VDC	±12 VDC	±125 mA	77
RP03-2415DC	18-36 VDC	±15 VDC	±100 mA	79
RP03-4805SC	36-75 VDC	5 VDC	500 mA	76
RP03-4812SC	36-75 VDC	12 VDC	250 mA	81
RP03-4815SC	36-75 VDC	15 VDC	200 mA	82
RP03-4805DC	36-75 VDC	±5 VDC	±250 mA	74
RP03-4812DC	36-75 VDC	±12 VDC	±125 mA	79
RP03-4815DC	36-75 VDC	±15 VDC	±100 mA	79

## Maximum Capacitive Load

RP03-xx05SC	1000µF
RP03-xx12SC	220µF
RP03-xx15SC	150µF
RP03-xx05DC	±470µF
RP03-xx12DC	±100µF
RP03-xx15DC	±68µF

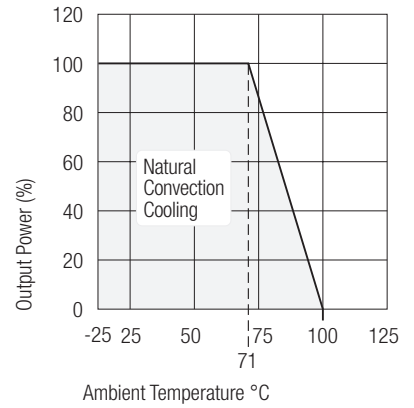
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## Specifications (typical at nominal input and 25°C unless otherwise noted)

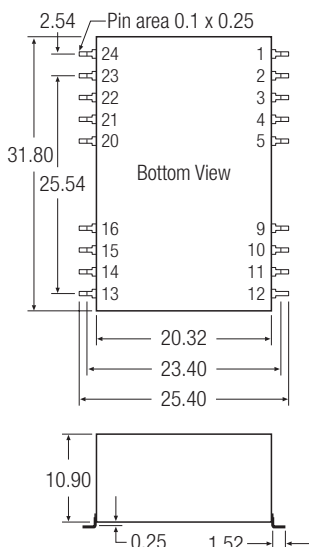
Input Voltage Range	12V types nominal	9-18V
	24V types nominal	18-36V
	48V types nominal	36-75V
Input Filter	Pi Type	
Voltage Accuracy	±2%	
Voltage Balance, Dual Outputs	±2%	
Ripple and Noise, 20MHz BW	50mVp-p	
Line Regulation	Single Output	±0.2%
	Dual Output	±0.2%
Load Regulation, FL-1/4FL	Single Output	±0.2%
	Dual Output	±1%
Temperature Coefficient	±0.02%/°C	
Over Current Protection	Continuous	
Switching Frequency	300kHz typ.	
Isolation Voltage	500VDC	
Isolation Resistance	10 <sup>9</sup> Ω	
Isolation Capacitance	300pF max.	
Operating Temperature Range	-25°C to +71°C	
Storage Temperature Range	-55°C to +125°C	
Cooling	Free-air Convection	
EMI/RFI	Five-sided Shield	
Case Material	Nickel-Coated Copper with Non-Conductive Base	
Dimensions	31.8 x 20.3 x 10.2 mm	
MTBF (MIL-HDBK-217F TA = 25°C full load)	1.179 x 10 <sup>6</sup> Hours	



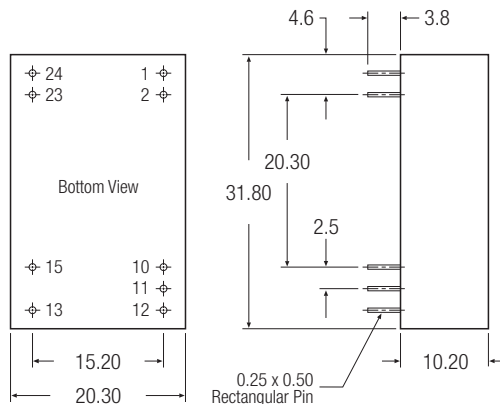
## Package Style and Pinning (mm)

### SMD Package Style

Same spec. as the original DIP spec. and pin definition, excl. of the SMD type pin.



### DIP24 Package Style



### Pin Connections

Pin #	Single	Dual
1	+Vin	+Vin
2	+Vin	+Vin
10	NC	Common
11	NC	Common
12	-Vout	NC
13	+Vout	-Vout
15	NC	+Vout
23	-Vin	-Vin
24	-Vin	-Vin

NC = No Connection

Pin Pitch Tolerance ±0.35 mm