

# POWERLINE - DC/DC-Converter

A-Series, 8 Watt, DIP24, Regulated & Wide Input Range (Dual Output)

RECOM

## Features

- 8 Watts in DIP24 Package
- Include 3.3VDC Output
- Efficiency up to 86%
- Regulated Outputs
- Low Profile, 10.2 mm Height
- No Derating to 71°C
- No other Components required
- Five-Sided EMI Shield
- Over Current Protection, Continuous
- MTBF 7.189 x 10<sup>5</sup> Hours
- 2 Year Warranty
- Standard and SMT-Pinning
- UL 1950 Component Recognised



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

Part Number	Input Range	Output Voltage	Output Current	Efficiency (%)
RP08-1233SA	9-18 VDC	3.3 VDC	2000 mA	81
RP08-1205SA	9-18 VDC	5 VDC	1500 mA	82
RP08-1212SA	9-18 VDC	12 VDC	666 mA	86
RP08-1215SA	9-18 VDC	15 VDC	533 mA	83
RP08-1205DA	9-18 VDC	±5 VDC	±800 mA	83
RP08-1212DA	9-18 VDC	±12 VDC	±333 mA	84
RP08-1215DA	9-18 VDC	±15 VDC	±267 mA	84
RP08-2433SA	18-36 VDC	3.3 VDC	2000 mA	80
RP08-2405SA	18-36 VDC	5 VDC	1500 mA	84
RP08-2412SA	18-36 VDC	12 VDC	666 mA	83
RP08-2415SA	18-36 VDC	15 VDC	533 mA	83
RP08-2405DA	18-36 VDC	±5 VDC	±800 mA	83
RP08-2412DA	18-36 VDC	±12 VDC	±333 mA	85
RP08-2415DA	18-36 VDC	±15 VDC	±267 mA	85
RP08-4833SA	36-75 VDC	3.3 VDC	2000 mA	80
RP08-4805SA	36-75 VDC	5 VDC	1500 mA	83
RP08-4812SA	36-75 VDC	12 VDC	666 mA	84
RP08-4815SA	36-75 VDC	15 VDC	533 mA	84
RP08-4805DA	36-75 VDC	±5 VDC	±800 mA	84
RP08-4812DA	36-75 VDC	±12 VDC	±333 mA	85
RP08-4815DA	36-75 VDC	±15 VDC	±267 mA	85

## Maximum Capacitive Load

RP08-xx33SA	3300µF
RP08-xx05SA	1600µF
RP08-xx12SA	350µF
RP08-xx15SA	240µF
RP08-xx05DA	±1000µF
RP08-xx12DA	±160µF
RP08-xx15DA	±100µF

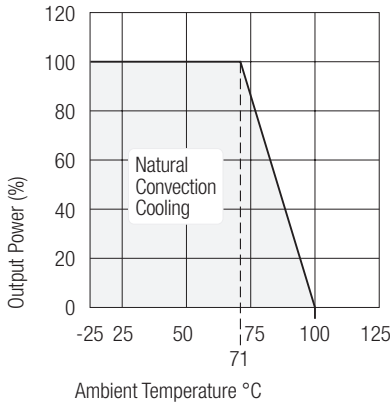
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### Specifications (typical at nominal input and 25°C unless otherwise noted)

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% max.	
	Dual Output ±0.2% max.	
Load Regulation, FL-1/4FL	Single Output ±2% max.	
	Dual Output ±1% max.	
Temperature Coefficient	±0.02%/°C	
Over Current Protection	Continuous	
Control Voltage Referenced to Negative(-)Input Compatability	CMOS, TTL	
ON-Control	4.8V min, or Open	
OFF-Control	0.4V max. or Short	
Switching Frequency	300kHz, typ.	
Isolation Voltage	1600VDC	
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)	7.189 x 10 <sup>5</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.

Bottom View dimensions: 2.54 (Pin area 0.1 x 0.25), 31.80, 25.54, 20.32, 23.40, 25.40.

Side View dimensions: 10.90, 0.25, 1.52.

#### DIP24 Package Style

Bottom View dimensions: 15.20, 20.30.

Side View dimensions: 4.6, 3.8, 31.80, 17.80, 10.20.

0.25 x 0.50 Rectangular Pin

Pin Pitch Tolerance ±0.35 mm

#### Pin Connections

Pin #	Single	Dual
1	ON/OFF	ON/OFF
2	-Vin	-Vin
3	-Vin	-Vin
9	NC	Com
11	NC	-Vout
14	+Vout	+Vout
16	-Vout	Com
22	+Vin	+Vin
23	+Vin	+Vin

NC = No Connection