

POWERLINE - DC/DC-Converter

F-Ser., 5W, DIP24, Regul. 2:1 Wide Input Range (Single & Dual Output)



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Features

- Ideal for Telecom/Networking applications
- 5 Watts in DIP24 Package
- 2:1 Wide Input Range
- Include 3.3VDC Output
- 19-18V, 18-36V and 36-75V Input
- Typical Efficiency up to 80%
- Regulated Outputs
- Low Profile, 10.2 mm Height
- No Derating to 70°C
- No other Components required
- Over Current Protection, Continuous
- MTBF 1.131 x 10⁶ Hours
- Through Hole and SMD-Pinning



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

Part Number (Suffix)	Input Range	Output Voltage	Output Current	Efficiency (%)	Max. Capacitive Load
RP05-1233SF (H)	9-18 VDC	3.3 VDC	1000 mA	72	2200µF
RP05-1205SF (H)	9-18 VDC	5 VDC	1000 mA	76	1000µF
RP05-1212SF (H)	9-18 VDC	12 VDC	470 mA	80	220µF
RP05-1215SF (H)	9-18 VDC	15 VDC	400 mA	80	150µF
RP05-1205DF (H)	9-18 VDC	±5 VDC	±500 mA	76	±680µF
RP05-1212DF (H)	9-18 VDC	±12 VDC	±230 mA	80	±100µF
RP05-1215DF (H)	9-18 VDC	±15 VDC	±190 mA	80	±68µF
RP05-2433SF (H)	18-36VDC	3.3 VDC	1000 mA	72	2200µF
RP05-2405SF (H)	18-36VDC	5 VDC	1000 mA	77	1000µF
RP05-2412SF (H)	18-36VDC	12 VDC	470 mA	80	220µF
RP05-2415SF (H)	18-36VDC	15 VDC	400 mA	80	150µF
RP05-2405DF (H)	18-36VDC	±5 VDC	±500 mA	78	±680µF
RP05-2412DF (H)	18-36VDC	±12 VDC	±230 mA	81	±100µF
RP05-2415DF (H)	18-36VDC	±15 VDC	±190 mA	81	±68µF
RP05-4833SF (H)	36-75VDC	3.3 VDC	1000 mA	72	2200µF
RP05-4805SF (H)	36-75VDC	5 VDC	1000 mA	78	1000µF
RP05-4812SF (H)	36-75VDC	12 VDC	470 mA	81	220µF
RP05-4815SF (H)	36-75VDC	15 VDC	400 mA	81	150µF
RP05-4805DF (H)	36-75VDC	±5 VDC	±500 mA	78	±680µF
RP05-4812DF (H)	36-75VDC	±12 VDC	±230 mA	81	±100µF
RP05-4815DF (H)	36-75VDC	±15 VDC	±190 mA	81	±68µF

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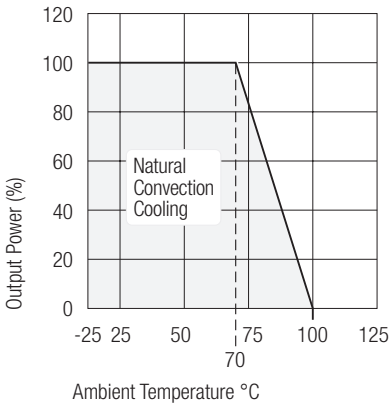
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Specifications (typical at nominal input and 25°C unless otherwise noted)

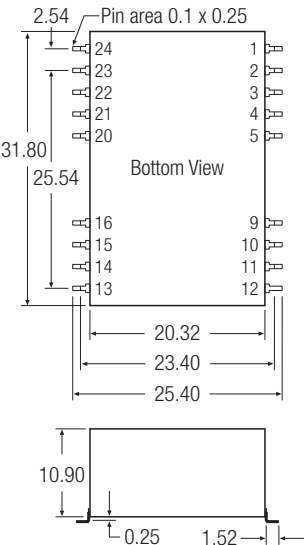
Input Voltage Range	12V types nominal	9-18V
	24V types nominal	18-36V
	48V types nominal	36-75V
Input Filter	Pi Type	
Output Voltage Accuracy	±2%	
Output Voltage Balance	Dual Outputs	±2%
Ripple and Noise, 20MHz BW	3.3/5V types	75mVp-p max.
		±1% p-p of Vout max.
Line Regulation	Single Output	±0.2% max.
	Dual Output	±0.2% max.
Load Regulation, FL-1/4FL	Single Output	±0.5%
	Dual Output	1.0%
Efficiency	See Selection Guide Table	
Temperature Coefficient	±0.02%/°C	
Over Current Protection	Continuous	
Switching Frequency	100kHz, min.	
Isolation Voltage, Standard Models		1600VDC, min.
	Suffix "H" Models	3000VDC, min.
Isolation Resistance	10 ⁹ Ω min.	
Isolation Capacitance	300pF max.	
Operating Temperature Range	-25°C to +71°C	
Storage Temperature Range	-55°C to +105°C	
Case Temperature	100°C max.	
Cooling	Free-air Convection	
Case Material	Non-Conductive Black Plastik	
MTBF (MIL-HDBK-217F TA = 25°C full load)	1.131 x 10 ⁶ Hours	
Dimensions	31.8 x 20.3 x 10.2 mm	



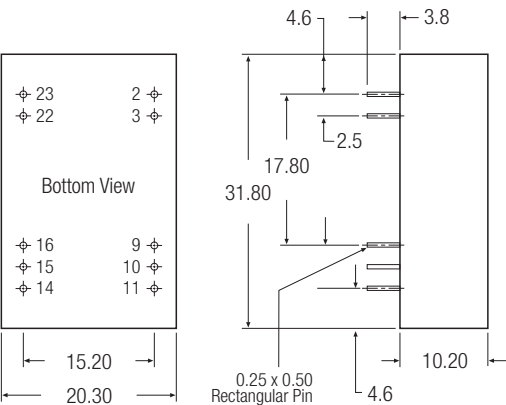
Package Style and Pinning (mm)

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
2	- Vin	- Vin
3	- Vin	- Vin
9	NC	Common
10	NC	NC
11	NC	- Vout
14	+ Vout	+ Vout
15	NC	NC
16	- Vout	Common
22	+ Vin	+ Vin
23	+ Vin	+ Vin

NC = No Connection