

POWERLINE - DC/DC-Converter

E-Series, 30 Watt, 1.6 kV Isolation & Wide Input Range (Single Output)

RECOM

Features

- Ideal for Telecom/Networking Application
- 2:1 Input Range
- Efficiency up to 91%
- Six-Sided Shield
- On/Off Control
- Small Package
50.8 x 40.6 x 10.2 mm
- Over Current Protection
- International Safety Standard Approvals
- UL 1950 Component Recognised



Selection Guide 24V and 48V Input Types

Part Number	Input Range	Output Voltage	Output Current	Ripple & noise	Efficiency (%)
RP30-2418SE	18-36 VDC	1.8 VDC	6.00 A	50 mVp-p	82
RP30-2433SE	18-36 VDC	3.3 VDC	6.00 A	50 mVp-p	86
RP30-2405SE	18-36 VDC	5 VDC	6.00 A	50 mVp-p	88
RP30-2412SE	18-36 VDC	12 VDC	2.50 A	75 mVp-p	91
RP30-4818SE	36-75 VDC	1.8 VDC	6.00 A	50 mVp-p	83
RP30-4825SE	36-75 VDC	2.5 VDC	6.00 A	50 mVp-p	85
RP30-4833SE	36-75 VDC	3.3 VDC	6.00 A	50 mVp-p	87
RP30-4805SE	36-75 VDC	5 VDC	6.00 A	50 mVp-p	89
RP30-4812SE	36-75 VDC	12 VDC	2.50 A	75 mVp-p	91
RP30-4815SE	36-75 VDC	15 VDC	2.00 A	75 mVp-p	91

Maximum Capacitive Load

RP30-xx05SE	10200µF
RP30-xx1.8SE	6500µF
RP30-xx3.3SE	19500µF
RP30-xx05SE	10200µF
RP30-xx12SE	3300µF
RP30-xx15SE	1100µF

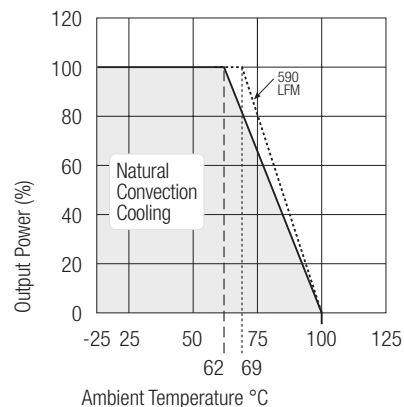
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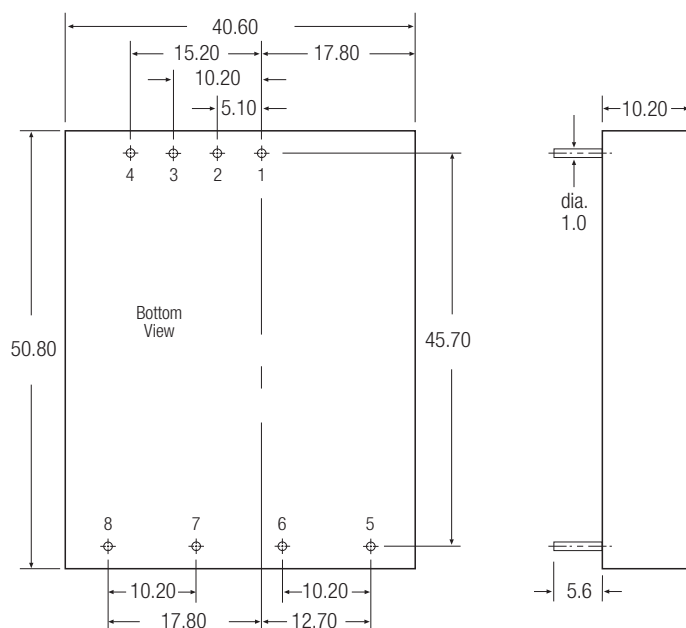
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Specifications (typical at nominal input and 25°C unless otherwise noted)

Input Voltage Range	24V nominal 48V nominal	18-36VDC 36-75VDC
Input Filter	LC Type	
Voltage Accuracy	±1%	
Ripple and Noise, 20MHz BW	See Table	
Line Regulation, HL-LL	±0.2%	
Load Regulation, 100% to 10% Full Load	±0.5%	
Efficiency	See Table	
Temperature Coefficient	±0.02%/°C	
Short Circuit Protection	Continuous	
Transient Response Recovery Time, 25% Load Step Change	400msec	
Transit voltage peak deviation	150mV max.	
Control voltage referenced to negativ(-)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	
Maximum Case Temperature	+100°C	
Operating Temperature Range	-25°C to +71°C	
Storage temperature range	-55°C to +105°C	
Cooling	Free-air convection	
EMI/RFI	Six-sided Continuous Shield	
Case Material	Nickel-Coated Copper with Non-Conductive Base	
Dimensions	50.8 x 40.6 x 10.2 mm	
MTBF (MIL-HDBK-217F TA = 25°C full load)	2 x 10 ⁶ Hours	



Package Style and Pinning (mm)



Pin Connections

Pin #	Single
1	+Vin
2	-Vin
3	No Pin
4	Ctrl
5	No Pin
6	+Vout
7	-Vout
8	Trim

Pin Pitch Tolerance ±0.5 mm