

Features

Unregulated Converters

- Safety standards and approvals: EN 60950 certified, rated for 250VAC (LVD test report)
- UL-60950-1 / CSA C22.2 certified
- 5.2kVDC Isolation
- Power Sharing
- Pin Compatible with RH & RK Series, SIP DC-DC Converters
- UL94V-0 Package Material
- Efficiency to 82%

ECONOLINE DC/DC-Converter

RP Series

Selection Guide

Part Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency (%)
RP-xx3.3S	5, 9, 12, 15, 24	3.3	303	70
RP-xx05S	3.3, 5, 9, 12, 15, 24	5	200	70-72
RP-xx09S	3.3, 5, 9, 12, 15, 24	9	111	75
RP-xx12S	3.3, 5, 9, 12, 15, 24	12	84	75-78
RP-xx15S	3.3, 5, 9, 12, 15, 24	15	66	80
RP-xx24S	3.3, 5, 9, 12, 15, 24	24	42	80
RP-xx3.3D	5, 9, 12, 15, 24	±3.3	±152	70
RP-xx05D	3.3, 5, 9, 12, 15, 24	±5	±100	74-76
RP-xx09D	3.3, 5, 9, 12, 15, 24	±9	±56	75
RP-xx12D	3.3, 5, 9, 12, 15, 24	±12	±42	79-82
RP-xx15D	3.3, 5, 9, 12, 15, 24	±15	±33	80-82
RP-xx24D	3.3, 5, 9, 12, 15, 24	±24	±21	80

xx = Input Voltage

Specifications (Core Operating Area)

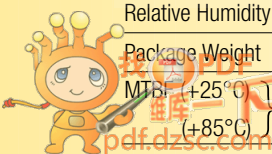
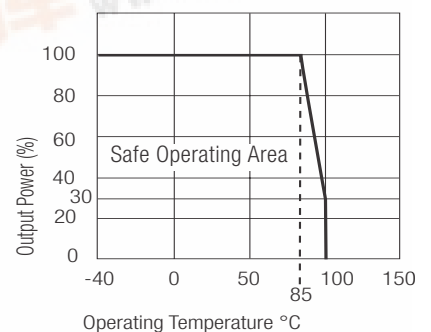
Input Voltage Range	±10%	
Output Voltage Accuracy	±5%	
Line Voltage Regulation	1.2%/1% of Vin max.	
Load Voltage Regulation (10% to 100% full load)	3.3V output types 5V output type 9V, 12V, 15V, 24V output types	20% max. 15% max. 10% max.
Output Ripple and Noise (20MHz limited)	100mVp-p max.	
Operating Frequency	57kHz min. / 100kHz typ. / 105kHz max.	
Efficiency at Full Load	70% min. / 80% typ.	
No Load Power Consumption	120mW min. / 156mW typ. / 210mW max.	
Isolation Voltage (tested for 1 second)	5.200VDC min.	
Rated Working Voltage (long term isolation)	see Application Notes	
Isolation Capacitance	4pF min. / 10pF max.	
Isolation Resistance	20 GΩ min.	
Short Circuit Protection	1 Second	
Operating Temperature Range (free air convection)	-40°C to +85°C (see Graph)	
Storage Temperature Range	-55°C to +125°C	
Relative Humidity	MSL Level 1	95% RH
Package Weight	2.4g	
MTBF (+25°C)	using MIL-HDBK 217F	928 x 10 ³ hours
MTBF (+85°C)	using MIL-HDBK 217F	151 x 10 ³ hours

1 Watt SIP 7 Single & Dual Output



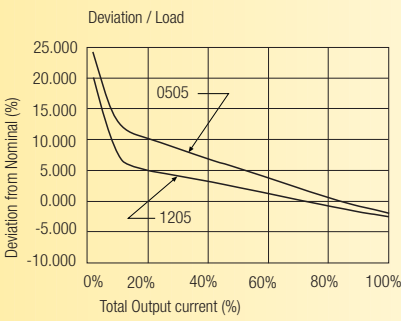
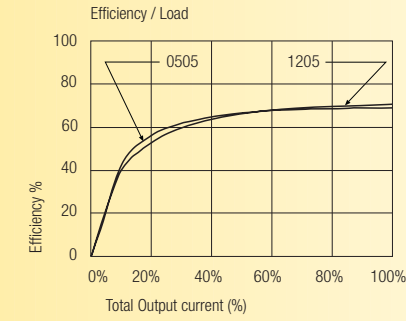
RECOM

Derating-Graph (Ambient Temperature)

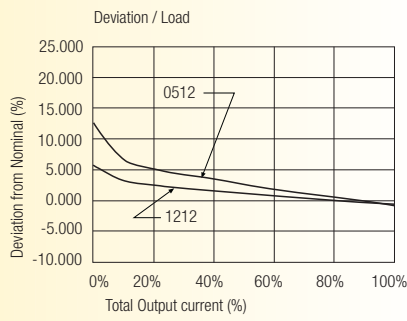
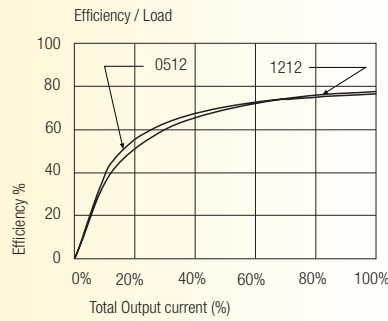


Typical Characteristics

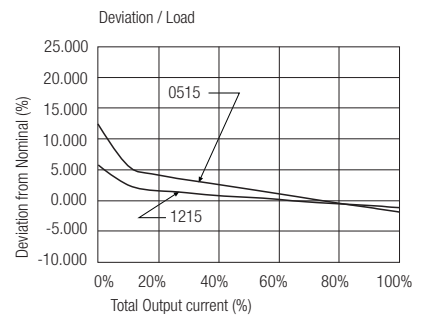
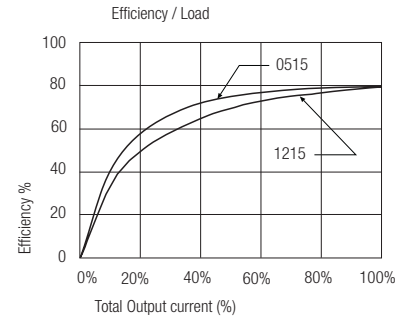
RP-xx05S



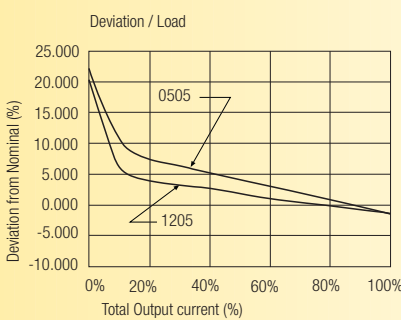
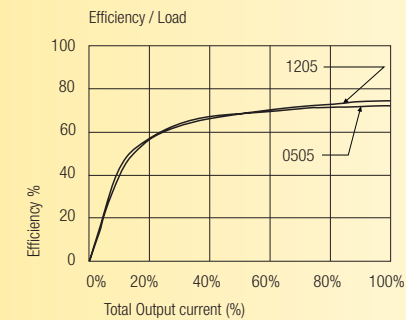
RP-xx12S



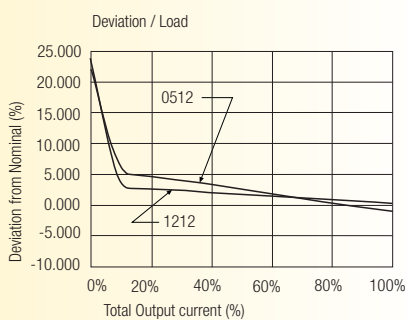
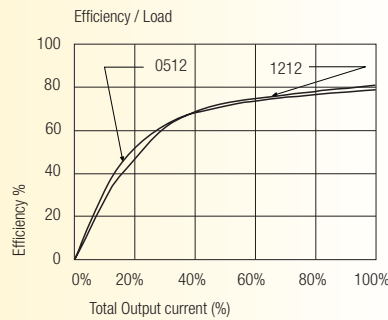
RP-xx15S



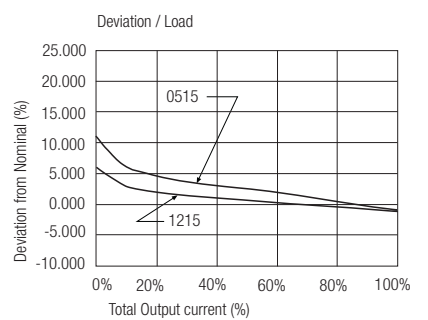
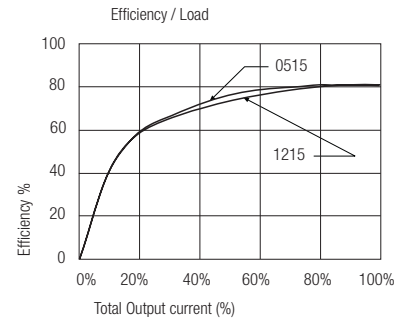
RP-xx05D



RP-xx12D

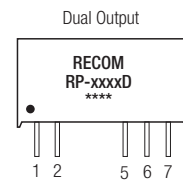
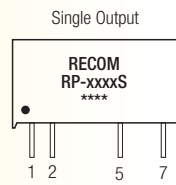
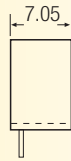
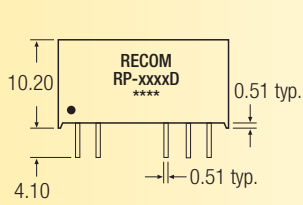


RP-xx15D

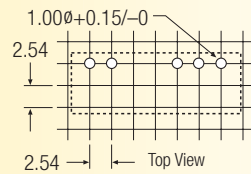
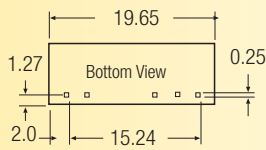


Package Style and Pinning (mm)

7 PIN SIP Package



Recommended Footprint Details



Pin Connections

Pin #	Single	Dual
1	+Vin	+Vin
2	-Vin	-Vin
5	-Vout	-Vout
6	No Pin	Com
7	+Vout	+Vout

XX.X ± 0.5 mm
XX.XX ± 0.25 mm