

EUROLINE - DC/DC-Converter

RxxVxx-Series, 2 Watt, DIP24, 6kVDC Isolation (Dual Output)

RECOM

Features

- 6kVDC Isolation
- Efficiency to 80%
- UL 94V-0 Package Material
- Internal SMD Construction
- MTTF up to 1.0 Million Hours
- BS EN 60950 Certified
- Fully Encapsulated
- UL1950 E196683 Recognised



Selection Guide 5V, 12V Input types

Part Number	Nom. Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency (%)	Isolation Capacitance (pF)	Package Style
R05V05	5	±5	±200	74	1.8	DIP24
R05V09	5	±9	±111	76	1.9	
R05V12	5	±12	±83	77	2.0	
R05V15	5	±15	±67	78	2.1	
R12V05	12	±5	±200	78	1.9	
R12V09	12	±9	±111	81	2.0	
R12V12	12	±12	±83	82	2.1	
R12V15	12	±15	±67	82	2.2	

Absolute Maximum Ratings

Input Voltage V_{IN}	05V types 12V types	7VDC 15VDC
Short Circuit Duration ¹⁾		1 s
Internal Power Dissipation		0.9W
Lead Temperature 1.5 mm from Case for 10 seconds		300°C

Electrical Specifications (measured at $T_A = 25^\circ\text{C}$, at nominal input voltage and rated output current unless otherwise specified)

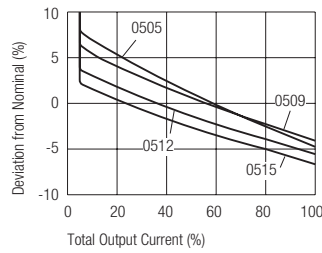
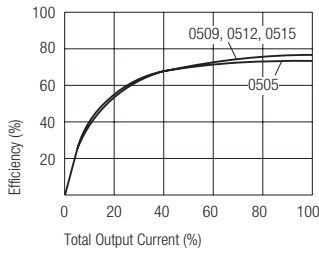
Input Voltage Range V_{IN} (continuous operation)	5V types 12V types	4.5VDC min. / 5.5VDC max. 10.8VDC min. / 13.2VDC max.
Output Voltage Accuracy (see tolerance envelope)		-7.5% min. / 10% max.
Line Regulation (high V_{IN} to low V_{IN})		1.0% typ. / 1.0% of V_{IN}
Load Regulation (10% load to rated load) (depending on the type)		6% min. / 12% max.
Output Ripple (BW=DC to 20MHz, all output types)		200mVp-p max.
Isolation Voltage (flash tested for 1 second)		6000VDC min.
Resistance ($V_{iso} = 500\text{VDC}$)		10 Ω min.
Switching Frequency at Full Load (depending on the type)		35kHz max.
Package Weight		7.5 g
Operating Temperature Range		0°C to +70°C
Storage Temperature Range		+50°C to +130°C
Temperature Rise Above Ambient (all output types)		+32°C max.
MTTF ²⁾ (depending on the type)	- 0°C +25°C +85°C	89kHrs min. / 961kHrs max. 82kHrs min. / 747kHrs max. 62kHrs min. / 311kHrs max.

¹⁾ Supply voltage must be discontinued at the end of the short circuit duration

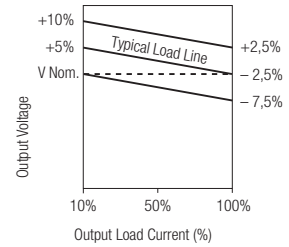
²⁾ Calculated using ML-HDBK-217F with nominal input voltage at full load.

Typical Characteristics, Tolerance Envelope and Derating Graph

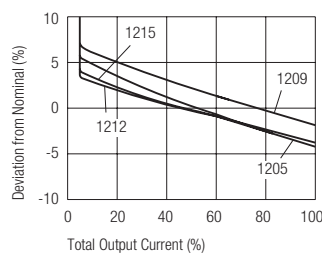
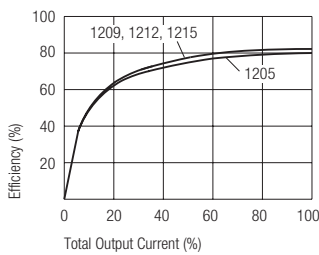
R05Vxx



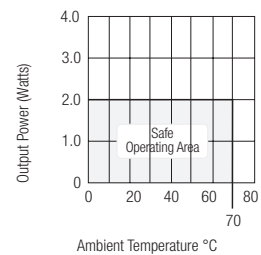
Tolerance Envelope



R12Vxx

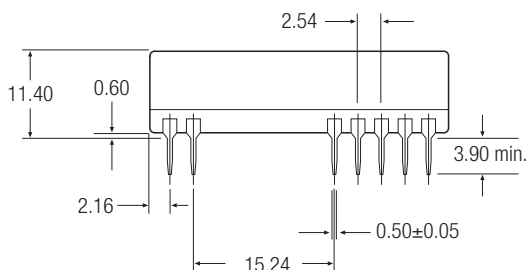
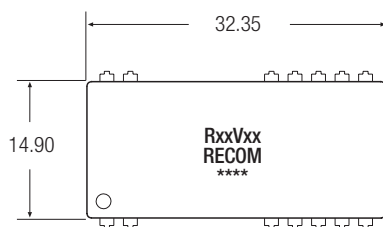
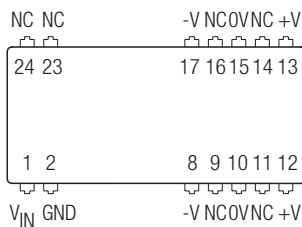


Temperature Derating Graph



Package Style and Pinning (mm)

24 PIN DIP Package Style



Recommended Footprint Details

