

# EUROLINE - DC/DC-Converter

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

# RECOM

## Features

- Safety standards and approvals:
  - EN 60950 certified, rated for 250VAC (LVD test report)
- 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 <sup>1)</sup>		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 (Viso = 500VDC)		10 GΩ 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 <sup>2)</sup> (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 MIL-HDBK-217F with nominal input voltage at full load.

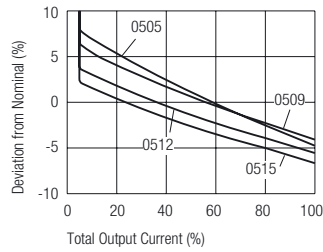
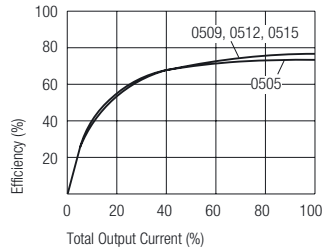
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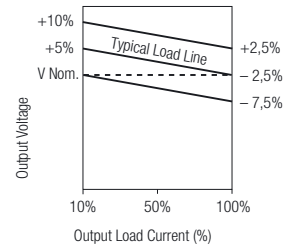
# RECOM

## Typical Characteristics, Tolerance Envelope and Derating Graph

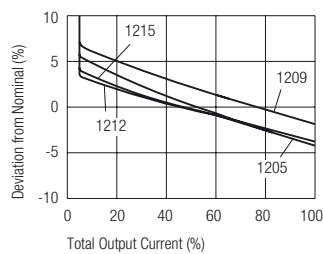
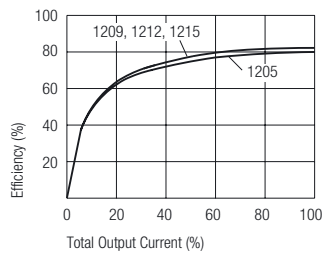
**R05Vxx**



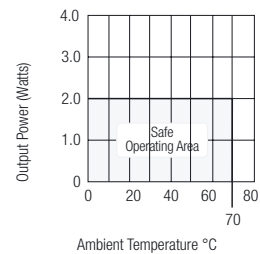
**Tolerance Envelope**



**R12Vxx**

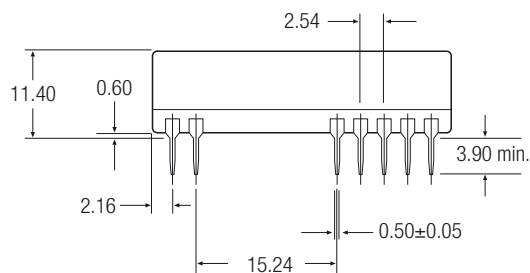
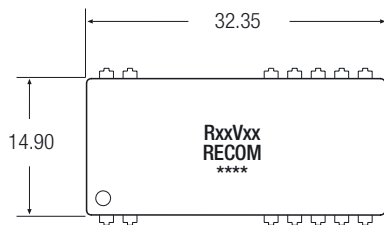
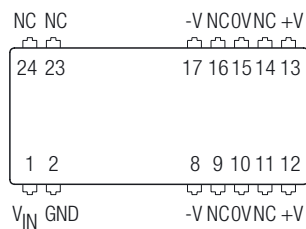


**Temperature Derating Graph**



## Package Style and Pinning (mm)

**24 PIN DIP Package Style**



**Recommended Footprint Details**

