

## Features

### Regulated Converters

- High Output Voltage DIP24 converter
- Improved Version of Rxx-100\_150A Series with higher efficiency and reduced ripple.
- Input Voltage 5, 12, 15 or 24VDC
- Adjustable Output Voltage up to 210VDC
- Cascadeable for Output Voltages up to 420VDC
- 3kVDC Input/Output Isolation
- Remote Voltage Programming by External Voltage or Resistance
- Continuous Short Circuit Protection
- Ambient Temperature up to +85°C

### Selection Guide

Part Number	Input Range (VDC)	Output Voltage Range (VDC)	Max Output Current (mA)	Efficiency at Full Load (%)
R05-100B	5 (4.5 – 6)	+40...+120	25	77
R12-100B	12 (10 – 14)	+55...+135	50	82
R15-100B	15 (14 – 17)	+55...+135	50	82
R24-100B	24 (21 – 27)	+55...+135	50	84
R12-150B	12 (10 – 14)	+95...+210	50	82
R15-150B	15 (14 – 17)	+95...+210	50	82
R24-150B	24 (21 – 27)	+95...+210	50	84

### Specifications ( typical at 25°C, nominal input voltage, full load unless otherwise specified )

Input Voltage Range	5, 12, 15 or 24VDC	
Rated Power	5V	25mA max. or 3 Watts max.
	All others	50mA max. or 5 Watts max.
Output Voltage Adjustment Range	55..135 or 95..210VDC	
Output Voltage Accuracy	±5% max	
Line Voltage Regulation	0.5% max	
Load Voltage Regulation	20% to 100% full load	0.5% max
Output Ripple and Noise	20MHz limited	60mVp-p typ.
Operating Frequency	200kHz typ.	
Efficiency at Full Load	80 ~ 86% typ.	
Isolation Voltage (tested for 1 second)	3000VDC min.	
Isolation Capacitance	20pF typ.	
Isolation Resistance	1 GΩ min.	
Short Circuit Protection	Continuous, Automatic Restart	
Short Circuit Input Current	30mA typ.	
Temperature Coefficient	±0.02%/°C	
Operating Temperature Range (free air convection)	With derating	-40°C to +85°C
	Full Power	-40°C to +70°C
Storage Temperature Range	-50°C to +125°C	
Case Material	Non-Conductive Black Plastic	
Potting Material	Epoxy (UL94V-0)	
MTBF (25°C)	Mil-Std 217F	1.4 x 10 <sup>3</sup> khours
Output Voltage Adjust	External Voltage	0 - 4VDC
	External Resistor	0 - 5kΩ
Internal Voltage Reference	Regulated 5V with 1kΩ series resistor	

**INNOLINE**  
DC/DC-Converter  
with 3 year Warranty

**RECOM**

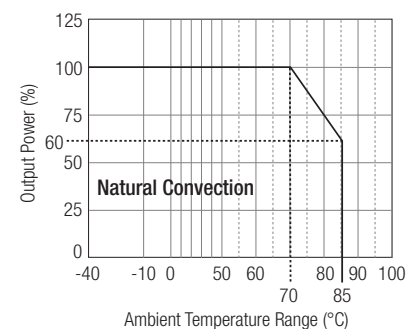
**5 Watt  
Single  
Output**



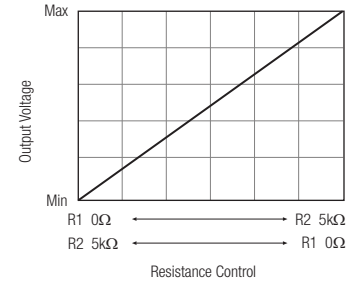
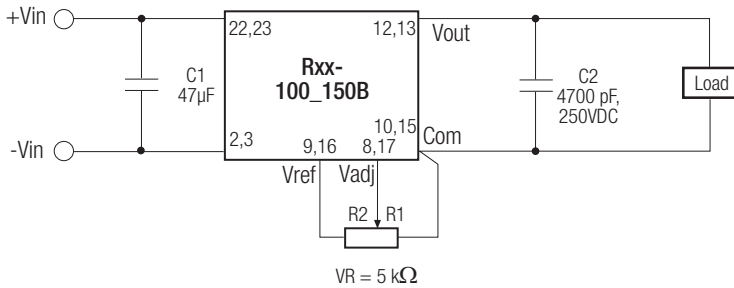
**EN-60950-1 Pending**

**Rxx-B**

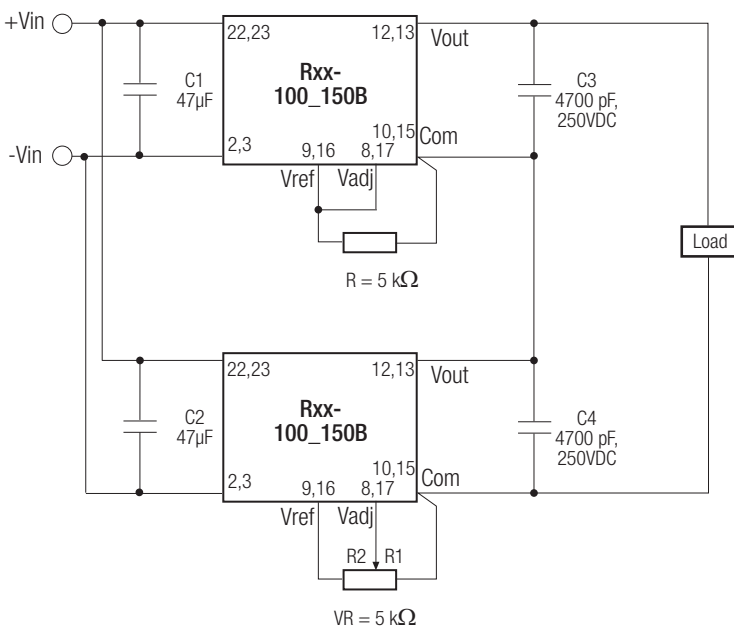
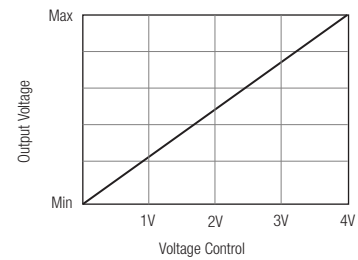
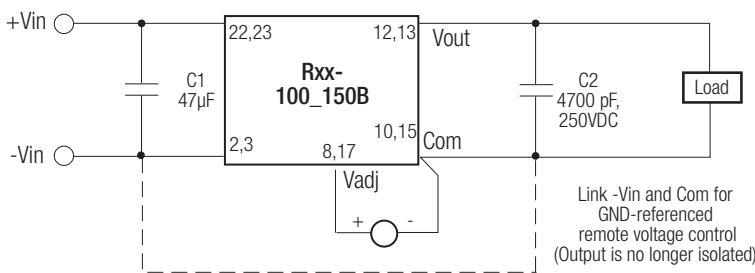
## Derating Graph (Ambient Temperature)



**Typical Applications**



**For remote voltage control**



**Cascade Combinations**

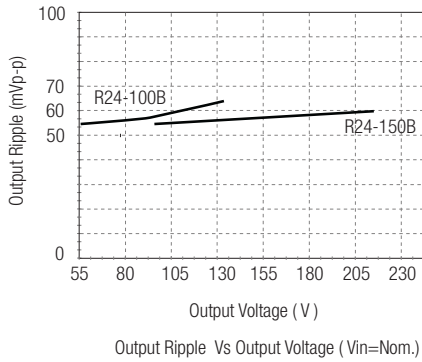
U1	U2	Vout Range
R05-100B	R05-100B	160-240
Rxx-100B	Rxx-100B	190~270
Rxx-150B	Rxx-100B	230~345
Rxx-150B	Rxx-150B	305~420

xx = 12, 15 or 24

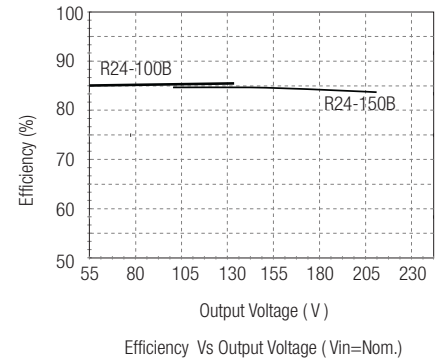
Note: When cascaded, only one Rxx-A may be adjustable, the other must be fixed voltage.

**Typical Characteristics**

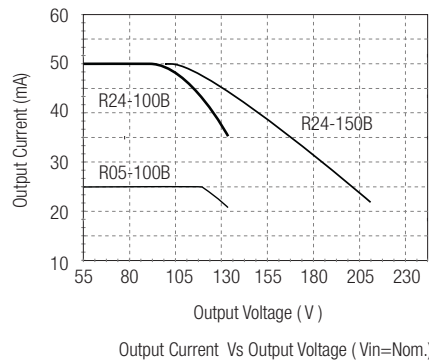
R24-100B \_ R24-150B



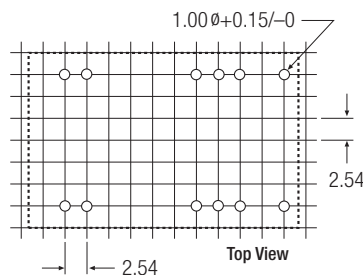
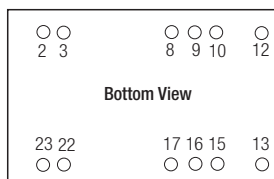
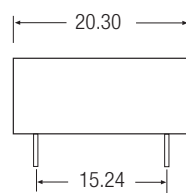
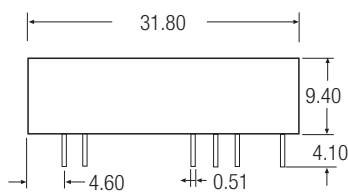
R24-100B \_ R24-150B



**Power Limit**



**Package Style and Pinning**



**Pin Connections**

Pin #	Out
2,3	-Vin
8,17	Vadj
9,16	V ref
10,15	-Vout
12,13	+Vout
22,23	+Vin
XX.X	± 0.5 mm
XX.XX	± 0.25 mm