

Features

Regulated Converters

- DIP24 Low Profile Package
- Dual Outputs from a Single Supply
- 2:1 Wide Range Voltage Input
- 3kVDC Isolation
- UL94V-0 Package Material
- Continuous Short Circuit Protection
- Low profile 7mm Height
- Approved for Medical Applications
- Efficiency to 85 %

Description

The RW_D series with 2:1 input voltage ranges and maximum height of 7,0 mm has been designed for industrial automation and medical markets where a dual output rail needs to be generated from a single rail source. The converters supply the full 3 Watts without additional heat-sinks over the temperature range -40°C to +85°C.

Selection Guide

Part Number DIP24 Miniature	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency %	Max Capacitive Load ⁽¹⁾
RW-0505D	4.5 – 9	±5	±300	71	±2200µF
RW-0509D	4.5 – 9	±9	±167	73	±1000µF
RW-0512D	4.5 – 9	±12	±125	74	±1000µF
RW-0515D	4.5 – 9	±15	±100	75	±1000µF
RW-1205D	9 – 18	±5	±300	76	±2200µF
RW-1209D	9 – 18	±9	±167	80	±1000µF
RW-1212D	9 – 18	±12	±125	83	±1000µF
RW-1215D	9 – 18	±15	±100	83	±1000µF
RW-2405D	18 – 36	±5	±300	78	±2200µF
RW-2409D	18 – 36	±9	±167	81	±1000µF
RW-2412D	18 – 36	±12	±125	85	±1000µF
RW-2415D	18 – 36	±15	±100	85	±1000µF
RW-4805D	36 – 72	±5	±300	78	±2200µF
RW-4809D	36 – 72	±9	±167	82	±1000µF
RW-4812D	36 – 72	±12	±125	84	±1000µF
RW-4815D	36 – 72	±15	±100	84	±1000µF

Specifications (Core Operating Area)

Input Voltage Range	2:1
Output Voltage Accuracy	±1% typ. / ±2% max.
Line Voltage Regulation	0.1% typ. / 0.2% max.
Load Voltage Regulation (10% to 100% full load)	0.2% typ. / 0.5% max.
Minimum Load	0%
Output Ripple and Noise (20MHz limited)	50mVp-p max.
Operating Frequency	100kHz min. / 150kHz typ.
Efficiency at Full Load	See above
No Load Power Consumption	250mW max.
Isolation Voltage	(tested for 1 second) 3000VDC (rated for 1 minute) 1500VAC / 60Hz
Isolation Capacitance	20pF min. / 40pF typ. / 60pF max.
Isolation Resistance	1 GΩ min.
Short Circuit Protection	Continuous
Operating Temperature Range (free air convection)	-40°C to +85°C (see Graph)

continued on next page

ECONOLINE

DC/DC-Converter

with 3 year Warranty

RECOM

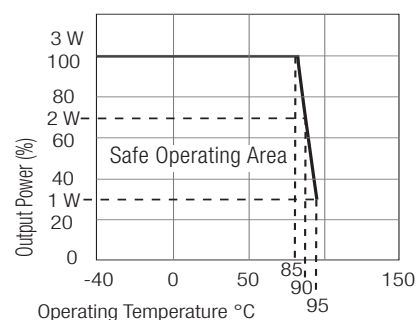
3 Watt DIP24 Low Profile Regulated Dual Output



EN-60950-1 Certified
EN-60601-1 Certified

RW-D

Derating-Graph (Ambient Temperature)



Refer to Application Notes

Specifications (Core Operating Area)

Storage Temperature Range	-55°C to +125°C		
Case Material	Non-Conductive Black Plastic		
Potting Material	Epoxy (UL94V-0)		
Relative Humidity	95% RH		
Package Weight	7.7g		
Packing Quantity	15pcs per Tube		
MTBF (+25°C)	} Detailed Information see Application Notes chapter "MTBF"	using MIL-HDBK 217F	1636 x 10 ³ hours
(+85°C)		using MIL-HDBK 217F	303 x 10 ³ hours

Notes

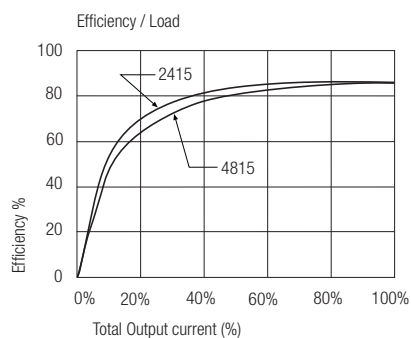
Note 1 Maximum capacitive load is defined as the capacitive load that will allow start up in under 1 second without damage to the converter

Certifications

EN General Safety	Report: PS080501950	EN60950-1:2001 + A11:2004	
EN Medical Safety	Report: MDD1205098-3 + RM1205098-3	IEC/EN 60601-1 3rd Edition	Medical Report + ISO14971 Risk Assessment

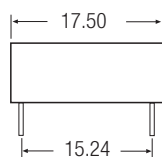
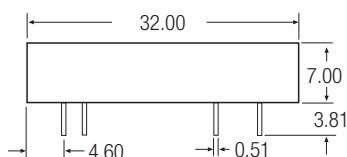
Typical Performance

RW-xx15D



Package Style and Pinning (mm)

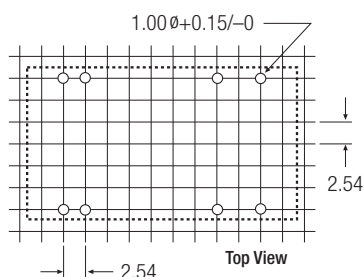
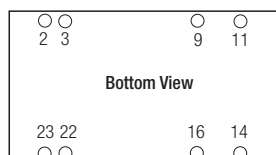
24 PIN DIP Miniature Package Style



3rd angle projection



Recommended Footprint Details



Pin Connections

Pin	Dual
2 & 3	-Vin
9 & 16	Com
11	-Vout
14	+Vout
22 & 23	+Vin
NC = No Connection	
XX.X ± 0.5 mm	
XX.XX ± 0.25 mm	