

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	10% ⁽²⁾
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

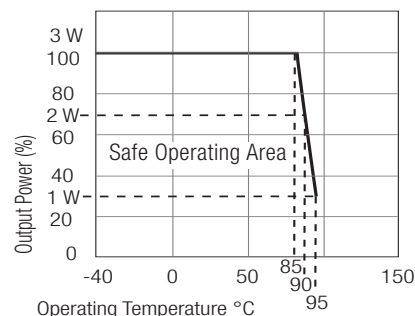
3 Watt DIP24 Low Profile Regulated Dual Output



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

RW-D

Derating-Graph (Ambient Temperature)



*Any data referred to in this datasheet are of indicative nature and based on our practical experience only. For further details, please refer to our Application Notes.

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

Certifications

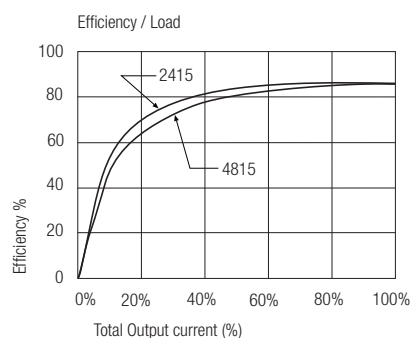
EN General Safety	Report: SPCLVD1212007	EN60950-1:2006 + A11:2009+A1:2010+A12:2011	
EN Medical Safety	Report: MDD1205098-3 + RM1205098-3	IEC/EN 60601-1 3rd Edition	Medical Report + ISO14971 Risk Assessment

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
Note 2:	The RW-D series requires a minimum of 10% load on the output to maintain specified regulation. Operating under no-load conditions will not damage these devices; however, they may not meet all listed specifications.

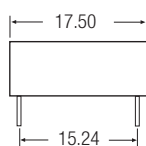
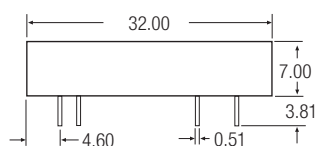
Typical Performance

RW-xx15D

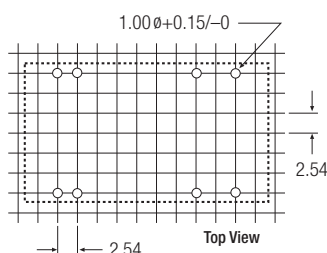
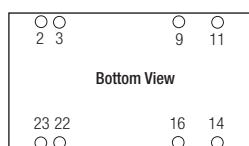


Package Style and Pinning (mm)

24 PIN DIP Miniature Package Style



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