

Features

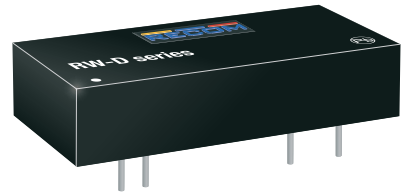
- 3kVDC isolation
- DIP24 low profile package
- UL94V-0 package material
- Short circuit protected
- IEC/EN60950-1 certified
- Dual outputs from a single supply

Regulated Converters



RW-D

**3 Watt
DIP24
Dual Output**



IEC/EN60950-1 certified
EN55032 compliant

Description

The RW-D series with 2:1 input voltage ranges and maximum height of 7.0 mm has been designed for industrial automation 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	nom. Input Voltage [VDC]	Output Voltage [VDC]	Output Current [mA]	Efficiency typ. ⁽¹⁾ [%]	max. Capacitive Load ⁽²⁾ [µF]
RW-0505D	4.5-9	±5	±300	71	±2200
RW-0509D	4.5-9	±9	±167	73	±1000
RW-0512D	4.5-9	±12	±125	74	±1000
RW-0515D	4.5-9	±15	±100	75	±1000
RW-1205D	9-18	±5	±300	76	±2200
RW-1209D	9-18	±9	±167	80	±1000
RW-1212D	9-18	±12	±125	83	±1000
RW-1215D	9-18	±15	±100	83	±1000
RW-2405D	18-36	±5	±300	78	±2200
RW-2409D	18-36	±9	±167	81	±1000
RW-2412D	18-36	±12	±125	85	±1000
RW-2415D	18-36	±15	±100	85	±1000
RW-4805D	36-72	±5	±300	78	±2200
RW-4809D	36-72	±9	±167	82	±1000
RW-4812D	36-72	±12	±125	84	±1000
RW-4815D	36-72	±15	±100	84	±1000

Notes:

- Note1: Efficiency is tested at nominal input and full load at +25°C ambient
 Note2: Maximum capacitive load is defined as the capacitive load that will allow start up in under 1 second without damage on the converter

Model Numbering



Ordering Examples:

RW-0505D	4.5-9Vin	±5Vout	Dual
RW-1212D	9-18Vin	±12Vout	Dual
RW-2415D	18-36Vin	±15Vout	Dual

Specifications (measured @ Ta= 25°C, nom. Vin, full load and after warm-up unless otherwise stated)

BASIC CHARACTERISTICS

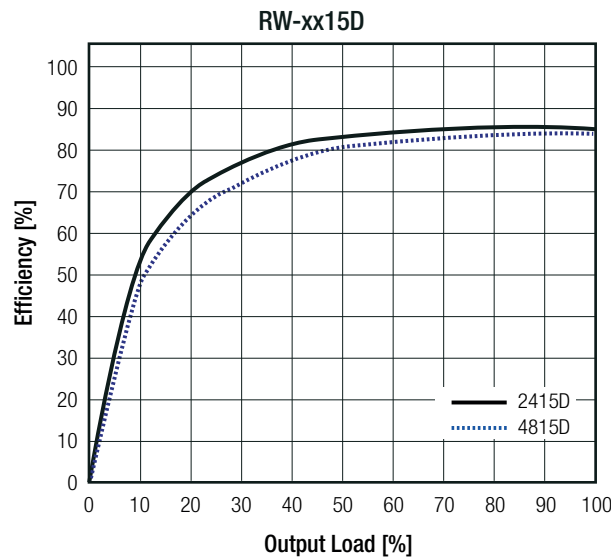
Parameter	Condition	Min.	Typ.	Max.
Input Voltage Range	5VDC	4.5VDC		9VDC
	12VDC	9VDC		18VDC
	24VDC	18VDC		36VDC
	48VDC	36VDC		72VDC
Minimum Load ⁽³⁾	nom. Vin=	10%		
Internal Operating Frequency			100kHz	150kHz
Output Ripple and Noise ⁽⁴⁾	20MHz BW			50mVp-p

Notes:

Note3: Operation below 10% load won't harm the converter, but specifications may not be met

Note4: Measurements are made with a 0.1µF MLCC across output. (low ESR)

Efficiency vs. Load



REGULATIONS

Parameter	Condition	Value
Output Accuracy		±1.0% typ. / ±2.0% max
Line Regulation		±0.1% typ. / ±0.2% max.
Load Regulation	10% to 100% load	0.2% typ. / 0.5% max.

PROTECTIONS

Parameter	Type	Value
Short Circuit Protection	below 100mΩ	continuous, auto recovery
Isolation Voltage ⁽⁵⁾	tested for 1 second	3kVDC
	rated for 1 minute	1.5kVAC/60Hz
Isolation Resistance		1GΩ min.
Isolation Capacitance		20pF min. / 40pF typ. / 60pF max.
Insulation Grade		functional

Notes:

Note5: For repeat Hi-Pot testing, reduce the time and/or the test voltage

Note6: Refer to local safety regulations if input over-current protection is also required. Recommended fuse: slow blow type

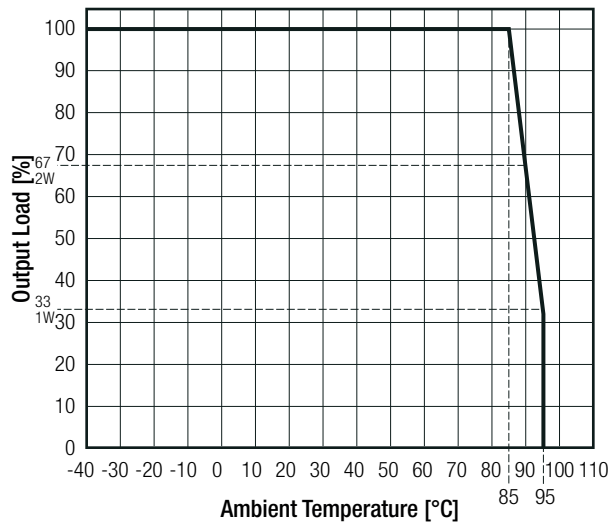
Specifications (measured @ Ta= 25°C, nom. Vin, full load and after warm-up unless otherwise stated)

ENVIRONMENTAL

Parameter	Condition		Value
Operating Temperature Range	full load@ free air convection (refer to "Derating Graph")		-40°C to +85°C
Operating Altitude			2000m
Operating Humidity	non-condensing		95% RH max.
Pollution Degree			PD2
MTBF	according to MIL-HDBK-217F, G.B.	+25°C	1636 x 10 ³ hours
		+85°C	303 x 10 ³ hours

Derating Graph

(@ Chamber and free air convection)



SAFETY AND CERTIFICATIONS

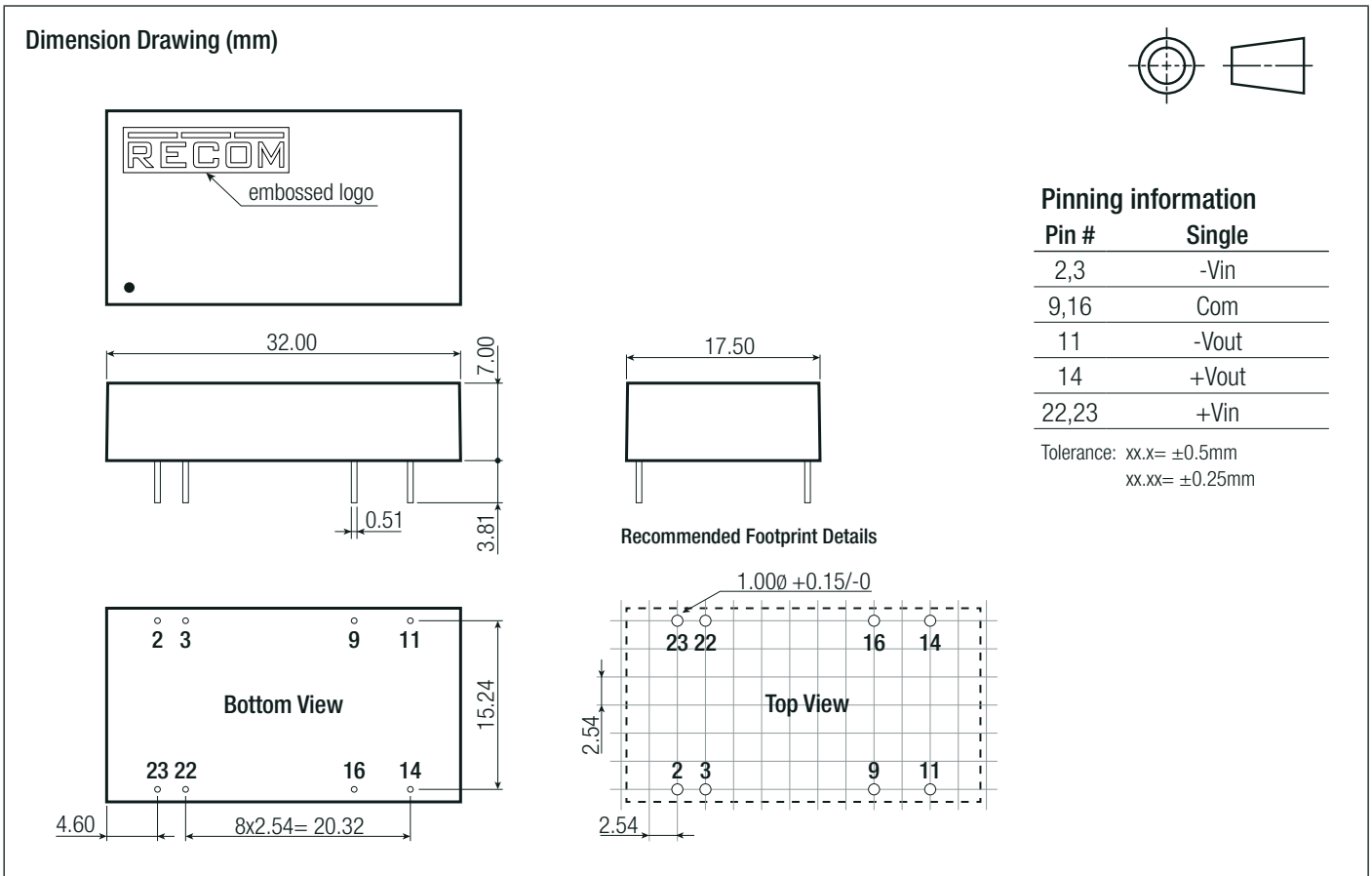
Certificate Type (Safety)	Report / File Number	Standard
Information Technology Equipment, General Requirements for Safety	SPCLVD1605077-10	IEC60950-1: 2005, 2nd Edition + A2: 2013 EN60950-1:2006 + A2:2013
Medical Electric Equipment, General Requirements for Safety and Essential Performance	WD-SE-R-180675-A0	IEC60601-1:2005 , 3rd Edition + A1:2012 EN60601-1:2006 + A12:2014
EAC	RU-AT.AB49.B.09571	TP TC 004/2011
RoHS 2+		RoHS 2011/65/EU + AM-2015/863

DIMENSION AND PHYSICAL CHARACTERISTICS

Parameter	Type	Value
Material	case potting	non-conductive black plastic, (UL94V-0) epoxy, (UL94V-0)
Dimension (LxWxH)		32.00 x 17.50 x 7.00mm
Weight		7.7g typ.

continued on next page

Specifications (measured @ Ta= 25°C, nom. Vin, full load and after warm-up unless otherwise stated)



PACKAGING INFORMATION		
Parameter	Type	Value
Packaging Dimension (LxWxH)	tube	530.0 x 23.0 x 19.0mm
Packaging Quantity		15pcs
Storage Temperature Range		-55°C to +125°C
Storage Humidity	non-condensing	95% RH max.

The product information and specifications may be subject to changes even without prior written notice. The product has been designed for various applications; its suitability lies in the responsibility of each customer. The products are not authorized for use in safety-critical applications without RECOM's explicit written consent. A safety-critical application is an application where a failure may reasonably be expected to endanger or cause loss of life, inflict bodily harm or damage property. The applicant shall indemnify and hold harmless RECOM, its affiliated companies and its representatives against any damage claims in connection with the unauthorized use of RECOM products in such safety-critical applications.