

Vishay Milwaukee

Wirewound Resistors, Industrial Power, Tubular, Roundwire (RD), Fixed (RDEF, RDSF)



FEATURES

- High temperature silicone or vitreous enamel coatings
- Non-inductive options available
- All welded construction
- Wide range of available resistances
- Hardware mounting options and enclosures available
- Wirewound
- Material categorization: for definitions of compliance please see <u>www.vishay.com/doc?99912</u>

STANDARD ELECTRICAL SPECIFICATIONS							
GLOBAL	HISTORICAL	POWER RATING	RESISTANCE RANGE	TOLERANCE	TERMINA	TERMINAL STYLE	
MODEL	MODEL	w	Ω	%	STANDARD	OPTION	
RDEF0008 (1)	5-16-Ω	8	0.82 to 13.5K	5	Α	Н	
RDEF0012 (1)	5-28-Ω	12	0.12 to 49K	5	A	Н	
RDEF0015 ⁽¹⁾	7-24-Ω	15	0.16 to 28.7K	5	A	Н	
RDEF0020 (1)	7-32-Ω	20	0.13 to 53.2K	5	A	Н	
RDEF0025 (1)	9-32-Ω	25	0.22 to 35K	5	D	Н	
RDEF0030 (1)	12-32-Ω	30	0.28 to 29K	5	D	Н	
RDEF0045 (1)	12-48-Ω	45	0.18 to 63K	5	D	Н	
RDEF0050 (1)	9-64-Ω	50	0.21 to 119K	5	D	Н	
RDEF0051 (1)	12-56-Ω	51	0.22 to 83K	5	D	Н	
RDEF0061 (1)	12-64-Ω	61	0.27 to 97K	5	D	Н	
RDEF0065 (1)	12-72-Ω	65	0.31 to 122K	5	D	Н	
RDEF0075 (1)	9-96-Ω	75	0.33 to 207K	5	D	Н	
RDEF0076 (1)	12-80-Ω	76	0.35 to 134K	5	D	Н	
RDEF0080 (1)	18-64-Ω	80	0.06 to 53K	5	F	Н	
RDEF0090 (1)	12-96-Ω	90	0.43 to 172K	5	D	Н	
RDEF0095 (1)	18-80-Ω	95	0.08 to 79K	5	F	Н	
RDEF0100 ⁽¹⁾	12-104-Ω	100	0.47 to 186K	5	D	Н	
RDEF0120 (1)	18-96-Ω	120	0.11 to 100K	5	F	Н	
RDEF0130 ⁽¹⁾	18-104-Ω	130	0.12 to 111K	5	F	Н	
RDEF0160 ⁽¹⁾	18-128-Ω	160	0.15 to 144K	5	F	Н	
RDEF0175 (1)	18-136-Ω	175	0.16 to 156K	5	F	Н	
RDSF0220	26-136-Ω	220	0.21 to 69K	5	G	-	
RDEF0225 (1)	18-168-Ω	225	0.21 to 200K	5	F	Н	
RDEF0235 (1)	18-180-Ω	235	0.22 to 216K	5	F	Н	
RDEF0240 ⁽¹⁾	18-188-Ω	240	0.24 to 227K	5	F	Н	
RDSF0275	26-168-Ω	275	0.27 to 90K	5	G	-	
RDSF0300	26-188-Ω	300	0.31 to 104K	5	G	-	
RDSF0500	40-192-ΩS	500	0.49 to 34K	5	G	-	
RDSF0750	40-240-ΩS	750	0.63 to 44K	5	G	-	
RDSF1000	40-320-ΩS	1000	0.89 to 62K	5	G	-	
RDSF1150	52-320-ΩS	1150	1.14 to 41K	5	G	-	

Note

⁽¹⁾ Vitreous enamel coating is standard (RDEF type), silicone coating is optional (RDSF type).

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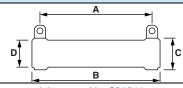
ROHS COMPLIANT



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DIMENSIONS in inches (millimeters)



For Terminal Data and Mounting Hardware, see www.vishay.com/doc?31811

• For Enclosures and Frames, see www.vishay.com/doc?31810

GLOBAL MODEL		CORE DIMENSIONS (REF.)			WEIGHT
	B LENGTH	C OUTER DIAMETER	D INNER DIAMETER	DISTANCE BETWEEN TERMINAL (REF.)	(TYP.) g
RDEF0008	1 (25.4)	0.313 (7.95)	0.188 (4.775)	0.63 (15.875)	4
RDEF0012	1.75 (44.45)	0.313 (7.95)	0.188 (4.775)	1.38 (34.925)	6
RDEF0015	1.5 (38.1)	0.438 (11.125)	0.313 (7.95)	1.06 (26.9875)	8
RDEF0020	2 (50.8)	0.438 (11.125)	0.313 (7.95)	1.56 (39.6875)	15
RDEF0025	2 (50.8)	0.563 (14.3)	0.313 (7.95)	1.50 (38.1)	20
RDEF0030	2 (50.8)	0.75 (19.05)	0.5 (12.7)	1.50 (38.1)	30
RDEF0045	3 (76.2)	0.75 (19.05)	0.5 (12.7)	2.50 (63.5)	50
RDEF0050	4 (101.6)	0.563 (14.3)	0.313 (7.95)	3.50 (88.9)	65
RDEF0051	3.5 (88.9)	0.75 (19.05)	0.5 (12.7)	3.00 (76.2)	58
RDEF0061	4 (101.6)	0.75 (19.05)	0.5 (12.7)	3.50 (88.9)	62
RDEF0065	4.5 (114.3)	0.75 (19.05)	0.5 (12.7)	4.00 (101.6)	68
RDEF0075	6 (152.4)	0.563 (14.3)	0.313 (7.95)	5.50 (139.7)	90
RDEF0076	5 (127)	0.75 (19.05)	0.5 (12.7)	4.50 (114.3)	75
RDEF0080	4 (101.6)	1.125 (28.575)	0.75 (19.05)	3.13 (79.375)	127
RDEF0090	6 (152.4)	0.75 (19.05)	0.5 (12.7)	5.50 (139.7)	95
RDEF0095	5 (127)	1.125 (28.575)	0.75 (19.05)	4.13 (104.775)	145
RDEF0100	6.5 (165.1)	0.75 (19.05)	0.5 (12.7)	6.00 (152.4)	100
RDEF0120	6 (152.4)	1.125 (28.575)	0.75 (19.05)	5.13 (130.175)	165
RDEF0130	6.5 (165.1)	1.125 (28.575)	0.75 (19.05)	5.63 (142.875)	200
RDEF0160	8 (203.2)	1.125 (28.575)	0.75 (19.05)	7.13 (193.675)	225
RDEF0175	8.5 (215.9)	1.125 (28.575)	0.75 (19.05)	7.63 (177.8)	250
RDSF0220	8.5 (215.9)	1.625 (41.275)	1.125 (28.575)	7.00 (177.8)	400
RDEF0225	10.5 (266.7)	1.125 (28.575)	0.75 (19.05)	9.63 (244.475)	270
RDEF0235	11.25 (285.75)	1.125 (28.575)	0.75 (19.05)	10.38 (263.525)	310
RDEF0240	11.75 (298.45)	1.125 (28.575)	0.75 (19.05)	10.88 (276.225)	325
RDSF0275	10.5 (266.7)	1.625 (41.275)	1.125 (28.575)	9.00 (228.6)	500
RDSF0300	11.75 (298.45)	1.625 (41.275)	1.125 (28.575)	10.25 (260.35)	510
RDSF0500	12 (304.8)	2.5 (63.5)	1.75 (44.45)	10.50 (266.7)	1000
RDSF0750	15 (381)	2.5 (63.5)	1.75 (44.45)	13.50 (342.9)	1300
RDSF1000	20 (508)	2.5 (63.5)	1.75 (44.45)	18.50 (469.9)	1625
RDSF1150	20 (508)	3.25 (82.55)	1.75 (44.45)	18.50 (469.9)	3800

TERMINAL STYLE in inches (millimeters)					
$A \rightarrow \leftarrow \rightarrow \leftarrow D$ $C \rightarrow \bigcirc \downarrow \downarrow \downarrow$ $Type A, D, F, G$ B $Type H$ B					
DIMENSIONS	A (3/16" LUG)	D (1/4" LUG)	F (3/8" LUG)	G (1/2" LUG)	H (1/4" SQC)
Width (A)	0.1875 (4.7625)	0.25 (6.35)	0.375 (9.525)	0.5 (12.7)	0.25 (6.35)
Height (B)	0.375 (9.525)	0.5 (12.7)	0.625 (15.875)	0.9375 (23.8125)	0.625 (15.875)
Diameter (C)	0.13 (3.302)	0.17 (4.318)	0.2 (5.08)	0.26 (6.604)	0.065 (1.651)
Thickness (D)	0.02 (0.508)	0.02 (0.508)	0.035 (0.889)	0.046 (1.1684)	0.032 (0.8128)
		(3,000)			(010120)

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METRIC OPTIONS AVAILABLE

Metric Hardware on Terminal Lugs

Use terminal designation "1" example: RDEF03001R000K1B00

Metric Mounting Hardware

'ISHA'

Vertical mount: use special designation "VM" example: RDEF03001R000K1BVM

1 high bracket: use special designation "1A" example: RDEF03001R000K1B1M

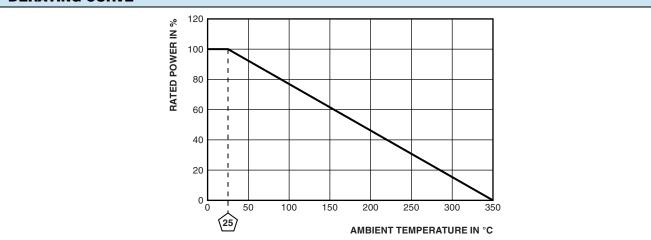
2 high bracket: use special designation "2A" example: RDEF03001R000K1B2M

3 high bracket: use special designation "3A" example: RDEF03001R000K1B $\underline{\textbf{3M}}$

4 high bracket: use special designation "4A" example: RDEF03001R000K1B4M

TECHNICAL SPECIFICATIONS			
PARAMETER	UNIT	RESISTOR CHARACTERISTICS	
Power rating	W	8 to 1150	
Resistance range	Ω	0.12 to 227K	
Resistance tolerance	%	5 for above 1 Ω , 10 below 1 Ω	
TCR	ppm/°C	\pm 400, \pm 180, \pm 130, \pm 20 (varies by wattage and resistance)	
Operating temperature	°C	-55 to +350	
Temperature rise	°C	325 above an ambient of 25 °C	
Maximum altitude	f.a.s.l. (m.a.s.l.)	derate above 4921 f.a.s.l. (1500 m.a.s.l.)	
Short-term overload (surge)		10 x rated power for 5 s	
Surge windings		available	
Maximum working voltage		(P x R) ^{1/2}	
Insulation resistance	Ω	1M	
Dielectric voltage	V _{RMS}	up to 1500 (upon request)	
Creepage	inch (mm)	minimum 0.125 (3.175), typical (varies by wattage)	
Terminal sleeves		n/a	
Inductance	μH	0.2 to 10 300 (varies by wattage and resistance)	
Non-inductive winding		available	
Terminal strength	lb	10	
Electrical or mechanical customization		available: www.vishay.com/doc?31857	

DERATING CURVE



MATERIAL SPECIFICATIONS				
Element	copper-nickel, nickel-chrome, iron-chrome-aluminum			
Core	cordierite, steatite			
Coating	special high temperature silicone or vitreous enamel			
Standard terminals	nickel-iron			
Part marking	value, date code, MRC			

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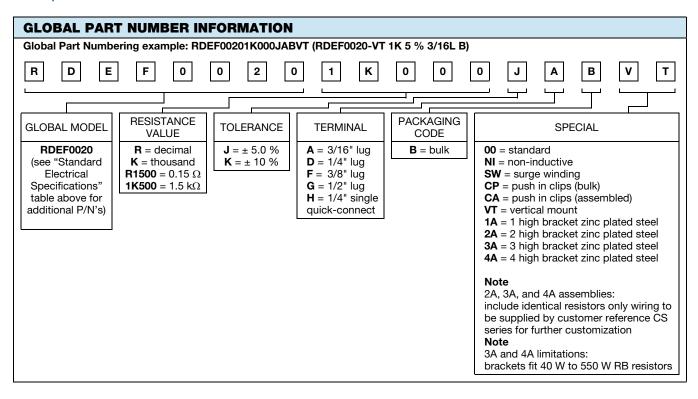
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