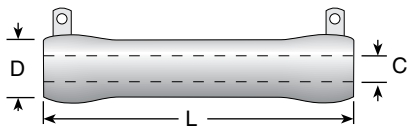


270 Series

Vitreous Enamel Power



See page 36 for mounting hardware

FEATURES

- Terminals suitable for soldering or bolt connection
- High wattage applications
- Rugged lead free vitreous enamel coating
- Flame resistant coating
- All-welded construction
- RoHS compliant available
- "Fast on" option – see terminal 538, page 37

SPECIFICATIONS

- Material**
Coating: Lead free vitreous enamel. Very large models (750 watts and up) are supplied in Silicone Ceramic. Also available in low-cost Centohm coating; Consult factory.
Core: Tubular ceramic.
Terminals: Solder coated radial lug. RoHS solder composition is 96% Sn, 3.5% Ag, 0.5% Cu
Derating: Linearly from 100% @ +25°C to 0% @ +350°C.
Electrical
Tolerance:
 ±5% 1Ω and over (J)
 ±10% under 1Ω (K)
Power rating: Based on 25°C free air rating.
Overload: 10 times rated wattage for 5 seconds.
Temperature coefficient:
 1 to 20Ω: ±400 ppm/°C.
 Above 20Ω: ±260 ppm/°C
Dielectric withstanding voltage:
 1000 VAC: 12 to 100 watt rating.
 3000 VAC: 175 to 225 watt rating (Measured from terminal to mounting bracket)
To calculate max. amps: use the formula $\sqrt{P/R}$

Series	Wattage	Ohms	Dimensions (in. / mm)			Core Code	Voltage	Standard Terminal
			L	D	C			
L12	12	0.1-51K	1.75 / 44.4	0.313 / 7.94	0.188 / 4.76	D	565	57
L25	25	0.15-100K	2.0 / 50.8	0.562 / 14.3	0.313 / 7.94	K	625	40
L50	50	0.38-260K	4.0 / 101.6	0.562 / 14.3	0.313 / 7.94	K	1625	40
L100	100	0.23-101K	6.5 / 165.1	0.750 / 19.1	0.50 / 12.7	M	2845	40
L175	175	0.13-101K	8.5 / 215.9	1.125 / 28.6	0.75 / 19.1	P	3595	46
L225	225	0.16-129K	10.5 / 266.7	1.125 / 28.6	0.75 / 19.1	P	4595	46
L500	500	0.38-218K	12.0 / 304.8	2.50 / 63.5	1.75 / 44.5	S	4970	45
L1000	1000	0.69-392K	20.0 / 508.0	2.50 / 63.5	1.75 / 44.5	S	8900	45

Non-Inductive versions available; Other sizes available; Also available in low cost Centohm or Silicone coating; Consult Ohmite.
 * Maximum Voltage is based on Ohm's Law $[V=\sqrt{P \cdot R}]$ as limited by the resistance value of specified product

Select 270 Type fixed resistors for applications requiring wattage ratings from 12 to 1000 watts. The 270 Type resistors are equipped with lug terminals suitable for soldering or sturdy bolt connection. When secure mounting is required, the hollow core of these resistors permit fastening with spring-type brackets, thru bolts or thru bolts with slotted-steel brackets. Suitable for rugged applications, the 270 Type resistors feature all-welded construction and durable lead free vitreous enamel coating. Mounting brackets not included with resistors.

ORDERING INFO

F = Fast on (optional)
 Non-inductive Blank = Standard N = Non-inductive
 RoHS Compliant

L 25 J 100 E

Series: L
 Wattage: 25
 Tolerance: J = 5%
 Ohms: 100

Coating: Blank = Vitreous, C = Centohm, S = Silicone
 J = 5%, K = 10%
 1R0 = 1 Ω, 250 = 250 Ω, 1K0 = 1,000 Ω, 25K = 25,000 Ω, 25K5 = 25,500 Ω

MADE-TO-ORDER PARTS

Non-inductive Blank = Standard N = Non-inductive
 Core Diameter See "Core and Terminal Selection"
 RoHS Compliant

270 50K 405R00JE

Coating: 270 = Vitreous, 470 = Silicone Ceramic
 Wattage: 50
 Ohms: R500 = 0.500 Ω, 1R00 = 1 Ω, 250R = 250 Ω, 1K00 = 1,000 Ω, 25K0 = 25,000 Ω, 25K5 = 25,500 Ω
 Terminal Type See "Resistor Terminals for Tubular Cores"
 J = 5%, K = 10%

See website for custom core and terminal info

Power limitations for high resistance values: When resistance exceeds the resistance values listed, derate the Power Rating by 25% to improve reliability:

Power rating	Resistance value	No power derating necessary for ratings higher than
12W	3,900Ω	100W.
25W	12,000Ω	
50W	35,000Ω	
100W	75,000Ω	

STANDARD PART NUMBERS FOR 270 SERIES

Ohmic value	Wattage										Ohmic value	Wattage																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
	12 Watt		25		50		100		175			225		500		1000		25		50		100		175		225		500		1000																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
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0.51 ✓ L12JKR51E	180 ✓ L12J180E	1	270 ✓ L12J270E	1	1R0E ✓	2	250 ✓ L12J250E	2	3R0E ✓	3	330 ✓ L12J330E	3	4R0E ✓	4	470 ✓ L12J470E	4	5R0E ✓	5	500 ✓ L12J500E	5	6R0E ✓	6	560 ✓ L12J560E	6	7R0E ✓	7	600 ✓ L12J600E	7	8R0E ✓	8	1000 ✓ L12J1000E	8	9R0E ✓	9	1000 ✓ L12J1000E	9	10R0E ✓	10	1000 ✓ L12J1000E	10	11R0E ✓	11	1000 ✓ L12J1000E	11	12R0E ✓	12	1000 ✓ L12J1000E	12	13R0E ✓	13	1000 ✓ L12J1000E	13	14R0E ✓	14	1000 ✓ L12J1000E	14	15R0E ✓	15	1000 ✓ L12J1000E	15	16R0E ✓	16	1000 ✓ L12J1000E	16	17R0E ✓	17	1000 ✓ L12J1000E	17	18R0E ✓	18	1000 ✓ L12J1000E	18	19R0E ✓	19	1000 ✓ L12J1000E	19	20R0E ✓	20	1000 ✓ L12J1000E	20	21R0E ✓	21	1000 ✓ L12J1000E	21	22R0E ✓	22	1000 ✓ L12J1000E	22	23R0E ✓	23	1000 ✓ L12J1000E	23	24R0E ✓	24	1000 ✓ L12J1000E	24	25R0E ✓	25	1000 ✓ L12J1000E	25	26R0E ✓	26	1000 ✓ L12J1000E	26	27R0E ✓	27	1000 ✓ L12J1000E	27	28R0E ✓	28	1000 ✓ L12J1000E	28	29R0E ✓	29	1000 ✓ L12J1000E	29	30R0E ✓	30	1000 ✓ L12J1000E	30	31R0E ✓	31	1000 ✓ L12J1000E	31	32R0E ✓	32	1000 ✓ L12J1000E	32	33R0E ✓	33	1000 ✓ L12J1000E	33	34R0E ✓	34	1000 ✓ L12J1000E	34	35R0E ✓	35	1000 ✓ L12J1000E	35	36R0E ✓	36	1000 ✓ L12J1000E	36	37R0E ✓	37	1000 ✓ L12J1000E	37	38R0E ✓	38	1000 ✓ L12J1000E	38	39R0E ✓	39	1000 ✓ L12J1000E	39	40R0E ✓	40	1000 ✓ L12J1000E	40	41R0E ✓	41	1000 ✓ L12J1000E	41	42R0E ✓	42	1000 ✓ L12J1000E	42	43R0E ✓	43	1000 ✓ L12J1000E	43	44R0E ✓	44	1000 ✓ L12J1000E	44	45R0E ✓	45	1000 ✓ L12J1000E	45	46R0E ✓	46	1000 ✓ L12J1000E	46	47R0E ✓	47	1000 ✓ L12J1000E	47	48R0E ✓	48	1000 ✓ L12J1000E	48	49R0E ✓	49	1000 ✓ L12J1000E	49	50R0E ✓	50	1000 ✓ L12J1000E	50	51R0E ✓	51	1000 ✓ L12J1000E	51	52R0E ✓	52	1000 ✓ L12J1000E	52	53R0E ✓	53	1000 ✓ L12J1000E	53	54R0E ✓	54	1000 ✓ L12J1000E	54	55R0E ✓	55	1000 ✓ L12J1000E	55	56R0E ✓	56	1000 ✓ L12J1000E	56	57R0E ✓	57	1000 ✓ L12J1000E	57	58R0E ✓	58	1000 ✓ L12J1000E	58	59R0E ✓	59	1000 ✓ L12J1000E	59	60R0E ✓	60	1000 ✓ L12J1000E	60	61R0E ✓	61	1000 ✓ L12J1000E	61	62R0E ✓	62	1000 ✓ L12J1000E	62	63R0E ✓	63	1000 ✓ L12J1000E	63	64R0E ✓	64	1000 ✓ L12J1000E	64	65R0E ✓	65	1000 ✓ L12J1000E	65	66R0E ✓	66	1000 ✓ L12J1000E	66	67R0E ✓	67	1000 ✓ L12J1000E	67	68R0E ✓	68	1000 ✓ L12J1000E	68	69R0E ✓	69	1000 ✓ L12J1000E	69	70R0E ✓	70	1000 ✓ L12J1000E	70	71R0E ✓	71	1000 ✓ L12J1000E	71	72R0E ✓	72	1000 ✓ L12J1000E	72	73R0E ✓	73	1000 ✓ L12J1000E	73	74R0E ✓	74	1000 ✓ L12J1000E	74	75R0E ✓	75	1000 ✓ L12J1000E	75	76R0E ✓	76	1000 ✓ L12J1000E	76	77R0E ✓	77	1000 ✓ L12J1000E	77	78R0E ✓	78	1000 ✓ L12J1000E	78	79R0E ✓	79	1000 ✓ L12J1000E	79	80R0E ✓	80	1000 ✓ L12J1000E	80	81R0E ✓	81	1000 ✓ L12J1000E	81	82R0E ✓	82	1000 ✓ L12J1000E	82	83R0E ✓	83	1000 ✓ L12J1000E	83	84R0E ✓	84	1000 ✓ L12J1000E	84	85R0E ✓	85	1000 ✓ L12J1000E	85	86R0E ✓	86	1000 ✓ L12J1000E	86	87R0E ✓	87	1000 ✓ L12J1000E	87	88R0E ✓	88	1000 ✓ L12J1000E	88	89R0E ✓	89	1000 ✓ L12J1000E	89	90R0E ✓	90	1000 ✓ L12J1000E	90	91R0E ✓	91	1000 ✓ L12J1000E	91	92R0E ✓	92	1000 ✓ L12J1000E	92	93R0E ✓	93	1000 ✓ L12J1000E	93	94R0E ✓	94	1000 ✓ L12J1000E	94	95R0E ✓	95	1000 ✓ L12J1000E	95	96R0E ✓	96	1000 ✓ L12J1000E	96	97R0E ✓	97	1000 ✓ L12J1000E	97	98R0E ✓	98	1000 ✓ L12J1000E	98	99R0E ✓	99	1000 ✓ L12J1000E	99	100R0E ✓	100	1000 ✓ L12J1000E	100	101R0E ✓	101	1000 ✓ L12J1000E	101	102R0E ✓	102	1000 ✓ L12J1000E	102	103R0E ✓	103	1000 ✓ L12J1000E	103	104R0E ✓	104	1000 ✓ L12J1000E	104	105R0E ✓	105	1000 ✓ L12J1000E	105	106R0E ✓	106	1000 ✓ L12J1000E	106	107R0E ✓	107	1000 ✓ L12J1000E	107	108R0E ✓	108	1000 ✓ L12J1000E	108	109R0E ✓	109	1000 ✓ L12J1000E	109	110R0E ✓	110	1000 ✓ L12J1000E	110	111R0E ✓	111	1000 ✓ L12J1000E	111	112R0E ✓	112	1000 ✓ L12J1000E	112	113R0E ✓	113	1000 ✓ L12J1000E	113	114R0E ✓	114	1000 ✓ L12J1000E	114	115R0E ✓	115	1000 ✓ L12J1000E	115	116R0E ✓	116	1000 ✓ L12J1000E	116	117R0E ✓	117	1000 ✓ L12J1000E	117	118R0E ✓	118	1000 ✓ L12J1000E	118	119R0E ✓	119	1000 ✓ L12J1000E	119	120R0E ✓	120	1000 ✓ L12J1000E	120	121R0E ✓	121	1000 ✓ L12J1000E	121	122R0E ✓	122	1000 ✓ L12J1000E	122	123R0E ✓	123	1000 ✓ L12J1000E	123	124R0E ✓	124	1000 ✓ L12J1000E	124	125R0E ✓	125	1000 ✓ L12J1000E	125	126R0E ✓	126	1000 ✓ L12J1000E	126	127R0E ✓	127	1000 ✓ L12J1000E	127	128R0E ✓	128	1000 ✓ L12J1000E	128	129R0E ✓	129	1000 ✓ L12J1000E	129	130R0E ✓	130	1000 ✓ L12J1000E	130	131R0E ✓	131	1000 ✓ L12J1000E	131	132R0E ✓	132	1000 ✓ L12J1000E	132	133R0E ✓	133	1000 ✓ L12J1000E	133	134R0E ✓	134	1000 ✓ L12J1000E	134	135R0E ✓	135	1000 ✓ L12J1000E	135	136R0E ✓	136	1000 ✓ L12J1000E	136	137R0E ✓	137	1000 ✓ L12J1000E	137	138R0E ✓	138	1000 ✓ L12J1000E	138	139R0E ✓	139	1000 ✓ L12J1000E	139	140R0E ✓	140	1000 ✓ L12J1000E	140	141R0E ✓	141	1000 ✓ L12J1000E	141	142R0E ✓	142	1000 ✓ L12J1000E	142	143R0E ✓	143	1000 ✓ L12J1000E	143	144R0E ✓	144	1000 ✓ L12J1000E	144	145R0E ✓	145	1000 ✓ L12J1000E	145	146R0E ✓	146	1000 ✓ L12J1000E	146	147R0E ✓	147	1000 ✓ L12J1000E	147	148R0E ✓	148	1000 ✓ L12J1000E	148	149R0E ✓	149	1000 ✓ L12J1000E	149	150R0E ✓	150	1000 ✓ L12J1000E	150	151R0E ✓	151	1000 ✓ L12J1000E	151	152R0E ✓	152	1000 ✓ L12J1000E	152	153R0E ✓	153	1000 ✓ L12J1000E	153	154R0E ✓	154	1000 ✓ L12J1000E	154	155R0E ✓	155	1000 ✓ L12J1000E	155	156R0E ✓	156	1000 ✓ L12J1000E	156	157R0E ✓	157	1000 ✓ L12J1000E	157	158R0E ✓	158	1000 ✓ L12J1000E	158	159R0E ✓	159	1000 ✓ L12J1000E	159	160R0E ✓	160	1000 ✓ L12J1000E	160	161R0E ✓	161	1000 ✓ L12J1000E	161	162R0E ✓	162	1000 ✓ L12J1000E	162	163R0E ✓	163	1000 ✓ L12J1000E	163	164R0E ✓	164	1000 ✓ L12J1000E	164	165R0E ✓	165	1000 ✓ L12J1000E	165	166R0E ✓	166	1000 ✓ L12J1000E	166	167R0E ✓	167	1000 ✓ L12J1000E	167	168R0E ✓	168	1000 ✓ L12J1000E	168	169R0E ✓	169	1000 ✓ L12J1000E	169	170R0E ✓	170	1000 ✓ L12J1000E	170	171R0E ✓	171	1000 ✓ L12J1000E	171	172R0E ✓	172	1000 ✓ L12J1000E	172	173R0E ✓	173	1000 ✓ L12J1000E	173	174R0E ✓	174	1000 ✓ L12J1000E	174	175R0E ✓	175	1000 ✓ L12J1000E	175	176R0E ✓	176	1000 ✓ L12J1000E	176	177R0E ✓	177	1000 ✓ L12J1000E	177