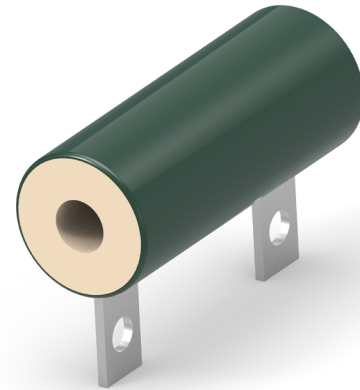


VITREOUS ENAMEL COATED POWER RESISTOR

TYPE VE SERIES

INTRODUCTION

TE Connectivity (TE) introduces its vitreous enamelled tubular power resistors (type VE series), designed for high load capacity at low dimensions and high durability. The VE range of wire wound tubular resistors are created for maximum power density (in free air) and coated with a durable vitreous enamel coating providing a reliable and resilient high-power solution. These resistors are available with solder lug terminations as standard, and different tube sizes for given power.



FEATURES

- Durable vitreous enamel coating
- High load capacity at small dimensions
- High power dissipation in free air
- Supplied with solder lug termination

APPLICATIONS

- Braking
- Capacitor charging & discharging
- In-rush limiting
- Electrical machinery

ELECTRICAL CHARACTERISTICS

	VE15	VE25	VE45	VE70	VE90	VE130	VE220	VE300	VE400	VE500
Rated power @ 25°C (W)	15	25	45	70	90	130	220	300	400	500
Ohmic value minimum	1R0	1R0	2R0	2R7	3R6	4R7	5R1	6R8	10R	8R2
Ohmic value maximum	3K0	4K7	7K5	10K	22K	22K	22K	22K	22K	22K
Maximum working voltage (V)	300	300	300	900	900	2500	2500	2500	2500	2500
Tolerance	5%									
Operating temperature	-55°C to 300°C									
Temperature coefficient of resistance (TCR)	<±120ppm/°C									
Resistor element	Wire wound									

Note: Rated Continuous Working Voltage (RCWV) is determined by $\sqrt{\text{Rated Power} \times \text{Resistance Value}}$ or max. working voltage listed above, whichever is lower.

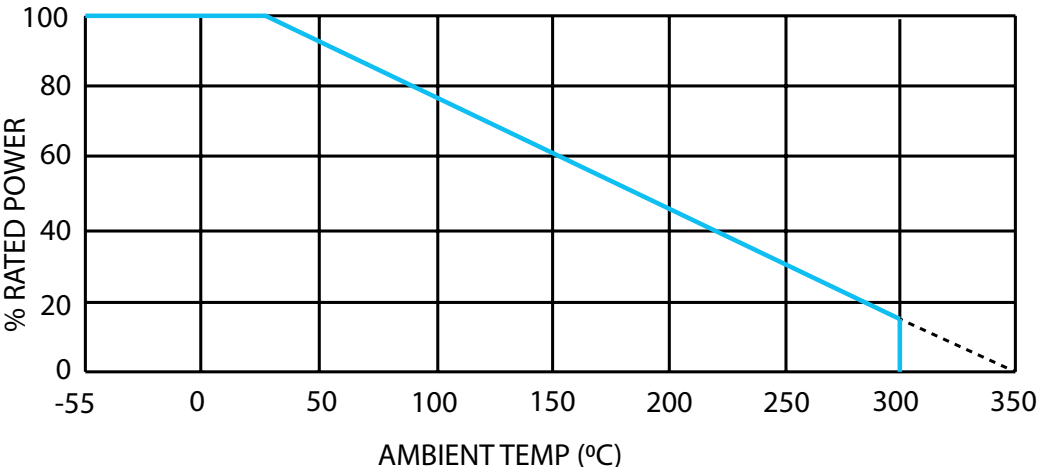
Vitreous Enamel Coated Power Resistor

Type VE Series

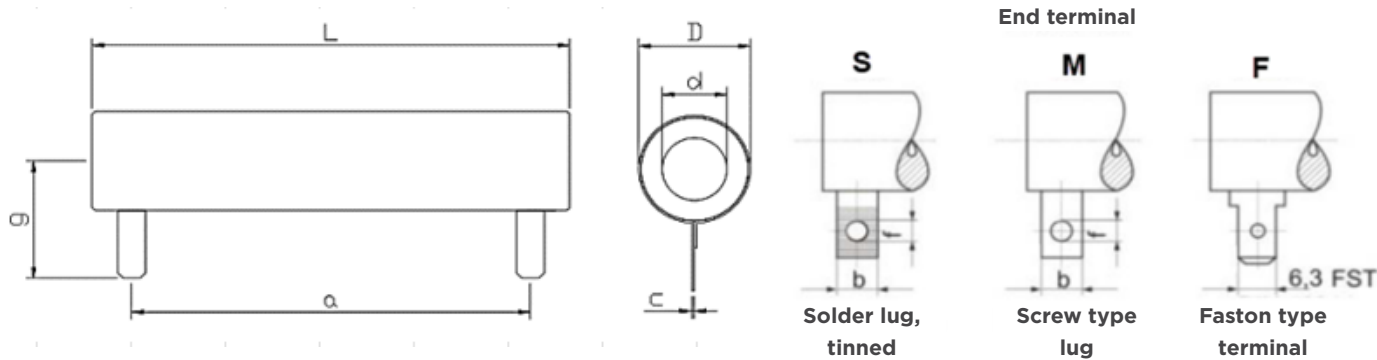
ENVIRONMENTAL CHARACTERISTICS

Characteristics	Condition	Compliance
Continuous power	Rated power @ 25°C	<350°C temperature on surface
Insulation resistance	Dry/normal @ 500V DC	>100MΩ
Maximum working voltage	$V=\sqrt{P \times R}$ OR maximum working voltage listed above, whichever is lower	-
Maximum overload voltage	2.5 x rated voltage for 5 sec	-
Dielectric strength	VE15-VE45 - 1.5kV for 60 sec	No breakdown
	VE70-VE90 - 2.5kV for 60 sec	
	VE130-VE500 - 5kV for 60 sec	
Short-time overload capability	5 x rated power for 5 sec.	-
Load life	Rated wattage 1.5 hours ON - 1.5 hours OFF for 1000 hours	-
Solderability (where applicable)	350°C for up to 3 sec.	95% coverage

DERATING CURVE



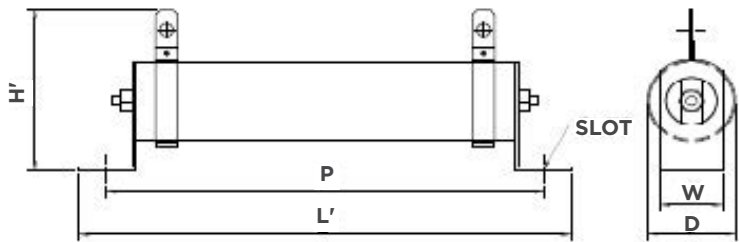
DIMENSIONS (Unit:mm)



Vitreous Enamel Coated Power Resistor

Type VE Series

WITH MOUNTING BRACKETS



Type	Rated Power (W)	D (max)	L ± 1.6	L' ± 2	H ± 2	W ± 1	P ± 2	a ± 1	c ± 0.15	d ± 1	g ± 1.0	b ± 0.2	Solder lug f min.	Screw type lug f ± 2.0
VE15	15	15.1	38.1	78.1	40	15	63.1	27	0.65	5.5	18	6	2.7	3.2
VE25	25	15.1	50.8	90.8	40	15	75.8	38	0.65	5.5	18	6	2.7	3.2
VE45	45	15.1	76.2	116.2	40	15	101.2	65	0.65	5.5	18	6	2.7	3.2
VE70	70	23	76.2	126.2	58.5	18	111.2	60	0.95	12.0	25	8	3.8	4.3
VE90	90	23	101.6	151.6	58.5	18	136.6	85	0.95	12.0	25	8	3.8	4.3
VE130	130	33.3	101.6	151.6	72.5	28	136.6	68	0.95	18.5	29	8	3.8	4.3
VE220	220	33.3	152.4	202.4	72.5	28	187.4	119	0.95	18.5	29	8	3.8	4.3
VE300	300	33.3	203.2	253.2	72.5	28	238.2	170	0.95	18.5	29	8	3.8	4.3
VE400	400	33.3	266.7	316.7	72.5	28	301.7	230	0.95	18.5	29	8	3.8	4.3
VE500	500	33.3	304.8	354.8	72.5	28	339.8	270	0.95	18.5	29	8	3.8	4.3

Note: All dimensions are in mm.

MARKING

- Company name or Logo
- TE series
- Resistance value
- Tolerance
- Date code (YYMM)

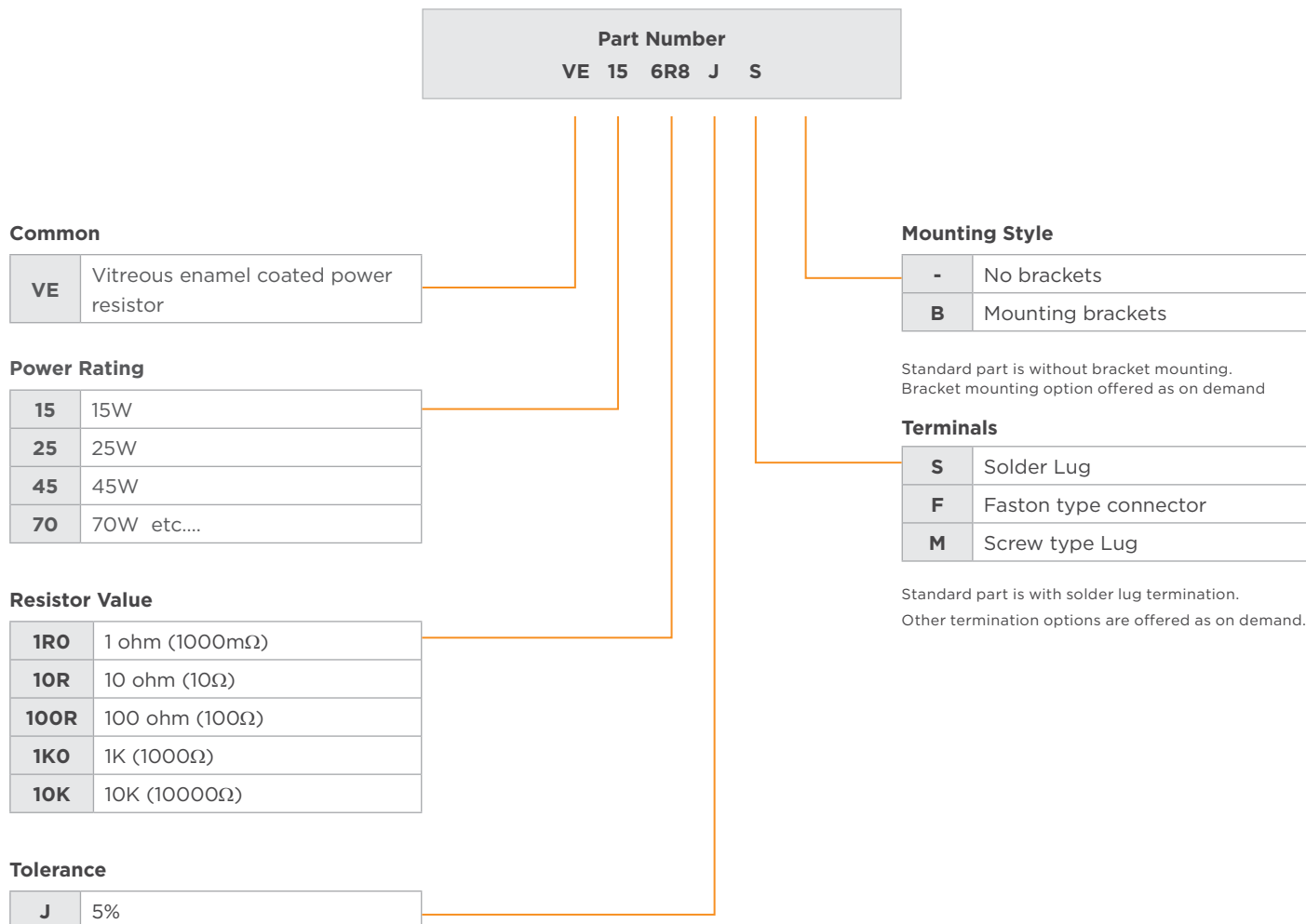


PACKAGING

Box dimensions (mm)

	VE15	VE25	VE45	VE75	VE90	VE130	VE220	VE300	VE400	VE500
L	140	140	325	325	325	340	325	340	325	325
W	130	130	190	190	190	220	210	220	210	210
H	90	90	95	95	95	110	95	110	95	95
Qty per box	50	50	50	25	25	25	10	10	5	5
Unit gross weight (GR's)	15	18	25	50	65	145	210	280	360	410

ORDERING INFORMATION



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