

Vitreous Enamel Coated Power Resistor

Type ME Series

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Tyco Electronics is a leading supplier of standard and custom-designed vitreous enamel power resistors for industrial, control, and general-purpose applications.

The ME Range of wire and tape wound tubular resistors is designed for maximum power density (in free air), and a durable vitreous enamel coating provides a reliable and resilient, high power solution.

Resistors are supplied with flexible wire terminations or tags (for screw, solder or 'Faston' connection). Options include low inductance winding, different tube sizes for a given power rating, and a range of mechanical packages including horizontal or vertical mounting. Tyco Electronics is happy to advise on the use of resistors for pulse applications and to supply information for high voltage use, low-ohmic values, alternative mountings and termination types in addition to testing resistors to conform to relevant international, MIL or customer specifications.

Key Features

- **High Power Dissipation in Free Air**
 - No need for a heatsink
- **Overload 15 Times Rated Power**
 - A compact and cost effective solution
- **Mechanically Stable in Demanding Environments**
 - Vitreous Enamel coating resists impact and temperatures of 400°C
- **Broad Range of Options: Adjustable Resistance, Low TCR, Custom Design Capability**
 - Gives ultimate design flexibility
- **Established Product with Proven Reliability**
 - Consistent high quality at a competitive price
- **48 Standard Products from 30W to 625W**
 - The solution for your application

Characteristics - Electrical

Power Reference - Power at 360°C (W)								
	30		40		45		60	
Type:	Power at 380°C	R Values	Power at 380°C	R Values	Power at 380°C	R Values	Power at 380°C	R Values
ME (Standard):	35W	2R2-5K0	65W	4R7-10K	65	4R7-10K	70W	4R7-10K
MA (Adjustable):					—	—		
MF (Ferrule Ends):					65	4R7-10K		
MD (Ferrule Dead End):								
MT (Tape Wound):	44W	R02-2R0	80W	R15-4R5	80W	R20-4R5	90W	R20-4R5

Power Reference - Power at 360°C (W)								
	90		130		150		180	
Type:	Power at 380°C	R Values	Power at 380°C	R Values	Power at 380°C	R Values	Power at 380°C	R Values
ME (Standard):	125W	10R-22K	175W	10R-22K	185W	12R-22K	230W	22R-22K
MA (Adjustable):								
MF (Ferrule Ends):								
MD (Ferrule Dead End):								
MT (Tape Wound):	185W	R30-9R0	215W	R70-9R0	245W	R80-10R	285W	1R0-20R

Power Reference - Power at 360°C (W)						
	220		320		380	
Type:	Power at 380°C	R Values	Power at 380°C	R Values	Power at 380°C	R Values
ME (Standard):	320W	22R-22K	450W	33R-22K	500W	47R-22K
MA (Adjustable):						
MF (Ferrule Ends):						
MD (Ferrule Dead End):	—		—		—	
MT (Tape Wound):	400W	1R0-20R	560W	1R5-30R	625W	1R5-30R

Damp Heat: 56 days 90 – 95% $\Delta R < \pm 2\%$

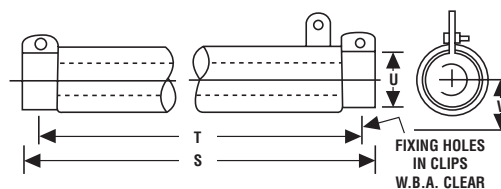
Storage Temperature: -55°C to +200°C

Tolerance: $\pm 5\%$ $\pm 10\%$

Applications

- Braking
- Crowbar
- In-rush Limiting
- Balancing
- Capacitor Charging & Discharging
- Filter
- Electrical Machinery

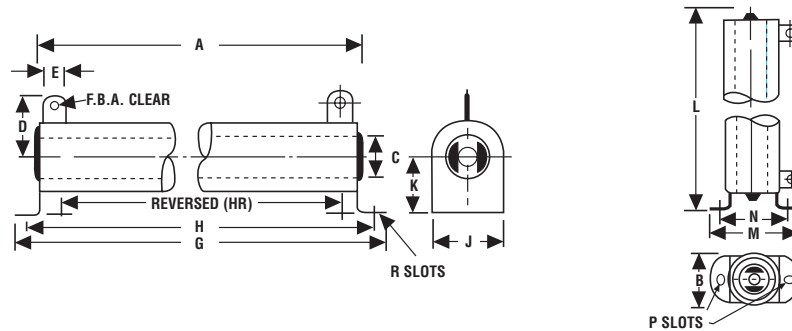
Dimensions - MF & MD Type



MF & MD Type										
	30	40	45	60L	60S	90L	90S	130	180	220
S	76	127	83	121	102	197	133	184	248	298
T	65	116	70	108	90	184	121	171	235	286
U	14	14	27	21	27	21	27	27	27	27
V	19	19	32	22	32	22	32	32	32	32
W	4BA	4BA	0BA	2BA	0BA	2BA	0BA	0BA	0BA	0BA

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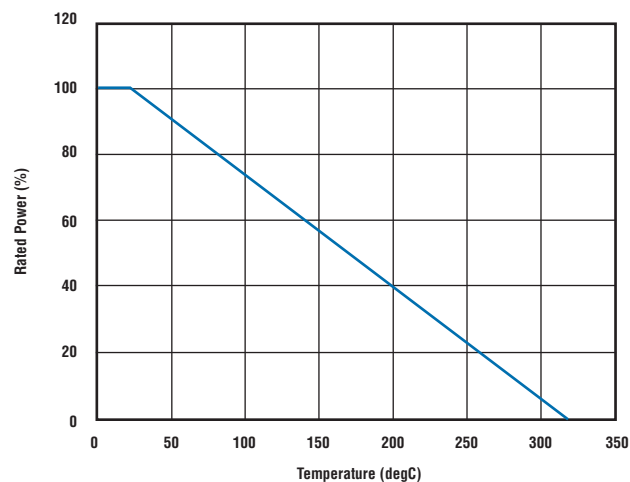
Dimensions - ME, MA & MT* Type



ME, MA & MT* Type													
	30	40	45	60L	60S	90L	90S	130	150	180	220	320	380
A	51	102	51	89	70	165	102	152	178	216	2667	267	305
B*	19	19	32	32	32	22	32	32	32	32	32	45	45
C	9.5	9.5	19	12.6	19	12.6	19	19	19	19	19	28	28
D	25	25	37	30	37	30	37	37	37	37	37	43	43
E	6.3	6.3	6.3	6.3	6.3	6.3	9.5	9.5	9.5	9.5	9.5	9.5	9.5
F	4BA	4BA	4BA	4BA	4BA	4BA	2BA	2BA	2BA	2BA	2BA	2BA	2BA
G	72	123	91	117	110	193	142	192	218	256	307	318	356
H	62	113	75	103	94	179	126	176	202	240	291	291	327
HR	42	93	30	77	48	153	80	130	156	194	245	248	286
J	16	16	28	20	28	20	28	28	28	28	28	44	44
K	20	20	27	27	27	27	27	27	27	27	27	51	51
L	64	114	64	102	83	178	114	165	119	229	279	-	-
M	38	38	54	45	54	45	54	54	54	54	54	-	-
N	25	25	41	32	41	32	41	41	41	41	41	-	-
P	4 x 6	4 x 6	5 x 8	4 x 6	5 x 8	4 x 6	5 x 8	5 x 8	5 x 8	5 x 8	5 x 8	-	-
R	4 x 6	4 x 6	5 x 13	5 x 8	5 x 13	5 x 8	5 x 13	5 x 13	5 x 13	5 x 13	5 x 13	-	-

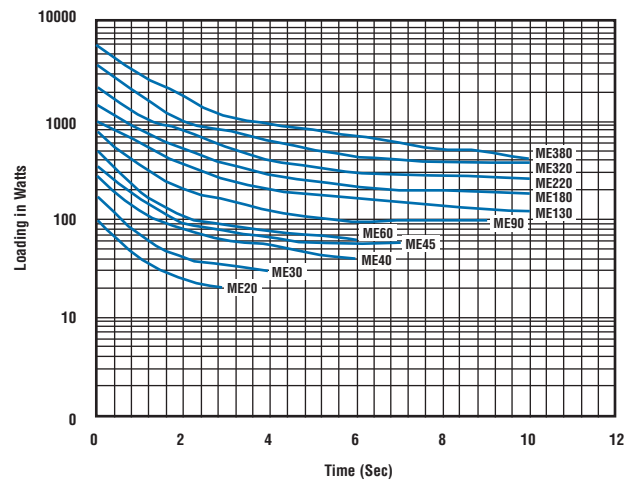
* For MT type, dimension B may increase by up to 10mm due to tape width.

Derating Curve

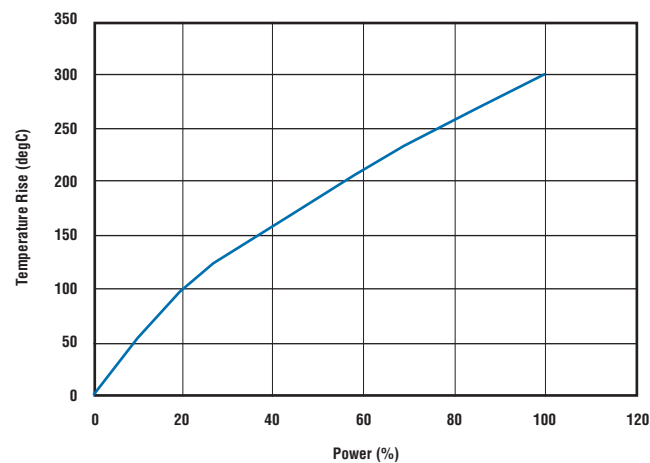


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Power Overload



Surface Temperature Rise in Free Air



How to Order

ME	-	30	-	1K0	J	H
Common Part	Inductance	Power Rating @ 360°C	Tube Description	Resistance Value	Tolerance	Mounting System
ME – Standard MT – Tape Wound MA – Adjustable MF – Ferrule Ends MD – Ferrule Dead End	-- Standard N – Low Inductance	30W – 380W (See Table)	-- Standard S – Short Profile L – Long Profile	0.1ohm (100mΩ) R10 1 ohm (1000mΩ) 1R0 1K (1000Ω) 1K0	J – ± 5% K – ±10%	-- Resistor only H – Hor./Ver. or Bolt-on V-Mount TB – Through Bolt only C – Cradle for Ferrule End