Wirewound Resistors, Commercial Power, Silicone Coated, Capacitor Mount



FEATURES

- High temperature silicone coating
- Mounts directly onto the terminal studs of three popular sizes of capacitance without additional leads or terminals
- Extra long terminals keep damaging heat away from the capacitor terminals
- Available in non-inductive style (special "NI") with Ayrton-Perry winding
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

Pb-free

e3

RoHS COMPLIANT

HALOGEN FREE GREEN (5-2008)

STANDARD ELECTRICAL SPECIFICATIONS

GLOBAL MODEL	HISTORICAL MODEL	POWER RATING $P_{25\,°C}$ W	RESISTANCE RANGE Ω	TOLERANCE ± %	WEIGHT (typical) g
CMS16	CMS-16	16	1.0 to 59K	5, 10	7.5
CMS20	CMS-20	20	1.0 to 95K	5, 10	8.64
CMS22	CMS-22	22	1.0 to 105K	5, 10	8.64

GLOBAL PART NUMBER INFORMATION

Global Part Numbering example: CMS16CME20K00JE (visit www.vishay.net SAP parts manual for all options)

C	M	S	1	6	C	M	E	2	0	K	0	0	J	E		

GLOBAL MODEL (5 digits)	TERMINAL DESIGNATION (2 digits)	TERMINAL FINISH (1 digit)	VALUE (5 digits)	TOLERANCE (1 digit)	PACKAGING CODE (1 digit)	SPECIAL (up to 2 digits)
CMS16 **CMS20** **CMS22**	**CA** **CM**	**E** = lead (Pb)-free	**R** = decimal **K** = thousand **1R500** = 1.5 Ω **1K500** = 1.5 kΩ	**J** = ± 5 % **K** = ± 10 %	**E** = Lead (Pb)-free cell and bulk pack	(Dash number) From **1** to **99** as applicable **NI** = non-inductive

Historical Part Number example: CMS-16-20K-5 %

CMS-16	20 kΩ	5 %
HISTORICAL MODEL	RESISTANCE VALUE	TOLERANCE

For technical questions, contact: ww2dresistors@vishay.com

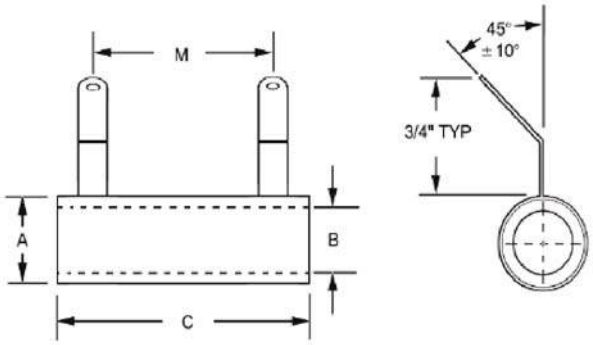
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APPLICATION PHOTOS



DIMENSIONS in inches [millimeters]



MODEL	CORE DIMENSIONS				TERMINAL DESIGNATION	
	A TYPICAL	B ± 0.031 [0.79]	C ± 0.062 [1.59]	M ± 0.0118 [0.3]	CM HOLE DIAMETER TYPICAL	CA HOLE DIAMETER TYPICAL
CMS16	0.562 [14.29]	0.312 [7.94]	1.25 [31.75]	0.875 [22.22]	0.197 [5.00]	0.265 [6.73]
CMS20	0.562 [14.29]	0.312 [7.94]	1.750 [44.45]	1.125 [28.58]	0.197 [5.00]	0.265 [6.73]
CMS22	0.562 [14.92]	0.312 [7.94]	1.750 [44.45]	1.250 [31.75]	0.197 [5.00]	0.265 [6.73]

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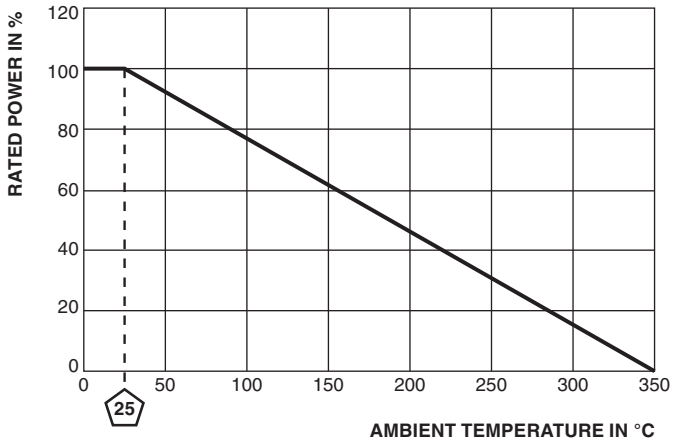
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TECHNICAL SPECIFICATIONS		
PARAMETER	**UNIT**	**RESISTOR CHARACTERISTICS**
Power Rating	W	16 to 22
Resistance Range	Ω	1 to 105k
Resistance Tolerance	%	5
Temperature Coefficient	ppm/°C	± 260 for 20 Ω and above, ± 400 for 1 Ω to 19.99 Ω
Operating Temperature	°C	-55 °C to 350 °C
Temperature Rise	°C	325 °C above an ambient of 25 °C
Maximum Altitude	f.a.s.l.	10 000
Short-Term Overload	-	10x rated power for 5 s
Surge Windings	-	Available
Maximum Working Voltage	-	$(P \times R)^{0.5}$
Insultation Resistance	Ω	1M
Dielectric Voltage	V_{RMS}	1000 V_{AC}
Creepage	-	Varies by wattage, see “Terminal Setback” in Dimensions table
Terminal Sleeves	-	n/a
Inductance	µH	Varies by wattage and resistance
Non-Inductive Winding	-	Available
Terminal Strength	lb	10 lbs
Electrical or Mechanical Customization	-	Contact factory: ww2dresistors@vishay.com

MATERIAL SPECIFICATIONS	
Element	Copper-nickel alloy or nickel-chrome alloy, depending on resistance value
Core	Cordierite, steatite
Coating	Special high temperature silicone
Standard Terminals	Tinned alloy 42
Optional Terminals	Alloy 42
Terminal Bands	Alloy 42
Part Marking	HEI, model, wattage, value, tolerance, date code

DERATING



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