

## Wirewound Resistors, Commercial Power, Vitreous Coated, Capacitor Mount



### FEATURES

- High temperature vitreous coating
- Mounts directly onto the terminal studs of three popular sizes of capacitawece 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](http://www.vishay.com/doc?99912)



**RoHS**  
COMPLIANT  
**HALOGEN**  
**FREE**  
**GREEN**  
(5-2008)

### STANDARD ELECTRICAL SPECIFICATIONS

GLOBAL MODEL	HISTORICAL MODEL	POWER RATING $P_{25^{\circ}\text{C}}$ W	RESISTANCE RANGE $\Omega$	TOLERANCE $\pm \%$	WEIGHT (typical) g
CMV16	CMV-16	16	1.0 to 59K	5, 10	7.5
CMV20	CMV-20	20	1.0 to 95K	5, 10	8.64
CMV22	CMV-22	22	1.0 to 105K	5, 10	8.64

### GLOBAL PART NUMBER INFORMATION

Global Part Numbering example: **CMV16CME20K00JE** (visit [www.vishay.net](http://www.vishay.net) SAP parts manual for all options)

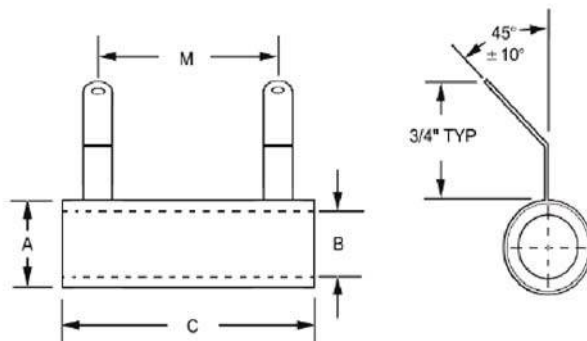
**C** **M** **V** **1** **6** **C** **M** **E** **2** **0** **K** **0** **0** **J** **E**    

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)
<b>CMV16</b> <b>CMV20</b> <b>CMV22</b>	<b>CA</b> <b>CM</b>	<b>E</b> = lead (Pb)-free	<b>R</b> = decimal <b>K</b> = thousand <b>1R500</b> = 1.5 $\Omega$ <b>1K500</b> = 1.5 k $\Omega$	<b>J</b> = $\pm 5 \%$ <b>K</b> = $\pm 10 \%$	<b>E</b> = Lead (Pb)-free cell and bulk pack	(Dash number) From <b>1</b> to <b>99</b> as applicable <b>NI</b> = non-inductive

Historical Part Number example: **CMV-16-20K-5 %**

<b>CMV-16</b>	<b>20 k<math>\Omega</math></b>	<b>5 %</b>
HISTORICAL MODEL	RESISTANCE VALUE	TOLERANCE

**APPLICATION PHOTOS**

**DIMENSIONS** in inches [millimeters]


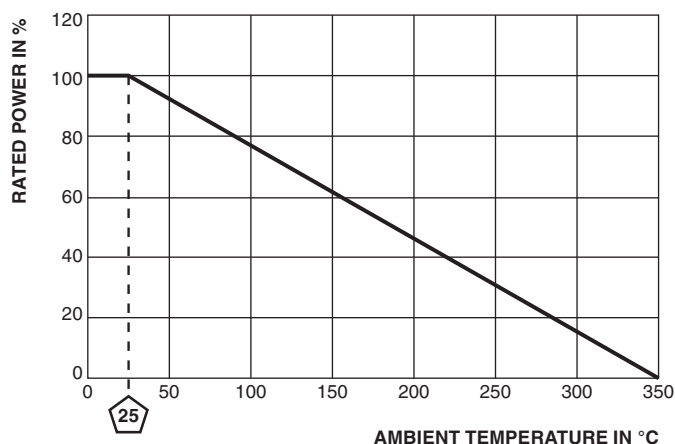
MODEL	CORE DIMENSIONS				TERMINAL DESIGNATION	
	A TYPICAL	B ± 0.031 [0.79]	C ± 0.062 [± 1.59]	M ± 0.0118 [0.3]	CM HOLE DIAMETER TYPICAL	CA HOLE DIAMETER TYPICAL
CMV16	0.562 [14.29]	0.312 [7.94]	1.25 [31.75]	0.875 [22.22]	0.197 [5.00]	0.265 [6.73]
CMV20	0.562 [14.29]	0.312 [7.94]	1.750 [44.45]	1.125 [28.58]	0.197 [5.00]	0.265 [6.73]
CMV22	0.562 [14.29]	0.312 [7.94]	1.750 [44.45]	1.250 [31.75]	0.197 [5.00]	0.265 [6.73]

**TECHNICAL SPECIFICATIONS**

PARAMETER	UNIT	RESISTOR CHARACTERISTICS
Power Rating	W	16 to 22
Resistance Range	$\Omega$	1 to 105k
Resistance Tolerance	%	5
Temperature Coefficient	ppm/°C	$\pm 260$ for 20 $\Omega$ and above, $\pm 400$ for 1 $\Omega$ to 19.99 $\Omega$
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	-	$(P \times R)^{0.5}$
Insulation Resistance	$\Omega$	1M
Dielectric Voltage	V <sub>RMS</sub>	1000 V <sub>AC</sub>
Creepage	-	Varies by wattage, see "Terminal Setback" in Dimensions table
Terminal Sleeves	-	n/a
Inductance	$\mu$ H	Varies by wattage and resistance
Non-Inductive Winding	-	Available
Terminal Strength	lb	10 lbs
Electrical or Mechanical Customization	-	Contact factory: <a href="mailto:ww2dresistors@vishay.com">ww2dresistors@vishay.com</a>

**MATERIAL SPECIFICATIONS**

Element	Copper-nickel alloy or nickel-chrome alloy, depending on resistance value
Core	Cordierite, steatite
Coating	Special high temperature vitreous enamel
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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