

Type CJP Series

Key Features

Up to 1000W
power rating

Aluminium
enclosure

Vibration
resistant

Applications

Power supplies

Inverters

Servo Motors
and Drives

Warehouse
Automation

Electrical
systems in
difficult
environments



The CJP Series of resistors are an economical and compact aluminium housed resistor with good electrical stability and reliability. With power ratings up to 1000W they are suited to a range of electrical circuits including power supplies inverters and servo systems. With very good durability and mineral filled construction they are particularly good for braking and other pulse applications.

Characteristics – Electrical

Type	CJP60	CJP80	CJP100	CJP120	CJP150	CJP200	CJP300
Rated Power (free air) W	60	80	100	120	150	200	300
Ohmic Value (Min.) Ω	0.2	0.5	1.0	6.0	6.0	0.5	0.5
Ohmic Value (Max.) Ω	20	1.0K	1.0K	1.0K	1.0K	1.0K	1.5K
Tolerance	5%						
Temperature Coefficient of Resistance (TCR)	$\pm 200\text{PPM}/^{\circ}\text{C}$ Max.						
Short Term Overload	60W – 5 * Rated Power for 5 seconds >60W 10 * Rated Power for 5 seconds						
Limiting element voltage	600VAC / 850VDC						
Dielectric Strength	2500VAC 1 Minute						
Insulation resistance	100M Ω min.						
Operating Temperature	$-25 \sim 250^{\circ}\text{C}$						
Max. Surface temp at rated power (free air)	250 $^{\circ}\text{C}$	260 $^{\circ}\text{C}$	275 $^{\circ}\text{C}$	275 $^{\circ}\text{C}$	280 $^{\circ}\text{C}$	300 $^{\circ}\text{C}$	350 $^{\circ}\text{C}$
Weight g.	155	190	225	260	295	510	690

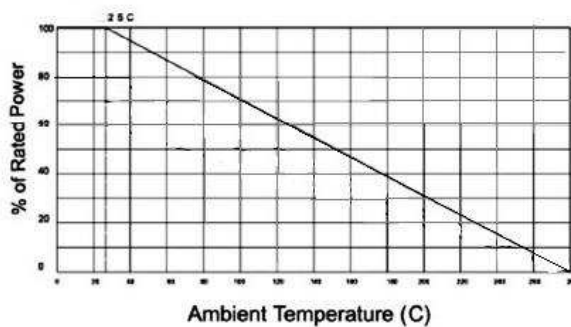
Operating Voltage = $\sqrt{P \cdot R}$ or Max. operating voltage listed above, whichever is lower.

Characteristics – Electrical (continued)

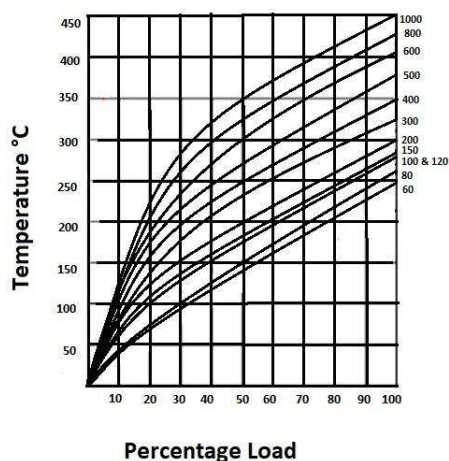
Type	CJP400	CJP500	CJP600	CJP800	CJP1000
Rated Power (free air) W	400	500	600	800	1000
Ohmic Value (Min.) Ω	0.5	0.5	1.5	1.0	1.0
Ohmic Value (Max.) Ω	2.0K	2.0K	2.0K	2.0K	2.0K
Tolerance	5%				
Temperature Coefficient of Resistance (TCR)	$\pm 200\text{PPM}/^{\circ}\text{C}$ Max.				
Short Term Overload	60W – 5 * Rated Power for 5 seconds >60W 10 * Rated Power for 5 seconds				
Limiting element voltage	600VAC / 850VDC				
Dielectric Strength	2500VAC				
Insulation resistance	100M Ω min.				
Operating Temperature	-25 ~ 250 $^{\circ}\text{C}$				
Max. Surface temp at rated power (free air)	350 $^{\circ}\text{C}$	380 $^{\circ}\text{C}$	405 $^{\circ}\text{C}$	425 $^{\circ}\text{C}$	450 $^{\circ}\text{C}$
Weight g.	840	1100	1100	1340	1340

Operating Voltage = $\sqrt{P \cdot R}$ or Max. operating voltage listed above, whichever is lower.

Derating Curve



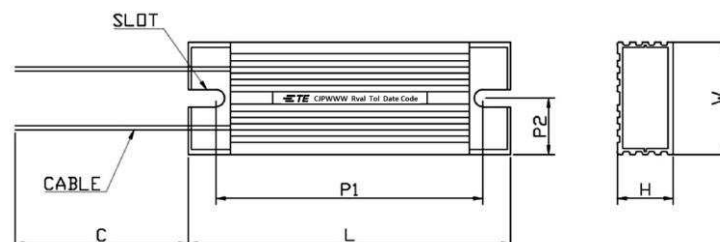
Temperature Rise



Environmental Characteristics

Characteristics	Limits	Test Methods
Insulation Resistance	Insulation resistance is 100M Ω min.	Dry / Normal 500VDC
Dielectric Withstand Voltage	No evidence of flashover, mechanical damage, arcing, or insulation breakdown	2500VAC for 1 minute
Short Time Overload	$\Delta R \pm (2\% + 0.05\Omega)$ Max. with no evidence of mechanical damage	Permanent resistance change after the application voltage at $\leq 60W$ - 5 x Rated Power for 5sec $> 60W$ - 10 x Rated Power for 5 sec
Humidity	$\Delta R < \pm(3\% + 0.05\Omega)$	40°C, 90% Rh, 240Hrs
Load Life	$\Delta R \pm (2\% + 0.05\Omega)$ Max. with no evidence of mechanical damage	Permanent resistance change after 500 hours operating at RCWV with duty cycle of (1.5 hours "on", 0.5 hour "off") at room temperature
Vibration	No Mechanical or Electrical Damage	In accordance with IEC 60068-2-6 / Vibration Test as per IEC 61373:2010, Category 1, Class B

Dimensions (mm)



Model	L ± 1	W ± 1	H ± 1	C ± 5	P1 ± 0.5	P2 ± 0.5	Mounting Slot
CJP60	115	40	20	290	100	20	5 x 10
CJP80	140	40	20	290	125	20	
CJP100	165	40	20	290	150	20	
CJP120	190	40	20	290	175	20	
CJP150	215	40	20	290	200	20	
CJP200	165	60	30	290	150	30	
CJP300	215	60	30	290	200	30	
CJP400	265	60	30	290	250	30	
CJP500	335	60	30	290	320	30	
CJP600	335	60	30	290	320	30	
CJP800	400	60	30	290	385	30	
CJP1000	400	60	30	290	385	30	

Connection Cable

Termination Cables: UL Approved FEP cables for the terminations, based on the resistor current rating (see chart below) With E5 ring terminals

Current Rating	Cable Size used
≤ 15A	16 AWG
>15A & ≤25A	14 AWG
>25A & ≤35A	12 AWG

Marking:

 CJPWWW Rval Tol Date Code

- 1 Company name or Logo
- 2 TE Series Number
- 3 Resistance Value
- 4 Tolerance
- 5 Date Code (YYWW)

Style of Marking – Laser

How To Order

CJP	60	J	1R0	J
Common Part	Power Rating	Tolerance	Resistance Value	Connection
CJP – Aluminium Housed Power resistor	60 60W 80 80W 100 100W Etc.	J - ±5%	1 Ω- 1R0 10Ω- 10R 100Ω - 100R 1000Ω (1KΩ)- 1K0	J - Lead