

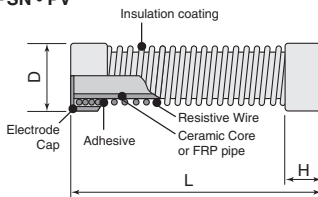
features

- PSN can respond to high voltage and high power with a wide resistance range of 500Ω~6GΩ
- PSO is made completely moisture preventive to be PSN that can be used under high moisture environment
- PN is a non-inductive type and can be used for high frequency
- PWW and PAP type are non-inductive wire wound resistors
- PWW resistors have the same shapes as PSN and can be used for a low resistance area that cannot be produced with PSN resistors
- PAP resistors are non-inductive wirewound resistors with inductance less than PWW can be used for pulse wave measurement, impulse generators, etc. and have the same dimensions as PWW resistors. EU RoHS regulation is not intended for lead in brass.

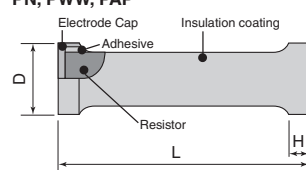
leaded resistors

dimensions and construction

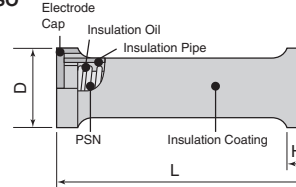
PSN • PV



PN, PWW, PAP



PSO



Size Code	Dimensions (mm)			Weight (g)
	L	D±0.5	H (Nominal)	
PSN-0.5	50±2	17.5	10	20
PSN-1	100±2		30	
PSN-2	200±2	24	15	85
PSN-3	300±2	33	20	250
PSN-4	400±3	45		600
PSN-5	500±3	62	25	800
PSN-6	1000±5			1350
PV-0.5	80±2	9.5	8	12
PV-1	150±2			23
PV-2		17.5	10	45
PV-5		24	15	105
PV-8	250±2	33	20	220
PSO-1	105±5	28	10	150
PSO-2	205±5	38		370

Size Code	Dimensions (mm)			Weight (g)	
	L	D±0.5	H (Nominal)		
PSO-3	320±5	46	20	760	
PSO-4	420±5	65		1900	
PSO-5	530±5	80	25	3500	
PSO-6	1050±5			6200	
PN-0.5	50±2	17	12	8	
PN-1	100±2			25	
PN-2	200±2			80	
PN-3	300±2			100	
PN-4	400±2	20	20	125	
PWW-3, PAP-3	300±2			33	310 • 250
PWW-4, PAP-4	400±3			45	660 • 510
PWW-5, PAP-5	500±3	62	25	1330 • 960	
PWW-6, PAP-6	1000±5			2700 • 1850	

ordering information

PSN

PSN-	0.5	CP	F	A	105	J
Product Code	Power Rating	Cap	RoHS	Holder	Nominal Resistance	Resistance Tolerance
	0.5 : 2W 1 : 5W 2 : 10W 3 : 25W 4 : 50W 5 : 125W 6 : 250W	C M CP		Nil: No Holder A B	3 digits	J : ±5% K : ±10% M : ±20%

PSO

PSO-	0.5	C	F	105	J
Product Code	Power Rating	Cap	RoHS	Nominal Resistance	Resistance Tolerance
	1 : 4W 2 : 8W 3 : 20W 4 : 40W 5 : 100W 6 : 200W	C		3 digits	J : ±5% K : ±10% M : ±20%

Specifications given herein may be changed at any time without prior notice. Please confirm technical specifications before you order and/or use.

11/15/22

ordering information

PV

PV-	0.5	CP	F	A	105	J
Product Code	Power Rating	Cap	RoHS	Holder	Nominal Resistance	Resistance Tolerance
	0.5 : 2W 1 : 4W 2 : 7W 5 : 12W 8 : 20W	C M CP		Nil: No Holder A B	3 digits	J : ±5% K : ±10% M : ±20%

PN

PN-	0.5	CP	F	105	J
Product Code	Power Rating	Cap	RoHS	Nominal Resistance	Resistance Tolerance
	0.5 : 1.5W 1 : 3W 2 : 6W 3 : 9W 4 : 12W	C M CP		3 digits	J : ±5% K : ±10% M : ±20%

PWW, PAP

PWW-	3	M	F	A	102	J
Product Code	Power Rating	Cap*	RoHS	Holder	Nominal Resistance	Resistance Tolerance
PWW PAP	3 : 25W 4 : 50W 5 : 100W 6 : 200W	M		Nil: No Holder A B	3 digits	J : ±5% K : ±10% M : ±20%

* Contact us when you have control request for environmental hazardous material other than the substance specified by EU-RoHS. P series resistors use brass for the electrode cap. Lead in brass is a substance not subject to the EU-RoHS (exemption 6(c)), but please note that it exceeds the threshold of the EU-REACH (Reach 19th SVHC list).

applications and ratings

Part Designation	Power Rating (W)	Resistance Range (Ω) J: ±5% K: ±10% M: ±20% (E24**)	T.C.R. (x10 ⁻⁶ /K)	Maximum Working Voltage	Impulse Withstand Voltage	Energy Rating 1 time/5 min.	Operating Temperature Range	
PSN-0.5	2	500~500M	±1500: +25°C/-15°C	15kV	20kV	50J	-30°C~+125°C	
PSN-1	5	1k~1G		30kV	40kV	125J		
PSN-2	10	2k~2G		60kV	80kV	400J		
PSN-3	25	3k~3G		90kV	120kV	1.8kJ		
PSN-4	50	4k~4G		120kV	160kV	4.0kJ		
PSN-5	125	5k~5G		150kV	200kV	9.0kJ		
PSN-6	250	6k~6G	±1000: +25°C/+85°C (R<1GΩ)	300kV	400kV	20.0kJ	-15°C~+60°C	
PV-0.5	2	500~500M		24kV	32kV	45J		
PV-1	4	1k~1G		45kV	60kV	90J		
PV-2	7	1.5k~1.5G		±3000 (R≥1GΩ)	75kV	100kV		270J
PV-5	12	2.5k~2.5G						650J
PV-8	20	2.5k~2.5G						950J
PSO-1	4	1k~1G	30kV				40kV	100J
PSO-2	8	2k~2G	60kV	80kV	320J			
PSO-3	20	3k~3G	90kV	120kV	1.5kJ	-30°C~+125°C		
PSO-4	40	4k~4G	120kV	160kV	3.2kJ			
PSO-5	100	5k~5G	150kV	200kV	7.2kJ			
PSO-6	200	6k~6G	300kV	400kV	16.0kJ			
PN-0.5	1.5	50~500k	—	20kV	35J			
PN-1	3	100~1M	—	40kV	70J			
PN-2	6	200~2M	±200	—	80kV	130J		
PN-3	9	300~3M		—	120kV	200J		
PN-4	12	400~4M		—	160kV	270J		
PWW-3	25	10~800		—	—	120kV	2kJ~5kJ	
PWW-4	50	15~1.5k				160kV	4kJ~12kJ	
PWW-5	100	25~2.5k				200kV	7kJ~20kJ	
PWW-6	200	50~5k	400kV			14kJ~40kJ		
PAP-3	25	10~400	120kV			1kJ~2kJ		
PAP-4	50	10~800	160kV			1.5kJ~4kJ		
PAP-5	100	15~1k	200kV	3.5kJ~10kJ				
PAP-6	200	25~2k	400kV	7kJ~25kJ				

Rated Ambient Temperature: +25°C

Rated voltage = √Power Rating × Resistance value or Max. working voltage, whichever is lower.

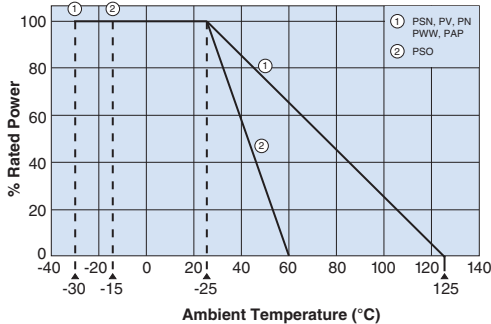
** Please ask of us about resistance other than E24 series.

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11/03/23

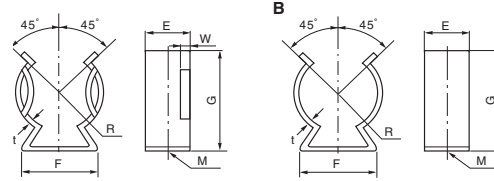
environmental applications

Derating Curve



For resistors operated at an ambient temperature of 25°C or above, a power rating shall be rated in accordance with the above derating table.

Holder Dimensions (mm)



Type	R	E	F	G	M	t	W
PSN-0.5, PSN-1, PV-2	8.5	11	16	24	ø4.2	0.8	1.5±0.5
PSN-2, PV-5	11.5	15	18	32		1.0	1.5±1.0
PSN-3, PV-8, PWW-3, PAP-3	16	18	24	40	ø6.5	1.5	2.0±1.0
PSN-4, PWW-4, PAP-4	22	20	36	59			
PSN-5, 6, PWW-5, 6, PAP-5, 6	30	25	46	74			

Cap Dimensions (mm)

Cap Shape	C			M				CP		C			
	D	d	øD	D	M	K	A	d	ℓ	D	M	ℓ ₁	ℓ ₂
PSN-05; PSN-1; PV-2	17.5	7	17.5	3	2	7	1.0	90	—	—	—	—	
PSN-2; PV-5	24	12	24	4	2	10	1.2	120	—	—	—	—	
PSN-3; PV-8; PWW-3; PAP-3	33	14	33	5	4	14	—	—	—	—	—	—	
PSN-4; PWW-4; PAP-4	—	—	45	6	4	16	—	—	—	—	—	—	
PSN-5,6; PWW-5,6; PAP-5,6	—	—	62	8	7	26	—	—	—	—	—	—	
PV-0.5; PV-1	9.5	Without hole	—	—	—	—	0.9	90	—	—	—	—	
PN-0.5	17	Without hole	—	—	—	—	1.0	90	—	—	—	—	
PN-1	—	—	17	4	—	—	1.0	90	—	—	—	—	
PN-2~PN-4	—	—	17	4	—	—	1.2	120	—	—	—	—	
PSO-05,1	—	—	—	—	—	—	—	—	—	28	4	8	—
PSO-2	—	—	—	—	—	—	—	—	—	38	6	10	—
PSO-3	—	—	—	—	—	—	—	—	—	46	8	—	15
PSO-4	—	—	—	—	—	—	—	—	—	65	10	—	20
PSO-5,6	—	—	—	—	—	—	—	—	—	80	12	—	25