



CPTC Thermistor

PRODUCT DATA

■ Motor Starting

● Features

1. Two versions available
PSA versions are uncased , metallized disk for clamp-contacting
PSB versions are cased
2. Voltage ratings: from 120V to 500V
3. Stable over a long life
4. No noise generated



● Recommended Applications

1. Home appliances (Fridge, Air conditioner)

● Approvals



- * UL 1434 Recognized (File#E138827)
- * cUL Recognized (File#E138827)



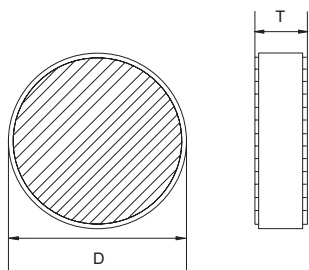
- * TUV Certificate No. R50031360 & R50030891



- * CQC Certificate No. CQC 03001008127 & CQC 03001008128

● Dimensions

PSA Series



(Unit: mm)



● **Characteristics**

PSA Series

Part No.	Curie Temperature	Nominal Zero-power Resistance	Maximum Voltage	Maximum Current	Operating Time	Equilibrium Power	Recovery Time	Reference Coil Resistance	Dimensions	
	T _c (°C)	R ₂₅ (Ω)	V _{max} (V)	I _{max} (A)	t _o (s)	P _{max} (W)	t _{rmax} (s)	R _{ref} (Ω)	D(mm)	T(mm)
PSA3R3□A2A604	120±10	3.3	160	12	0.3-1.2	3.5	90	10	20.0 ^{+0.5} _{-1.0}	2.5±0.2
PSA3R9□A2A604		3.9	160	12	0.3-1.2	3.5	90	10		
PSA4R7□A2A804		4.7	180	12	0.3-1.2	3.5	90	10		
PSA5R6□A2A804		5.6	180	12	0.3-1.2	3.5	90	10		
PSA6R8□A2B204		6.8	220	10	0.3-1.2	3.5	90	15		
PSA100□A2B404		10	240	10	0.2-0.8	3	85	15		
PSA150□A2B604		15	260	10	0.2-0.8	3	85	25		
PSA220□A2C004		22	300	9	0.2-0.8	3	85	25		
PSA330□A2C004		33	300	9	0.2-0.8	3	85	25		
PSA470□A2C004		47	300	9	0.2-0.8	3	85	25		
PSA680□A2C204		68	320	9	0.2-0.8	3	85	25		
PSA4R7□A2A705		120±10	4.7	170	12	0.2-1.0	3.2	80		
PSA5R6□A2A905	5.6		190	12	0.2-1.0	3.2	80	10		
PSA6R8□A2B205	6.8		220	10	0.2-1.0	3.2	80	15		
PSA100□A2B405	10		240	9	0.2-1.0	3	80	20		
PSA150□A2B605	15		260	8	0.2-1.0	3	80	20		
PSA220□A2B805	22		280	8	0.2-0.8	3	80	15		
PSA330□A2B805	33		280	7	0.2-0.8	3	80	20		
PSA470□A2C005	47		300	6	0.2-0.8	3	80	20		
PSA680□A2C005	68		300	5	0.2-0.8	3	80	20		
PSA3R3□AGA604	135±10	3.3	160	12	0.3-1.2	3.5	70	10	20.0 ^{+0.5} _{-1.0}	2.5±0.2
PSA3R9□AGA604		3.9	160	12	0.3-1.2	3.5	70	10		
PSA4R7□AGA804		4.7	180	12	0.3-1.2	3.5	70	10		
PSA5R6□AGA804		5.6	180	12	0.3-1.2	3.5	70	10		
PSA6R8□AGB004		6.8	200	10	0.3-1.2	3.5	70	15		
PSA100□AGB304		10	230	9	0.2-1.0	3.2	65	15		
PSA150□AGB504		15	250	8	0.2-1.0	3.2	65	15		
PSA220□AGC004		22	300	7	0.2-1.0	3.2	65	20		
PSA330□AGC604		33	360	6	0.2-1.0	3.2	65	25		
PSA470□AGD004		47	400	5	0.2-1.0	3.2	65	35		
PSA680□AGD304		68	430	4	0.2-1.0	3.2	65	55		



Part No.	Curie Temperature	Nominal Zero-power Resistance	Maximum Voltage	Maximum Current	Operating Time	Equilibrium Power	Recovery Time	Reference Coil Resistance	Dimensions	
	T _c (°C)	R ₂₅ (Ω)	V _{max} (V)	I _{max} (A)	t ₀ (s)	P _{max} (W)	t _{rmax} (s)	R _{ref} (Ω)	D(mm)	T(mm)
PSA4R7□AGA805	135±10	4.7	180	10	0.3-1.0	3.4	65	15	17.5 ^{+0.5} _{-1.0}	2.5±0.2
PSA5R6□AGA805		5.6	180	10	0.3-1.0	3.4	65	15		
PSA6R8□AGB005		6.8	200	9	0.3-1.0	3.4	65	15		
PSA100□AGB205		10	220	8	0.3-1.0	3.2	65	20		
PSA150□AGB405		15	240	7	0.2-0.8	3.2	65	20		
PSA220□AGB805		22	280	6	0.2-0.8	3.2	65	25		
PSA330□AGC205		33	320	4	0.2-0.8	3.2	65	45		
PSA470□AGC505		47	350	4	0.2-0.8	3.2	65	45		
PSA680□AGD005		68	400	4	0.2-0.8	3.2	65	45		
PSA4R7□AGA606	135±10	4.7	160	10	0.2-0.6	3	50	15	16 ^{+0.5} _{-1.0}	2.5±0.2
PSA5R6□AGA706		5.6	170	10	0.2-0.6	3	50	15		
PSA6R8□AGA806		6.8	180	9	0.2-0.6	3	50	15		
PSA100□AGB006		10	200	8	0.2-0.6	3	50	15		
PSA150□AGB306		15	230	7	0.2-0.6	3	50	20		
PSA220□AGB506		22	250	6	0.2-0.6	3	50	20		
PSA6R8□AGA607	135±10	6.8	160	8	0.1-0.6	2.8	45	15	14 ^{+0.5} _{-1.0}	2.5±0.2
PSA100□AGA807		10	180	7	0.1-0.6	2.8	45	20		
PSA150□AGB407		15	240	6	0.1-0.5	2.8	45	25		
PSA220□AGB407		22	240	5	0.1-0.5	2.8	45	25		
PSA330□AGB507		33	250	4	0.1-0.5	2.8	45	30		

Note: □=Tolerance of R₂₅



● **Reliability Test**

Item	Test Condition / Methods	Standard
Resistance to Soldering Heat	Temperature: $350 \pm 5^{\circ}\text{C}$ Duration: 3~4 s	IEC60068-2-20 Test T _b
Robustness of Termination	Tensile, bending and torsion tests as appropriate to type termination	IEC60068-2-21
Rapid Change of Temperature	T _A =LCT T _B =UCT Number of cycles:5 Duration: 30 min	IEC60068-2-14 Test N _a
Vibration	Frequency : 10-55 Hz h = 0.75 min Duration: 6 h	IEC 60068-2-6 Test F _c
Shock	Pulse shape: half-sine Acceleration: 50m/s ² Pulse duration: 30 ms	IEC 60068-2-27 Test E _a
Climatic Sequence	Dry heat : T= 40°C, 24hrs , 20%Rh Damp heat first cycle: T=40°C 95% R h Cold: T=0°C, 2hrs Damp heat 5 cycles	IEC 60068-2-2 Test B _a IEC 60068-2-30 Test D _b IEC 60068-2-1 Test A _a
Temperature Coefficient of Resistance	$\alpha_T = \ln(R_{Tc+25}/R_{Tc+10}) / 15$ R _{Tc} =2R _{min}	IEC 60738-1
Endurance at Upper Category Temperature	Temperature: UCT Duration: 1000 hrs	IEC 60738-1
Endurance at Maximum Operating Temperature and Maximum Voltage	Voltage: V _{max} Temperature: UCT Series resistor: R _{ref} Duration: 1000 hrs	IEC 60738-1
Endurance at Room Temperature (Cycling)	Voltage: V _{max} Temperature: 25 ±5°C Series resistor : R _{ref} Number of cycle 10,000、100,000 or 200,000	IEC 60738-1
Damp Heat Steady State	Temperature: 40 ±5°C Relative humidity of air: 95~98%Rh Duration: 1000 hrs	IEC 60068-2-3 Test C _a