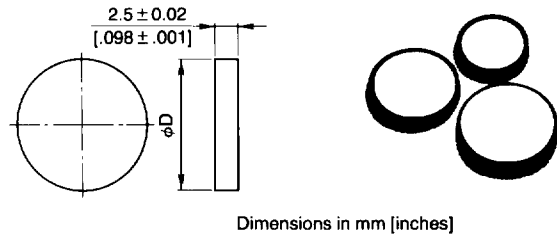


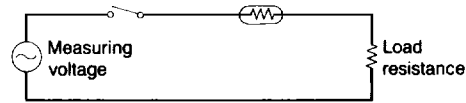
PTC Thermistors

PTC THERMISTORS FOR MOTOR STARTING

BARE TYPE



Measuring circuit (at 25°C [77°F])



UL FILE NO., MAXIMUM RATED VOLTAGE, AND MAXIMUM RATED CURRENT

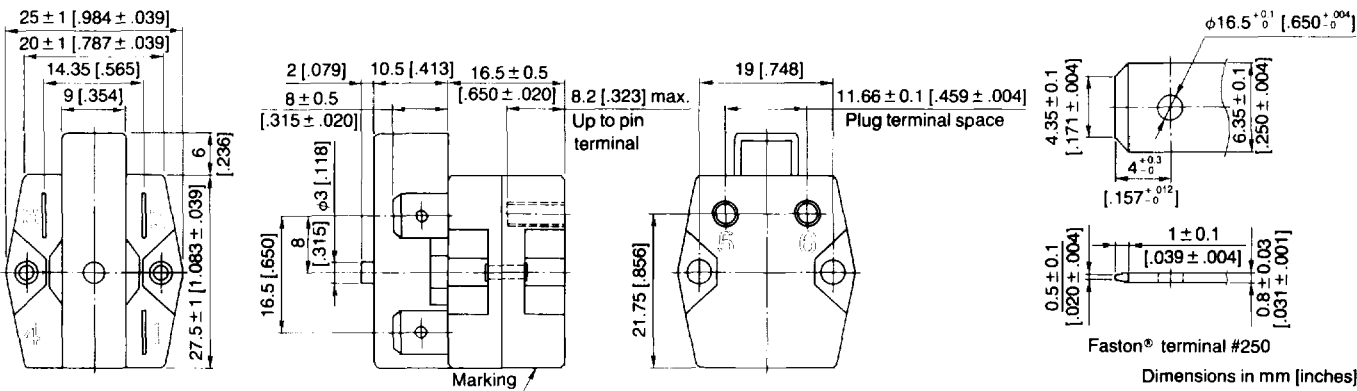
Initial resistance	Switching temperature Ts Diameter ϕD (mm) [inches] $\pm 10\%$	135 $\pm$ 10°C [275 $\pm$ 18°F]				120 $\pm$ 10°C [248 $\pm$ 18°F]	
		20 [.787]	17.5 [.689]	16 [.630]	14 [.551]	20 [.787]	17.5 [.689]
3.3 $\Omega \pm 30\%$	UL File No. Max. rated voltage Max. rated current	F20-3R3 160V 12A				E20-3R3 160V 12A	
3.9 $\Omega \pm 30\%$	UL File No. Max. rated voltage Max. rated current	F20-3R9 160V 12A				E20-3R9 160V 12A	
4.7 $\Omega \pm 30\%$	UL File No. Max. rated voltage Max. rated current	F20-4R7 180V 12A	F18-4R7 180V 10A	F16-4R7 160V 10A		E20-4R7 180V 12A	E18-4R7 170V 12A
5.6 $\Omega \pm 30\%$	UL File No. Max. rated voltage Max. rated current	F20-5R6 180V 12A	F18-5R6 180V 10A	F16-5R6 170V 10A		E20-5R6 180V 12A	E18-5R6 190V 12A
6.8 $\Omega \pm 30\%$	UL File No. Max. rated voltage Max. rated current	F20-6R8 200V 10A	F18-6R8 200V 9A	F16-6R8 180V 9A	F14-6R8 160V 8A	E20-6R8 220V 10A	E18-6R8 220V 10A
10 $\Omega \pm 30\%$	UL File No. Max. rated voltage Max. rated current	F20-100 225V 9A	F18-100 220V 8A	F16-100 200V 8A	F14-100 180V 7A	E20-100 240V 10A	E18-100 240V 9A
15 $\Omega \pm 30\%$	UL File No. Max. rated voltage Max. rated current	F20-150 250V 8A	F18-150 240V 7A	F16-150 225V 7A	F14-150 240V 6A	E20-150 260V 10A	E18-150 260V 8A
22 $\Omega \pm 30\%$	UL File No. Max. rated voltage Max. rated current	F20-220 300V 7A	F18-220 280V 6A	F16-220 250V 6A	F14-220 225V 5A	E20-220 300V 9A	E18-220 280V 8A
33 $\Omega \pm 30\%$	UL File No. Max. rated voltage Max. rated current	F20-330 355V 6A	F18-330 320V 4A		F14-330 250V 4A	E20-330 300V 9A	E18-330 280V 7A
47 $\Omega \pm 30\%$	UL File No. Max. rated voltage Max. rated current	F20-470 400V 5A	F18-470 350V 4A			E20-470 300V 9A	E18-470 300V 6A
68 $\Omega \pm 30\%$	UL File No. Max. rated voltage Max. rated current	F20-680 430V 4A	F18-680 400V 4A			E20-680 320V 9A	E18-680 300V 5A

• Tolerances of initial resistance, switching temperature and product dimensions are UL recognized values.

PTC Thermistors

PLUG-IN CASE TYPE

These are all UL recognized products (File No. E97354) and are able to combine with element type.



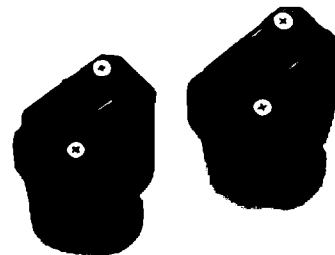
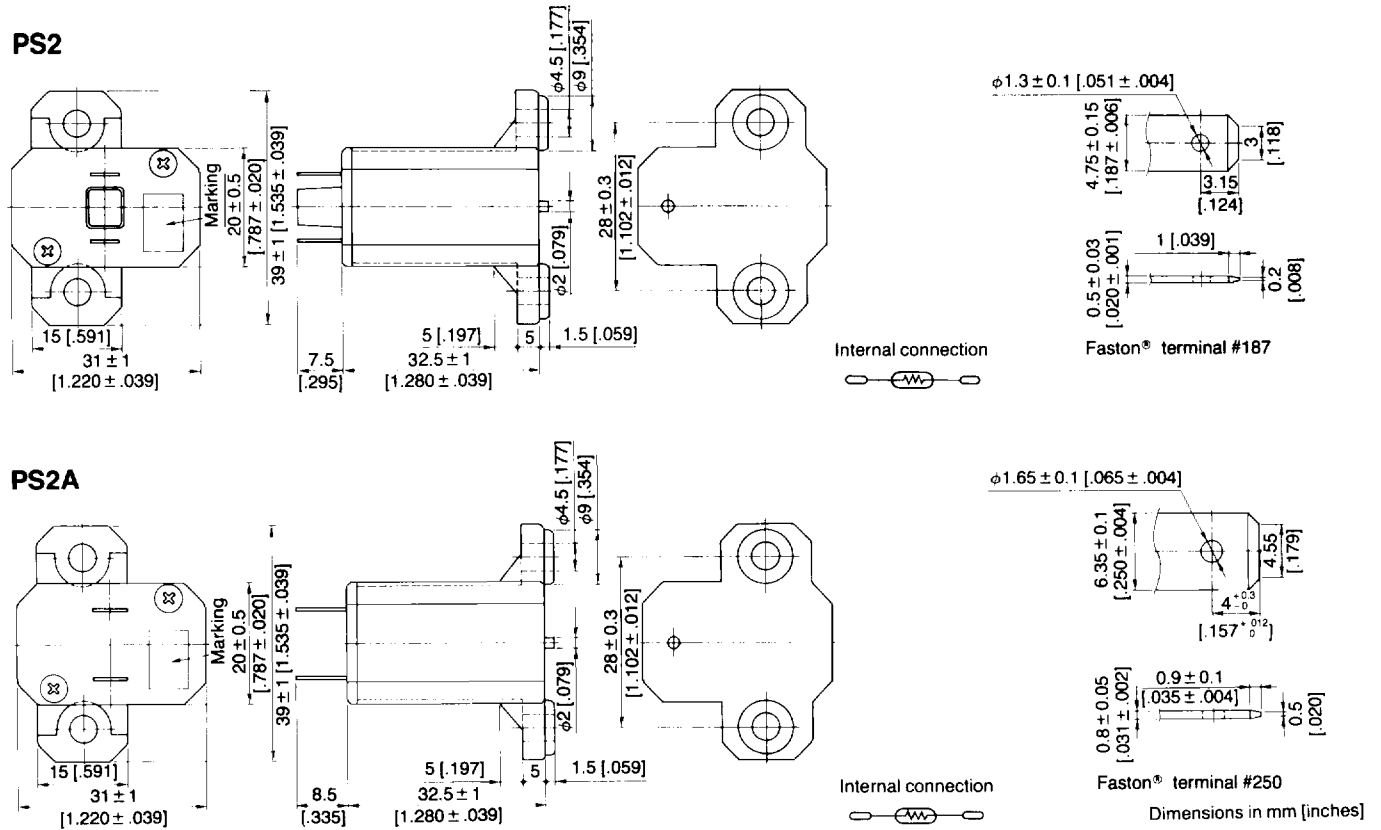
Type	Starting style	Connection	Terminal Plug type	Faston® type
PE0	 Capacitor-start motor			
PE1	 Resistance-split-phase start motor			
PE2	 Capacitor-drive			
PE3	 Capacitor-start-drive			

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PTC Thermistors

FIXED CASE TYPE WITH SCREW

These are all UL recognized products (File No. E97354) and are able to combine with element type, except $\phi 14\text{mm}$ [.551 inches] type.



PTC Thermistors

STANDARD CHARACTERISTICS

Switching temperature T_s 120°C [248°F] (Ambient temperature 25°C [77°F])

Part No.	Initial resistance (Ω) $\pm$ 30%	Max. rated voltage (V _{rms})	High voltage test (V _{rms}) 3 minutes	Max. rated current (A _{rms})	Operating time (sec.) app.	Power consumption (W) max.	Resetting time (sec.) max.
912X22E3R3NQ20-P□*	3.3	160	240	12	0.6	3.5	90
912X22E3R9NQ20-P□	3.9	160	240	12			
912X22E4R7NQ20-P□	4.7	180	270	12			
912X22E5R6NQ20-P□	5.6	180	270	12			
912X23E6R8NQ20-P□	6.8	220	330	10			
912X24E100NR20-P□	10	240	360	10			
912X24E150NS20-P□	15	260	390	10			
912X24E220NS20-P□	22	300	450	9			
912X25E330NS20-P□	33	300	450	9			
912X25E470NS20-P□	47	300	450	9			
912X25E680NT20-P□	68	320	480	9	0.4	3.3	80
912X22E4R7NQ18-P□	4.7	170	255	12			
912X22E5R6NQ18-P□	5.6	190	285	12			
912X22E6R8NQ18-P□	6.8	220	330	10			
912X23E100NQ18-P□	10	240	360	9			
912X24E150NR18-P□	15	260	390	8			
912X24E220NS18-P□	22	280	420	8			
912X24E330NS18-P□	33	280	420	7			
912X25E470NS18-P□	47	300	450	6			
912X25E680NS18-P□	68	300	450	5			

* Please specify your required case type code.

E0: Plug-in case for CSIR type (See P. 4-14)

E1: Plug-in case for RSIR type (See P. 4-14)

E2: Plug-in case for RSCR type (See P. 4-14)

E3: Plug-in case for CSR type (See P. 4-14)

S2: Fixed case type with 2 screws [Faston® terminal # 187] (See P. 4-15)

S2A: Fixed case type with 2 screws [Faston® terminal # 250] (See P. 4-15)

PTC Thermistors

STANDARD CHARACTERISTICS

Switching temperature T_s 135°C [275°F] (Ambient temperature 25°C [77°F])

Part No.	Initial resistance (Ω) $\pm$ 30%	Max. rated voltage (V _{rms})	High voltage test (V _{rms}) 3 minutes	Max. rated current (A _{ms})	Operating time (sec.) app.	Power consumption (W) max.	Resetting time (sec.) max.
912X32E3R3NQ20-P□*	3.3	160	240	12	0.7	4	70
912X32E3R9NQ20-P□	3.9	160	240	12			
912X32E4R7NQ20-P□	4.7	180	270	12			
912X32E5R6NQ20-P□	5.6	180	270	12			
912X33E6R8NQ20-P□	6.8	200	300	10			
912X34E100NR20-P□	10	225	340	9			
912X34E150NS20-P□	15	250	375	8			
912X34E220NS20-P□	22	300	450	7			
912X35E330NT20-P□	33	355	530	6			
912X35E470NU20-P□	47	400	600	5			
912X36E680NV20-P□	68	430	645	4	0.6	3.5	60
912X32E4R7NQ18-P□	4.7	180	270	10			
912X32E5R6NQ18-P□	5.6	180	270	10			
912X32E6R8NQ18-P□	6.8	200	300	9			
912X33E100NR18-P□	10	220	330	8			
912X34E150NR18-P□	15	240	360	7			
912X34E220NS18-P□	22	280	420	6			
912X34E330NT18-P□	33	320	480	4			
912X35E470NT18-P□	47	350	525	4			
912X35E680NU18-P□	68	400	600	4			
912X32E4R7NQ16-P□	4.7	160	240	10	0.5	3.3	50
912X32E5R6NQ16-P□	5.6	170	255	10			
912X32E6R8NQ16-P□	6.8	180	270	9			
912X33E100NQ16-P□	10	200	300	8			
912X34E150NR16-P□	15	225	340	7			
912X34E220NS16-P□	22	250	375	6			
912X32E6R8NQ14-P□	6.8	160	240	8			
912X32E100NQ14-P□	10	180	270	7			
912X33E150NR14-P□	15	240	360	6			
912X34E220NR14-P□	22	225	340	5			
912X34E330NS14-P□	33	250	375	4	0.4	3	40

* Please specify your required case type code.

E0: Plug-in case for CSIR type (See P. 4-14)

E1: Plug-in case for RSIR type (See P. 4-14)

E2: Plug-in case for RSCR type (See P. 4-14)

E3: Plug-in case for CSR type (See P. 4-14)

S2: Fixed case type with 2 screws [Faston® terminal # 187] (See P. 4-15)

S2A: Fixed case type with 2 screws [Faston® terminal # 250] (See P. 4-15)