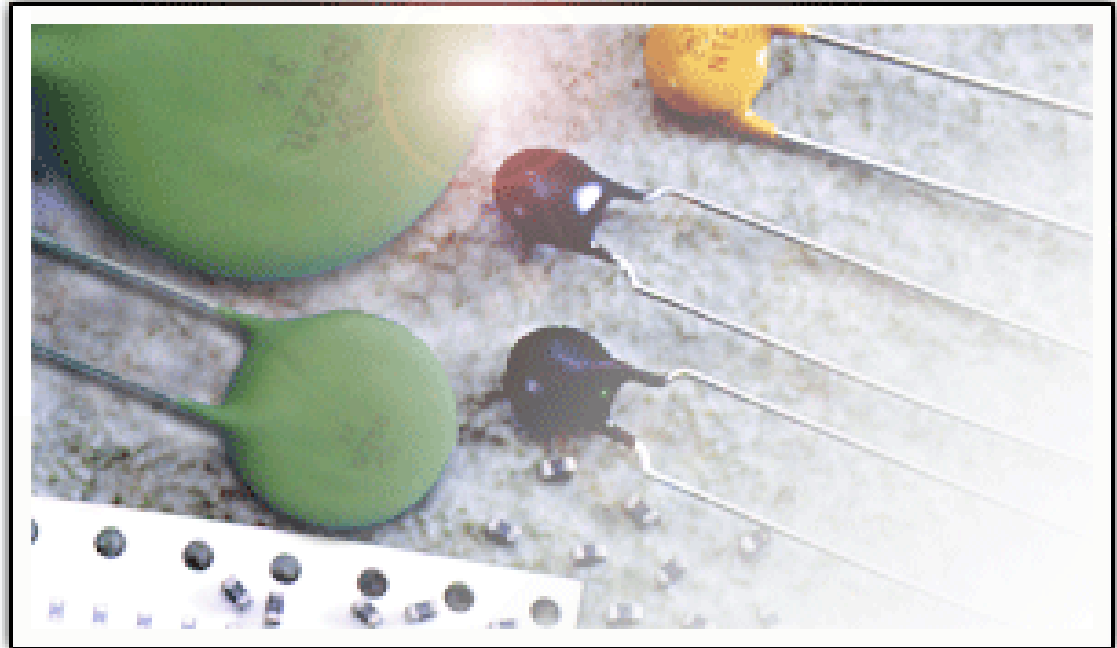


2010

FUJUTEC TECHNOLOGY



Products Catalogue

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FUJUTEC TECHNOLOGY

Nanjing FUJUTEC Technology Co., LTD had been established since year of 2004 in china. We are specialized in fuse.

"Reliable, professional, enthusiasm" is our concept of doing business, to provide the top-grade of excellent quality, reasonable price" is our goal. We sincerely hope that we can cooperate with the partner at home and abroad.

FUJUTEC™ product families are designed for today's demanding electronic and electrical industries. Its resettable feature, compact size, flexible construction, low thermal output and competitive cost out performed the traditional fuse, Ceramic PTC, Bimetal fuse and Current control IC. They are ideal for all low voltage DC and AC application. FUJUTEC™ products are offered in a variety of constructions, which include: Radial Leaded (16V, 30V, 60V, 90V, 120Vac, 240 Vac, 250V & 600V), Surface Mount (0805, 1206, 1210, 1812 & 2920 sizes) & Axial Leaded for all battery pack applications. In addition to standard products we offer a flexible range of custom design devices (i.e. Disc Type).

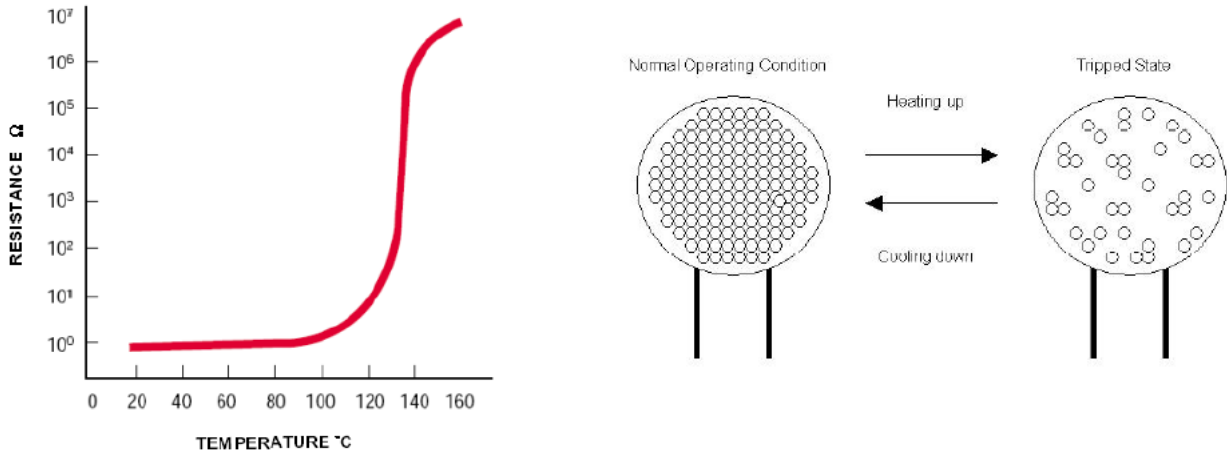
With third party approvals (UL, C-UL and TÜV), FUJUTEC™ products are ensured to provide long lasting safety and performance. From product design and development, through manufacturing and quality control to delivery and shipment. FUJUTEC Technology strictly implements ISO/TS16949:2002 ISO9001:2000 and ISO14001:2004 quality standards to assure its products' quality and consistency.

SUMMARY OF PTC THERMISTOR

Polymeric PTC material and devices technology synergistically integrate the advanced polymer material technologies, conductive material science, novel processing engineering, and fundamental electronic and electrical theory. Electrical resistance of such material and devices increases with temperature increases and vice versa. When experiencing "overcurrent and/or over voltage", the device generates thermal energy ($\text{Energy} = I \cdot V$) and heats up itself. This makes the polymer matrix's morphology change from crystalline to amorphous phase, and results in a resistance increase of thousand orders of magnitude such that "trips" the electricity. The device will remain hot and stay "tripped" until the fault is cleared and power is removed.

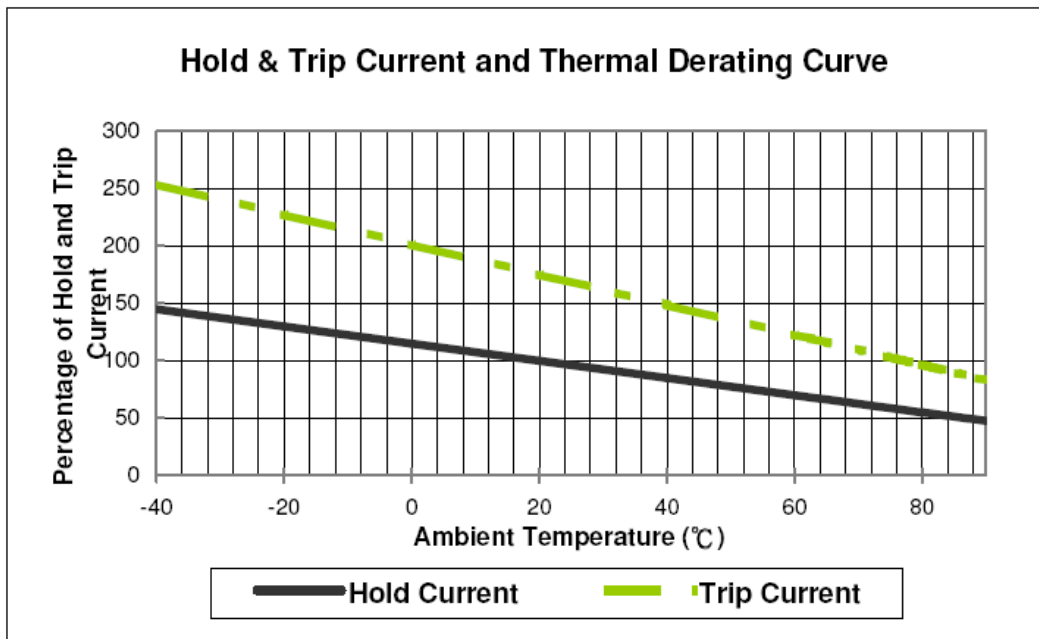
HOW DOES THE RESETTABLE FUSE WORK

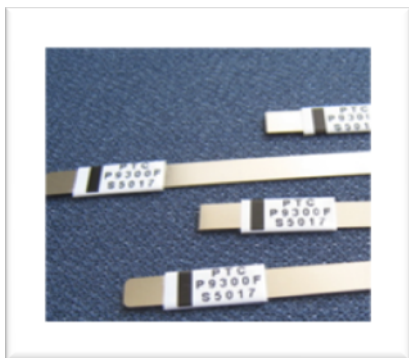
FUJUTECTM resettable fuses are designed and made of patented novel polymeric PTC material in thin chip form, developed solely by FUJUTECTM. With electrodes and leads attached on both sides, it is placed in series to protect a circuit. At “normal operating condition” the device remains at an extremely low resistance (milli-ohms) and allows the electrical current to flow through it without any restriction. When overcurrent conditions occur, the polymeric PTC material heats up and its resistance increases sharply. Such a sharp resistance increase (to an insulated status) cuts off the current in the circuit, and consequently protects the element and device in the circuit. Upon fault current being removed, the resettable fuse cools and its resistance drops to the original extremely low value. The resettable fuse is “reset” and allows the current through the circuit again.



TRIP CURRENT, HOLD CURRENT AND THERMAL DERATING

Trip Current (I_T) and Hold Current (I_H) of FUJUTECTM resettable fuse are rated at 23°C. Typically its Trip Current is twice as much as its Hold Current. FUJUTECTM device does not trip at or below its rated Hold Current, and will trip at or above its Trip Current value. However, due to PTC effect both I_T and I_H reduce with ambient temperature increase and vice versa. As shown below, the currents are reduced nearly 50% at 85°C and increased to 150% at -40°C.





Feature

This axial leaded product is designed to provide reliable, non-cycling protection for rechargeable batteries. The nickel leads with a narrow, low profile design are ideal to install directly onto battery cells.



ELECTRICAL CHARACTERISTICS

Part Number	I hold (A)	I trip (A)	V max (Vdc)	I max (A)	Pd max (W)	Maximum Time To Trip		Resistance			Agency Approval
						Current(A)	Time(Sec.)	R _{min} (Ω)	R _{typ} (Ω)	R _{1max} (Ω)	
STD120F	1.20	2.70	15	100	1.20	6.00	5.00	0.085	0.160	0.220	UL/CSA/TÜV
STD120SF	1.20	2.70	15	100	1.20	6.00	5.00	0.085	0.160	0.220	UL/CSA/TÜV
STD175F	1.75	3.80	15	100	1.50	8.75	5.00	0.050	0.090	0.120	UL/CSA/TÜV
STD175SF	1.75	3.80	15	100	1.50	8.75	5.00	0.050	0.090	0.120	UL/CSA/TÜV
STD200F	2.00	4.40	30	100	1.90	10.00	4.00	0.050	0.060	0.100	UL/CSA/TÜV
STD350F	3.50	6.30	30	100	2.50	20.00	3.00	0.017	0.031	0.050	UL/CSA/TÜV
STD420F	4.20	7.60	30	100	2.90	20.00	6.00	0.012	0.024	0.040	UL/CSA/TÜV

PHYSICAL DIMENSIONS (mm)

Part Number	Fig	A		B		C		D1	D2	E	
		Min.	Max.	Min.	Max.	Min.	Max.	Min.	Min.	Min.	Max.
STD120F	1	19.9	22.1	4.9	5.2	0.6	1.0	5.5	5.5	3.9	4.1
STD120SF	2	19.9	22.1	4.9	5.2	0.6	1.0	5.5	5.5	3.9	4.1
STD175F	1	20.9	23.1	4.9	5.2	0.6	1.0	4.1	4.1	3.9	4.1
STD175SF	2	20.9	23.1	4.9	5.2	0.6	1.0	4.1	4.1	3.9	4.1
STD200F	1	21.3	23.4	10.2	11.0	0.5	1.1	5.0	5.0	4.8	5.4
STD350F	1	28.4	31.8	13.0	13.5	0.5	1.1	6.3	6.3	6.0	6.6
STD420F	1	30.6	32.4	12.9	13.6	0.5	1.1	5.0	5.0	6.0	6.7

Remark: Alternative electrical and mechanical parameters are available upon request. Please contact with Our company

Figure1

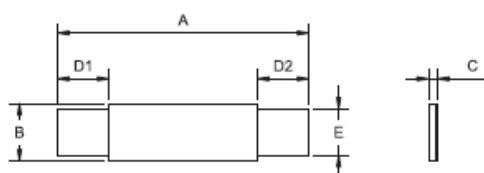
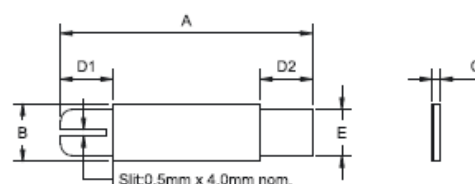


Figure2





Feature

This product line similar to STD family is designed to provide over current protection for rechargeable batteries at elevated temperatures. These devices offer hold currents from 0.7 amp to 3.4 amps and voltages from 15 volts to 24 volts.



ELECTRICAL CHARACTERISTICS

Part Number	I hold (A)	I trip (A)	V max (Vdc)	I max (A)	Pd max (W)	Maximum Time To Trip		Resistance			Agency Approval
						Current(A)	Time(Sec.)	R _{min} (Ω)	R _{typ} (Ω)	R _{1max} (Ω)	
LTD070F	0.70	1.50	15	100	1.00	3.50	5.00	0.100	0.200	0.340	UL/CSA/TÜV
LTD070SF	0.70	1.50	15	100	1.00	3.50	5.00	0.100	0.200	0.340	UL/CSA/TÜV
LTD100F	1.00	2.50	24	100	1.50	5.00	7.00	0.070	0.130	0.260	UL/CSA/TÜV
LTD100SF	1.00	2.50	24	100	1.50	5.00	7.00	0.070	0.130	0.260	UL/CSA/TÜV
LTD100SSF	1.00	2.50	24	100	1.50	5.00	7.00	0.070	0.130	0.260	UL/CSA/TÜV
LTD180F	1.80	3.80	24	100	2.00	9.00	2.90	0.040	0.068	0.120	UL/CSA/TÜV
LTD180SF	1.80	3.80	24	100	2.00	9.00	2.90	0.040	0.068	0.120	UL/CSA/TÜV
LTD180SSF	1.80	3.80	24	100	2.00	9.00	2.90	0.040	0.068	0.120	UL/CSA/TÜV
LTD190F	1.90	4.20	24	100	1.90	10.00	3.00	0.030	0.057	0.100	UL/CSA/TÜV
LTD190SF	1.90	4.20	24	100	1.90	10.00	3.00	0.030	0.057	0.100	UL/CSA/TÜV
LTD260F	2.60	5.20	24	100	2.30	13.00	5.00	0.025	0.042	0.076	UL/CSA/TÜV
LTD300F	3.00	6.30	24	100	2.00	15.00	4.00	0.015	0.031	0.055	UL/CSA/TÜV
LTD310F	3.10	6.00	24	100	2.50	16.00	5.00	0.018	0.030	0.055	UL/CSA/TÜV
LTD340F	3.40	6.80	24	100	2.70	17.00	5.00	0.016	0.027	0.050	UL/CSA/TÜV

PHYSICAL DIMENSIONS (mm)

Part Number	Fig	A		B		C		D1	D2	E	
		Min.	Max.	Min.	Max.	Min.	Max.	Min.	Min.	Min.	Max.
LTD070F	1	19.9	22.1	4.9	5.2	0.7	1.2	5.5	5.5	3.9	4.1
LTD070SF	2	19.9	22.1	4.9	5.2	0.7	1.2	5.5	5.5	3.9	4.1
LTD100F	1	20.9	23.1	4.9	5.2	0.6	1.0	4.1	4.1	3.9	4.1
LTD100SF	2	20.9	23.1	4.9	5.2	0.6	1.0	4.1	4.1	3.9	4.1
LTD100SSF	3	20.9	23.1	4.9	5.2	0.6	1.0	4.1	4.1	3.9	4.1
LTD180F	1	24.0	26.0	4.9	5.2	0.6	1.0	4.1	4.1	3.9	4.1
LTD180SF	2	24.0	26.0	4.9	5.2	0.6	1.0	4.1	4.1	3.9	4.1
LTD180SSF	3	24.0	26.0	4.9	5.2	0.6	1.0	4.1	4.1	3.9	4.1
LTD190F	1	21.3	23.4	10.2	11.0	0.5	1.0	5.0	5.0	4.8	5.4
LTD190SF	2	21.3	23.4	10.2	11.0	0.5	1.0	5.0	5.0	4.8	5.4
LTD260F	1	24.0	26.0	10.8	11.9	0.6	1.0	5.0	5.0	5.9	6.1
LTD300F	1	28.4	31.8	13.0	13.5	0.5	1.1	6.3	6.3	6.0	6.6
LTD310F	1	24.0	26.0	14.8	15.9	0.6	1.0	5.0	5.0	5.9	6.1
LTD340F	1	24.0	26.0	14.8	15.9	0.6	1.0	5.0	5.0	5.9	6.1

Remark: Alternative electrical and mechanical parameters are available upon request. Please contact with our Company.

Figure1

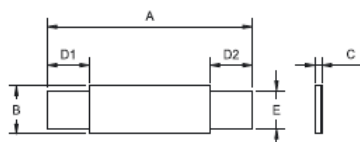


Figure2

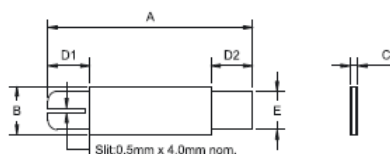
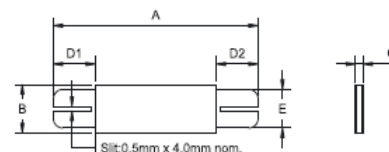
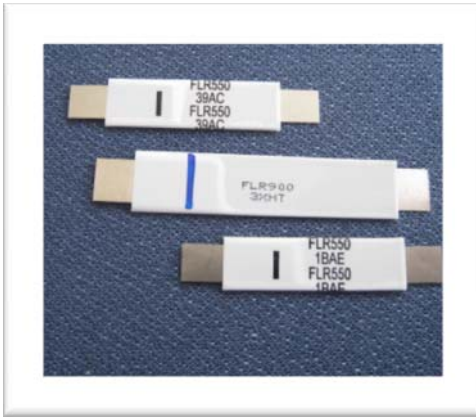


Figure3





Feature

The new VLD product series provide very low resistance, lower trip temperature (5°C lower compared to the VTD series), and faster time-to-trip (typically 2.4 sec. or better at 10A). These devices are ideal to install directly onto the latest generation of rechargeable batteries with better thermal protection against the fault conditions.



ELECTRICAL CHARACTERISTICS

Part Number	I hold (A)	I trip (A)	V max (Vdc)	I max (A)	Pd max (W)	Maximum Time To Trip		Resistance			Agency Approval
						Current(A)	Time(Sec.)	R _{min} (Ω)	R _{typ} (Ω)	R _{1max} (Ω)	
VLD170F	1.70	4.10	12	100	1.40	8.50	5.00	0.018	0.032	0.064	UL/CSA/TÜV
VLD175AULF	1.75	4.20	12	100	1.40	8.75	5.00	0.025	0.040	0.070	UL/CSA/TÜV
VLD175LF	1.75	4.20	12	100	1.40	8.75	5.00	0.017	0.031	0.062	UL/CSA/TÜV
VLD175F	1.75	4.20	12	100	1.40	8.75	5.00	0.017	0.031	0.062	UL/CSA/TÜV
VLD175XLF	1.75	4.20	12	100	1.40	8.75	5.00	0.017	0.031	0.062	UL/CSA/TÜV
VLD220UF	2.20	5.30	12	60	1.80	11.00	5.00	0.017	0.029	0.058	UL/CSA/TÜV
VLD230F	2.30	5.00	12	100	2.50	10.00	5.00	0.012	0.018	0.036	UL/CSA/TÜV
VLD230NF	2.30	5.00	12	100	2.50	10.00	5.00	0.012	0.018	0.036	UL/CSA/TÜV
VLD270DUF	2.70	6.50	12	60	2.50	13.50	5.00	0.012	0.022	0.040	UL/CSA/TÜV

PHYSICAL DIMENSIONS (mm)

Part Number	Fig	A		B		C	D1		D2		E	
		Min.	Max.	Min.	Max.		Max.	Min.	Max.	Min.	Max.	Min.
VLD170F	1	20.8	23.2	3.5	3.9	0.8	4.5	6.5	4.5	6.5	2.4	2.6
VLD175AULF	2	50.5	53.5	2.9	3.3	0.8	5.8	7.2	31.5	33.5	2.4	2.6
VLD175LF	2	29.3	31.7	2.9	3.3	0.8	5.2	6.8	10.0	12.5	2.4	2.6
VLD175F	2	23.0	24.5	2.9	3.3	0.8	4.7	7.2	3.8	5.4	2.4	2.6
VLD175XLF	1	25.5	28.2	3.5	3.9	0.8	8.7	10.3	5.7	7.3	2.4	2.6
VLD220UF	3	21.2	23.3	3.5	3.8	0.7	5.1	6.3	5.1	6.3	2.9	3.1
VLD230F	1	20.9	23.1	4.9	5.3	0.8	4.1	5.8	4.1	5.8	3.9	4.1
VLD230NF	4	25.3	27.7	3.5	3.9	0.8	3.5	5.7	3.5	5.7	2.9	3.1
VLD270DUF	3	21.0	23.0	3.6	3.9	0.6	4.5	5.5	4.5	5.5	2.9	3.1

Remark: Alternative electrical and mechanical parameters are available upon request. Please contact with Our company

Figure 1

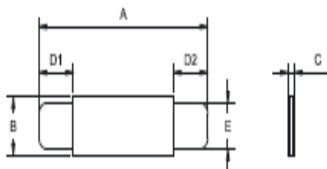


Figure 2

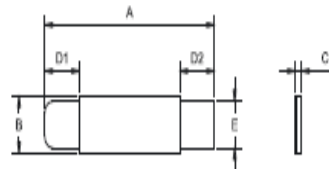


Figure 3

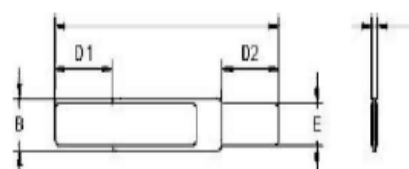
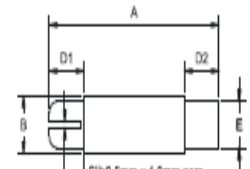


Figure 4





Feature

The new VLD product series provide very low resistance, lower trip temperature (5°C lower compared to the VTD series), and faster time-to-trip (typically 2.4 sec. or better at 10A). These devices are ideal to install directly onto the latest generation of rechargeable batteries with better thermal protection against the fault conditions.



FOR 18650 CELL

ELECTRICAL CHARACTERISTICS

Part Number	I hold (A)	V max (Vdc)	I max (A)	Maximum Time To Trip		Resistance		Sample Available
				Current(A)	Time(Sec.)	R _{min} (Ω)	R _{Imax} (Ω)	
PTC-3872N	3.00	15	40	12.00	5.00	0.015	0.060	Now
PTC-3873N	2.20	15	40	10.00	5.00	0.010	0.046	Now
PTC-3874N	2.50	15	40	10.00	5.00	0.014	0.060	Now
PTC-3879N	2.20	15	40	10.00	5.00	0.005	0.055	Now

PHYSICAL DIMENSIONS (mm)

Part Number	A (Max.)	B (Max.)	C (Max.)	Electrode Material
PTC-3872N	16.10	10.15	0.36	Ni
PTC-3873N	16.33	11.05	0.35	Ni
PTC-3874N	16.05	10.05	0.36	Ni
PTC-3879N	16.05	8.05	0.36	Ni

FOR 17670 CELL

ELECTRICAL CHARACTERISTICS

Part Number	I hold (A)	V max (Vdc)	I max (A)	Maximum Time To Trip		Resistance		Sample Available
				Current(A)	Time(Sec.)	R _{min} (Ω)	R _{Imax} (Ω)	
PTC-3870D	3.50	15	40	12.50	10.00	0.008	0.045	Now
PTC-3871D	2.50	15	40	10.00	5.00	0.018	0.065	Now
PTC-3875N	2.80	15	40	5.00	80.00	0.015	0.060	Now
PTC-3876N	1.20	15	40	10.00	10.00	0.015	0.078	Now
PTC-3877N	1.20	15	40	10.00	5.00	0.025	0.072	Now

PHYSICAL DIMENSIONS (mm)

Part Number	A (Max.)	B (Max.)	C (Max.)	Electrode Material
PTC-3870D	14.15	7.55	0.36	Ni/Cu
PTC-3871D	15.15	9.05	0.36	Ni/Cu
PTC-3875N	14.45	6.35	0.38	Ni
PTC-3876N	15.45	9.05	0.36	Ni
PTC-3877N	15.85	9.05	0.36	Ni

FOR 17670 CELL

ELECTRICAL CHARACTERISTICS

Part Number	I hold (A)	V max (Vdc)	I max (A)	Maximum Time To Trip		Resistance		Sample Available
				Current(A)	Time(Sec.)	R _{min} (Ω)	R _{Imax} (Ω)	
PTC-3878N	1.40	15	40	8.00	1.00	0.040	0.100	Now

PHYSICAL DIMENSIONS (mm)

Part Number	A (Max.)	B (Max.)	C (Max.)	Electrode Material
PTC-3878N	11.75	5.55	0.36	Ni

Remark: Alternative electrical and mechanical parameters are available upon request. Please contact with

Our company

DISC Series Figure

