

1.4.1 Energy Storage Capacitors

Pulse Grade Capacitors : STP-02 series

Applications :

- Electric Fence Energizer, Welding Energizer Equipment, High intensity discharge lighting, High Energy and Current Discharge applications
- Capacitor can be direct short circuit at rated voltage without any protective component

Constructions :

Supporting different Capacitor Configuration, electrical connections and mounting options so as to increase your design flexibility

Properties :

Low D.F. & Dielectric loss, High Discharge Current & Voltage Capabilities; High Insulation Resistance; AC and DC voltage; Flame Retardant Construction; Easy Installation

Electrical Connections :

Tin plated copper lead wire

Flexible electrical lead wire

Terminals : 250 type 6.35mm (page.25, 28 and 33)

Terminals – which can deliver larger discharge current Ipp & Ir.m.s. when compare with lead wires

Mountings : Plastic Cylindrical Case : with stud – M8 / without stud

Electrical Characteristics :

Rated Voltage : 400 ~ 1600Vdc / 220 ~ 570Vac (can customized design)

Capacitance range : 0.1uF ~ 60uF

Capacitance Tolerance : +/-5%; +/-10%

Equivalent Series Resistance (ESR) : measured at 25C 100kHz

Dissipation factor (DF) : <0.1% 1KHz) at 23C

Testing Voltage : (can be customized design)

STP-02R : $1.2 \times U_n$ 10sec 25C

STP-02QT, STP-02QL, STP-02QI : $1.6 \times U_n$ 10sec 25C

Insulation Resistance : Terminal – Terminal : 15000M ohm 1kVdc 60sec

Terminal – Case : 5000M ohm 1kVdc 60sec

Operate Temperature : -25 ~ +85C / -40 ~ +105C

Options :

Thermocouple can be build-in :

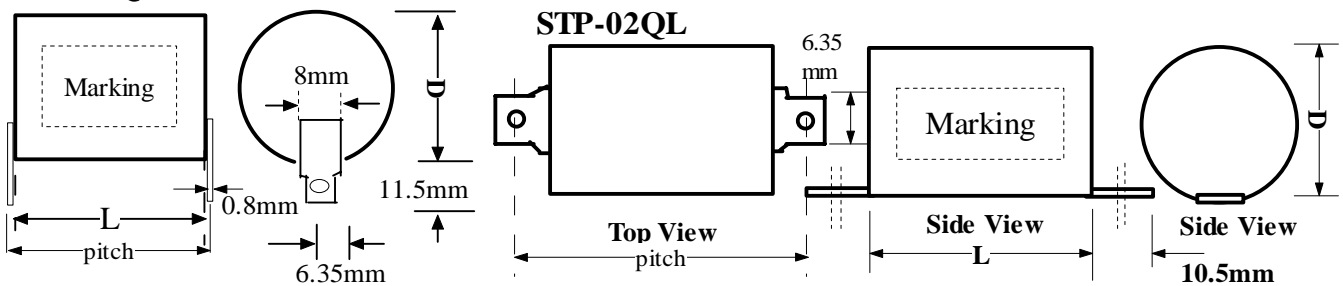
- capacitor internal temperature can be measured
- output temperature signal can be used as one of reference signals in the circuit and trigger other function



Energy Storage Capacitors - STP-02QT and STP-02QL series

- large Terminals to deliver larger discharge current Ipp and I.r.m.s. when compare with traditional copper tin wires
- for Welding Equipment and power supply application

STP-02QT



Specifications and Size : 450Vdc / 280Vac at 70C

+/- 1mm

Capacitance uF	Diameter D mm	Length L mm	STP-02QT pitch mm	STP-02QL pitch mm	I.R in Mohm 100V	ESR 100KHz mohm	dv/dt V/us	Peak Pulse Current A 70C	r.m.s. Current A 70C
2.0uF	22.5	37.5	38.5	51.5	600,000	3.1	90	180	10A
2.2uF	23.5	37.5	38.5	51.5	600,000	3.0	90	198	10A
2.5uF	24.5	37.5	38.5	51.5	600,000	3.0	90	225	10A
3.0uF	26	37.5	38.5	51.5	600,000	3.0	90	270	10A
4.0uF	31.5	37.5	38.5	51.5	600,000	2.9	90	360	10A
6.0uF	37	37.5	38.5	51.5	600,000	2.9	90	540	12A
6.8uF	38.5	37.5	38.5	51.5	600,000	2.5	90	621	12A
8.0uF	43	37.5	38.5	51.5	600,000	2.2	90	720	12A
9.0uF	44.5	37.5	38.5	51.5	600,000	2.2	90	810	12A
10.0uF	38	49	50	63	400,000	2.3	70	700	13.5A
12.0uF	41.5	49	50	63	400,000	2.3	70	840	13.5A
15.0uF	45	49	50	63	400,000	2.0	70	1050	13.5A
17.0uF	47	49	50	63	400,000	2.0	70	1190	13.5A
20.0uF	52	49	50	63	400,000	1.8	70	1400	13.5A

Specifications and Size : 600Vdc / 330Vac at 70C

Capacitance uF	Diameter D mm	Length L mm	STP-02QT pitch mm	STP-02QL pitch mm	I.R in Mohm 100V	ESR 100KHz mohm	dv/dt V/us	Peak Pulse Current A 70C	r.m.s. Current A 70C
2.0uF	22.5	38.5	39.5	52.5	600,000	3.1	120	240	11A
2.2uF	23.5	38.5	39.5	52.5	600,000	3.0	120	264	11A
2.5uF	24.5	38.5	39.5	52.5	600,000	3.0	120	300	11A
3.0uF	26	38.5	39.5	52.5	600,000	3.0	120	360	11A
4.0uF	31.5	38.5	39.5	52.5	600,000	2.9	120	480	11A
6.0uF	37	38.5	39.5	52.5	600,000	2.9	120	720	13.5A
6.8uF	38.5	38.5	39.5	52.5	600,000	2.5	120	816	13.5A
8.0uF	43	38.5	39.5	52.5	600,000	2.2	120	960	13.5A
9.0uF	44.5	38.5	39.5	52.5	600,000	2.2	120	1080	13.5A
10.0uF	39.5	48	49	62	400,000	2.3	100	1000	15A
12.0uF	43	48	49	62	400,000	2.3	100	1200	15A
15.0uF	47	48	49	62	400,000	2.0	100	1500	15A
17.0uF	50	48	49	62	400,000	2.0	100	1700	15A
20.0uF	54	48	49	62	400,000	1.8	100	2000	15A

For other Capacitance, Voltage and Peak Pulse Discharge Current not listed, please contact us for details.