

# TS09F

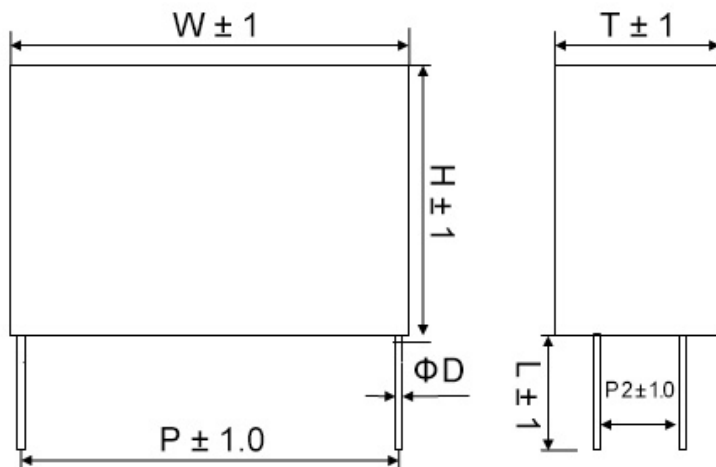


## FEATURES

- High ripple current, high dv/dt withstand capability.
- Resistance to high voltage, with self-healing
- Low ESL and ESR
- Plastic case, epoxy resin sealing (UL 94V-0) Typical application
- Suitable for small power AC output filter, i.e. UPS, Solar Photovoltaic DC/AC inverter with LCL filter

## S P E C I F I C A T I O N S

|                                         |                                                   |
|-----------------------------------------|---------------------------------------------------|
| Reference standards                     | GB/T17702 IEC61071                                |
| Operating Temperature                   | -40°C~ +105°C                                     |
| Voltage Rating                          | 250VAC, 350VAC, 425VAC, 480VAC                    |
| Rated RMS Voltage (Urms)                | 180VAC, 250VAC, 300VAC, 350VAC                    |
| Maximum Continuous DC Voltage           | 300VDC, 475VDC, 560VDC, 600VDC                    |
| Capacitance Range                       | 4uF~ 60uF                                         |
| Capacitance Tolerance                   | ±5% (J) ±10% (K)                                  |
| Insulation Resistance                   | ≥5000S (100VDC, 25°C±5°C, 60s)                    |
| Voltage test between terminals          | 1.5*Un (10S 25°C±5°C)                             |
| Voltage test between terminals and case | 3000V.AC (10S, 50/60Hz, 25°C±5°C)                 |
| Dissipation Factor                      | $tg\delta \leq 20 \cdot 10^{-4}$ (25°C±5°C, 1KHz) |
| Max. Altitude                           | 2000m                                             |



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Dimensions Table for 300VDC:

(Unit : mm)

| CAP (uf) | W±1 | L±1.0 | T±1.0 | H±1.0 | P±1.0 | P2±1.0 | d Ø±0.05 |
|----------|-----|-------|-------|-------|-------|--------|----------|
| 4.0      | 32  | 6     | 13    | 22    | 27.5  | --     | 1        |
| 5.0      | 32  | 6     | 14    | 28    | 27.5  | --     | 1        |
| 6.8      | 32  | 6     | 18    | 33    | 27.5  | --     | 1.2      |
| 10.0     | 32  | 6     | 18    | 33    | 27.5  | --     | 1.2      |
| 10.0     | 41  | 6     | 17    | 32    | 37.5  | --     | 1.2      |
| 15.0     | 41  | 6     | 22    | 37    | 37.5  | --     | 1.2      |
| 18.0     | 42  | 6     | 23    | 36    | 37.5  | --     | 1.2      |
| 20.0     | 42  | 6     | 23    | 36    | 37.5  | --     | 1.2      |
| 22.0     | 41  | 6     | 26    | 41    | 37.5  | --     | 1.2      |
| 25.0     | 41  | 6     | 26    | 41    | 37.5  | --     | 1.2      |
| 30.0     | 42  | 6     | 30    | 45    | 37.5  | --     | 1.2      |
| 33.0     | 42  | 6     | 30    | 45    | 37.5  | --     | 1.2      |
| 40.0     | 57  | 6     | 29.5  | 43.5  | 52.5  | --     | 1.2      |
| 50.0     | 57  | 6     | 35    | 50    | 52.5  | --     | 1.2      |
| 60.0     | 57  | 6     | 35    | 50    | 52.5  | --     | 1.2      |

Dimensions Table for 475 VDC:

(Unit : mm)

| CAP(uf) | W±1 | L±1.0 | T±1.0 | H±1.0 | P±1.0 | P2±1.0 | d Ø±0.05 |
|---------|-----|-------|-------|-------|-------|--------|----------|
| 1.0     | 32  | 6     | 9     | 18    | 27.5  | --     | 1        |
| 1.5     | 32  | 6     | 11    | 20    | 27.5  | --     | 1        |
| 2.0     | 32  | 6     | 13    | 22    | 27.5  | --     | 1        |
| 2.2     | 32  | 6     | 13    | 22    | 27.5  | --     | 1        |
| 2.5     | 32  | 6     | 13    | 22    | 27.5  | --     | 1        |
| 3.0     | 32  | 6     | 15    | 24.5  | 27.5  | --     | 1        |
| 3.3     | 32  | 6     | 15    | 24.5  | 27.5  | --     | 1        |
| 3.5     | 32  | 6     | 14    | 28    | 27.5  | --     | 1        |
| 4.0     | 32  | 6     | 18    | 33    | 27.5  | --     | 1.2      |
| 4.5     | 32  | 6     | 18    | 33    | 27.5  | --     | 1.2      |
| 4.7     | 41  | 6     | 15    | 26    | 37.5  | --     | 1.2      |
| 5.0     | 32  | 6     | 18    | 33    | 27.5  | --     | 1.2      |
| 5.0     | 42  | 6     | 14    | 28    | 37.5  | --     | 1.2      |
| 6.0     | 41  | 6     | 17    | 32    | 37.5  | --     | 1.2      |
| 6.5     | 41  | 6     | 17    | 32    | 37.5  | --     | 1.2      |
| 6.8     | 32  | 6     | 22    | 37    | 27.5  | --     | 1.2      |
| 6.8     | 41  | 6     | 18.5  | 33.5  | 37.5  | --     | 1.2      |
| 7.5     | 41  | 6     | 18.5  | 33.5  | 37.5  | --     | 1.2      |
| 8.0     | 41  | 6     | 22    | 37    | 37.5  | --     | 1.2      |
| 10.0    | 41  | 6     | 22    | 37    | 37.5  | --     | 1.2      |
| 12.0    | 41  | 6     | 26    | 41    | 37.5  | --     | 1.2      |
| 15.0    | 41  | 6     | 26    | 41    | 37.5  | --     | 1.2      |
| 18.0    | 41  | 6     | 28    | 43    | 37.5  | --     | 1.2      |
| 20.0    | 42  | 6     | 30    | 45    | 37.5  | --     | 1.2      |
| 22.0    | 42  | 6     | 30    | 45    | 37.5  | --     | 1.2      |
| 25.0    | 57  | 6     | 29.5  | 43.5  | 52.5  | 20.3   | 1.2      |
| 30.0    | 57  | 6     | 29.5  | 43.5  | 52.5  | 20.3   | 1.2      |
| 35.0    | 57  | 6     | 35    | 50    | 52.5  | 20.3   | 1.2      |
| 40.0    | 57  | 6     | 35    | 50    | 52.5  | 20.3   | 1.2      |

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Dimensions Table for 560 VDC

| CAP(uf) | W±1 | L±1.0 | T±1.0 | H±1.0 | P±1.0 | P2±1.0 | d Ø±0.05 |
|---------|-----|-------|-------|-------|-------|--------|----------|
| 1.0     | 32  | 6     | 11    | 20    | 27.5  | --     | 1        |
| 1.5     | 32  | 6     | 13    | 22    | 27.5  | --     | 1        |
| 2.0     | 32  | 6     | 15    | 24.5  | 27.5  | --     | 1        |
| 2.2     | 32  | 6     | 15    | 24.5  | 27.5  | --     | 1        |
| 2.5     | 32  | 6     | 14    | 28    | 27.5  | --     | 1        |
| 3.0     | 32  | 6     | 18    | 33    | 27.5  | --     | 1.2      |
| 3.0     | 41  | 6     | 15    | 26    | 37.5  | --     | 1.2      |
| 3.3     | 32  | 6     | 18    | 33    | 27.5  | --     | 1.2      |
| 3.3     | 41  | 6     | 15    | 26    | 37.5  | --     | 1.2      |
| 3.5     | 32  | 6     | 18    | 33    | 27.5  | --     | 1.2      |
| 3.5     | 42  | 6     | 14    | 28    | 37.5  | --     | 1.2      |
| 4.0     | 32  | 6     | 18    | 33    | 27.5  | --     | 1.2      |
| 4.0     | 41  | 6     | 17    | 32    | 37.5  | --     | 1.2      |
| 4.5     | 41  | 6     | 17    | 32    | 37.5  | --     | 1.2      |
| 4.7     | 32  | 6     | 22    | 37    | 27.5  | --     | 1.2      |
| 4.7     | 41  | 6     | 17    | 32    | 37.5  | --     | 1.2      |
| 5.0     | 32  | 6     | 22    | 37    | 27.5  | --     | 1.2      |
| 5.0     | 41  | 6     | 18.5  | 33.5  | 37.5  | --     | 1.2      |
| 6.0     | 41  | 6     | 18.5  | 33.5  | 37.5  | --     | 1.2      |
| 6.8     | 32  | 6     | 22    | 37    | 27.5  | --     | 1.2      |
| 6.8     | 41  | 6     | 22    | 37    | 37.5  | --     | 1.2      |
| 8.0     | 41  | 6     | 22    | 37    | 37.5  | --     | 1.2      |
| 10.0    | 41  | 6     | 26    | 41    | 37.5  | --     | 1.2      |
| 12.0    | 41  | 6     | 28    | 43    | 37.5  | --     | 1.2      |
| 15.0    | 42  | 6     | 30    | 45    | 37.5  | --     | 1.2      |
| 18.0    | 57  | 6     | 29.5  | 43.5  | 52.5  | 20.3   | 1.2      |
| 20.0    | 57  | 6     | 29.5  | 43.5  | 52.5  | 20.3   | 1.2      |
| 22.0    | 57  | 6     | 29.5  | 43.5  | 52.5  | 20.3   | 1.2      |
| 25.0    | 57  | 6     | 35    | 50    | 52.5  | 20.3   | 1.2      |
| 28.0    | 57  | 6     | 35    | 50    | 52.5  | 20.3   | 1.2      |

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Dimensions Table for 600 VDC

| CAP(uf) | W±1 | L±1.0 | T±1.0 | H±1.0 | P±1.0 | P2±1.0 | d Ø±0.05 |
|---------|-----|-------|-------|-------|-------|--------|----------|
| 0.3     | 32  | 6     | 9     | 18    | 27.5  | --     | 0.8      |
| 0.4     | 32  | 6     | 9     | 18    | 27.5  | --     | 0.8      |
| 0.5     | 32  | 6     | 9     | 18    | 27.5  | --     | 0.8      |
| 0.7     | 32  | 6     | 11    | 20    | 27.5  | --     | 0.8      |
| 0.8     | 32  | 6     | 13    | 22    | 27.5  | --     | 0.8      |
| 1.0     | 32  | 6     | 13    | 22    | 27.5  | --     | 0.8      |
| 1.0     | 41  | 6     | 11    | 22    | 37.5  | --     | 1        |
| 1.5     | 32  | 6     | 15    | 24.5  | 27.5  | --     | 0.8      |
| 1.5     | 41  | 6     | 13    | 24    | 37.5  | --     | 1        |
| 2.0     | 32  | 6     | 16    | 30    | 27.5  | --     | 0.8      |
| 2.0     | 41  | 6     | 15    | 26    | 37.5  | --     | 1        |
| 2.2     | 32  | 6     | 16    | 30    | 27.5  | --     | 0.8      |
| 2.2     | 41  | 6     | 15    | 26    | 37.5  | --     | 1        |
| 2.5     | 32  | 6     | 18    | 30    | 27.5  | --     | 1        |
| 2.5     | 41  | 6     | 16    | 30    | 37.5  | --     | 1        |
| 3.0     | 32  | 6     | 22    | 37    | 27.5  | --     | 1        |
| 3.0     | 41  | 6     | 16    | 30    | 37.5  | --     | 1        |
| 3.3     | 32  | 6     | 22    | 37    | 27.5  | --     | 1        |
| 3.3     | 41  | 6     | 17    | 32    | 37.5  | --     | 1        |
| 3.5     | 32  | 6     | 22    | 37    | 27.5  | --     | 1        |
| 3.5     | 41  | 6     | 17    | 32    | 37.5  | --     | 1        |
| 4.0     | 32  | 6     | 22    | 37    | 27.5  | --     | 1        |
| 4.0     | 41  | 6     | 18.5  | 33.5  | 37.5  | --     | 1        |
| 4.5     | 41  | 6     | 22    | 37    | 37.5  | --     | 1        |
| 5.0     | 41  | 6     | 22    | 37    | 37.5  | --     | 1        |
| 5.5     | 41  | 6     | 22    | 37    | 37.5  | --     | 1        |
| 6.0     | 41  | 6     | 26    | 41    | 37.5  | --     | 1        |
| 6.5     | 41  | 6     | 26    | 41    | 37.5  | --     | 1        |
| 7.0     | 41  | 6     | 26    | 41    | 37.5  | --     | 1        |
| 7.5     | 41  | 6     | 26    | 41    | 37.5  | --     | 1        |
| 8.0     | 41  | 6     | 26    | 41    | 37.5  | --     | 1        |
| 8.5     | 41  | 6     | 28    | 43    | 37.5  | --     | 1        |
| 9.0     | 41  | 6     | 28    | 43    | 37.5  | --     | 1        |
| 9.5     | 41  | 6     | 30    | 45    | 37.5  | --     | 1        |

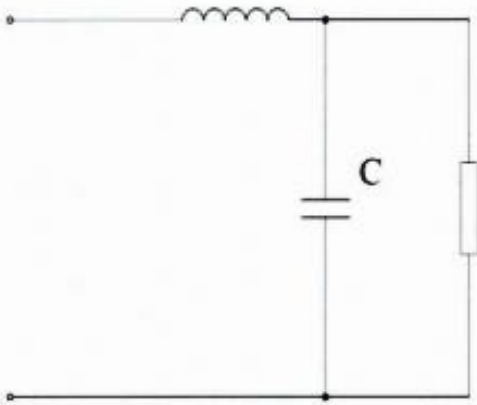
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Dimensions Table for 600 VDC

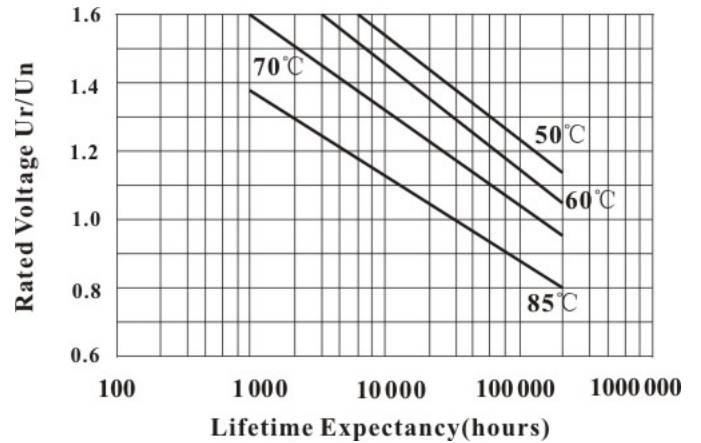
| CAP(uf) | W±1 | L±1.0 | T±1.0 | H±1.0 | P±1.0 | P2±1.0 | d Ø±0.05 |
|---------|-----|-------|-------|-------|-------|--------|----------|
| 10.0    | 41  | 6     | 30    | 45    | 37.5  | --     | 1        |
| 10.0    | 57  | 6     | 25    | 45    | 52.5  | --     | 1.2      |
| 10.0    | 57  | 6     | 30    | 45    | 52.5  | 20.3   | 1.2      |
| 11.0    | 57  | 6     | 25    | 45    | 52.5  | --     | 1.2      |
| 12.0    | 57  | 6     | 29.5  | 45    | 52.5  | 20.3   | 1.2      |
| 15.0    | 57  | 6     | 35    | 45    | 52.5  | 20.3   | 1.2      |
| 16.0    | 57  | 6     | 35    | 45    | 52.5  | 20.3   | 1.2      |
| 18.0    | 57  | 6     | 35    | 50    | 52.5  | 20.3   | 1.2      |
| 20.0    | 57  | 6     | 35    | 50    | 52.5  | 20.3   | 1.2      |
| 20.0    | 57  | 6     | 40    | 50    | 52.5  | 20.3   | 1.2      |
| 21.0    | 57  | 6     | 40    | 50    | 52.5  | 20.3   | 1.2      |
| 25.0    | 57  | 6     | 45    | 55    | 52.5  | 20.3   | 1.2      |
| 27.0    | 57  | 6     | 45    | 55    | 52.5  | 20.3   | 1.2      |
| 30.0    | 57  | 6     | 45    | 65    | 52.5  | 20.3   | 1.2      |

\*Please contact us for special item or size not listed

Typical circuit



Expected lifetime curve



Note: Specification are subject to change without notice. For more detail and update, please visit our website.