

Screw Terminal Aluminum Electrolytic Capacitors

SWR Series



FEATURES

- Endurance: 2,000 hours
- Opening temperature: -25/+85°C
- High capacity per case size
- RoHS Compliance and Halogen-free
- High voltage



APPLICATIONS

- Frequency converters
- Power supplies
- Smoothing and filtering



HOW TO ORDER

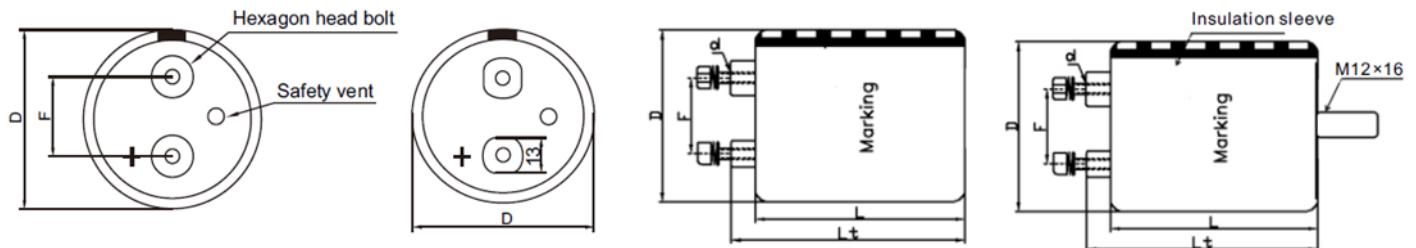
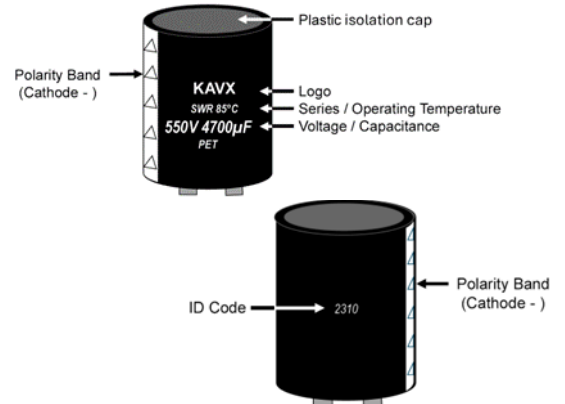
| | | | | | | | |
|---|--|-------------------------------------|--|------------------------------|---|-----------------------------|------------------------------------|
| SW | R | D157 | 472 | M | 550 | B | - |
| Product Type Aluminum Screw Terminal | Series Type Aluminum Screw Terminal | Case Size See table below | Capacitance Code µF code: 1st two digits represent significant figures, 3rd digit represents multiplier (number of zeros to follow) | Tolerance M = ±20% | Rated DC Voltage 400 = 400Vdc 500 = 500Vdc 550 = 550Vdc | Packaging B = Box | Special Empty = Standard |

CASE DIMENSIONS millimeters (inches)

| 1st Character | D | F | d |
|---------------|------------------|------------------|----------|
| C | 64.30 (2.531) | 28.20 (1.110) | M5 |
| D | 76.90 (3.028) | 31.70 (1.248) | M5 or M6 |
| E | 91.00 (3.583) | 31.70 (1.248) | M5 or M6 |

| 2nd, 3rd, & 4th Character | L+3.00(0.118) Max. | Lt Max. |
|---------------------------|--------------------|----------------|
| 105 | 105.00 (4.134) | 112.50 (4.429) |
| 115 | 115.00 (4.528) | 122.50 (4.823) |
| 130 | 130.00 (5.118) | 137.50 (5.431) |
| 143 | 143.00 (5.630) | 150.50 (5.925) |
| 150 | 150.00 (5.906) | 157.50 (6.201) |
| 155 | 155.00 (6.102) | 162.50 (6.398) |
| 157 | 157.00 (6.181) | 164.50 (6.476) |
| 196 | 196.00(7.717) | 203.50 (8.012) |
| 220 | 220.00 (8.661) | 227.50 (8.957) |

MARKING



TECHNICAL SPECIFICATIONS

| | | |
|------------------------------------|--|--|
| Category Temperature Range: | -25°C to +85°C | |
| Capacitance Range: | At 25°C, 120Hz | 1,500µF - 10,000µF |
| Capacitance Tolerance: | At 25°C, 120Hz | ±20% |
| Dissipation Factor (%): | Measurement Frequency: 120Hz at 25°C | Please see the Ratings and Part Number Reference table below |
| Leakage Current: | After 5 minutes at rated working voltage at 25°C | ≤0.02CV (µA) or 5mA, whichever is smaller |

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CAPACITANCE AND RATED VOLTAGE RANGE (FIGURES DENOTES CASE SIZE)

| Capacitance | | Rated Voltage DC (V _R) | | |
|-------------|------|------------------------------------|------------|------|
| μF | Code | 400V | 500V | 550V |
| 1500 | 152 | | | C115 |
| 2200 | 222 | | C115 | D105 |
| 2700 | 272 | | C130 | D115 |
| 3300 | 332 | | D115 | D130 |
| 3900 | 392 | C130 | D130, D143 | D155 |
| 4700 | 472 | | D155 | E157 |
| 5600 | 562 | D130 | E157 | |
| 6800 | 682 | D130, D150 | | |
| 10,000 | 103 | | E196, E220 | |

Released ratings

RATINGS & PART NUMBER REFERENCE

| Part No. | Case Size | Capacitance (μF) | Rated Voltage (V) | DF Max. @120Hz (%) | ESR Max. @ 120Hz (mΩ) | RMS Current @ 120Hz + 85°C (A) | MSL |
|-----------------|-----------|------------------|-------------------|--------------------|-----------------------|--------------------------------|-----|
| 400 Volt | | | | | | | |
| SWRC130392M400B | C130 | 3,900 | 400 | 20 | 47 | 7.50 | 1 |
| SWRD130562M400B | D130 | 5,600 | 400 | 20 | 37 | 9.50 | 1 |
| SWRD130682M400B | D130 | 6,800 | 400 | 20 | 35 | 17.20 | 1 |
| SWRD150682M400B | D150 | 6,800 | 400 | 20 | 35 | 17.60 | 1 |
| 500 Volt | | | | | | | |
| SWRC115222M500B | C115 | 2,200 | 500 | 25 | 80 | 7.30 | 1 |
| SWRC130272M500B | C130 | 2,700 | 500 | 25 | 64 | 8.50 | 1 |
| SWRD115332M500B | D115 | 3,300 | 500 | 25 | 53 | 10.00 | 1 |
| SWRD130392M500B | D130 | 3,900 | 500 | 25 | 47 | 11.40 | 1 |
| SWRD143392M500B | D143 | 3,900 | 500 | 25 | 47 | 11.50 | 1 |
| SWRD155472M500B | D155 | 4,700 | 500 | 25 | 40 | 13.30 | 1 |
| SWRE157562M500B | E157 | 5,600 | 500 | 25 | 38 | 14.80 | 1 |
| SWRE196822M500B | E196 | 8,200 | 500 | 25 | 26 | 18.10 | 1 |
| SWRE220103M500B | E220 | 10,000 | 500 | 25 | 24 | 22.20 | 1 |
| 550 Volt | | | | | | | |
| SWRC115152M550B | C115 | 1,500 | 550 | 30 | 95 | 7.00 | 1 |
| SWRD105222M550B | D105 | 2,200 | 550 | 30 | 78 | 8.10 | 1 |
| SWRD115272M550B | D115 | 2,700 | 550 | 30 | 62 | 9.00 | 1 |
| SWRD130332M550B | D130 | 3,300 | 550 | 30 | 51 | 10.50 | 1 |
| SWRD155392M550B | D155 | 3,900 | 550 | 30 | 45 | 11.00 | 1 |
| SWRE157472M550B | E157 | 4,700 | 550 | 30 | 38 | 12.90 | 1 |

FREQUENCY COEFFICIENT OF PERMISSIBLE RIPPLE CURRENT

| Rated Voltage (Vdc) | Frequency (Hz) | | | | |
|---------------------|----------------|-------|-------|------|------|
| | 50Hz | 120Hz | 300Hz | 1kHz | 3kHz |
| 400 - 550 | 0.80 | 1.00 | 1.10 | 1.30 | 1.40 |

QUALIFICATION TABLE

| Test | SWR Series (Temperature Range -25°C to +85°C) | | |
|--|--|-----------------|---------------------------------------|
| | Condition | Characteristics | |
| Low Temperature Characteristics (Capacitance Ratio at 120Hz) | C(-25°C)/C(+20°C) ≥ 0.7 | | |
| Endurance | The following specifications shall be satisfied when the capacitors are restored to 20°C after DC voltage plus the rated ripple current is applied for 2000 hours at 85°C. | ΔC/C | ± 20% of the initial limit |
| | | DF | ≤ 200% of the initial specified limit |
| | | DCL | ≤ Initial specified limit |
| Shelf Life | The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1000 hours at 85°C without voltage applied. | ΔC/C | ± 20% of the initial limit |
| | | DF | ≤ 150% of the initial specified limit |
| | | DCL | ≤ 200% of the initial specified limit |

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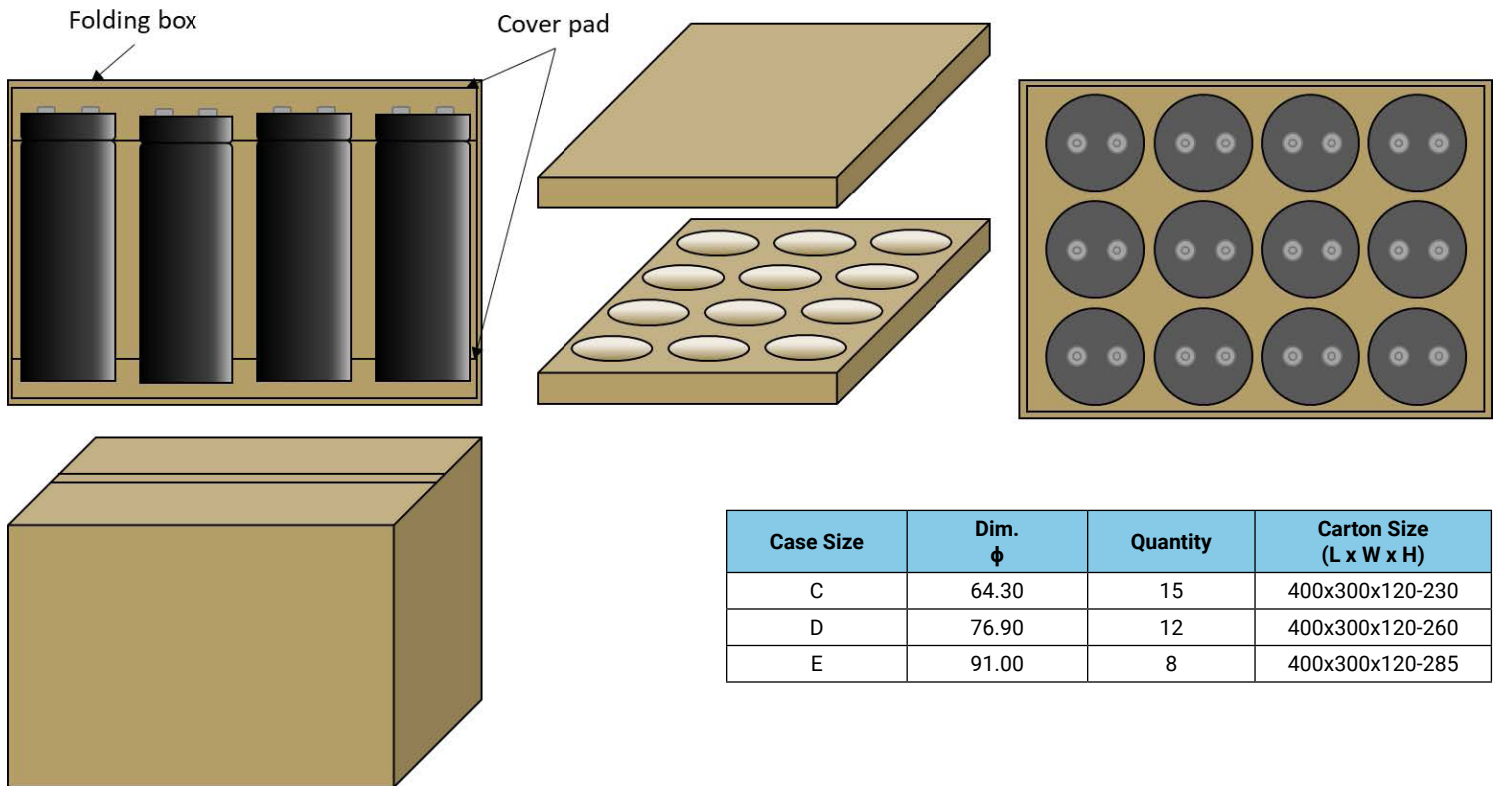
STORAGE

- It is recommended to keep capacitors between the ambient temperatures of 5°C to 35°C (if between 35°C to 85°C, it should be less than three months) and the relative humidity of 75% or below.
- Confirm that the environment does not have any of the following conditions:
 - Damp conditions such as water, saltwater spray, oil spray or fumes. High humidity or humidity condensation situations.
 - In an atmosphere filled with toxic gasses (such as hydrogen sulfide, sulfurous acid, nitrous acid, chlorine, ammonia, etc.).
 - Being exposed to direct sunlight, ozone, ultraviolet ray, or radiation.
 - Being exposed to acidic or alkaline solutions.
 - Under severe conditions where vibration and / or mechanical shock exceed the applicable ranges of the specification.
- Shelf life

| Years | |
|-------|-------------------|
| 0-1 | >1 |
| Ok | Performance check |

- Years from manufacturing date code.
- KYOCERA AVX does not guarantee or assume responsibility for product behavior after 3 years of storage.
- Ageing procedure should be performed as follows:
 - Connect the capacitor in series to a 1kΩ resistor, and apply half rated voltage for 2 hours.
 - After half rated voltage for 2 hours applied, increase and apply rated voltage for another 2 hours.

PACKAGE TAPE DIMENSIONS



| Case Size | Dim. ϕ | Quantity | Carton Size (L x W x H) |
|-----------|-------------|----------|-------------------------|
| C | 64.30 | 15 | 400x300x120-230 |
| D | 76.90 | 12 | 400x300x120-260 |
| E | 91.00 | 8 | 400x300x120-285 |