

# Screw Terminal Aluminum Electrolytic Capacitors

## SWL Series



### FEATURES

- High voltage (up to 500V)
- High ripple current capability
- Endurance: 85°C, 3000 hours
- RoHS Compliance and Halogen-free



### APPLICATIONS

- Solar Inverters
- Frequency Converters
- Power Supplies

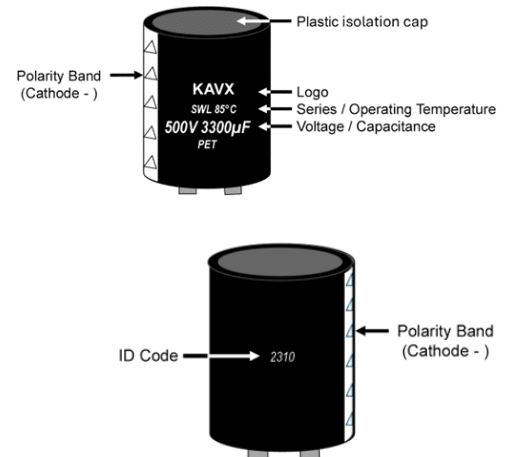
### HOW TO ORDER

<b>SW</b> T	<b>L</b> T	<b>E140</b> T	<b>332</b> T	<b>M</b> T	<b>500</b> T	<b>B</b> T	<b>-</b> T
<b>Product Type</b> Aluminum Screw Terminal	<b>Series Type</b> Aluminum Electrolytic	<b>Case Size</b> See table below	<b>Capacitance Code</b> µF code: 1st two digits represent significant figures, 3rd digit represents multiplier (number of zeros to follow)	<b>Tolerance</b> M = ±20%	<b>Rated DC Voltage</b> 350 = 350Vdc 400 = 400Vdc 450 = 450Vdc 500 = 500Vdc	<b>Packaging</b> B = Box	<b>Special</b> Empty = Standard

### CASE DIMENSIONS millimeters (inches)

1st Character	D±2.00 (0.118)	P±1.00 (0.039)	Leg Shape	W1±2.00 (0.118)	W2±2.00 (0.118)	T1	T2	Ø°	2nd - 4th Character	L±3.00 (0.118) Max.
B	51 (2.008)	22.0 (0.866)	2-legs	33.2 (1.307)	39.5 (1.555)	6.0 (0.236)	14 (0.551)	30 (1.181)	080	80.00 (3.150)
			3-legs	32.5 (1.280)	38.0 (1.496)	7.0 (0.276)	12 (0.472)	60 (2.362)	100	100.00 (3.937)
C	64 (2.520)	28.6 (1.126)	2-legs	40.5 (1.594)	46.5 (1.831)	6.0 (0.236)	14 (0.551)	30 (1.181)	120	120 (4.724)
			3-legs	38 (1.496)	43 (1.693)	8.0 (0.315)	14 (0.551)	60 (2.362)	130	130 (5.118)
D	76 (2.992)	31.8 (1.252)	2-legs	46.5 (1.831)	53 (2.087)	6.0 (0.236)	14 (0.551)	30 (1.181)	140	140 (5.512)
			3-legs	44.5 (1.752)	49.2 (1.937)	7.0 (0.276)	16 (0.630)	60 (2.362)	150	150 (5.906)
E	90 (3.543)	31.8 (1.252)	2-legs	53 (2.087)	59 (2.323)	6.0 (0.236)	14 (0.551)	30 (1.181)	190	190 (7.480)
			3-legs	50.8 (2.000)	57 (2.244)	7.0 (0.276)	16 (0.630)	60 (2.362)		

### MARKING



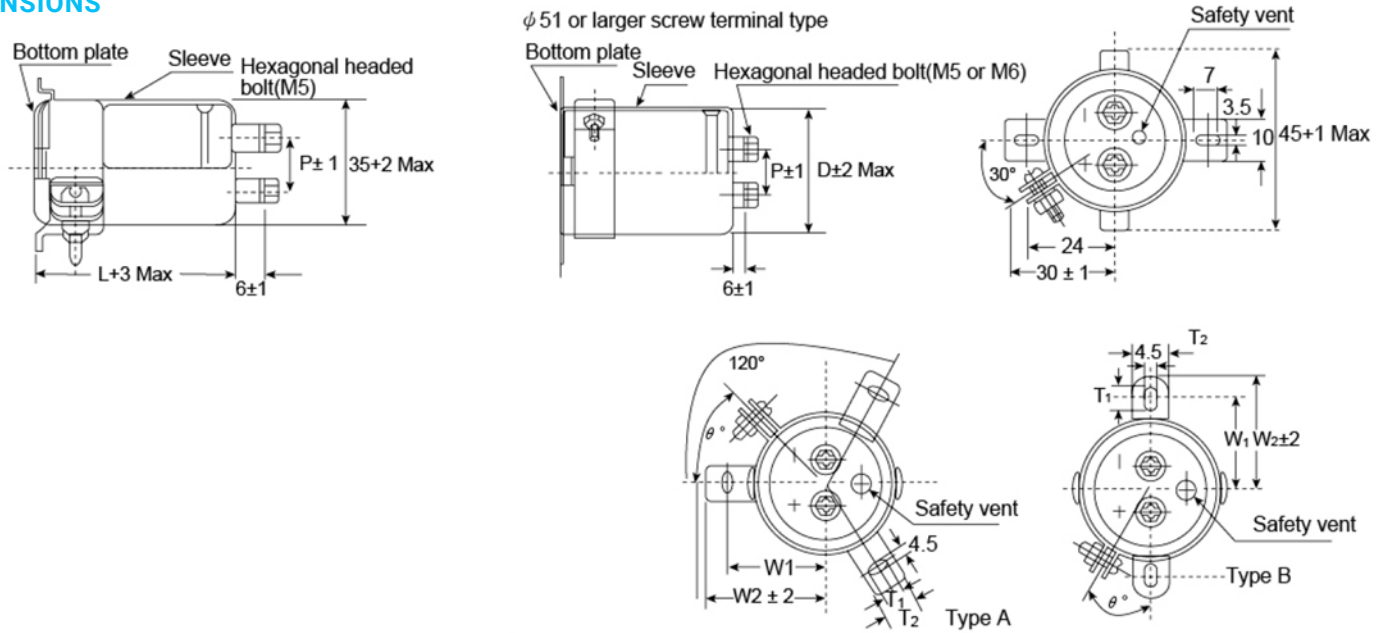
### TECHNICAL SPECIFICATIONS

<b>Category Temperature Range:</b>	-25°C to +85°C	
<b>Capacitance Range:</b>	At 25°C, 120Hz	1200µF to 12,000µF
<b>Capacitance Tolerance:</b>	At 25°C, 120Hz	±20%
<b>Dissipation Factor (%)</b>	Measurement Frequency: 120Hz at 25°C	Please see the Ratings and Part Number Reference table below
<b>Leakage Current</b>	After 2 minutes at rated working voltage at 25°C	Is0.02CV (µA) or 5mA, whichever is smaller

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### DIMENSIONS



### CAPACITANCE AND RATED VOLTAGE RANGE (FIGURES DENOTES CASE SIZE)

Capacitance		Rated Voltage DC (V <sub>R</sub> )			
μF	Code	350V	400V	450V	500V
1200	122	B080	B080	B100	
1500	152	B080	B100	B120	C120
1800	182	B100	B120		
2200	222	B120		C120	
2700	272		C120	C140	D150
3300	332		C140		D130
3900	392	C120		D150	E150
4700	472		D150	D150	D140
5600	562		D150	D150	
6800	682	D150	D150	E150	
8200	822	D150	E150	E150	
10,000	103	E150	E150	E190	
12,000	123	E150	E190		

Released ratings

### RATINGS & PART NUMBER REFERENCE

Part No.	Case Size	Capacitance (μF)	Rated Voltage (V)	DCL Max. (μA)	DF Max. (%)	120Hz RMS Current (mA)/85°C	MSL
<b>350V</b>							
SWLB080122M350B	B080	1200	350	5000	25	3600	1
SWLB080152M350B	B080	1500	350	5000	25	4500	1
SWLB100182M350B	B100	1800	350	5000	25	5100	1
SWLB120222M350B	B120	2200	350	5000	25	6000	1
SWLC120392M350B	C120	3900	350	5000	25	9000	1
SWLD150682M350B	D150	6800	350	5000	25	13,500	1
SWLD150822M350B	D150	8200	350	5000	25	15,000	1
SWLE150103M350B	E150	10,000	350	5000	25	16,800	1
SWLE150123M350B	E150	12,000	350	5000	25	18,400	1
<b>400V</b>							
SWLB080122M400B	B080	1200	400	5000	25	4200	1
SWLB100152M400B	B100	1500	400	5000	25	4800	1
SWLB120182M400B	B120	1800	400	5000	25	5400	1

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Part No.	Case Size	Capacitance (μF)	Rated Voltage (V)	DCL Max. (μA)	DF Max. (%)	120Hz RMS Current (mA)/85°C	MSL
SWLC120272M400B	C120	2700	400	5000	25	7200	1
SWLC140332M400B	C140	3300	400	5000	25	8400	1
SWLD150472M400B	D150	4700	400	5000	25	10,500	1
SWLD150562M400B	D150	5600	400	5000	25	12,300	1
SWLD150682M400B	D150	6800	400	5000	25	13,500	1
SWLE150822M400B	E150	8200	400	5000	25	15,900	1
SWLE150103M400B	E150	10,000	400	5000	25	17,700	1
SWLE190123M400B	E190	12,000	400	5000	25	20,700	1
<b>450V</b>							
SWLB100122M450B	B100	1200	450	5000	25	4200	1
SWLB120152M450B	B120	1500	450	5000	25	5000	1
SWLC120222M450B	C120	2200	450	5000	25	6600	1
SWLC140272M450B	C140	2700	450	5000	25	7500	1
SWLD150392M450B	D150	3900	450	5000	25	9600	1
SWLD150472M450B	D150	4700	450	5000	25	11,400	1
SWLD150562M450B	D150	5600	450	5000	25	13,200	1
SWLE150682M450B	E150	6800	450	5000	25	14,400	1
SWLE150822M450B	E150	8200	450	5000	25	15,900	1
SWLE190103M450B	E190	10,000	450	5000	25	17,500	1
<b>500V</b>							
SWLC120152M500B	C120	1500	500	5000	25	5400	1
SWLD150272M500B	D150	2700	500	5000	25	7900	1
SWLD130332M500B	D130	3300	500	5000	25	8600	1
SWLE150392M500B	E150	3900	500	5000	25	10,000	1
SWLD140472M500B	D140	4700	500	5000	25	12,000	1

### FREQUENCY COEFFICIENT OF PERMISSIBLE RIPPLE CURRENT

Rated Voltage (Vdc)	Frequency (Hz)			
	60Hz	120Hz	1K	≥10K
350 - 500	0.82	1.00	1.30	1.40

### QUALIFICATION TABLE

Test	SWL Series (Temperature Range -25°C to +85°C)		
	Condition	Characteristics	
Low Temperature Characteristics (Max. Impedance Ratio)	120Hz	Rated Voltage (V)	350 - 500
		Z(-25°C)/Z(+20°C)	8
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20°C after subjected to DC voltage with the rated ripple current is applied for 3000 hours at 85°C.	ΔC/C	≤ ±15% of the initial limit
		DF	≤ 175% of the initial specified limit
		DCL	≤ the 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 85°C without voltage applied.	ΔC/C	≤ ±15% of the initial limit
		DF	≤ 175% of the initial specified limit
		DCL	≤ the initial specified limit
Standards	4.1 of JIS C 5141-4		

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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 DIMENSIONS

Type of Product	Case Size	Dim. (D x L)	Quantity (Pcs/Inner Box)	Layer Quantity	Total Quantity (Pcs/Carton)	Size Inner Box (mm)	Size Out Box (mm)
Screw Terminal	B080	51 x 80	40	1	40	515x337x260	515x337x260
	B100	51 x 100	40	1	40		
	B120	51 x 120	40	1	40		
	C120	64 x 120	24	1	24	515x337x210	515x337x210
	C140	64 x 140	20	1	20	515x337x260	515x337x260
	D130	76 x 130	12	1	12		
	D140	76 x 140	12	1	12		
	D150	76 x 150	12	1	12		
	E150	90 x 150	12	1	12		
	E190	90 x 190	7	1	7	515x337x310	515x337x310