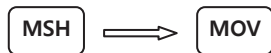




MOV series

- 105°C 2,000Hrs assured.
- Improved safety features for abnormally excessive voltage
- RoHS compliant
- Halogen-free capacitors are also available.

Over voltage RoHS Compliant



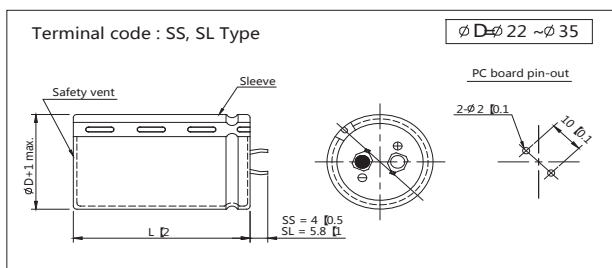
Anti-overvoltage



Specifications

Item	Characteristics	
Rated Voltage Range	200, 250 Vdc	400, 450 Vdc
Operating Temperature Range	-40 ~ +105°C	-25 ~ +105°C
Capacitance Tolerance	±20% (M) (at 20°C, 120Hz)	
Leakage Current	I=0.03CV or 3mA whichever is smaller Where, I:Max. Leakage current(μA), C:Nominal capacitance(μF), V:Rated voltage(Vdc) (at 20°C, 5min)	
Dissipation Factor(Tanδ)	Rated voltage (Vdc)	200 ~ 400 450
	Tanδ (max.)	0.15 0.20
(at 20°C, 120Hz)		
Temperature characteristics (Max,impedance ratio)	Rated voltage (Vdc)	200 ~ 250 400 ~ 450
	Z(-25°C)/Z(20°C)	3 8
	Z(-40°C)/Z(20°C)	12 -
(at 120Hz)		
Load life	The following specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage is applied for specified life times at 105°C2,000hrs. Capacitance change ≤±20%of the initial value Tan δ ≤200% of the initial specified value Leakage current ≤The initial specified value	
Shelf life	The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1,000 hours at 105°C without voltage applied. The rated voltage shall be applied to the capacitors for a minimum of 30 minutes at least 24 hours and not more than 48 hours before the measurements. Capacitance change ≤±20% of the initial value Tanδ ≤200% of the initial specified value Leakage current ≤The initial specified value	
Safety performance	When overvoltage (rated voltage x 1.5, limited current=1A) is applied to a capacitor, the pressure relief	

Dimensions

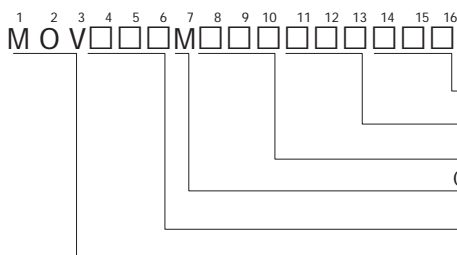


- Printed white color letter on brown sleeve
- The standard design has no bottom plate

Rated ripple current multipliers

Vdc \ Freq.(Hz)	50	60	120	1K	10K
200	0.85	0.88	1.00	1.15	1.20
400, 450	0.88	0.90	1.00	1.10	1.15

Code numbering system



Terminal type
Size (22X25: M25)
Capacitance
Capacitance tolerance(M:±20%, K:±10%, V :-10~20%)
Working voltage(ex. 160V→160)
Series name

Ø22	M
Ø25	N
Ø30	O
Ø35	P



MOV series

Standard Ratings

Note1) Ripple current = mA rms/105°C, 120Hz

WV (Vdc)	Cap (µF)	Size ØxL(mm)	Tan δ	Ripple ¹⁾	Code No
200	47	22 x 20	0.20	350	MOV200□470M20□□□
	100	22 x 20	0.20	500	MOV200□101M20□□□
	150	22 x 20	0.20	650	MOV200□151M20□□□
	180	22 x 25	0.20	700	MOV200□181M25□□□
		30 x 20	0.20	700	MOV200□181O20□□□
	220	22 x 25	0.20	740	MOV200□221M25□□□
		22 x 30	0.20	900	MOV200□271M30□□□
	270	25 x 25	0.20	850	MOV200□271N25□□□
		35 x 20	0.20	1,100	MOV200□271P20□□□
	330	22 x 30	0.20	1,050	MOV200□331M30□□□
		25 x 30	0.20	1,050	MOV200□331N30□□□
	390	30 x 25	0.20	1,050	MOV200□331O25□□□
		22 x 35	0.20	1,200	MOV200□391M35□□□
	390	25 x 30	0.20	1,200	MOV200□391N30□□□
		30 x 25	0.20	1,200	MOV200□391O25□□□
	470	22 x 40	0.20	1,300	MOV200□471M40□□□
		25 x 35	0.20	1,300	MOV200□471N35□□□
	560	30 x 25	0.20	1,300	MOV200□471O25□□□
		22 x 45	0.20	1,500	MOV200□561M45□□□
	560	25 x 40	0.20	1,500	MOV200□561N40□□□
		30 x 35	0.20	1,500	MOV200□561O35□□□
	680	35 x 25	0.20	1,500	MOV200□561P25□□□
		25 x 50	0.20	1,700	MOV200□681N50□□□
	680	30 x 40	0.20	1,700	MOV200□681O40□□□
35 x 30		0.20	1,700	MOV200□681P30□□□	
820	30 x 45	0.20	1,950	MOV200□821O45□□□	
	35 x 35	0.20	1,950	MOV200□821P35□□□	
1,000	30 x 50	0.20	2,100	MOV200□102O50□□□	
	35 x 40	0.20	2,100	MOV200□102P40□□□	
1,200	35 x 50	0.20	2,300	MOV200□122P50□□□	
400	33	22 x 20	0.20	220	MOV400□330M20□□□
	39	22 x 20	0.20	300	MOV400□390M20□□□
	47	22 x 25	0.20	340	MOV400□470M25□□□
		25 x 20	0.20	340	MOV400□470N20□□□
	47	30 x 20	0.20	390	MOV400□470O20□□□
		22 x 25	0.20	370	MOV400□560M25□□□
	56	25 x 20	0.20	370	MOV400□560N20□□□
		22 x 25	0.20	390	MOV400□680M25□□□
	68	25 x 25	0.20	440	MOV400□680N25□□□
		30 x 20	0.20	490	MOV400□680O20□□□
	82	22 x 30	0.20	500	MOV400□820M30□□□
		25 x 25	0.20	500	MOV400□820N25□□□
	82	30 x 20	0.20	500	MOV400□820O20□□□
		25 x 35	0.20	530	MOV400□101N35□□□
	100	25 x 30	0.20	530	MOV400□101N30□□□
		30 x 25	0.20	530	MOV400□101O25□□□
	100	35 x 20	0.20	540	MOV400□101P20□□□
		22 x 40	0.20	590	MOV400□121M40□□□
	120	25 x 30	0.20	590	MOV400□121N30□□□
		30 x 25	0.20	600	MOV400□121O25□□□
	150	22 x 45	0.20	700	MOV400□151M45□□□
		25 x 35	0.20	700	MOV400□151N35□□□
	150	30 x 30	0.20	700	MOV400□151O30□□□
		35 x 25	0.20	700	MOV400□151P25□□□
	180	22 x 50	0.20	800	MOV400□181M50□□□
		25 x 40	0.20	800	MOV400□181N40□□□
	180	30 x 30	0.20	800	MOV400□181O30□□□
		35 x 25	0.20	800	MOV400□181P25□□□
	220	25 x 45	0.20	900	MOV400□221N45□□□
		30 x 35	0.20	900	MOV400□221O35□□□

WV (Vdc)	Cap (µF)	Size ØxL(mm)	Tan δ	Ripple ¹⁾	Code No
400	220	35 x 30	0.20	900	MOV400□221P30□□□
		30 x 40	0.20	960	MOV400□271O40□□□
	270	35 x 35	0.20	960	MOV400□271P35□□□
		30 x 50	0.20	1,180	MOV400□331O50□□□
	330	35 x 40	0.20	1,180	MOV400□331P40□□□
		35 x 45	0.20	1,300	MOV400□391P45□□□
470	35 x 50	0.20	1,400	MOV400□471P50□□□	
420	33	22 x 25	0.20	250	MOV420□330M25□□□
	47	22 x 25	0.20	350	MOV420□470M25□□□
	56	22 x 25	0.20	380	MOV420□560M25□□□
	68	22 x 30	0.20	450	MOV420□680M30□□□
		25 x 25	0.20	450	MOV420□680N25□□□
	82	22 x 35	0.20	640	MOV420□820M35□□□
		25 x 30	0.20	640	MOV420□820N30□□□
	100	22 x 40	0.20	690	MOV420□101M40□□□
		25 x 30	0.20	690	MOV420□101N30□□□
		30 x 25	0.20	690	MOV420□101O25□□□
	120	22 x 45	0.20	750	MOV420□121M45□□□
		25 x 35	0.20	750	MOV420□121N35□□□
		30 x 30	0.20	750	MOV420□121O30□□□
		35 x 25	0.20	750	MOV420□121P25□□□
	150	25 x 40	0.20	820	MOV420□151N40□□□
		30 x 30	0.20	820	MOV420□151O30□□□
		35 x 25	0.20	820	MOV420□151P25□□□
	180	25 x 45	0.20	900	MOV420□181N45□□□
		30 x 25	0.20	900	MOV420□181O25□□□
		35 x 30	0.20	900	MOV420□181P30□□□
	220	30 x 40	0.20	1,000	MOV420□221O40□□□
		35 x 35	0.20	1,000	MOV420□221P35□□□
	270	30 x 45	0.20	1,100	MOV420□271O45□□□
		35 x 40	0.20	1,100	MOV420□271P40□□□
330	35 x 45	0.20	1,200	MOV420□331P45□□□	