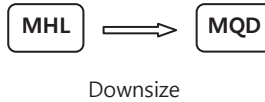




MQD series

Downsize RoHS Compliant

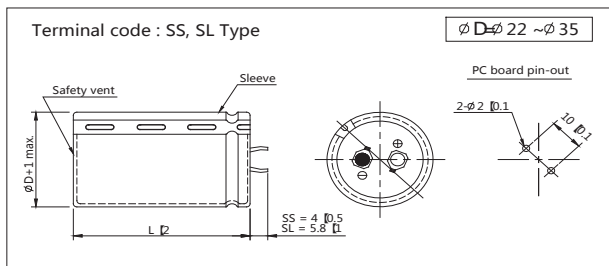
- 105°C 5,000Hrs assured.
- Long life
- Suited for rectifier circuit of general inverter
- RoHS compliant
- Halogen-free capacitors are also available.



Specifications

Item	Characteristics						
Rated Voltage Range	200 ~ 450 Vdc						
Operating Temperature Range	-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)	<table border="1"> <tr> <td>Rated voltage (Vdc)</td> <td>200 ~ 400</td> <td>450</td> </tr> <tr> <td>Tanδ (max.)</td> <td>0.15</td> <td>0.20</td> </tr> </table> (at 20°C, 120Hz)	Rated voltage (Vdc)	200 ~ 400	450	Tanδ (max.)	0.15	0.20
Rated voltage (Vdc)	200 ~ 400	450					
Tanδ (max.)	0.15	0.20					
Temperature characteristics (Max,impedance ratio)	<table border="1"> <tr> <td>Rated voltage (Vdc)</td> <td>200 ~ 250</td> <td>400 ~ 450</td> </tr> <tr> <td>Z(-25°C)/Z(20°C)</td> <td>4</td> <td>8</td> </tr> </table> (at 120Hz)	Rated voltage (Vdc)	200 ~ 250	400 ~ 450	Z(-25°C)/Z(20°C)	4	8
Rated voltage (Vdc)	200 ~ 250	400 ~ 450					
Z(-25°C)/Z(20°C)	4	8					
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°C5,000hrs. 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						

Dimensions

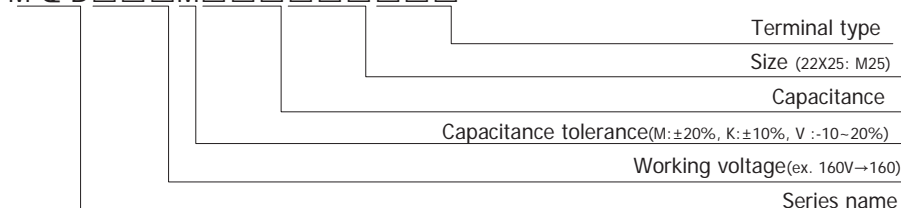


- Printed white color letter on brown sleeve
- The standard design has no bottom plate

Rated ripple current multipliers

Vdc \ Freq. (Hz)	50	60	120	1K	10K	100K
200 ~ 250	0.81	0.85	1.00	1.32	1.45	1.50
400 ~ 450	0.77	0.82	1.00	1.30	1.41	1.43

Code numbering system



Ø22	M
Ø25	N
Ø30	O
Ø35	P



MQD series

Standard Ratings

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

WV (Vdc)	Cap (uF)	Size ØxL(mm)	Tan δ	Ripple ¹⁾	Code No
200	330	22 x 25	0.15	1,100	MQD200□221M25□□□□
	390	22 x 30	0.15	1,380	MQD200□391M30□□□□
	470	22 x 35	0.15	1,550	MQD200□471M35□□□□
		25 x 25	0.15	1,390	MQD200□471M25□□□□
	560	22 x 35	0.15	1,550	MQD200□561M35□□□□
	680	22 x 40	0.15	1,730	MQD200□681M40□□□□
		25 x 35	0.15	1,870	MQD200□681N35□□□□
		30 x 30	0.15	1,980	MQD200□681O30□□□□
	820	22 x 50	0.15	2,180	MQD200□821M50□□□□
		25 x 40	0.15	2,090	MQD200□821N40□□□□
	1,000	25 x 45	0.15	2,350	MQD200□102N45□□□□
		30 x 35	0.15	2,220	MQD200□102O35□□□□
		35 x 30	0.15	2,610	MQD200□102P30□□□□
	1,200	25 x 50	0.15	2,400	MQD200□122N50□□□□
		30 x 40	0.15	2,530	MQD200□122O40□□□□
		35 x 35	0.15	2,880	MQD200□122P35□□□□
	1,500	30 x 50	0.15	3,000	MQD200□152O50□□□□
		35 x 40	0.15	3,080	MQD200□152P40□□□□
	1,800	35 x 45	0.15	3,280	MQD200□182P45□□□□
	2,200	35 x 50	0.15	3,450	MQD200□222P50□□□□
250	270	22 x 25	0.15	1,010	MQD250□271M25□□□□
	330	22 x 30	0.15	1,200	MQD250□331M30□□□□
		25 x 25	0.15	1,320	MQD250□331N25□□□□
	390	22 x 35	0.15	1,440	MQD250□391M35□□□□
		25 x 30	0.15	1,430	MQD250□391N30□□□□
	470	22 x 40	0.15	1,620	MQD250□471M40□□□□
		25 x 35	0.15	1,600	MQD250□471N35□□□□
	560	30 x 25	0.15	1,510	MQD250□471O25□□□□
		22 x 45	0.15	1,800	MQD250□561M45□□□□
		25 x 35	0.15	1,780	MQD250□561N35□□□□
	680	30 x 30	0.15	1,830	MQD250□561O30□□□□
		22 x 50	0.15	2,000	MQD250□681M50□□□□
		25 x 40	0.15	2,000	MQD250□681N40□□□□
	820	30 x 35	0.15	2,060	MQD250□681O35□□□□
		35 x 25	0.15	1,910	MQD250□681P25□□□□
		25 x 45	0.15	2,150	MQD250□821N45□□□□
	1,000	30 x 35	0.15	2,060	MQD250□821O35□□□□
		35 x 30	0.15	2,150	MQD250□821P30□□□□
		30 x 40	0.15	2,330	MQD250□102O40□□□□
	1,200	35 x 35	0.15	2,380	MQD250□102P35□□□□
30 x 50		0.15	2,680	MQD250□122O50□□□□	
1,500	35 x 40	0.15	2,720	MQD250□122P40□□□□	
1,800	35 x 45	0.15	3,050	MQD250□152P45□□□□	
1,800	35 x 50	0.15	3,300	MQD250□182P50□□□□	
400	100	22 x 25	0.15	660	MQD400□101M25□□□□
	120	22 x 30	0.15	750	MQD400□121M30□□□□
		22 x 35	0.15	860	MQD400□151M35□□□□
	150	25 x 25	0.15	860	MQD400□151N25□□□□
		22 x 35	0.15	860	MQD400□181M35□□□□
	180	25 x 30	0.15	970	MQD400□181N30□□□□
		30 x 25	0.15	1,020	MQD400□181O25□□□□
	220	22 x 45	0.15	1,090	MQD400□221M45□□□□
		25 x 35	0.15	1,120	MQD400□221N35□□□□
	270	22 x 50	0.15	1,230	MQD400□271M50□□□□
		25 x 40	0.15	1,260	MQD400□271N40□□□□
		30 x 30	0.15	1,270	MQD400□271O30□□□□
	330	35 x 25	0.15	1,220	MQD400□271P25□□□□
		25 x 45	0.15	1,300	MQD400□331N45□□□□
	390	30 x 35	0.15	1,430	MQD400□331O35□□□□
		25 x 50	0.15	1,440	MQD400□391N50□□□□
	390	30 x 40	0.15	1,600	MQD400□391O40□□□□
		35 x 30	0.15	1,520	MQD400□391P30□□□□

WV (Vdc)	Cap (uF)	Size ØxL(mm)	Tan δ	Ripple ¹⁾	Code No
400	470	30 x 45	0.15	1,810	MQD400□471O45□□□□
		35 x 35	0.15	1,670	MQD400□471P35□□□□
	560	35 x 40	0.15	1,900	MQD400□561P40□□□□
	680	35 x 45	0.15	2,120	MQD400□681P45□□□□
450	82	22 x 25	0.20	590	MQD450□820M25□□□□
		22 x 30	0.20	690	MQD450□101M30□□□□
		25 x 25	0.20	700	MQD450□101N25□□□□
	100	22 x 35	0.20	770	MQD450□121M35□□□□
		25 x 30	0.20	880	MQD450□121N30□□□□
	120	22 x 40	0.20	880	MQD450□151M40□□□□
		25 x 30	0.20	880	MQD450□151N30□□□□
		30 x 25	0.20	930	MQD450□151O25□□□□
	150	22 x 45	0.20	900	MQD450□181M45□□□□
		25 x 35	0.20	920	MQD450□181N35□□□□
		30 x 30	0.20	1,030	MQD450□181O30□□□□
	180	35 x 25	0.20	1,100	MQD450□181P25□□□□
		25 x 40	0.20	1,030	MQD450□221N40□□□□
		30 x 35	0.20	1,170	MQD450□221O35□□□□
	220	35 x 25	0.20	1,100	MQD450□221P25□□□□
		25 x 50	0.20	1,310	MQD450□271N50□□□□
		30 x 40	0.20	1,330	MQD450□271O40□□□□
	270	35 x 30	0.20	1,240	MQD450□271P30□□□□
		30 x 45	0.20	1,510	MQD450□331O45□□□□
	330	35 x 35	0.20	1,390	MQD450□331P35□□□□
30 x 50		0.20	1,670	MQD450□391O50□□□□	
390	35 x 40	0.20	1,730	MQD450□391P40□□□□	
	35 x 45	0.20	1,830	MQD450□471P45□□□□	
560	35 x 50	0.20	1,980	MQD450□561P50□□□□	