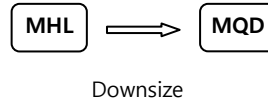


MQD series

Downsize RoHS Compliant

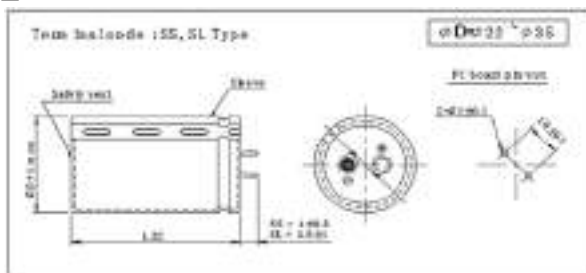
- 105°C 5,000Hrs assured.
- Long life
- Suited for rectifier circuit of general inverter
- RoHS compliant
- Halogen-free capacitors are also available.



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)	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)	4	8
(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°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



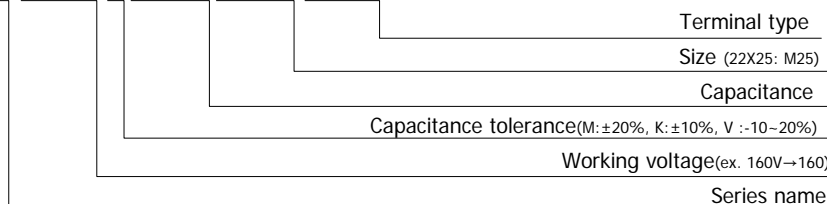
- Printed white color letter on brown sleeve
- The standard design has no bottom plate

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

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
M Q D □ □ □ M □ □ □ □ □ □ □ □ □ □ □ □



Ø22	M
Ø25	N
Ø30	O
Ø35	P

MQD series

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

VV (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□□□
		22 x 35	0.15	1,550	MQD200□471M35□□□
	470	25 x 25	0.15	1,390	MQD200□471M25□□□
		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□□□
		30 x 35	0.15	2,060	MQD250□681O35□□□
	820	35 x 25	0.15	1,910	MQD250□681P25□□□
		25 x 45	0.15	2,150	MQD250□821N45□□□
		30 x 35	0.15	2,060	MQD250□821O35□□□
	1,000	35 x 30	0.15	2,150	MQD250□821P30□□□
30 x 40		0.15	2,330	MQD250□102O40□□□	
35 x 35		0.15	2,380	MQD250□102P35□□□	
1,200	30 x 50	0.15	2,680	MQD250□122O50□□□	
	35 x 40	0.15	2,720	MQD250□122P40□□□	
1,500	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□□□
		22 x 45	0.15	1,090	MQD400□221M45□□□
	220	25 x 35	0.15	1,120	MQD400□221N35□□□
		22 x 50	0.15	1,230	MQD400□271M50□□□
	270	25 x 40	0.15	1,260	MQD400□271N40□□□
		30 x 30	0.15	1,270	MQD400□271O30□□□
		35 x 25	0.15	1,220	MQD400□271P25□□□
	330	25 x 45	0.15	1,300	MQD400□331N45□□□
		30 x 35	0.15	1,430	MQD400□331O35□□□
	390	25 x 50	0.15	1,440	MQD400□391N50□□□
		30 x 40	0.15	1,600	MQD400□391O40□□□
		35 x 30	0.15	1,520	MQD400□391P30□□□

VV (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□□□
	100	22 x 30	0.20	690	MQD450□101M30□□□
		25 x 25	0.20	700	MQD450□101N25□□□
	120	22 x 35	0.20	770	MQD450□121M35□□□
		25 x 30	0.20	880	MQD450□121N30□□□
	150	22 x 40	0.20	880	MQD450□151M40□□□
		25 x 30	0.20	880	MQD450□151N30□□□
		30 x 25	0.20	930	MQD450□151O25□□□
	180	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□□□
		35 x 25	0.20	1,100	MQD450□181P25□□□
	220	25 x 40	0.20	1,030	MQD450□221N40□□□
		30 x 35	0.20	1,170	MQD450□221O35□□□
		35 x 25	0.20	1,100	MQD450□221P25□□□
	270	25 x 50	0.20	1,310	MQD450□271N50□□□
		30 x 40	0.20	1,330	MQD450□271O40□□□
		35 x 30	0.20	1,240	MQD450□271P30□□□
330	30 x 45	0.20	1,510	MQD450□331O45□□□	
	35 x 35	0.20	1,390	MQD450□331P35□□□	
390	30 x 50	0.20	1,670	MQD450□391O50□□□	
	35 x 40	0.20	1,730	MQD450□391P40□□□	
470	35 x 45	0.20	1,830	MQD450□471P45□□□	
560	35 x 50	0.20	1,980	MQD450□561P50□□□	