

ALUMINUM ELECTROLYTIC CAPACITORS

nichicon

QS

Snap-in Terminal type, 105°C High speed charge-discharge.

series

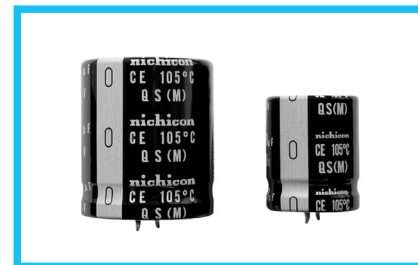


Smaller

QS



GU

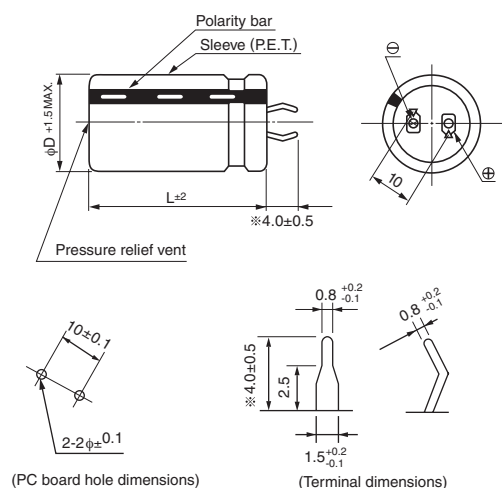


- Suited for high frequency regenerative voltage for AC servomotor, general inverter.
- Suited for equipment used at voltage fluctuating area.
- Suited for rectifier circuit of voltage doubler
- Compliant to the RoHS directive (2011/65/EU).

Specifications

Item	Performance Characteristics			
Category Temperature Range	- 25 to +105°C			
Rated Voltage Range	350 to 450V			
Rated Capacitance Range	82 to 820μF			
Capacitance Tolerance	±20% at 120Hz, 20°C			
Leakage Current	$I \leq 3\sqrt{C}$ (μA) (After 5 minutes' application of rated voltage [C: Rated Capacitance(μF), V: Voltage (V)])			
Tangent of loss angle (tan δ)	Measurement frequency : 120Hz at 20°C			
	Rated voltage (V)	350	400	420
	tan δ (MAX.)	0.15	0.15	0.15
Stability at Low Temperature	Measurement frequency : 120Hz			
	Rated voltage (V)	350 to 450		
	Impedance ratio ZT/Z20(MAX.)	Z - 25°C / Z+20°C		
		8		
Endurance of charge-discharge behavior	After an application of charge-discharge voltage for 50million times (charge-discharge voltage difference(ΔV) = rated voltage × 0.35, cycle 6Hz) capacitors shall meet the characteristics requirement listed at right.			Capacitance change
				tan δ
				Leakage current
				Appearance
Endurance	The specifications listed at right shall be met when the capacitors are restored to 20°C after D.C. bias plus rated ripple current is applied for 3000 hours at 105°C, the peak voltage shall not exceed the rated voltage.			Capacitance change
				tan δ
				Leakage current
Shelf Life	After storing the capacitors under no load at 105°C for 1000 hours and then performing voltage treatment based on JIS C 5101-4 clause 4.1 at 20°C, they shall meet the specified value for endurance characteristics listed above.			
Marking	Printed with white color letter on black sleeve.			

Drawing



Type numbering system (Example : 400V 180μF)

1	2	3	4	5	6	7	8	9	10	11	12	13	14
L	Q	S	2	G	1	8	1	M	E	L	A	3	0
											Case length code		
											Case dia. code		
											Configuration		
											Capacitance tolerance (±20%)		
											Rated capacitance (180μF)		
											Rated voltage (400V)		
											Series name		
											Type		

φD	Code
22	Z
25	A
30	B
35	C

■ Dimensions

350V (2V)				
Cap. (μF)	Size φD × L(mm)	Rated ripple (mA)	Leakage Current (mA)	Code
120	22 × 25	750	0.61	LQS2V121MELZ25
150	22 × 30	820	0.68	LQS2V151MELZ30
180	22 × 30	900	0.75	LQS2V181MELZ30
	25 × 25	900	0.75	LQS2V181MELA25
220	22 × 35	1000	0.83	LQS2V221MELZ35
	25 × 30	1000	0.83	LQS2V221MELA30
270	22 × 40	1100	0.92	LQS2V271MELZ40
	25 × 35	1100	0.92	LQS2V271MELA35
	30 × 25	1100	0.92	LQS2V271MELB25
330	22 × 45	1200	1.01	LQS2V331MELZ45
	25 × 40	1200	1.01	LQS2V331MELA40
	30 × 30	1200	1.01	LQS2V331MELB30
390	25 × 45	1300	1.10	LQS2V391MELA45
	30 × 35	1300	1.10	LQS2V391MELB35
470	25 × 50	1400	1.21	LQS2V471MELA50
	30 × 40	1400	1.21	LQS2V471MELB40
	35 × 30	1400	1.21	LQS2V471MELC30
560	30 × 45	1500	1.32	LQS2V561MELB45
	35 × 35	1500	1.32	LQS2V561MELC35
680	30 × 50	1700	1.46	LQS2V681MELB50
	35 × 40	1700	1.46	LQS2V681MELC40
820	35 × 45	1900	1.60	LQS2V821MELC45

400V (2G)				
Cap. (μF)	Size φD × L(mm)	Rated ripple (mA)	Leakage Current (mA)	Code
100	22 × 25	680	0.60	LQS2G101MELZ25
120	22 × 30	730	0.65	LQS2G121MELZ30
150	22 × 35	850	0.73	LQS2G151MELZ35
180	22 × 35	950	0.80	LQS2G181MELZ35
	25 × 30	950	0.80	LQS2G181MELA30
	30 × 25	950	0.80	LQS2G181MELB25
220	22 × 45	1100	0.88	LQS2G221MELZ45
	25 × 35	1100	0.88	LQS2G221MELA35
	30 × 25	1100	0.88	LQS2G221MELB25
270	22 × 50	1220	0.98	LQS2G271MELZ50
	25 × 40	1220	0.98	LQS2G271MELA40
	30 × 30	1220	0.98	LQS2G271MELB30
	35 × 25	1220	0.98	LQS2G271MELC25
330	25 × 45	1440	1.08	LQS2G331MELA45
	30 × 35	1440	1.08	LQS2G331MELB35
390	25 × 50	1550	1.18	LQS2G391MELA50
	30 × 40	1550	1.18	LQS2G391MELB40
	35 × 30	1550	1.18	LQS2G391MELC30
470	30 × 45	1680	1.30	LQS2G471MELB45
	35 × 35	1680	1.30	LQS2G471MELC35
560	30 × 50	1900	1.41	LQS2G561MELB50
	35 × 40	1900	1.41	LQS2G561MELC40
680	35 × 45	2120	1.56	LQS2G681MELC45

420V (W6)				
Cap. (μF)	Size φD × L(mm)	Rated ripple (mA)	Leakage Current (mA)	Code
100	22 × 25	660	0.61	LQSW6101MELZ25
120	22 × 30	810	0.67	LQSW6121MELZ30
	25 × 25	810	0.67	LQSW6121MELA25
150	22 × 35	840	0.75	LQSW6151MELZ35
	25 × 30	840	0.75	LQSW6151MELA30
180	22 × 40	910	0.82	LQSW6181MELZ40
	25 × 30	910	0.82	LQSW6181MELA30
	30 × 25	910	0.82	LQSW6181MELB25
220	22 × 45	1050	0.91	LQSW6221MELZ45
	25 × 35	1050	0.91	LQSW6221MELA35
	30 × 30	1050	0.91	LQSW6221MELB30
270	25 × 40	1250	1.01	LQSW6271MELA40
	30 × 30	1250	1.01	LQSW6271MELB30
	35 × 25	1250	1.01	LQSW6271MELC25
330	25 × 50	1420	1.11	LQSW6331MELA50
	30 × 35	1420	1.11	LQSW6331MELB35
	35 × 30	1420	1.11	LQSW6331MELC30
390	30 × 40	1610	1.21	LQSW6391MELB40
	35 × 35	1610	1.21	LQSW6391MELC35
470	30 × 45	1860	1.33	LQSW6471MELB45
	35 × 40	1860	1.33	LQSW6471MELC40
560	35 × 45	2100	1.45	LQSW6561MELC45
680	35 × 50	2200	1.60	LQSW6681MELC50

450V (2W)				
Cap. (μF)	Size φD × L(mm)	Rated ripple (mA)	Leakage Current (mA)	Code
82	22 × 25	640	0.57	LQS2W820MELZ25
100	22 × 30	690	0.63	LQS2W101MELZ30
	25 × 25	690	0.63	LQS2W101MELA25
120	22 × 35	720	0.69	LQS2W121MELZ35
	25 × 30	720	0.69	LQS2W121MELA30
150	22 × 40	790	0.77	LQS2W151MELZ40
	25 × 30	790	0.77	LQS2W151MELA30
	30 × 25	790	0.77	LQS2W151MELB25
180	22 × 45	870	0.85	LQS2W181MELZ45
	25 × 35	870	0.85	LQS2W181MELA35
	30 × 30	870	0.85	LQS2W181MELB30
220	25 × 40	1050	0.94	LQS2W221MELA40
	30 × 30	1050	0.94	LQS2W221MELB30
	35 × 25	1050	0.94	LQS2W221MELC25
270	25 × 50	1230	1.04	LQS2W271MELA50
	30 × 35	1230	1.04	LQS2W271MELB35
	35 × 30	1230	1.04	LQS2W271MELC30
330	30 × 40	1380	1.15	LQS2W331MELB40
	35 × 35	1380	1.15	LQS2W331MELC35
390	30 × 50	1610	1.25	LQS2W391MELB50
	35 × 40	1610	1.25	LQS2W391MELC40
470	35 × 45	1780	1.37	LQS2W471MELC45
560	35 × 50	1990	1.50	LQS2W561MELC50

Rated ripple current (mA) at 105°C 120Hz

● Frequency coefficient of rated ripple current

Frequency (Hz)	50	60	120	300	1k	10k	50k or more
Coefficient	0.77	0.82	1.00	1.16	1.30	1.41	1.43