

Type 380LQ 85 °C Compact, High Capacitance, Snap-In Aluminum

Higher Capacitance per Case Size



Type 380LQ is on average 27% smaller and more than 10 mm shorter than Type 380LX. This is achieved with a new can-closure method that permits installing capacitor elements into smaller cans. Approaching the capability of the 380LX, the new 380LQ enables you to shrink equipment size and retain the original performance.

Highlights

- New, more capacitance per case
- Compare to Type 380LX
- New, lower voltages down to 16 V

Specifications

Temperature Range	-40 °C to + 85 °C ≤ 315 Vdc -25 °C to + 85 °C ≥ 350 Vdc																						
Rated Voltage Range	16 Vdc to 450 Vdc																						
Capacitance Range	82 µF to 100,000 µF																						
Capacitance Tolerance	±20%																						
Leakage Current	≤ 3 \sqrt{CV} µA, 4 mA max, 5 minutes																						
Ripple Current Multipliers	<p>Ambient Temperature</p> <table border="1"> <thead> <tr> <th>45 °C</th> <th>60 °C</th> <th>70 °C</th> <th>85 °C</th> </tr> </thead> <tbody> <tr> <td>1.50</td> <td>1.40</td> <td>1.30</td> <td>1.00</td> </tr> </tbody> </table> <p>Frequency</p> <table border="1"> <thead> <tr> <th rowspan="2">Voltage</th> <th>50 Hz</th> <th>60 Hz</th> <th>120 Hz</th> <th>500 kHz</th> <th>1 kHz</th> <th>10 kHz & Up</th> </tr> </thead> <tbody> <tr> <td>16-100 WV</td> <td>0.93</td> <td>0.95</td> <td>1.00</td> <td>1.05</td> <td>1.08</td> <td>1.15</td> </tr> </tbody> </table>	45 °C	60 °C	70 °C	85 °C	1.50	1.40	1.30	1.00	Voltage	50 Hz	60 Hz	120 Hz	500 kHz	1 kHz	10 kHz & Up	16-100 WV	0.93	0.95	1.00	1.05	1.08	1.15
45 °C	60 °C	70 °C	85 °C																				
1.50	1.40	1.30	1.00																				
Voltage	50 Hz	60 Hz	120 Hz	500 kHz	1 kHz	10 kHz & Up																	
	16-100 WV	0.93	0.95	1.00	1.05	1.08	1.15																
Low Temperature Characteristics	Impedance ratio: $Z_{-20^{\circ}\text{C}}/Z_{+25^{\circ}\text{C}}$ ≤ 8 (16-50 Vdc) ≤ 4 (63-100 Vdc) ≤ 3 (150-450 Vdc)																						
Endurance Life Test	2000 h at full load at 85 °C Δ Capacitance ±20% ESR 200% of limit DCL 100% of limit																						
Shelf Life Test	1000 h at 85 °C Δ Capacitance ±20% ESR 200% of limit DCL 100% of limit																						
Vibration	10 to 55 Hz, 0.06" and 10 g max, 2 h each plane																						
RoHS Compliant																							

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Part Numbering System

380LQ	272	M	200	A05	2	A	+D
↓	↓	↓	↓	↓	↓	↓	↓
Type	Cap	Tolerance	Voltage	Case Code	Insulation	Pin Styles	Blank = no end disk if <250 V D = end disk, any voltage
380LQ	561 = 560 μF 272 = 2700 μF 392 = 3900 μF	M = ±20%	016 = 16 Vdc 200 = 200 Vdc 450 = 450 Vdc		2 = PVC	Blank = 2 pins snap-in 6.3 mm L A = 2 pins snap-in 4.0 mm L	

Outline Drawing



Note that for 200 volts and under the insulating end disc is optional - If one is needed add a (+D) to the end of the part numbering system.

Insulated Case Dimensions

Case Code	DIAMETER D		LENGTH L		Typical Weight (grams)	Case Code	DIAMETER D		LENGTH L		Typical Weight (grams)
	mm	inches	mm	inches			mm	inches	mm	inches	
H01	22	0.87	25	0.98	16	K01	30	1.18	25	0.98	30
H02	22	0.87	30	1.18	19	K02	30	1.18	30	1.18	35
H03	22	0.87	35	1.38	22	K03	30	1.18	35	1.38	40
H04	22	0.87	40	1.57	24	K04	30	1.18	40	1.57	44
H45	22	0.87	45	1.77	28	K45	30	1.18	45	1.77	49
H05	22	0.87	50	1.97	31	K05	30	1.18	50	1.97	53
J01	25	0.98	25	0.98	20	A01	35	1.38	25	0.98	42
J02	25	0.98	30	1.18	24	A02	35	1.38	30	1.18	48
J03	25	0.98	35	1.38	27	A03	35	1.38	35	1.38	54
J04	25	0.98	40	1.57	31	A04	35	1.38	40	1.57	60
J45	25	0.98	45	1.77	35	A45	35	1.38	45	1.77	67
J05	25	0.98	50	1.97	38	A05	35	1.38	50	1.97	74

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Cap. (µF)	Catalog Part Number	ESR Max @ 25° C		Ripple Amps @ 85 °C		Nominal Size D x L (mm)	Cap. (µF)	Catalog Part Number	ESR Max @ 25° C		Ripple Amps @ 85 °C		Nominal Size D x L (mm)
		120 Hz (Ω)	20 kHz (Ω)	120 Hz (A)	20 kHz (A)				120 Hz (Ω)	20 kHz (Ω)	120 Hz (A)	20 kHz (A)	
50 Vdc (63 Vdc Surge)							80 Vdc (100 Vdc Surge)						
10000	380LQ103M050A012	0.05	0.037	4.97	5.72	35 x 25	3900	380LQ392M080H052	0.085	0.064	3.59	4.13	22 x 50
12000	380LQ123M050J452	0.041	0.031	5.58	6.42	25 x 45	3900	380LQ392M080J042	0.085	0.064	3.59	4.13	25 x 40
12000	380LQ123M050K032	0.041	0.031	5.58	6.42	30 x 35	3900	380LQ392M080A012	0.085	0.064	3.59	4.13	35 x 25
12000	380LQ123M050A022	0.041	0.031	5.58	6.42	35 x 30	4700	380LQ472M080H452	0.071	0.053	4.09	4.70	25 x 45
15000	380LQ153M050K042	0.033	0.025	6.44	7.41	30 x 40	4700	380LQ472M080K022	0.071	0.053	4.09	4.70	30 x 30
15000	380LQ153M050A032	0.033	0.025	6.44	7.41	35 x 35	5600	380LQ562M080J052	0.059	0.044	4.55	5.23	25 x 50
18000	380LQ183M050K452	0.028	0.021	6.94	7.98	30 x 45	5600	380LQ562M080K032	0.059	0.044	4.55	5.23	30 x 35
18000	380LQ183M050A042	0.028	0.021	6.94	7.98	35 x 40	5600	380LQ562M080A022	0.059	0.044	4.55	5.23	35 x 30
22000	380LQ223M050A452	0.023	0.018	7.57	8.71	35 x 45	6800	380LQ682M080K452	0.049	0.037	5.16	5.93	30 x 45
27000	380LQ273M050A052	0.018	0.015	8.96	10.30	35 x 50	6800	380LQ682M080A032	0.049	0.037	5.16	5.93	35 x 35
63 Vdc (79 Vdc Surge)							100 Vdc (125 Vdc Surge)						
2200	380LQ222M063H012	0.188	0.141	2.52	2.90	22 x 25	10000	380LQ103M080A452	0.033	0.025	6.51	7.49	35 x 45
3300	380LQ332M063H022	0.126	0.094	4.10	4.72	22 x 30	12000	380LQ122M080A052	0.028	0.021	7.28	8.37	35 x 50
3300	380LQ332M063J012	0.126	0.094	4.10	4.72	25 x 25							
3900	380LQ392M063H032	0.106	0.080	4.44	5.11	22 x 35							
3900	380LQ392M063J022	0.106	0.080	4.44	5.11	25 x 30							
4700	380LQ472M063H042	0.088	0.066	4.86	5.59	22 x 40							
5600	380LQ562M063H452	0.074	0.056	5.36	6.16	22 x 45							
5600	380LQ562M063J042	0.074	0.056	5.36	6.16	25 x 40							
6800	380LQ682M063J452	0.061	0.046	5.84	6.72	25 x 45							
6800	380LQ682M063K022	0.061	0.046	5.84	6.72	30 x 30							
6800	380LQ682M063A012	0.061	0.046	5.84	6.72	35 x 25							
8200	380LQ822M063J052	0.051	0.038	6.00	6.90	25 x 50							
8200	380LQ822M063K032	0.051	0.038	6.00	6.90	30 x 35							
8200	380LQ822M063A022	0.051	0.038	6.00	6.90	35 x 30							
10000	380LQ103M063K042	0.041	0.031	6.52	7.50	30 x 40							
10000	380LQ103M063A032	0.041	0.031	6.52	7.50	35 x 35							
12000	380LQ123M063K452	0.035	0.026	7.15	8.22	30 x 45							
12000	380LQ123M063A042	0.035	0.026	7.15	8.22	35 x 40							
15000	380LQ153M063A452	0.028	0.021	7.91	9.10	35 x 45							
18000	380LQ183M063A052	0.023	0.018	8.55	9.83	35 x 50							
18000	380LQ183M063A052	0.023	0.018	8.55	9.83	35 x 50							
80 Vdc (100 Vdc Surge)							160 Vdc (200 Vdc Surge)						
1500	380LQ152M080H012	0.221	0.166	2.26	2.60	22 x 25	560	380LQ561M160H012	0.355	0.16	2.25	3.15	22 x 25
1800	380LQ182M080H022	0.184	0.138	2.52	2.90	22 x 30	680	380LQ681M160H022	0.293	0.132	2.50	3.50	22 x 30
2200	380LQ222M080H032	0.151	0.113	2.73	3.14	22 x 35	820	380LQ821M160H032	0.243	0.109	2.75	3.85	22 x 35
2200	380LQ222M080J012	0.151	0.113	2.73	3.14	25 x 25							
2700	380LQ272M080H042	0.123	0.092	2.78	3.20	22 x 40							
2700	380LQ272M080J022	0.123	0.092	2.78	3.20	25 x 30							
3300	380LQ332M080H452	0.100	0.075	3.21	3.69	22 x 45							
3300	380LQ332M080J032	0.100	0.075	3.21	3.69	25 x 35							
3300	380LQ332M080K012	0.1	0.075	3.21	3.69	30 x 25							

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Cap.	Catalog	ESR Max		Ripple Amps		Nominal
		@ 25° C		@ 85 °C		
(µF)	Part Number	120 Hz	20 kHz	120 Hz	20 kHz	D x L
		(Ω)	(Ω)	(A)	(A)	(mm)
420 Vdc (470 Vdc Surge)						
150	380LQ151M420J012	1.33	0.66	1.20	1.65	25 x 25
180	380LQ181M420H032	1.1	0.55	1.40	1.95	22 x 35
220	380LQ221M420H042	0.904	0.452	1.50	2.10	22 x 40
220	380LQ221M420J032	0.904	0.452	1.50	2.10	25 x 35
220	380LQ221M420K012	0.904	0.452	1.50	2.10	30 x 25
270	380LQ271M420H452	0.737	0.368	1.75	2.40	22 x 45
270	380LQ271M420J042	0.737	0.368	1.75	2.40	25 x 40
330	380LQ331M420J452	0.603	0.302	1.95	2.75	25 x 45
330	380LQ331M420K022	0.603	0.302	1.95	2.75	30 x 30
390	380LQ391M420J052	0.51	0.255	2.15	3.05	25 x 50
390	380LQ391M420K032	0.51	0.255	2.15	3.05	30 x 35
390	380LQ391M420A022	0.51	0.255	2.15	3.05	35 x 30
470	380LQ471M420K042	0.423	0.212	2.45	3.40	30 x 40
470	380LQ471M420A032	0.423	0.212	2.45	3.40	35 x 35
560	380LQ561M420K452	0.355	0.178	2.75	3.85	30 x 45
560	380LQ561M420A042	0.355	0.178	2.75	3.85	35 x 40
680	380LQ681M420A452	0.293	0.146	3.10	4.35	35 x 45
82	380LQ820M450H012	2.426	1.213	0.83	1.16	22 x 25
100	380LQ101M450H012	1.99	0.995	0.93	1.30	22 x 25
120	380LQ121M450H022	1.656	0.829	1.04	1.46	22 x 30
150	380LQ151M450H032	1.326	0.663	1.19	1.67	22 x 35

Cap.	Catalog	ESR Max		Ripple Amps		Nominal
		@ 25° C		@ 85 °C		
(µF)	Part Number	120 Hz	20 kHz	120 Hz	20 kHz	D x L
		(Ω)	(Ω)	(A)	(A)	(mm)
450 Vdc (500 Vdc Surge)						
150	380LQ151M450J022	1.326	0.663	1.19	1.67	25 x 30
180	380LQ181M450H042	1.105	0.553	1.35	1.89	22 x 40
180	380LQ181M450J022	1.105	0.553	1.35	1.89	25 x 30
220	380LQ221M450H452	0.904	0.452	1.55	2.17	22 x 45
220	380LQ221M450J032	0.904	0.452	1.45	2.00	25 x 35
220	380LQ221M450J042	0.904	0.452	1.55	2.17	25 x 40
220	380LQ221M450K022	0.904	0.452	1.55	2.17	30 x 30
220	380LQ221M450A012	0.904	0.452	1.55	2.17	35 x 25
270	380LQ271M450H052	0.737	0.368	1.78	2.49	22 x 50
270	380LQ271M450J042	0.737	0.368	1.78	2.49	25 x 40
270	380LQ271M450K022	0.737	0.368	1.78	2.49	30 x 30
330	380LQ331M450J052	0.603	0.302	2.01	2.81	25 x 50
330	380LQ331M450K032	0.603	0.302	1.90	2.60	30 x 35
330	380LQ331M450K042	0.603	0.302	2.01	2.81	30 x 40
330	380LQ331M450A022	0.603	0.302	2.01	2.81	35 x 30
390	380LQ391M450K042	0.510	0.255	2.24	3.14	30 x 40
390	380LQ391M450A032	0.510	0.255	2.24	3.14	35 x 35
470	380LQ471M450K452	0.423	0.212	2.53	3.54	30 x 45
470	380LQ471M450A042	0.423	0.212	2.53	3.54	35 x 40
560	380LQ561M450K052	0.355	0.178	2.82	3.95	30 x 50
560	380LQ561M450A452	0.355	0.178	2.82	3.95	35 x 45
680	380LQ681M450A052	0.293	0.146	3.00	4.25	35 x 50

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Typical Performance Curves





Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

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