

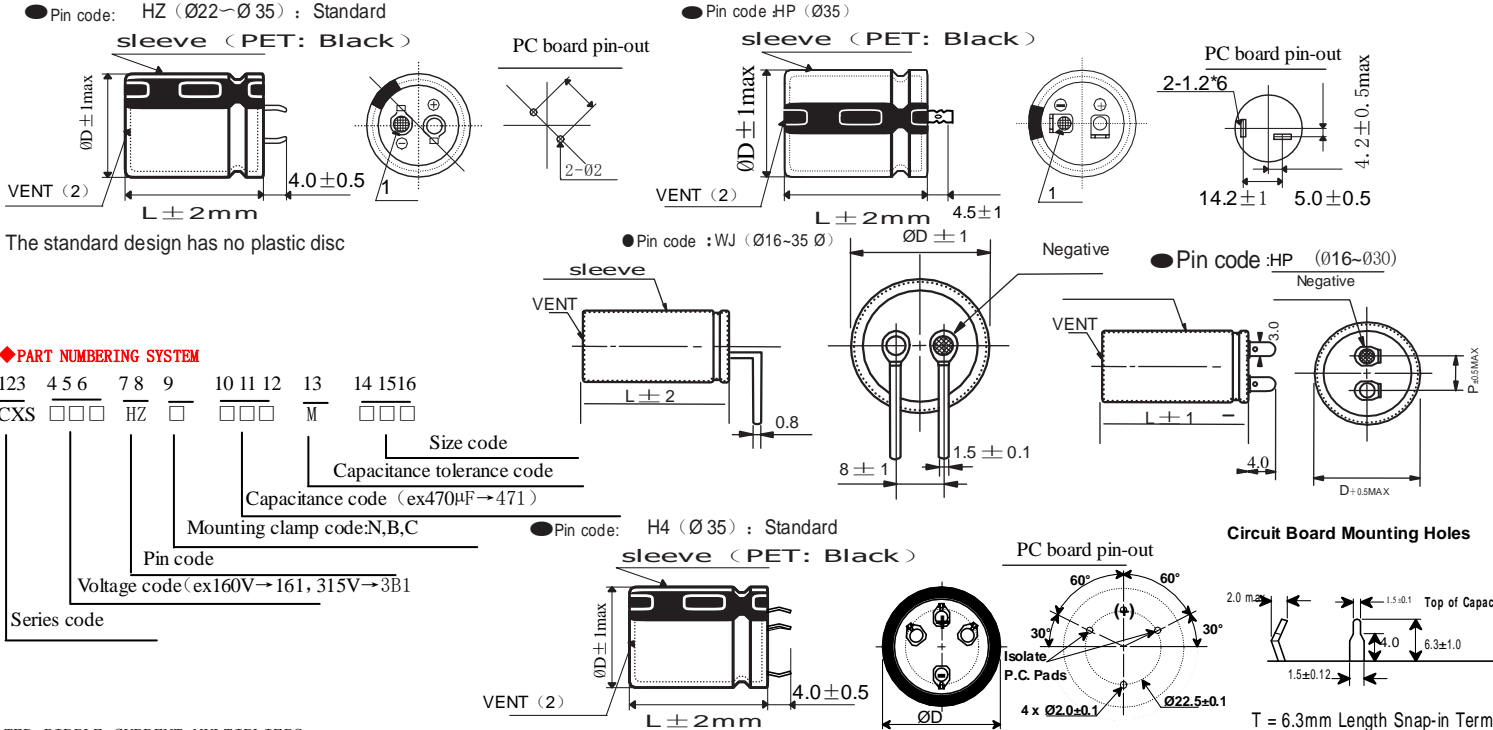
- Endurance with ripple current: 7000 hours at 105°C;
- Rated voltage range: 160V to 500V;
- for solar power generation, High voltage product lineup, Transformation Power Supply And General Frequency converter Etc Smooth Use



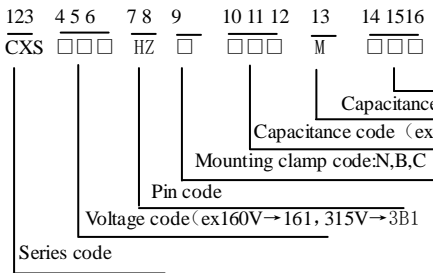
**◆ SPECIFIC ATIONS**

items	characteristics		
Category temperature Range	-25~+105°C		
Rated voltage Range	160~500 <sub>VDC</sub>		
Capacitance Tolerance	± 20% (M) 20°C、120HZ		
Leakage Current	I=3√CV or 5mA, whichever is smaller I: Where, I : Max. leakage current (μA)、C: Nominal capacitance (μF)、Rated voltage (V) at 20°C after 5 minutes		
Dissipation Factor (MAX)	Rated voltage (Vdc)	160V~400V	420V~500V
	tanδ Max	0.15	0.20
Low Temperature characteristics	Rated voltage (Vdc)	160V~400V	420V~500V
	Z(-25°C)/Z(+20°C)	4	8
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20°C after subjected to DC voltage with the rated ripple current is applied (the peak voltage shall not exceed the rated voltage) for 7,000 hours at 105°C		
	Capacitance change	≤ ±20% of the initial value	
	D.F. (tanδ)	≤ 300% of the initial specified value 200%(500Vdc:250%≤)	
	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 1000 hours at 105°C without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to Item 4.1 of JIS C 5101-4		
	Capacitance change	≤ ±20% of the initial value	
	D.F. (tanδ)	≤ 300% of the initial specified value	
	Leakage current	≤ The initial specified value	

**◆ size Fig (snap-in Fig)[mm]**



**◆ PART NUMBERING SYSTEM**



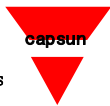
**◆ RATED RIPPLE CURRENT MULTIPLIERS**

● Frequency Multipliers

Frequency (HZ)	50	120	300	1K	10K	50K
160~250vdc	0.81	1.00	1.17	1.32	1.45	1.50
315~450vdc	0.77	1.00	1.16	1.30	1.41	1.43
500vdc	0.70	1.00	1.16	1.30	1.41	1.43

× The endurance of capacitors is reduced with internal heating produced by ripple current at the rate of halving the lifetime with every 5°C rise when long life performance is required in actual use, the rms ripple current has to be reduced.

Product specifications in this catalog are subject to change without notice. Request our product specifications before purchase and/or use. Please use our products based on the information contained in this catalog and product specifications



## SRANDRAD RATINGS

WV [Vdc]	cap [μ F]	Case size D x L [mm]	ESR 120 Hz 20°C [mΩ]	Ripple current (Ams/105 °C, 120Hz)	Par t NO.	WV [Vdc]	cap [μ F]	Case size D x L [mm]	ESR 120 Hz 20°C [mΩ]	Ripple current (Ams/105 °C, 120Hz)	Par t NO.
160v	470	22×25	0.15	1.47	CXS161HZN471MP25	200	680	22×40	0.15	1.94	CXS201HZN681MP40
	680	22×30	0.15	1.86	CXS161HZN681MP30		680	25.4×30	0.15	1.89	CXS201HZN681MQ30
	680	25.4×25	0.15	1.84	CXS161HZN681MQ25		680	30×25	0.15	2.06	CXS201HZN681MR25
	820	22×35	0.15	2.09	CXS161HZN821MP35		820	22×45	0.15	2.17	CXS201HZN821MP45
	820	25.4×30	0.15	2.08	CXS161HZN821MQ30		820	25.4×35	0.15	2.17	CXS201HZN821MQ35
	1000	22×40	0.15	2.35	CXS161HZN102MP40		1000	22×50	0.15	2.45	CXS201HZN102MP50
	1000	22×45	0.15	2.40	CXS161HZN102MP45		1000	25.4×40	0.15	2.45	CXS201HZN102MQ40
	1000	25.4×35	0.15	2.40	CXS161HZN102MQ30		1000	30×30	0.15	2.52	CXS201HZN102MR30
	1000	30×25	0.15	2.50	CXS161HZN102MR25		1000	35×25	0.15	2.66	CXS201HZN102MA25
	1200	22×50	0.15	2.69	CXS161HZN122MP50		1200	25.4×45	0.15	2.73	CXS201HZN122MQ45
	1200	25.4×40	0.15	2.68	CXS161HZN122MQ40		1200	25.4×50	0.15	2.78	CXS201HZN122MQ50
	1200	30×30	0.15	2.77	CXS161HZN122MR30		1200	30×35	0.15	2.83	CXS201HZN122MR35
	1200	35×25	0.15	2.91	CXS161HZN122MA25		1200	35×30	0.15	2.96	CXS201HZN122MA30
	1500	25.4×45	0.15	3.05	CXS161HZN152MQ45		1500	30×40	0.15	3.26	CXS201HZN152MR40
	1500	30×35	0.15	3.17	CXS161HZN152MR35		1500	30×45	0.15	3.34	CXS201HZN152MR45
	1800	25.4×50	0.15	3.40	CXS161HZN182MQ50		1500	35×35	0.15	3.36	CXS201HZN152MA35
	1800	30×40	0.15	3.357	CXS161HZN182MR40		1800	30×50	0.15	3.72	CXS201HZN182MR50
	1800	35×30	0.15	3.62	CXS161HZN182MA30		1800	35×40	0.15	3.81	CXS201HZN182MA40
	2200	30×45	0.15	4.05	CXS161HZN222MR45		2200	35×45	0.15	4.32	CXS201HZN222MA45
	2200	30×50	0.15	4.11	CXS161HZN222MR50		2700	35×50	0.15	4.88	CXS201HZN272MA50
2200	35×35	0.15	4.07	CXS161HZN222MA35	270	22×25	0.15	1.11	CXS251HZN271MP25		
2700	35×40	0.15	4.67	CXS161HZN272MA40	330	22×30	0.15	1.29	CXS251HZN331MP30		
2700	35×45	0.15	4.78	CXS161HZN272MA45	390	22×35	0.15	1.44	CXS251HZN391MP35		
3300	35×50	0.15	5.40	CXS161HZN333MA50	390	25.4×25	0.15	1.40	CXS251HZN391MQ25		
180	390	22×25	0.15	1.34	CXS181HZN391MP25	470	22×40	0.15	1.61	CXS251HZN471MP40	
	560	22×30	0.15	1.68	CXS181HZN561MP30	470	25.4×30	0.15	1.57	CXS251HZN471MQ30	
	560	25.4×25	0.15	1.67	CXS181HZN561MQ25	560	22×45	0.15	1.79	CXS251HZN561MP45	
	680	22×35	0.15	1.90	CXS181HZN681MP35	560	25.4×35	0.15	1.79	CXS251HZN561MQ35	
	820	22×40	0.15	2.13	CXS181HZN821MP40	560	30×25	0.15	1.87	CXS251HZN561MR25	
	820	25.4×30	0.15	2.08	CXS181HZN821MQ30	680	22×50	0.15	2.02	CXS251HZN681MP50	
	820	25.4×35	0.15	2.17	CXS181HZN821MQ35	680	25.4×40	0.15	2.02	CXS251HZN681MQ40	
	820	30×25	0.15	2.26	CXS181HZN821MR25	680	30×30	0.15	2.08	CXS251HZN681MR30	
	1000	22×45	0.15	2.40	CXS181HZN102MP45	680	35×25	0.15	2.19	CXS251HZN681MA25	
	1000	22×50	0.15	2.45	CXS181HZN102MP50	820	25.4×45	0.15	2.26	CXS251HZN821MQ45	
	1000	25.4×40	0.15	2.45	CXS181HZN102MQ40	820	25.4×50	0.15	2.29	CXS251HZN821MQ50	
	1000	30×30	0.15	2.52	CXS181HZN102MR30	820	30×35	0.15	2.34	CXS251HZN821MR35	
	1000	35×25	0.15	2.66	CXS181HZN102MA25	820	35×30	0.15	2.45	CXS251HZN821MA30	
	1200	25.4×45	0.15	2.73	CXS181HZN122MQ45	1000	30×40	0.15	2.66	CXS251HZN102MR40	
	1200	30×35	0.15	2.83	CXS181HZN122MR35	1200	30×45	0.15	2.99	CXS251HZN122MR45	
	1500	25.4×50	0.15	3.10	CXS181HZN152MQ50	1200	30×50	0.15	3.04	CXS251HZN122MR50	
	1500	30×40	0.15	3.26	CXS181HZN152MR40	1200	35×35	0.15	3.00	CXS251HZN122MA35	
	1500	35×30	0.15	3.31	CXS181HZN152MA30	1200	35×40	0.15	3.11	CXS251HZN122MA40	
	1800	30×45	0.15	3.66	CXS181HZN182MR45	1500	35×45	0.15	3.56	CXS251HZN152MA45	
	1800	35×35	0.15	3.68	CXS181HZN182MA35	1800	35×50	0.15	3.98	CXS251HZN182MA50	
2200	30×50	0.15	4.11	CXS181HZN222MR50	180	22×25	0.15	0.95	CXS3B1HZN181MP25		
2200	35×40	0.15	4.22	CXS181HZN222MA40	220	22×30	0.15	1.10	CXS3B1HZN221MP30		
2200	35×45	0.15	4.32	CXS181HZN222MA45	220	25.4×25	0.15	1.10	CXS3B1HZN221MQ25		
2700	35×50	0.15	4.88	CXS181HZN272MA50	270	22×35	0.15	1.24	CXS3B1HZN271MP25		
200	390	22×35	0.15	1.34	CXS201HZN391MP25	270	25.4×30	0.15	1.25	CXS3B1HZN271MQ30	
	470	22×30	0.15	1.54	CXS201HZN471MP30	330	22×40	0.15	1.40	CXS3B1HZN331MP40	
	560	22×35	0.15	1.72	CXS201HZN561MP35	330	30×25	0.15	1.43	CXS3B1HZN331MR25	
	560	25.4×25	0.15	1.67	CXS201HZN561MQ25	390	22×45	0.15	1.56	CXS3B1HZN391MP45	

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WV [Vdc]	cap [μ F]	Case size D x L [mm]	ESR 120 Hz 20°C [mΩ]	Ripple current (Ams/105 °C, 120Hz)	Par t NO.	WV [Vdc]	cap [μ F]	Case size D x L [mm]	ESR 120 Hz 20°C [mΩ]	Ripple current (Ams/105 °C, 120Hz)	Par t NO.
315	390	22×50	0.15	1.59	CXS3B1HZN391MP50	420	270	25.4×45	0.20	1.36	CXS421HZN271MQ45
	390	25.4×35	0.15	1.57	CXS3B1HZN391MQ35		270	30×30	0.20	1.31	CXS421HZN271MR30
	470	25.4×40	0.15	1.76	CXS3B1HZN471MQ40		270	35×25	0.20	1.38	CXS421HZN271MA25
	470	25.4×45	0.15	1.79	CXS3B1HZN471MQ45		330	25.4×50	0.20	1.52	CXS421HZN331MQ50
	470	30×30	0.15	1.73	CXS3B1HZN471MR30		330	30×35	0.20	1.48	CXS421HZN331MR35
	470	35×25	0.15	1.82	CXS3B1HZN471MA25		330	35×30	0.20	1.55	CXS421HZN331MA30
	560	25.4×50	0.15	1.99	CXS3B1HZN561MQ50		390	30×40	0.20	1.66	CXS421HZN391MR40
	560	30×35	0.15	1.93	CXS3B1HZN561MR35		390	30×45	0.20	1.70	CXS421HZN391MR45
	560	35×30	0.15	2.02	CXS3B1HZN561MA30		390	35×35	0.20	1.71	CXS421HZN391MA35
	680	30×40	0.15	2.19	CXS3B1HZN681MR40		470	30×50	0.20	1.90	CXS421HZN471MR50
	680	30×45	0.15	2.25	CXS3B1HZN681MR45		470	35×40	0.20	1.95	CXS421HZN471MA40
	680	35×35	0.15	2.26	CXS3B1HZN681MA35		560	35×45	0.20	2.17	CXS421HZN561MA45
	820	30×50	0.15	2.51	CXS3B1HZN821MR50		680	35×50	0.20	2.45	CXS421HZN681MA50
	820	35×40	0.15	2.57	CXS3B1HZN821MA40		450	82	22×25	0.20	0.64
1000	35×45	0.15	2.91	CXS3B1HZN102MA45	120	22×30		0.20	0.81	CXS451HZN121MP30	
1200	35×50	0.15	3.25	CXS3B1HZN122MA50	120	22×35		0.20	0.83	CXS451HZN121MP35	
400	120	22×25	0.15	0.77	CXS401HZN121MP25	120		25.4×25	0.20	0.81	CXS451HZN121MQ25
	150	22×30	0.15	0.90	CXS401HZN151MP30	150		22×40	0.20	0.94	CXS451HZN151MP40
	180	22×35	0.15	1.02	CXS401HZN181MP35	150		25.4×30	0.20	0.93	CXS451HZN151MQ30
	180	25.4×25	0.15	0.99	CXS401HZN181MQ25	180		22×45	0.20	1.06	CXS451HZN181MP45
	220	22×40	0.15	1.15	CXS401HZN221MP40	180		25.4×35	0.20	1.06	CXS451HZN181MQ35
	220	25.4×30	0.15	1.13	CXS401HZN221MQ30	180		30×25	0.20	1.06	CXS451HZN181MR25
	220	30×25	0.15	1.17	CXS401HZN221MR25	220		22×50	0.20	1.20	CXS451HZN221MP50
	270	22×45	0.15	1.29	CXS401HZN271MP45	220		25.4×40	0.20	1.20	CXS451HZN221MQ40
	270	22×50	0.15	1.32	CXS401HZN271MP50	220		30×30	0.20	1.18	CXS451HZN221MR30
	270	25.4×35	0.15	1.30	CXS401HZN271MQ35	220		35×25	0.20	1.24	CXS451HZN221MA25
	330	25.4×40	0.15	1.47	CXS401HZN331MQ40	270		25.4×45	0.20	1.36	CXS451HZN271MQ45
	330	30×30	0.15	1.45	CXS401HZN331MR30	270	25.4×50	0.20	1.38	CXS451HZN271MQ50	
	330	35×25	0.15	1.52	CXS401HZN331MA25	270	30×35	0.20	1.34	CXS451HZN271MR35	
	390	25.4×45	0.15	1.63	CXS401HZN391MQ45	270	35×30	0.20	1.40	CXS451HZN271MA30	
	390	25.4×50	0.15	1.66	CXS401HZN391MQ50	330	30×40	0.20	1.52	CXS451HZN331MR40	
	390	30×35	0.15	1.61	CXS401HZN391MR35	390	30×45	0.20	1.70	CXS451HZN391MR45	
	390	35×30	0.15	1.68	CXS401HZN391MA30	390	30×50	0.20	1.73	CXS451HZN391MR50	
	470	30×40	0.15	1.82	CXS401HZN471MR40	390	35×35	0.20	1.71	CXS451HZN391MA35	
	470	35×35	0.15	1.88	CXS401HZN471MA35	470	35×40	0.20	1.95	CXS451HZN471MA40	
	560	30×45	0.15	2.04	CXS401HZN561MR45	470	35×45	0.20	1.99	CXS451HZN471MA45	
560	30×50	0.15	2.07	CXS401HZN561MR50	560	35×50	0.20	2.22	CXS451HZN561MA50		
560	35×40	0.15	2.13	CXS401HZN561MA40	500	100	30×25	0.20	0.82	CXS501HZN101MR25	
680	35×45	0.15	2.4	CXS401HZN681MA45		120	30×30	0.20	0.91	CXS501HZN121MR30	
820	35×50	0.15	2.69	CXS401HZN821MA50		120	35×25	0.20	0.88	CXS501HZN121MA25	
420	100	22×25	0.20	0.7		CXS421HZN101MP25	150	30×35	0.20	1.04	CXS501HZN151MR30
	120	22×30	0.20	0.81		CXS421HZN121MP30	180	30×40	0.20	1.17	CXS501HZN181MR30
	120	25.4×25	0.20	0.81		CXS421HZN121MQ25	180	35×30	0.20	1.10	CXS501HZN181MA30
	150	22×35	0.20	0.93		CXS421HZN151MP35	220	30×45	0.20	1.33	CXS501HZN221MR45
	180	22×40	0.20	1.04		CXS421HZN181MP40	220	35×35	0.20	1.23	CXS501HZN221MA35
	180	25.4×30	0.20	1.02		CXS421HZN181MQ30	270	30×50	0.20	1.50	CXS501HZN271MR50
	180	30×25	0.20	1.06		CXS421HZN181MR25	270	35×40	0.20	1.42	CXS501HZN271MA40
	220	22×45	0.20	1.17		CXS421HZN221MP45	330	35×45	0.20	1.60	CXS501HZN331MA45
	220	22×50	0.20	1.20		CXS421HZN221MP50	390	35×50	0.20	1.78	CXS501HZN391MA50
	220	25.4×35	0.20	1.18		CXS421HZN221MQ35	470	35×60	0.20	2.03	CXS501HZN391MA60
	270	25.4×40	0.20	1.33		CXS421HZN271MQ40	560	35×70	0.20	2.25	CXS501HZN391MA70