

ULHA Series (85°C 12000H)

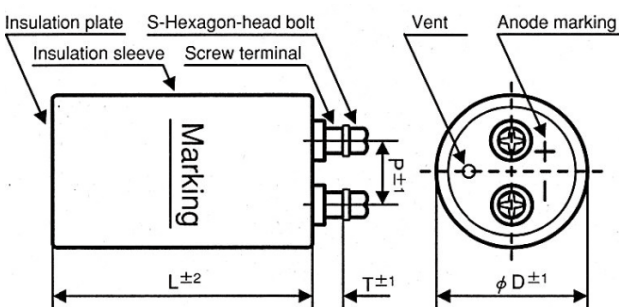
- Compliant to the RoHS directive
- High ripple current & Long life design
- 85°C 12000H for Industrial Automation、Telecommunication Power Station、Medical Power Supply、Large Power Servo Driver...



◆ Specification

Item	Performance Characteristics	
Operating range	-25°C ~ +85°C	
Rated voltage range	160V ~ 450V	
Capacitance tolerance	±20% (20°C, 120Hz)	
Leakage current	$I \leq 0.01CV(\mu A)$ or 5mA (Whichever is smaller) (20°C, after 5 minutes) C=Nominal capacitance(μF), V=Rated voltage(V)	
Dissipation factor (20°C,120Hz)	Shall not exceed the values shown in the STANDARD RATINGS	
Load Life	After applying rated voltage with specified ripple current for 12000 hours at 85°C(the peak voltage shall not exceed the rated voltage), and then restored for 24 hours, capacitor shall meet the following requirement:	
	Capacitance change	Within ±20% of the initial value.
	Dissipation factor	Not more than 200% of the initial specified value.
Shelf Life	After storing for 500 hours at 85°C,UR to be applied for 30 minutes and then restored for 24 hours, capacitor shall meet the following requirement:	
	Capacitance change	Within ±20% of the initial value.
	Dissipation factor	Not more than 150% of the initial specified value.
Standard	JIS C 5101-4	

◆ Dimensions(Screw-mount)



ΦD	P	S	T	Cap material
36	12.7	M5×10	6.4	Epoxy Resin
51	22.0	M5×10	6.4	Epoxy Resin
64	28.6	M5×10	6.4	Epoxy Resin
77	32.0	M5×10	6.4	Epoxy Resin
90	32.0	M6×17	6.4	Epoxy Resin
101	41.5	M8×17	11.3	Epoxy Resin

◆ Dimensions(Screw-mount)

Frequency(Hz)	50	120	300	1k	3k
Coefficient	0.8	1.0	1.1	1.3	1.4

◆ STANDARD RATING

Rated Voltage code (V.DC)	Capacitance (μF)	Case size ΦD×L(mm)	tanδ 20°C, 120Hz	Ripple current 85°C, 120Hz (Arms)	ESR(typ.) 20°C, 100Hz (mΩ)	Z max 20°C, 10KHz (mΩ)	Part number
160 2C (200)	3300	51×80	0.25	10.30	35	35	ULHA2C332YC080M
	3900	51×80	0.25	11.76	30	28	ULHA2C392YC080M
	4700	51×100	0.25	14.34	25	25	ULHA2C472YC100M
	5600	51×100	0.25	14.78	23	23	ULHA2C562YC100M
	6800	64×100	0.25	15.68	20	22	ULHA2C682YD100M
	8200	64×100	0.25	19.04	18	19	ULHA2C822YD100M
	10000	64×100	0.25	23.41	15	16	ULHA2C103YD100M
	12000	64×130	0.25	23.74	12	15	ULHA2C123YD130M
	15000	64×130	0.25	25.31	11	12	ULHA2C153YD130M
		77×100	0.25	25.31	11	12	ULHA2C153YE100M
	18000	77×115	0.25	28.22	9	11	ULHA2C183YE115M
	22000	77×130	0.25	31.92	8	8	ULHA2C223YE130M
	27000	77×155	0.25	36.62	7	8	ULHA2C273YE155M
	33000	90×130	0.25	41.22	6	7	ULHA2C333YF130M
39000	90×157	0.25	50.62	5	7	ULHA2C393YF157M	
200 2D (250)	2200	51×80	0.25	9.41	43	60	ULHA2D222YC080M
	2700	51×80	0.25	10.98	31	39	ULHA2D272YC080M
	3300	51×80	0.25	12.54	29	35	ULHA2D332YC080M
	3900	51×100	0.25	13.10	26	30	ULHA2D392YC100M
	4700	51×100	0.25	13.55	25	27	ULHA2D472YC100M
	5600	64×100	0.25	14.56	23	25	ULHA2D562YD100M
	6800	64×100	0.25	17.36	19	20	ULHA2D682YD100M
	8200	77×100	0.25	17.92	15	18	ULHA2D822YE100M
	10000	77×100	0.25	22.51	14	14	ULHA2D103YE100M
	12000	77×115	0.25	24.42	12	14	ULHA2D123YE115M
	15000	77×115	0.25	25.98	10	13	ULHA2D153YE115M
	18000	77×130	0.25	29.68	8	12	ULHA2D183YE130M
	22000	77×143	0.25	34.94	7	7	ULHA2D223YE143M
	27000	90×130	0.25	38.42	6	7	ULHA2D273YF130M
33000	90×157	0.25	43.68	5	7	ULHA2D333YF157M	
250 2E (300)	1500	51×80	0.25	6.16	53	50	ULHA2E152YC080M
	1800	51×80	0.25	7.73	46	44	ULHA2E182YC080M
	2200	51×100	0.25	9.07	38	40	ULHA2E222YC100M
	2700	51×100	0.25	11.98	33	36	ULHA2E272YC100M
	3300	51×100	0.25	13.33	28	35	ULHA2E332YC100M
	3900	64×100	0.25	14.67	25	30	ULHA2E392YD100M
	4700	64×100	0.25	16.02	21	23	ULHA2E472YD100M
	5600	64×100	0.25	16.69	19	21	ULHA2E562YD100M
	6800	64×115	0.25	17.81	15	18	ULHA2E682YD115M
	8200	64×115	0.25	19.38	13	16	ULHA2E822YD115M
	10000	64×130	0.25	23.86	12	14	ULHA2E103YD130M
		77×130	0.25	23.86	12	14	ULHA2E103YE130M
	12000	77×115	0.25	25.09	10	11	ULHA2E123YE115M
	15000	77×130	0.25	26.54	8	11	ULHA2E153YE130M
18000	77×155	0.25	33.94	7	10	ULHA2E183YE155M	
22000	90×157	0.25	41.33	6	8	ULHA2E223YF157M	
350 2V (400)	560	36×80	0.20	4.37	194	222	ULHA2V561YA080M
	680	36×80	0.20	4.93	156	197	ULHA2V681YA080M
	820	36×80	0.20	5.82	130	174	ULHA2V821YA080M
	1000	51×80	0.20	6.72	109	135	ULHA2V102YC080M
	1200	51×75	0.20	7.95	90	120	ULHA2V122YC080M
	1500	51×80	0.20	8.96	77	100	ULHA2V152YC080M
	1800	51×100	0.20	10.64	62	80	ULHA2V182YC100M
	2200	51×100	0.20	11.54	51	70	ULHA2V222YC100M
	2700	64×100	0.20	13.66	41	58	ULHA2V272YD100M
	3300	64×100	0.20	15.46	35	51	ULHA2V332YD100M

◆ STANDARD RATING

Rated Voltage code (V.DC)	Capacitance (μF)	Case size ΦD×L(mm)	tanδ 20°C, 120Hz	Ripple current 85°C, 120Hz (Arms)	ESR(typ.) 20°C, 100Hz (mΩ)	Z max 20°C, 10KHz (mΩ)	Part number
350 2V (400)	3900	64×100	0.20	18.70	30	47	ULHA2V392YD100M
	4700	64×115	0.20	21.17	28	40	ULHA2V472YD115M
	5600	77×115	0.20	22.96	25	35	ULHA2V562YE115M
	6800	77×130	0.20	23.63	20	29	ULHA2V682YE130M
	8200	77×155	0.20	25.54	17	25	ULHA2V822YE155M
	10000	77×155	0.20	31.47	15	23	ULHA2V103YE155M
		90×157	0.20	31.47	15	23	ULHA2V103YF157M
	12000	90×157	0.20	33.94	13	21	ULHA2V123YF157M
	15000	90×196	0.20	40.54	10	20	ULHA2V153YF196M
	18000	90×220	0.20	42.00	8	20	ULHA2V183YF220M
22000	90×236	0.20	44.58	8	20	ULHA2V223YF236M	
400 2G (450)	680	51×80	0.20	6.27	122	214	ULHA2G681YC080M
	820	36×100	0.20	6.83	101	177	ULHA2G821YC080M
	1000	51×80	0.20	7.73	85	150	ULHA2G102YC080M
	1200	51×80	0.20	8.29	75	125	ULHA2G122YC080M
	1500	51×100	0.20	9.63	62	108	ULHA2G152YC100M
	1800	51×100	0.20	10.98	51	90	ULHA2G182YC100M
	2200	64×100	0.20	12.99	39	75	ULHA2G222YD100M
	2700	64×100	0.20	14.90	36	66	ULHA2G272YD100M
	3300	64×115	0.20	17.25	35	53	ULHA2G332YD115M
	3900	64×130	0.20	18.82	29	48	ULHA2G392YD130M
	4700	77×115	0.20	20.38	26	41	ULHA2G472YE115M
	5600	77×130	0.20	23.30	21	37	ULHA2G562YE130M
	6800	77×155	0.20	24.30	18	30	ULHA2G682YE155M
	8200	90×157	0.20	29.01	16	26	ULHA2G822YF157M
	10000	90×157	0.20	32.14	13	23	ULHA2G103YF157M
	12000	90×157	0.20	36.18	12	21	ULHA2G123YF157M
15000	90×220	0.20	41.22	10	21	ULHA2G153YF220M	
450 2W (500)	680	51×80	0.20	6.16	142	196	ULHA2W681YC080M
	820	51×80	0.20	6.94	99	187	ULHA2W821YC080M
	1000	51×80	0.20	7.95	84	154	ULHA2W102YC080M
	1200	51×100	0.20	8.85	73	129	ULHA2W122YC100M
	1500	51×115	0.20	9.86	60	108	ULHA2W152YC115M
	1800	51×130	0.20	12.99	48	100	ULHA2W182YC130M
	2200	64×100	0.20	15.12	35	84	ULHA2W222YD100M
	2700	64×115	0.20	15.46	35	69	ULHA2W272YD115M
	3300	64×130	0.20	15.90	32	61	ULHA2W332YD130M
	3900	77×115	0.20	17.81	32	51	ULHA2W392YE115M
	4700	77×130	0.20	20.27	26	43	ULHA2W472YE130M
	5600	77×155	0.20	22.62	18	37	ULHA2W562YE155M
	6800	90×157	0.20	26.77	16	33	ULHA2W682YF157M
	8200	90×157	0.20	28.34	14	30	ULHA2W822YF157M
	10000	90×196	0.20	33.60	12	25	ULHA2W103YF196M
	12000	90×236	0.20	36.85	10	22	ULHA2W123YF236M

- The endurance of capacitors is reduced with internal heating produced by ripple current at the rate of halving the lifetime with every 10°C rise.
- When long life performance is required in actual use, the rms ripple current has to be reduced.