THE DATASHEET OF

UCY2G330MHD3

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ALUMINUM ELECTROLYTIC CAPACITORS

nichicon

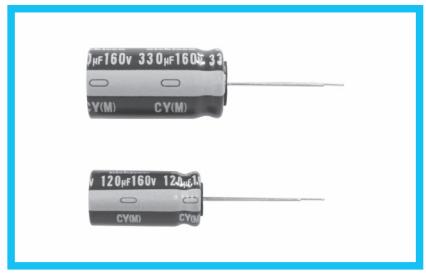
UCY

Miniature Sized, High Ripple Current, High Reliability

Smaller | Long Life | High Ripple Current

- High ripple current and Long Life product withstanding load life of 10000 to 12000 hours at +105°C.
- Suited for power supply and ballast application.
- Compliant to the RoHS directive (2011/65/EU,(EU) 2015/863).
- AEC-Q200 Qualified. Please contact us for details.

UCS (Smaller) — ULD (Long Life) — UCY



■Specifications

Item	Performance Characteristics
Category Temperature Range	−40 to +105°C
Rated Voltage Range	160 to 500V
Rated Capacitance Range	6.8 to 680μF
Capacitance Tolerance	±20% at 120Hz, 20°C
Leakage Current ※	After 1 minute's application of rated voltage at 20°C, leakage current is not more than 0.04CV+100 (μA)
Tangent of loss angle (tan δ)	Measurement frequency : 120Hz at 20°C
Stability at Low Temperature	Measurement frequency : 120Hz
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 12000 hours (10000 hours for 20L or less, 500V) at 105˚C, the peak voltage shall not exceed the rated voltage.
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 values for the endurance characteristics listed above.
Marking	Printed with white color letter on dark brown sleeve.

Tangent of loss angle (tan δ)

Rated voltage (V)	160	200	250	350	400	420	450	500
tan δ (max.)	0.20	0.20	0.20	0.24	0.24	0.24	0.24	0.24

Stability at Low Temperature

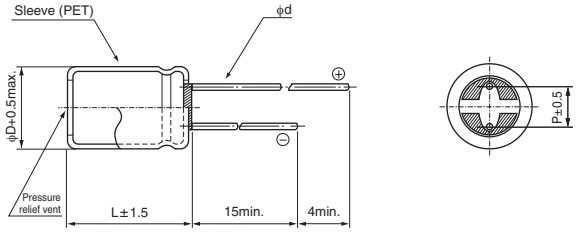
Rated voltage (V)		160	200	250	350	400	420	450	500
Impedance ratio (max.)	Z(−25°C) / Z(+20°C)	3	3	3	5	5	6	6	6
	Z(−40°C) / Z(+20°C)	6	6	6	6	6	–	–	–

Endurance

Capacitance change	Within ±20% of the initial capacitance value
tan δ	200% or less than the initial specified value
Leakage current	Less than or equal to the initial specified value

※ I : Leakage Current (μA), C : Rated Capacitance (μF), V : Rated Voltage (V)

■Radial Lead Type



(mm)

φD	10	12.5	16	18
P	5.0	5.0	7.5	7.5
φd	0.6	0.6※	0.8	0.8

※In case L > 25 for the φ12.5 dia. unit, lead dia. φ d = 0.8mm.

- Please refer to the Guidelines for Aluminum Electrolytic Capacitors for end seal configuration information.

Type numbering system (Example : 250V 100μF)

1	2	3	4	5	6	7	8	9	10	11	12
U	C	Y	2	E	1	0	1	M	H	D	

Size code
Configuration ※
Capacitance tolerance (±20%)
Rated capacitance (100μF)
Rated voltage (250V)
Series name
Type

※Configuration

φ D	Pb-free leadwire Pb-free PET sleeve
10	PD
12.5 to 18	HD

● Frequency coefficient of rated ripple current

Frequency	50Hz	120Hz	1kHz	10kHz	100kHz or more
Coefficient	0.80	1.00	1.60	1.80	2.00

●Dimension table in next page.

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■Dimensions

Rated Voltage (V) (code)	Rated Capacitance (μF)	Case Size φD×L (mm)	tan δ	Leakage Current (μA) (at 20℃ after 1 minute)	Rated Ripple (mArms) (105℃/120Hz)	Part Number
160 (2C)	33	10×16	0.20	311.2	260	UCY2C330MPD
	39	10×16	0.20	349.6	295	UCY2C390MPD
	47	10×20	0.20	400.8	375	UCY2C470MPD
	56	10×20	0.20	458.4	380	UCY2C560MPD
	68	10×25	0.20	535.2	455	UCY2C680MPD
	68	12.5×20	0.20	535.2	590	UCY2C680MHD3
	82	10×30.5	0.20	624.8	534	UCY2C820MPD
	82	10×25	0.20	624.8	455	UCY2C820MPD9
	82	12.5×20	0.20	624.8	640	UCY2C820MHD3
	100	12.5×20	0.20	740	645	UCY2C101MHD
	120	12.5×25	0.20	868	760	UCY2C121MHD
	150	12.5×30.5	0.20	1060	905	UCY2C151MHD
	150	12.5×25	0.20	1060	760	UCY2C151MHD9
	150	16×20	0.20	1060	945	UCY2C151MHD3
	180	16×20	0.20	1252	1000	UCY2C181MHD
	180	12.5×30.5	0.20	1252	905	UCY2C181MHD9
	180	12.5×35.5	0.20	1252	1050	UCY2C181MHD6
	220	12.5×40	0.20	1508	1200	UCY2C221MHD
	220	12.5×35.5	0.20	1508	1050	UCY2C221MHD9
	220	16×25	0.20	1508	1185	UCY2C221MHD3
	220	18×20	0.20	1508	1105	UCY2C221MHD6
	270	18×25	0.20	1828	1235	UCY2C271MHD
	270	12.5×40	0.20	1828	1300	UCY2C271MHD6
	330	16×30.5	0.20	2212	1510	UCY2C331MHD
	330	18×25	0.20	2212	1445	UCY2C331MHD6
	390	16×40	0.20	2596	1730	UCY2C391MHD
	390	16×35.5	0.20	2596	1510	UCY2C391MHD9
	390	18×30.5	0.20	2596	1695	UCY2C391MHD6
	470	18×35.5	0.20	3108	1920	UCY2C471MHD
	470	16×40	0.20	3108	1730	UCY2C471MHD6
	560	18×40	0.20	3684	2130	UCY2C561MHD
	680	18×46	0.20	4452	2300	UCY2C681MHD
200 (2D)	22	10×16	0.20	276	225	UCY2D220MPD
	27	10×16	0.20	316	235	UCY2D270MPD
	33	10×20	0.20	364	305	UCY2D330MPD
	39	10×20	0.20	412	325	UCY2D390MPD
	47	10×20	0.20	476	360	UCY2D470MPD
	47	12.5×20	0.20	476	490	UCY2D470MHD3
	56	10×25	0.20	548	415	UCY2D560MPD
	68	10×30.5	0.20	644	485	UCY2D680MPD
	68	12.5×20	0.20	644	650	UCY2D680MHD3
	82	12.5×25	0.20	756	645	UCY2D820MHD
	82	12.5×20	0.20	756	645	UCY2D820MHD9
	82	16×20	0.20	756	690	UCY2D820MHD3
	100	12.5×25	0.20	900	695	UCY2D101MHD
	100	16×20	0.20	900	710	UCY2D101MHD3

For cut leads, formed leads or taped parts, please add the appropriate code after the size code (12th digit).
If there is no size code in the part number, please add size code “1” and then add the appropriate code.

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■Dimensions

Rated Voltage (V) (code)	Rated Capacitance (μF)	Case Size φD×L(mm)	tan δ	Leakage Current (μA) (at 20℃ after 1 minute)	Rated Ripple (mArms) (105℃/120Hz)	Part Number
200 (2D)	120	16×20	0.20	1060	775	UCY2D121MHD
	120	12.5×30.5	0.20	1060	810	UCY2D121MHD6
	150	12.5×35.5	0.20	1300	965	UCY2D151MHD
	150	16×25	0.20	1300	945	UCY2D151MHD3
	150	18×20	0.20	1300	910	UCY2D151MHD6
	180	12.5×40	0.20	1540	1090	UCY2D181MHD
	180	16×25	0.20	1540	1035	UCY2D181MHD6
	180	18×20	0.20	1540	910	UCY2D181MHD3
	220	16×30.5	0.20	1860	1230	UCY2D221MHD
	220	12.5×40	0.20	1860	1090	UCY2D221MHD6
	220	18×25	0.20	1860	1185	UCY2D221MHD3
	270	16×35.5	0.20	2260	1400	UCY2D271MHD
	270	18×30.5	0.20	2260	1410	UCY2D271MHD6
	330	16×40	0.20	2740	1595	UCY2D331MHD
	330	18×30.5	0.20	2740	1560	UCY2D331MHD6
	390	18×40	0.20	3220	1780	UCY2D391MHD
	390	18×35.5	0.20	3220	1690	UCY2D391MHD9
	470	18×40	0.20	3860	1850	UCY2D471MHD
	470	18×46	0.20	3860	1900	UCY2D471MHD6
250 (2E)	22	10×16	0.20	320	225	UCY2E220MPD
	27	10×20	0.20	370	255	UCY2E270MPD
	33	10×20	0.20	430	305	UCY2E330MPD
	33	12.5×20	0.20	430	400	UCY2E330MHD3
	39	10×25	0.20	490	345	UCY2E390MPD
	47	10×30.5	0.20	570	405	UCY2E470MPD
	47	10×25	0.20	570	345	UCY2E470MPD9
	47	12.5×20	0.20	570	490	UCY2E470MHD3
	56	12.5×20	0.20	660	515	UCY2E560MHD
	68	12.5×25	0.20	780	615	UCY2E680MHD
	68	16×20	0.20	780	650	UCY2E680MHD3
	82	12.5×30.5	0.20	920	715	UCY2E820MHD
	82	12.5×25	0.20	920	615	UCY2E820MHD9
	82	16×20	0.20	920	690	UCY2E820MHD3
	100	16×20	0.20	1100	715	UCY2E101MHD
	100	12.5×35.5	0.20	1100	785	UCY2E101MHD6
	120	16×25	0.20	1300	845	UCY2E121MHD
	120	12.5×35.5	0.20	1300	785	UCY2E121MHD9
	120	12.5×40	0.20	1300	890	UCY2E121MHD3
	120	18×20	0.20	1300	815	UCY2E121MHD6
	150	18×25	0.20	1600	970	UCY2E151MHD
	150	12.5×40	0.20	1600	990	UCY2E151MHD6
	180	16×30.5	0.20	1900	1110	UCY2E181MHD
	180	18×25	0.20	1900	1050	UCY2E181MHD6
	220	16×40	0.20	2300	1295	UCY2E221MHD
	220	16×35.5	0.20	2300	1220	UCY2E221MHD9
	220	18×30.5	0.20	2300	1160	UCY2E221MHD3

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■Dimensions

Rated Voltage (V) (code)	Rated Capacitance (μF)	Case Size φD×L (mm)	tan δ	Leakage Current (μA) (at 20℃ after 1 minute)	Rated Ripple (mArms) (105℃/120Hz)	Part Number
250 (2E)	270	18×35.5	0.20	2800	1450	UCY2E271MHD
	270	16×40	0.20	2800	1350	UCY2E271MHD6
	330	18×46	0.20	3400	1600	UCY2E331MHD
	330	18×40	0.20	3400	1530	UCY2E331MHD9
350 (2V)	12	10×16	0.24	268	160	UCY2V120MPD
	15	10×20	0.24	310	180	UCY2V150MPD
	18	10×20	0.24	352	215	UCY2V180MPD
	22	10×25	0.24	408	255	UCY2V220MPD
	22	10×20	0.24	408	215	UCY2V220MPD9
	22	12.5×20	0.24	408	325	UCY2V220MHD3
	27	10×30.5	0.24	478	305	UCY2V270MPD
	27	10×25	0.24	478	255	UCY2V270MPD9
	33	12.5×20	0.24	562	380	UCY2V330MHD
	33	16×20	0.24	562	450	UCY2V330MHD3
	39	12.5×25	0.24	646	455	UCY2V390MHD
	47	12.5×25	0.24	758	510	UCY2V470MHD
	47	16×20	0.24	758	540	UCY2V470MHD3
	56	12.5×30.5	0.24	884	590	UCY2V560MHD
	56	16×20	0.24	884	565	UCY2V560MHD6
	68	12.5×35.5	0.24	1052	695	UCY2V680MHD
	68	16×25	0.24	1052	700	UCY2V680MHD3
	68	18×20	0.24	1052	690	UCY2V680MHD6
	82	16×30.5	0.24	1248	740	UCY2V820MHD
	82	12.5×40	0.24	1248	785	UCY2V820MHD6
	82	16×25	0.24	1248	700	UCY2V820MHD9
	82	18×25	0.24	1248	765	UCY2V820MHD3
	100	16×30.5	0.24	1500	825	UCY2V101MHD
	100	18×25	0.24	1500	790	UCY2V101MHD3
	120	16×35.5	0.24	1780	925	UCY2V121MHD
	120	18×30.5	0.24	1780	940	UCY2V121MHD6
	150	18×35.5	0.24	2200	1080	UCY2V151MHD
	150	16×40	0.24	2200	1000	UCY2V151MHD6
	180	18×40	0.24	2620	1205	UCY2V181MHD
	220	18×46	0.24	3180	1300	UCY2V221MHD
400 (2G)	6.8	10×16	0.24	208.8	140	UCY2G6R8MPD
	10	10×16	0.24	260	150	UCY2G100MPD
	12	10×20	0.24	292	175	UCY2G120MPD
	15	10×20	0.24	340	180	UCY2G150MPD
	18	10×25	0.24	388	235	UCY2G180MPD
	22	10×30.5	0.24	452	275	UCY2G220MPD
	27	12.5×20	0.24	532	360	UCY2G270MHD
	33	12.5×25	0.24	628	385	UCY2G330MHD
	33	16×20	0.24	628	450	UCY2G330MHD3
	39	12.5×30.5	0.24	724	465	UCY2G390MHD
	39	12.5×25	0.24	724	385	UCY2G390MHD9
	47	16×20	0.24	852	520	UCY2G470MHD

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■Dimensions

Rated Voltage (V) (code)	Rated Capacitance (μF)	Case Size φD×L(mm)	tan δ	Leakage Current (μA) (at 20℃ after 1 minute)	Rated Ripple (mArms) (105℃/120Hz)	Part Number
400 (2G)	47	12.5×30.5	0.24	852	510	UCY2G470MHD6
	47	18×20	0.24	852	590	UCY2G470MHD3
	56	12.5×35.5	0.24	996	630	UCY2G560MHD
	56	16×25	0.24	996	585	UCY2G560MHD6
	56	18×20	0.24	996	600	UCY2G560MHD3
	68	12.5×40	0.24	1188	720	UCY2G680MHD
	68	16×25	0.24	1188	640	UCY2G680MHD9
	68	18×25	0.24	1188	735	UCY2G680MHD3
	82	16×30.5	0.24	1412	805	UCY2G820MHD
	82	18×25	0.24	1412	765	UCY2G820MHD3
	100	16×35.5	0.24	1700	850	UCY2G101MHD
	100	18×30.5	0.24	1700	875	UCY2G101MHD6
	120	18×30.5	0.24	2020	940	UCY2G121MHD
	120	16×40	0.24	2020	950	UCY2G121MHD6
	120	18×35.5	0.24	2020	960	UCY2G121MHD3
	150	18×40	0.24	2500	1030	UCY2G151MHD
	180	18×46	0.24	2980	1110	UCY2G181MHD
420 (W6)	6.8	10×16	0.24	214.24	105	UCYW66R8MPD
	10	10×20	0.24	268	135	UCYW6100MPD
	12	10×20	0.24	301.6	150	UCYW6120MPD
	15	10×25	0.24	352	185	UCYW6150MPD
	18	10×30.5	0.24	402.4	215	UCYW6180MPD
	22	12.5×20	0.24	469.6	285	UCYW6220MHD
	27	12.5×25	0.24	553.6	340	UCYW6270MHD
	33	12.5×30.5	0.24	654.4	400	UCYW6330MHD
	33	16×20	0.24	654.4	385	UCYW6330MHD3
	39	12.5×30.5	0.24	755.2	430	UCYW6390MHD
	47	12.5×35.5	0.24	889.6	505	UCYW6470MHD
	47	16×25	0.24	889.6	500	UCYW6470MHD6
	47	18×20	0.24	889.6	480	UCYW6470MHD3
	56	12.5×40	0.24	1040.8	570	UCYW6560MHD
	68	16×30.5	0.24	1242.4	645	UCYW6680MHD
	68	18×25	0.24	1242.4	615	UCYW6680MHD3
	82	16×35.5	0.24	1477.6	725	UCYW6820MHD
	82	18×30.5	0.24	1477.6	730	UCYW6820MHD6
	100	16×40	0.24	1780	825	UCYW6101MHD
	100	18×35.5	0.24	1780	835	UCYW6101MHD6
	120	18×40	0.24	2116	930	UCYW6121MHD
	120	18×46	0.24	2116	945	UCYW6121MHD6
450 (2W)	6.8	10×16	0.24	222.4	105	UCY2W6R8MPD
	10	10×20	0.24	280	135	UCY2W100MPD
	12	10×20	0.24	316	150	UCY2W120MPD
	15	10×25	0.24	370	185	UCY2W150MPD
	18	10×30.5	0.24	424	215	UCY2W180MPD
	18	12.5×20	0.24	424	255	UCY2W180MHD6
	22	12.5×25	0.24	496	300	UCY2W220MHD

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■Dimensions

Rated Voltage (V) (code)	Rated Capacitance (μF)	Case Size φD×L (mm)	tan δ	Leakage Current (μA) (at 20℃ after 1 minute)	Rated Ripple (mArms) (105℃/120Hz)	Part Number
450 (2W)	27	12.5×25	0.24	586	340	UCY2W270MHD
	33	12.5×30.5	0.24	694	400	UCY2W330MHD
	33	16×20	0.24	694	385	UCY2W330MHD3
	39	12.5×35.5	0.24	802	460	UCY2W390MHD
	39	18×20	0.24	802	440	UCY2W390MHD3
	47	12.5×40	0.24	946	525	UCY2W470MHD
	47	16×25	0.24	946	500	UCY2W470MHD6
	56	16×30.5	0.24	1108	585	UCY2W560MHD
	56	18×25	0.24	1108	560	UCY2W560MHD3
	68	16×35.5	0.24	1324	660	UCY2W680MHD
	82	16×40	0.24	1576	750	UCY2W820MHD
	82	18×30.5	0.24	1576	730	UCY2W820MHD6
	100	18×35.5	0.24	1900	835	UCY2W101MHD
	120	18×40	0.24	2260	930	UCY2W121MHD
	120	18×46	0.24	2260	945	UCY2W121MHD6
500 (2H)	10	12.5×20	0.24	300	160	UCY2H100MHD
	15	12.5×25	0.24	400	220	UCY2H150MHD
	15	16×20	0.24	400	220	UCY2H150MHD3
	18	12.5×30.5	0.24	460	240	UCY2H180MHD
	18	16×20	0.24	460	240	UCY2H180MHD3
	22	12.5×35.5	0.24	540	280	UCY2H220MHD
	22	16×25	0.24	540	280	UCY2H220MHD6
	22	18×20	0.24	540	280	UCY2H220MHD3
	27	12.5×40	0.24	640	310	UCY2H270MHD
	27	16×25	0.24	640	310	UCY2H270MHD6
	33	16×30.5	0.24	760	350	UCY2H330MHD
	33	18×25	0.24	760	350	UCY2H330MHD3
	39	16×35.5	0.24	880	380	UCY2H390MHD
	47	16×40	0.24	1040	440	UCY2H470MHD
	47	18×30.5	0.24	1040	440	UCY2H470MHD6
	56	18×35.5	0.24	1220	480	UCY2H560MHD
	68	18×40	0.24	1460	525	UCY2H680MHD

For cut leads, formed leads or taped parts, please add the appropriate code after the size code (12th digit).
If there is no size code in the part number, please add size code “1” and then add the appropriate code.

- For formed lead or taped product specifications and minimum order quantity, please refer to the Guidelines for Aluminum Electrolytic Capacitors.

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