

# ALUMINUM ELECTROLYTIC CAPACITORS

## HU4 Series Small Size



- Life rating to 2,000 hours at 105°C
- Temperature range -40°C to +105°C
- Approximate 10% smaller than the preceding HU3 Series due to Hitachi's Anode Foil Magnification technology.
- This model offers either R: 2-Claw Terminal or U: Straight Short Terminal. Place the appropriate designation in the Part Number. (R is shown)

### Ripple Current Correction Coefficient

Temperature (°C)	40	55	70	85	105
Correction Coefficient	2.5	2.2	2.0	1.8	1.0

Frequency (Hz)	50/60	120	400	1K	≥10K
Correction Coefficient	0.8	1.0	1.1	1.3	1.4

Rated Voltage (WVDC)	Part Number	Capacitance	Case Size ØD x L (mm)	Maximum Ripple Current (A rms) @105° C, 120Hz	Maximum ESR (mΩ)	Typical ESL (nH)
200 Volts (Code: 2D)	HU42D391MRX	390	22 X 30	1.24	275	7
	HU42D471MRX	470	22 X 35	1.45	230	9
	HU42D471MRY	470	25 X 30	1.40	230	9
	HU42D561MRX	560	22 X 40	1.66	190	9
	HU42D561MRY	560	25 X 35	1.61	190	9
	HU42D561MRZ	560	30 X 25	1.45	190	9
	HU42D681MRX	680	22 X 45	1.92	160	11
	HU42D681MRY	680	25 X 40	1.86	160	11
	HU42D821MRY	820	25 X 45	2.14	130	11
	HU42D821MRZ	820	30 X 30	1.86	130	11
	HU42D821MRA	820	35 X 25	1.52	130	11
	HU42D102MRY	1,000	25 X 50	2.47	110	13
	HU42D102MRZ	1,000	30 X 35	2.17	110	13
	HU42D102MRA	1,000	35 X 30	1.78	110	13
	HU42D122MRZ	1,200	30 X 40	2.49	90	14
	HU42D122MRA	1,200	35 X 35	2.04	90	14
	HU42D152MRZ	1,500	30 X 50	3.03	75	14
	HU42D152MRA	1,500	35 X 40	2.39	75	14
HU42D182MRA	1,800	35 X 45	2.73	60	15	
HU42D222MRA	2,200	35 X 50	3.14	50	15	
250 Volts (Code: 2E)	HU42E181MRX	180	22 X 25	0.86	540	5
	HU42E271MRX	270	22 X 30	1.12	360	6
	HU42E331MRX	330	22 X 35	1.31	295	7
	HU42E391MRX	390	22 X 40	1.50	250	8
	HU42E391MRY	390	25 X 30	1.37	250	8
	HU42E471MRX	470	22 X 45	1.72	210	8
	HU42E471MRY	470	25 X 35	1.59	210	8
	HU42E561MRX	560	22 X 50	1.96	175	9
	HU42E561MRY	560	25 X 40	1.83	175	9
	HU42E561MRZ	560	30 X 30	1.65	175	9
	HU42E681MRY	680	25 X 45	2.11	145	9
	HU42E681MRZ	680	30 X 35	1.91	145	9
	HU42E821MRZ	820	30 X 40	2.20	120	10
	HU42E821MRA	820	35 X 30	1.76	120	10
	HU42E102MRZ	1,000	30 X 45	2.54	100	11
	HU42E102MRA	1,000	35 X 35	2.04	100	11
	HU42E122MRZ	1,200	30 X 50	2.90	85	11
	HU42E122MRA	1,200	35 X 40	2.34	85	11
HU42E152MRA	1,500	35 X 50	2.84	65	12	

# ALUMINUM ELECTROLYTIC CAPACITORS

## HU4 Series

•Life rating to 2,000 hours at 105°C •Temperature range -40°C to +105°C

Rated Voltage (WVDC)	Part Number	Capacitance	Case Size ØD x L (mm)	Maximum Ripple Current (A rms) @105°C, 120Hz	Maximum ESR (mΩ)	Typical ESL (nH)
<b>400 Volts (Code: 2G)</b>	HU42G820MRX	82	22 X 25	0.58	1080	3
	HU42G101MRX	100	22 X 30	0.68	890	3
	HU42G121MRX	120	22 X 35	0.79	740	3
	HU42G151MRX	150	22 X 40	0.93	590	4
	HU42G151MRY	150	25 X 30	0.85	590	4
	HU42G151MRZ	150	30 X 25	0.80	590	4
	HU42G181MRX	180	22 X 45	1.07	490	4
	HU42G181MRY	180	25 X 35	0.98	490	4
	HU42G221MRX	220	22 X 50	1.23	400	5
	HU42G221MRY	220	25 X 40	1.14	400	5
	HU42G221MRZ	220	30 X 30	1.03	400	5
	HU42G221MRA	220	35 X 25	0.96	400	5
	HU42G271MRY	270	25 X 45	1.33	330	5
	HU42G271MRZ	270	30 X 35	1.20	330	5
	HU42G271MRA	270	35 X 30	1.13	330	5
	HU42G331MRZ	330	30 X 40	1.40	270	6
	HU42G391MRZ	390	30 X 45	1.59	230	6
	HU42G391MRA	390	35 X 35	1.43	230	6
	HU42G471MRZ	470	30 X 50	1.81	190	7
HU42G471MRA	470	35 X 40	1.64	190	7	
HU42G561MRA	560	35 X 45	1.87	160	8	
<b>450 Volts (Code: 2W)</b>	HU42W560MRX	56	22 X 25	0.48	1580	3
	HU42W820MRX	82	22 X 30	0.62	1080	3
	HU42W820MRY	82	25 X 25	0.55	1080	3
	HU42W101MRX	100	22 X 35	0.72	890	3
	HU42W101MRY	100	25 X 30	0.64	890	3
	HU42W121MRX	120	22 X 40	0.83	740	4
	HU42W121MRY	120	25 X 35	0.74	740	4
	HU42W121MRZ	120	30 X 25	0.72	740	4
	HU42W151MRX	150	22 X 50	1.02	590	5
	HU42W151MRY	150	25 X 40	0.88	590	5
	HU42W151MRZ	150	30 X 30	0.85	590	5
	HU42W151MRA	150	35 X 25	0.80	590	5
	HU42W181MRY	180	25 X 45	1.00	490	5
	HU42W221MRY	220	25 X 50	1.16	400	5
	HU42W221MRZ	220	30 X 35	1.09	400	5
	HU42W221MRA	220	35 X 30	1.02	400	5
	HU42W271MRZ	270	30 X 45	1.32	330	10
	HU42W271MRA	270	35 X 35	1.19	330	10
	HU42W331MRZ	330	30 X 50	1.52	270	10
HU42W331MRA	330	35 X 40	1.37	270	10	
HU42W391MRA	390	35 X 45	1.56	230	12	
HU42W471MRA	470	35 X 50	1.78	190	24	

For nonstandard products contact Hitachi AIC.

# ALUMINUM ELECTROLYTIC CAPACITORS

## HU5 Series

•Life rating to 2,000 hours at 105°C •Temperature range -40°C to +105°C


Rated Voltage (WVDC)	Part Number	Capacitance	Case Size ØD x L (mm)	Maximum Ripple Current (A rms) @105°C, 120Hz	Maximum ESR (mΩ)	Typical ESL (nH)
<b>200 Volts (Code: 2D)</b>	HU52D221MRW	220	20 X 25	0.87	400	5
	HU52D271MRW	270	20 X 25	0.96	360	6
	HU52D331MRW	330	20 X 30	1.14	295	7
	HU52D331MRX	330	22 X 25	1.07	295	7
	HU52D391MRW	390	20 X 35	1.32	275	7
	HU52D391MRX	390	22 X 30	1.24	275	7
	HU52D471MRX	470	22 X 35	1.45	230	9
	HU52D471MRY	470	25 X 30	1.40	230	9
	HU52D561MRX	560	22 X 40	1.66	190	9
	HU52D561MRY	560	25 X 30	1.53	190	9
	HU52D561MRZ	560	30 X 25	1.45	190	9
	HU52D681MRX	680	22 X 45	1.92	160	11
	HU52D681MRY	680	25 X 35	1.78	160	11
	HU52D681MRZ	680	30 X 30	1.70	160	11
	HU52D821MRX	820	22 X 50	2.20	130	11
	HU52D821MRY	820	25 X 40	2.06	130	11
	HU52D821MRZ	820	30 X 30	1.86	130	11
	HU52D821MRA	820	35 X 25	1.52	130	11
	HU52D102MRY	1,000	25 X 50	2.47	110	13
	HU52D102MRZ	1,000	30 X 35	2.17	110	13
	HU52D102MRA	1,000	35 X 30	1.78	110	13
	HU52D122MRZ	1,200	30 X 40	2.49	90	14
	HU52D122MRA	1,200	35 X 35	2.04	90	14
	HU52D152MRZ	1,500	30 X 45	2.91	75	14
HU52D152MRA	1,500	35 X 40	2.39	75	14	
HU52D182MRA	1,800	35 X 45	2.73	60	15	
HU52D222MRA	2,200	35 X 50	3.14	50	15	
<b>250 Volts (Code: 2E)</b>	HU52E151MRW	150	20 X 25	0.77	590	4
	HU52E181MRW	180	20 X 25	0.85	540	5
	HU52E221MRW	220	20 X 30	1.00	400	5
	HU52E221MRX	220	22 X 25	0.95	400	5
	HU52E271MRW	270	20 X 35	1.18	360	6
	HU52E271MRX	270	22 X 30	1.12	360	6
	HU52E331MRW	330	20 X 35	1.29	295	7
	HU52E331MRX	330	22 X 35	1.31	295	7
	HU52E391MRX	390	22 X 35	1.43	250	8
	HU52E391MRY	390	25 X 30	1.37	250	8
	HU52E471MRX	470	22 X 40	1.65	210	8
	HU52E471MRY	470	25 X 35	1.59	210	8
	HU52E471MRZ	470	30 X 25	1.51	210	8
	HU52E561MRX	560	22 X 45	1.88	175	9
	HU52E561MRY	560	25 X 40	1.83	175	9
	HU52E561MRZ	560	30 X 30	1.65	175	9
	HU52E681MRY	680	25 X 45	2.11	145	9
	HU52E681MRZ	680	30 X 35	1.91	145	9
	HU52E821MRY	820	25 X 50	2.41	120	10
	HU52E821MRZ	820	30 X 40	2.20	120	10
	HU52E821MRA	820	35 X 30	1.76	120	10
	HU52E102MRZ	1,000	30 X 45	2.54	100	11
	HU52E102MRA	1,000	35 X 35	2.04	100	11
	HU52E122MRZ	1,200	30 X 50	2.90	85	11
HU52E122MRA	1,200	35 X 40	2.34	85	11	
HU52E152MRA	1,500	35 X 50	2.84	65	12	

# ALUMINUM ELECTROLYTIC CAPACITORS

## HU5 Series

•Life rating to 2,000 hours at 105°C

•Temperature range -40°C to +105°C

Rated Voltage (WVDC)	Part Number	Capacitance	Case Size ØD x L (mm)	Maximum Ripple Current (A rms) @105°C, 120Hz	Maximum ESR (mΩ)	Typical ESL (nH)
<b>400 Volts (Code: 2G)</b>	HU52G560MRW	56	20 X 25	0.47	1580	3
	HU52G680MRW	68	20 X 25	0.52	1300	3
	HU52G820MRW	82	20 X 30	0.61	1080	3
	HU52G820MRX	82	22 X 25	0.58	1080	3
	HU52G101MRW	100	20 X 30	0.67	890	3
	HU52G101MRX	100	22 X 30	0.68	890	3
	HU52G121MRW	120	20 X 35	0.78	740	3
	HU52G121MRX	120	22 X 30	0.74	740	3
	HU52G151MRX	150	22 X 35	0.88	590	4
	HU52G151MRY	150	25 X 30	0.85	590	4
	HU52G151MRZ	150	30 X 25	0.80	590	4
	HU52G181MRX	180	22 X 40	1.02	490	4
	HU52G181MRY	180	25 X 35	0.98	490	4
	HU52G181MRZ	180	30 X 25	0.88	490	4
	HU52G221MRX	220	22 X 45	1.17	400	5
	HU52G221MRY	220	25 X 40	1.14	400	5
	HU52G221MRZ	220	30 X 30	1.03	400	5
	HU52G221MRA	220	35 X 25	0.96	400	5
	HU52G271MRY	270	25 X 45	1.33	330	5
	HU52G271MRZ	270	30 X 35	1.20	330	5
	HU52G271MRA	270	35 X 30	1.13	330	5
	HU52G331MRY	330	25 X 50	1.53	270	6
	HU52G331MRZ	330	30 X 40	1.40	270	6
	HU52G331MRA	330	35 X 30	1.25	270	6
	HU52G391MRZ	390	30 X 45	1.59	230	6
	HU52G391MRA	390	35 X 35	1.43	230	6
	HU52G471MRZ	470	30 X 50	1.81	190	7
	HU52G471MRA	470	35 X 40	1.64	190	7
HU52G561MRA	560	35 X 45	1.87	160	8	
HU52G681MRA	680	35 X 50	2.13	145	9	
 <b>420 Volts (Code: 420V)</b>	HU5420V560MRW	56	20 X 25	0.47	1580	3
	HU5420V680MRW	68	20 X 30	0.56	1300	3
	HU5420V680MRX	68	22 X 25	0.52	1300	3
	HU5420V820MRW	82	20 X 30	0.61	1080	3
	HU5420V101MRW	100	20 X 35	0.72	890	3
	HU5420V101MRX	100	22 X 30	0.67	890	3
	HU5420V121MRX	120	22 X 35	0.78	740	3
	HU5420V151MRX	150	22 X 40	0.92	590	4
	HU5420V181MRX	180	22 X 45	1.06	490	4
	HU5420V221MRY	220	25 X 45	1.11	400	5
	HU5420V271MRY	270	25 X 50	1.29	330	5
	HU5420V271MRA	270	35 X 30	1.13	330	5
	HU5420V331MRZ	330	30 X 45	1.46	270	6
	HU5420V331MRA	330	35 X 35	1.32	270	6
	HU5420V391MRZ	390	30 X 50	1.66	230	6
	HU5420V391MRA	390	35 X 40	1.50	230	6
	HU5420v471MRA	470	35 X 45	1.71	190	7
	HU5420v561MRA	561	35 X 50	1.94	160	8

**HITACHI AIC**

# ALUMINUM ELECTROLYTIC CAPACITORS

## HU5 Series

•Life rating to 2,000 hours at 105°C

•Temperature range -40°C to +105°C

Rated Voltage (WVDC)	Part Number	Capacitance	Case Size ØD x L (mm)	Maximum Ripple Current (A rms) @105°C, 120Hz	Maximum ESR (mΩ)	Typical ESL (nH)
450 Volts (Code: 2W)	HU52W470MRW	47	20 X 25	0.43	1880	3
	HU52W560MRW	56	20 X 25	0.47	1580	3
	HU52W680MRW	68	20 X 30	0.56	1300	3
	HU52W680MRX	68	22 X 25	0.52	1300	3
	HU52W820MRW	82	20 X 35	0.65	1080	3
	HU52W820MRX	82	22 X 30	0.62	1080	3
	HU52W820MRY	82	25 X 25	0.55	1080	3
	HU52W101MRX	100	22 X 35	0.72	890	3
	HU52W101MRY	100	25 X 30	0.64	890	3
	HU52W121MRX	120	22 X 40	0.83	740	4
	HU52W121MRY	120	25 X 30	0.71	740	4
	HU52W121MRZ	120	30 X 25	0.72	740	4
	HU52W151MRX	150	22 X 45	0.97	590	5
	HU52W151MRY	150	25 X 35	0.84	590	5
	HU52W151MRZ	150	30 X 30	0.85	590	5
	HU52W181MRX	180	22 X 50	1.12	490	5
	HU52W181MRY	180	25 X 40	0.96	490	5
	HU52W181MRZ	180	30 X 30	0.94	490	5
	HU52W181MRA	180	35 X 30	0.87	490	5
	HU52W221MRY	220	25 X 50	1.16	400	5
	HU52W221MRZ	220	30 X 35	1.09	400	5
	HU52W221MRA	220	35 X 30	1.02	400	5
	HU52W271MRZ	270	30 X 40	1.27	330	10
	HU52W271MRA	270	35 X 35	1.19	330	10
	HU52W331MRZ	330	30 X 45	1.46	270	10
	HU52W331MRA	330	35 X 40	1.37	270	10
	HU52W391MRA	390	35 X 45	1.56	230	12
	HU52W471MRA	470	35 X 50	1.78	190	24

### Ripple Current Correction Coefficient

Temperature (°C)	40	55	70	85	105
Correction Coefficient	2.5	2.2	2.0	1.8	1.0

Frequency (Hz)	50/60	120	400	1K	≥10K
Correction Coefficient	0.7	1.0	1.1	1.3	1.4