

Overview

The KEMET ESH radial aluminum electrolytic capacitors offer high CV and are designed for high quality, high reliability applications requiring a miniature solution.

Applications

Typical applications include general purpose coupling, decoupling, bypass, and filtering.

Benefits

- Suited for high quality, high reliability applications
- High CV
- 2,000 hour operating life
- Operating temperature of up to +105°C
- Case with Ø D ≥ 5 mm
- Safety vent on the capacitor base



Part Number System

ESH	107	M	6R3		A	C3	AA
Series	Capacitance Code (pF)	Tolerance	Rated Voltage (VDC)		Electrical Parameters	Size Code	Packaging
Radial Aluminum Electrolytic	First two digits represent significant figures for capacitance values. Last digit specifies the number of zeros to be added.	M = ±20%	6R3 = 6.3	160 = 160	A = Standard	See Dimension Table	See Ordering Options Table
			010 = 10	200 = 200			
			016 = 16	250 = 250			
			025 = 25	350 = 350			
			035 = 35	400 = 400			
			050 = 50	420 = 420			
			063 = 63	450 = 450			
			100 = 100	500 = 500			

**Table 1 – Ratings & Part Number Reference**

Rated Voltage	Surge Voltage	Rated Capacitance	Case Size	DF	RC	LC	Part Number
(VDC)	(VDC)	120 Hz 20°C (μF)	D x L (mm)	120 Hz 20°C (tan δ %)*	120 Hz 105°C (mA)	20°C 2 minutes (μA)	( ) Represents Part Number Options
6.3	8	100.0	5 x 11	26	100	6.3	ESH107M6R3AC3(1)
6.3	8	150.0	5 x 11	26	120	9.5	ESH157M6R3AC3(1)
6.3	8	220.0	6.3 x 11	26	165	13.9	ESH227M6R3AE3(1)
6.3	8	330.0	6.3 x 11	26	200	20.8	ESH337M6R3AE3(1)
6.3	8	470.0	6.3 x 11	26	230	29.6	ESH477M6R3AE3(1)
6.3	8	470.0	8 x 11	26	280	29.6	ESH477M6R3AG3(1)
6.3	8	680.0	8 x 11	26	350	42.8	ESH687M6R3AG3(1)
6.3	8	680.0	10 x 12	26	320	42.8	ESH687M6R3AH1(1)
6.3	8	1000.0	8 x 15	26	445	63.0	ESH108M6R3AG4(1)
6.3	8	1000.0	10 x 12	26	470	63.0	ESH108M6R3AH1(1)
6.3	8	1000.0	10 x 12.5	26	470	63.0	ESH108M6R3AH9(1)
6.3	8	1500.0	10 x 15	26	600	94.5	ESH158M6R3AH2(1)
6.3	8	1800.0	10 x 16	26	600	113.4	ESH188M6R3AH2(1)
6.3	8	2200.0	10 x 20	26	800	138.6	ESH228M6R3AH4(1)
6.3	8	2200.0	13 x 20	26	930	138.6	ESH228M6R3AL3(1)
6.3	8	3300.0	13 x 20	26	1100	207.9	ESH338M6R3AL3(1)
6.3	8	4700.0	13 x 20	26	1180	296.1	ESH478M6R3AL3(1)
6.3	8	4700.0	16 x 25	26	1320	296.1	ESH478M6R3AM7(1)
6.3	8	6800.0	16 x 25	26	1490	428.4	ESH688M6R3AM7(1)
6.3	8	10000.0	16 x 32	26	1830	630.0	ESH109M6R3AM2(1)
6.3	8	15000.0	16 x 36	26	2090	945.0	ESH159M6R3AM3(1)
6.3	8	22000.0	18 x 40	26	2350	1386.0	ESH229M6R3AN3(1)
10	13	47.0	5 x 11	22	75	4.7	ESH476M010AC3(1)
10	13	68.0	5 x 11	22	80	6.8	ESH686M010AC3(1)
10	13	100.0	5 x 11	22	110	10.0	ESH107M010AC3(1)
10	13	150.0	5 x 11	22	120	15.0	ESH157M010AC3(1)
10	13	150.0	6 x 11	22	130	15.0	ESH157M010AE3(1)
10	13	220.0	6.3 x 11	22	180	22.0	ESH227M010AE3(1)
10	13	330.0	6.3 x 11	22	235	33.0	ESH337M010AE3(1)
10	13	330.0	8 x 11	22	255	33.0	ESH337M010AG3(1)
10	13	470.0	6.3 x 11	22	250	47.0	ESH477M010AE3(1)
10	13	470.0	8 x 11	22	305	47.0	ESH477M010AG3(1)
10	13	680.0	8 x 11	22	365	68.0	ESH687M010AG3(1)
10	13	680.0	10 x 12	22	420	68.0	ESH687M010AH1(1)
10	13	680.0	10 x 12.5	22	420	68.0	ESH687M010AH9(1)
10	13	1000.0	8 x 15	22	480	100.0	ESH108M010AG4(1)
10	13	1000.0	10 x 16	22	570	100.0	ESH108M010AH2(1)
10	13	1000.0	10 x 12.5	22	540	100.0	ESH108M010AH9(1)
10	13	1500.0	10 x 20	22	800	150.0	ESH158M010AH4(1)
10	13	1800.0	10 x 20	22	800	180.0	ESH188M010AH4(1)
10	13	2200.0	10 x 20	22	870	220.0	ESH228M010AH4(1)
10	13	2200.0	13 x 20	22	1010	220.0	ESH228M010AL3(1)
10	13	3300.0	13 x 20	22	1100	330.0	ESH338M010AL3(1)
10	13	3300.0	13 x 25	22	1220	330.0	ESH338M010AL4(1)
10	13	4700.0	13 x 25	22	1380	470.0	ESH478M010AL4(1)
10	13	4700.0	16 x 25	22	1410	470.0	ESH478M010AM7(1)
10	13	6800.0	16 x 32	22	1610	680.0	ESH688M010AM2(1)
10	13	6800.0	16 x 25	22	1700	680.0	ESH688M010AM7(1)
10	13	10000.0	16 x 36	22	1950	1000.0	ESH109M010AM3(1)
10	13	10000.0	18 x 36	22	1980	1000.0	ESH109M010AN2(1)
10	13	15000.0	18 x 36	22	2180	1500.0	ESH159M010AN2(1)
16	20	33.0	5 x 11	18	70	5.3	ESH336M016AC3(1)
16	20	47.0	5 x 11	18	85	7.5	ESH476M016AC3(1)
16	20	68.0	5 x 11	18	100	10.9	ESH686M016AC3(1)
16	20	100.0	5 x 11	18	130	16.0	ESH107M016AC3(1)
16	20	100.0	6 x 11	18	135	16.0	ESH107M016AE3(1)
16	20	150.0	6.3 x 11	18	175	24.0	ESH157M016AE3(1)
Rated Voltage	Surge Voltage	Rated Capacitance	Case Size	DF	RC	LC	Part Number

(1) Insert packaging code. See Ordering Options Table for available options.

\* When capacitance exceeds 1,000 μF, the DF value (%) is increased by 2% for every additional 1,000 μF.

**Table 1 – Ratings & Part Number Reference cont.**

Rated Voltage	Surge Voltage	Rated Capacitance	Case Size	DF	RC	LC	Part Number
(VDC)	(VDC)	120 Hz 20°C (µF)	D x L (mm)	120 Hz 20°C (tan δ %)*	120 Hz 105°C (mA)	20°C 2 minutes (µA)	( ) Represents Part Number Options
16	20	150.0	8 x 11	18	180	24.0	ESH157M016AG3(1)
16	20	220.0	6.3 x 11	18	220	35.2	ESH227M016AE3(1)
16	20	220.0	8 x 11	18	235	35.2	ESH227M016AG3(1)
16	20	330.0	8 x 11	18	280	52.8	ESH337M016AG3(1)
16	20	330.0	10 x 12	18	285	52.8	ESH337M016AH1(1)
16	20	470.0	8 x 11	18	375	75.2	ESH477M016AG3(1)
16	20	470.0	10 x 12	18	395	75.2	ESH477M016AH1(1)
16	20	680.0	8 x 15	18	450	108.8	ESH687M016AG4(1)
16	20	680.0	10 x 16	18	530	108.8	ESH687M016AH2(1)
16	20	680.0	10 x 12.5	18	480	108.8	ESH687M016AH9(1)
16	20	1000.0	10 x 15	18	640	160.0	ESH108M016AH2(1)
16	20	1500.0	10 x 20	18	830	240.0	ESH158M016AH4(1)
16	20	1500.0	13 x 20	18	860	240.0	ESH158M016AL3(1)
16	20	2200.0	13 x 20	18	1050	352.0	ESH228M016AL3(1)
16	20	3300.0	13 x 25	18	1250	528.0	ESH338M016AL4(1)
16	20	3300.0	16 x 25	18	1350	528.0	ESH338M016AM7(1)
16	20	4700.0	16 x 25	18	1650	752.0	ESH478M016AM7(1)
16	20	6800.0	16 x 32	18	1900	1088.0	ESH688M016AM2(1)
16	20	6800.0	18 x 36	18	1790	1088.0	ESH688M016AN2(1)
16	20	10000.0	18 x 36	18	1900	1600.0	ESH109M016AN2(1)
25	32	22.0	5 x 11	16	60	5.5	ESH226M025AC3(1)
25	32	33.0	5 x 11	16	75	8.3	ESH336M025AC3(1)
25	32	47.0	5 x 11	16	90	11.8	ESH476M025AC3(1)
25	32	68.0	6.3 x 11	16	125	17.0	ESH686M025AE3(1)
25	32	100.0	6.3 x 11	16	145	25.0	ESH107M025AE3(1)
25	32	150.0	8 x 11	16	200	37.5	ESH157M025AG3(1)
25	32	220.0	8 x 11	16	240	55.0	ESH227M025AG3(1)
25	32	220.0	10 x 12	16	250	55.0	ESH227M025AH1(1)
25	32	330.0	8 x 11	16	300	82.5	ESH337M025AG3(1)
25	32	330.0	10 x 12	16	355	82.5	ESH337M025AH1(1)
25	32	330.0	10 x 12.5	16	355	82.5	ESH337M025AH9(1)
25	32	470.0	8 x 15	16	420	117.5	ESH477M025AG4(1)
25	32	470.0	10 x 16	16	470	117.5	ESH477M025AH2(1)
25	32	470.0	10 x 12.5	16	440	117.5	ESH477M025AH9(1)
25	32	680.0	10 x 15	16	560	170.0	ESH687M025AH2(1)
25	32	680.0	10 x 20	16	650	170.0	ESH687M025AH4(1)
25	32	1000.0	10 x 20	16	740	250.0	ESH108M025AH4(1)
25	32	1000.0	13 x 20	16	855	250.0	ESH108M025AL3(1)
25	32	1500.0	13 x 20	16	920	375.0	ESH158M025AL3(1)
25	32	1500.0	13 x 25	16	1020	375.0	ESH158M025AL4(1)
25	32	2200.0	13 x 25	16	1230	550.0	ESH228M025AL4(1)
25	32	2200.0	16 x 25	16	1230	550.0	ESH228M025AM7(1)
25	32	3300.0	16 x 32	16	1450	825.0	ESH338M025AM2(1)
25	32	3300.0	16 x 25	16	1500	825.0	ESH338M025AM7(1)
25	32	4700.0	16 x 32	16	1800	1175.0	ESH478M025AM2(1)
25	32	4700.0	18 x 36	16	1690	1175.0	ESH478M025AN2(1)
25	32	6800.0	18 x 36	16	2050	1700.0	ESH688M025AN2(1)
35	44	10.0	5 x 11	14	44	3.5	ESH106M035AC3(1)
35	44	15.0	5 x 11	14	50	5.3	ESH156M035AC3(1)
35	44	22.0	5 x 11	14	65	7.7	ESH226M035AC3(1)
35	44	33.0	5 x 11	14	85	11.6	ESH336M035AC3(1)
35	44	47.0	5 x 11	14	100	16.5	ESH476M035AC3(1)
35	44	68.0	6.3 x 11	14	130	23.8	ESH686M035AE3(1)
35	44	68.0	8 x 11	14	130	23.8	ESH686M035AG3(1)
35	44	100.0	6.3 x 11	14	170	35.0	ESH107M035AE3(1)
35	44	100.0	8 x 11	14	190	35.0	ESH107M035AG3(1)
35	44	150.0	8 x 11	14	220	52.5	ESH157M035AG3(1)
Rated Voltage	Surge Voltage	Rated Capacitance	Case Size	DF	RC	LC	Part Number

(1) Insert packaging code. See Ordering Options Table for available options.

\* When capacitance exceeds 1,000 µF, the DF value (%) is increased by 2% for every additional 1,000 µF.

Table 1 – Ratings &amp; Part Number Reference cont.

Rated Voltage	Surge Voltage	Rated Capacitance	Case Size	DF	RC	LC	Part Number
(VDC)	(VDC)	120 Hz 20°C (µF)	D x L (mm)	120 Hz 20°C (tan δ %)*	120 Hz 105°C (mA)	20°C 2 minutes (µA)	( ) Represents Part Number Options
35	44	150.0	10 x 12	14	240	52.5	ESH157M035AH1(1)
35	44	220.0	10 x 12.5	14	315	77.0	ESH227M035AH9(1)
35	44	220.0	8 x 11	14	220	77.0	ESH227M035AG3(1)
35	44	330.0	10 x 16	14	440	115.5	ESH337M035AH2(1)
35	44	330.0	10 x 12.5	14	400	115.5	ESH337M035AH9(1)
35	44	470.0	10 x 15	14	480	164.5	ESH477M035AH2(1)
35	44	470.0	10 x 20	14	580	164.5	ESH477M035AH4(1)
35	44	680.0	10 x 20	14	650	238.0	ESH687M035AH4(1)
35	44	680.0	13 x 20	14	730	238.0	ESH687M035AL3(1)
35	44	1000.0	13 x 20	14	900	350.0	ESH108M035AL3(1)
35	44	1000.0	13 x 25	14	995	350.0	ESH108M035AL4(1)
35	44	1500.0	13 x 25	14	1050	525.0	ESH158M035AL4(1)
35	44	1500.0	16 x 25	14	1110	525.0	ESH158M035AM7(1)
35	44	2200.0	16 x 32	14	1450	770.0	ESH228M035AM2(1)
35	44	2200.0	16 x 25	14	1370	770.0	ESH228M035AM7(1)
35	44	3300.0	16 x 36	14	1680	1155.0	ESH338M035AM3(1)
35	44	3300.0	18 x 36	14	1660	1155.0	ESH338M035AN2(1)
35	44	4700.0	18 x 36	14	1920	1645.0	ESH478M035AN2(1)
50	63	1.0	5 x 11	12	12	3.0	ESH105M050AC3(1)
50	63	2.2	5 x 11	12	18	3.0	ESH225M050AC3(1)
50	63	3.3	5 x 11	12	25	3.0	ESH335M050AC3(1)
50	63	4.7	5 x 11	12	30	3.0	ESH475M050AC3(1)
50	63	6.8	5 x 11	12	30	3.4	ESH685M050AC3(1)
50	63	10.0	5 x 11	12	50	5.0	ESH106M050AC3(1)
50	63	15.0	5 x 11	12	50	7.5	ESH156M050AC3(1)
50	63	22.0	5 x 11	12	75	11.0	ESH226M050AC3(1)
50	63	33.0	5 x 11	12	95	16.5	ESH336M050AC3(1)
50	63	33.0	6 x 11	12	105	16.5	ESH336M050AE3(1)
50	63	47.0	6.3 x 11	12	115	23.5	ESH476M050AE3(1)
50	63	47.0	8 x 11	12	125	23.5	ESH476M050AG3(1)
50	63	68.0	8 x 11	12	159	34.0	ESH686M050AG3(1)
50	63	82.0	8 x 15	12	190	41.0	ESH826M050AG4(1)
50	63	100.0	8 x 11	12	200	50.0	ESH107M050AG3(1)
50	63	150.0	10 x 12	12	289	75.0	ESH157M050AH1(1)
50	63	150.0	10 x 12.5	12	289	75.0	ESH157M050AH9(1)
50	63	220.0	10 x 15	12	415	110.0	ESH227M050AH2(1)
50	63	220.0	10 x 12.5	12	360	110.0	ESH227M050AH9(1)
50	63	330.0	10 x 20	12	535	165.0	ESH337M050AH4(1)
50	63	470.0	10 x 20	12	630	235.0	ESH477M050AH4(1)
50	63	470.0	13 x 20	12	730	235.0	ESH477M050AL3(1)
50	63	680.0	13 x 20	12	800	340.0	ESH687M050AL3(1)
50	63	680.0	13 x 25	12	860	340.0	ESH687M050AL4(1)
50	63	1000.0	13 x 25	12	1060	500.0	ESH108M050AL4(1)
50	63	1000.0	16 x 25	12	1110	500.0	ESH108M050AM7(1)
50	63	1500.0	16 x 32	12	1350	750.0	ESH158M050AM2(1)
50	63	1500.0	16 x 25	12	1300	750.0	ESH158M050AM7(1)
50	63	2200.0	16 x 36	12	1600	1100.0	ESH228M050AM3(1)
50	63	2200.0	18 x 36	12	1530	1100.0	ESH228M050AN2(1)
50	63	3300.0	18 x 36	12	1780	1650.0	ESH338M050AN2(1)
63	79	1.0	5 x 11	10	12	3.0	ESH105M063AC3(1)
63	79	2.2	5 x 11	10	20	3.0	ESH225M063AC3(1)
63	79	3.3	5 x 11	10	27	3.0	ESH335M063AC3(1)
63	79	4.7	5 x 11	10	34	3.0	ESH475M063AC3(1)
63	79	6.8	5 x 11	10	37	4.3	ESH685M063AC3(1)
63	79	10.0	5 x 11	10	55	6.3	ESH106M063AC3(1)
63	79	15.0	5 x 11	10	65	9.5	ESH156M063AC3(1)
63	79	22.0	6.3 x 11	10	90	13.9	ESH226M063AE3(1)
Rated Voltage	Surge Voltage	Rated Capacitance	Case Size	DF	RC	LC	Part Number

(1) Insert packaging code. See Ordering Options Table for available options.

\* When capacitance exceeds 1,000 µF, the DF value (%) is increased by 2% for every additional 1,000 µF.

Table 1 – Ratings &amp; Part Number Reference cont.

Rated Voltage	Surge Voltage	Rated Capacitance	Case Size	DF	RC	LC	Part Number
(VDC)	(VDC)	120 Hz 20°C (μF)	D x L (mm)	120 Hz 20°C (tan δ %)*	120 Hz 105°C (mA)	20°C 2 minutes (μA)	( ) Represents Part Number Options
63	79	33.0	6.3 x 11	10	100	20.8	ESH336M063AE3(1)
63	79	33.0	8 x 11	10	110	20.8	ESH336M063AG3(1)
63	79	47.0	8 x 11	10	155	29.6	ESH476M063AG3(1)
63	79	68.0	10 x 12	10	198	42.8	ESH686M063AH1(1)
63	79	68.0	10 x 12.5	10	198	42.8	ESH686M063AH9(1)
63	79	100.0	10 x 12	10	260	63.0	ESH107M063AH1(1)
63	79	100.0	10 x 12.5	10	260	63.0	ESH107M063AH9(1)
63	79	150.0	10 x 15	10	330	94.5	ESH157M063AH2(1)
63	79	220.0	10 x 20	10	465	138.6	ESH227M063AH4(1)
63	79	330.0	13 x 20	10	650	207.9	ESH337M063AL3(1)
63	79	470.0	13 x 20	10	700	296.1	ESH477M063AL3(1)
63	79	470.0	13 x 25	10	800	296.1	ESH477M063AL4(1)
63	79	680.0	16 x 25	10	1000	428.4	ESH687M063AM7(1)
63	79	1000.0	16 x 32	10	1200	630.0	ESH108M063AM2(1)
63	79	1500.0	16 x 36	10	1450	945.0	ESH158M063AM3(1)
63	79	2200.0	18 x 36	10	1650	1386.0	ESH228M063AN2(1)
100	125	1.0	5 x 11	10	15	3.0	ESH105M100AC3(1)
100	125	2.2	5 x 11	10	22	3.0	ESH225M100AC3(1)
100	125	3.3	5 x 11	10	29	3.3	ESH335M100AC3(1)
100	125	4.7	5 x 11	10	37	4.7	ESH475M100AC3(1)
100	125	6.8	5 x 11	10	46	6.8	ESH685M100AC3(1)
100	125	10.0	6.3 x 11	10	65	10.0	ESH106M100AE3(1)
100	125	15.0	6.3 x 11	10	75	15.0	ESH156M100AE3(1)
100	125	15.0	8 x 11	10	82	15.0	ESH156M100AG3(1)
100	125	22.0	8 x 11	10	115	22.0	ESH226M100AG3(1)
100	125	33.0	8 x 11	10	140	33.0	ESH336M100AG3(1)
100	125	33.0	10 x 12	10	160	33.0	ESH336M100AH1(1)
100	125	47.0	10 x 16	10	210	47.0	ESH476M100AH2(1)
100	125	47.0	10 x 12.5	10	185	47.0	ESH476M100AH9(1)
100	125	68.0	10 x 15	10	240	68.0	ESH686M100AH2(1)
100	125	68.0	10 x 20	10	241	68.0	ESH686M100AH4(1)
100	125	100.0	10 x 20	10	305	100.0	ESH107M100AH4(1)
100	125	150.0	13 x 20	10	370	150.0	ESH157M100AL3(1)
100	125	150.0	13 x 25	10	414	150.0	ESH157M100AL4(1)
100	125	220.0	13 x 25	10	520	220.0	ESH227M100AL4(1)
100	125	220.0	16 x 26	10	590	220.0	ESH227M100AM1(1)
100	125	330.0	16 x 25	10	720	330.0	ESH337M100AM7(1)
100	125	470.0	16 x 32	10	875	470.0	ESH477M100AM2(1)
100	125	680.0	16 x 36	10	1200	680.0	ESH687M100AM3(1)
160	200	1.0	5 x 11	15	17	14.8	ESH105M160AC3(1)
160	200	2.2	6.3 x 11	15	25	20.6	ESH225M160AE3(1)
160	200	3.3	6.3 x 11	15	36	25.8	ESH335M160AE3(1)
160	200	4.7	6.3 x 11	15	43	32.6	ESH475M160AE3(1)
160	200	4.7	8 x 11	15	43	32.6	ESH475M160AG3(1)
160	200	6.8	8 x 11	15	54	42.6	ESH685M160AG3(1)
160	200	10.0	8 x 11	15	70	58.0	ESH106M160AG3(1)
160	200	10.0	10 x 12	15	70	58.0	ESH106M160AH1(1)
160	200	15.0	10 x 16	15	90	82.0	ESH156M160AH2(1)
160	200	15.0	10 x 12.5	15	90	82.0	ESH156M160AH9(1)
160	200	22.0	10 x 15	15	115	115.6	ESH226M160AH2(1)
160	200	22.0	10 x 20	15	130	115.6	ESH226M160AH4(1)
160	200	33.0	10 x 20	15	160	168.4	ESH336M160AH4(1)
160	200	33.0	13 x 20	15	180	168.4	ESH336M160AL3(1)
160	200	47.0	10 x 20	15	195	235.6	ESH476M160AH4(1)
160	200	47.0	13 x 25	15	250	235.6	ESH476M160AL4(1)
160	200	68.0	13 x 20	15	255	336.4	ESH686M160AL3(1)
160	200	68.0	13 x 25	15	270	336.4	ESH686M160AL4(1)
Rated Voltage	Surge Voltage	Rated Capacitance	Case Size	DF	RC	LC	Part Number

(1) Insert packaging code. See Ordering Options Table for available options.

\* When capacitance exceeds 1,000 μF, the DF value (%) is increased by 2% for every additional 1,000 μF.

Table 1 – Ratings &amp; Part Number Reference cont.

Rated Voltage	Surge Voltage	Rated Capacitance	Case Size	DF	RC	LC	Part Number
(VDC)	(VDC)	120 Hz 20°C (µF)	D x L (mm)	120 Hz 20°C (tan δ %)*	120 Hz 105°C (mA)	20°C 2 minutes (µA)	( ) Represents Part Number Options
160	200	100.0	13 x 25	15	350	490.0	ESH107M160AL4(1)
160	200	100.0	16 x 25	15	390	490.0	ESH107M160AM7(1)
160	200	150.0	16 x 32	15	435	730.0	ESH157M160AM2(1)
160	200	150.0	16 x 25	15	435	730.0	ESH157M160AM7(1)
160	200	220.0	16 x 32	15	550	1066.0	ESH227M160AM2(1)
160	200	220.0	16 x 36	15	700	1066.0	ESH227M160AM3(1)
160	200	330.0	18 x 36	15	800	1594.0	ESH337M160AN2(1)
160	200	330.0	18 x 40	15	850	1594.0	ESH337M160AN3(1)
160	200	470.0	18 x 40	15	900	2266.0	ESH477M160AN3(1)
160	200	470.0	22 x 40	15	980	2266.0	ESH477M160AQ4(1)
200	250	1.0	6.3 x 11	15	17	16.0	ESH105M200AE3(1)
200	250	2.2	6.3 x 11	15	25	23.2	ESH225M200AE3(1)
200	250	3.3	6.3 x 11	15	36	29.8	ESH335M200AE3(1)
200	250	4.7	8 x 11	15	50	38.2	ESH475M200AG3(1)
200	250	4.7	10 x 12	15	50	38.2	ESH475M200AH1(1)
200	250	6.8	8 x 11	15	60	50.8	ESH685M200AG3(1)
200	250	10.0	10 x 16	15	80	70.0	ESH106M200AH2(1)
200	250	10.0	10 x 12.5	15	80	70.0	ESH106M200AH9(1)
200	250	15.0	10 x 15	15	110	100.0	ESH156M200AH2(1)
200	250	15.0	10 x 20	15	110	100.0	ESH156M200AH4(1)
200	250	22.0	10 x 20	15	140	142.0	ESH226M200AH4(1)
200	250	33.0	13 x 20	15	200	208.0	ESH336M200AL3(1)
200	250	47.0	13 x 20	15	220	292.0	ESH476M200AL3(1)
200	250	68.0	13 x 25	15	280	418.0	ESH686M200AL4(1)
200	250	68.0	16 x 25	15	280	418.0	ESH686M200AM7(1)
200	250	100.0	16 x 32	15	400	610.0	ESH107M200AM2(1)
200	250	100.0	16 x 25	15	350	610.0	ESH107M200AM7(1)
200	250	150.0	16 x 32	15	480	910.0	ESH157M200AM2(1)
200	250	150.0	16 x 36	15	450	910.0	ESH157M200AM3(1)
200	250	220.0	16 x 36	15	675	1330.0	ESH227M200AM3(1)
200	250	220.0	18 x 32	15	685	1330.0	ESH227M200AN1(1)
200	250	330.0	18 x 36	15	750	1990.0	ESH337M200AN2(1)
200	250	330.0	22 x 40	15	920	1990.0	ESH337M200AQ4(1)
250	300	1.0	6.3 x 11	15	17	17.5	ESH105M250AE3(1)
250	300	2.2	6.3 x 11	15	29	26.5	ESH225M250AE3(1)
250	300	2.2	8 x 11	15	29	26.5	ESH225M250AG3(1)
250	300	3.3	8 x 11	15	42	34.8	ESH335M250AG3(1)
250	300	4.7	8 x 11	15	52	45.3	ESH475M250AG3(1)
250	300	4.7	10 x 12	15	52	45.3	ESH475M250AH1(1)
250	300	6.8	8 x 11	15	62	61.0	ESH685M250AG3(1)
250	300	10.0	10 x 20	15	88	85.0	ESH106M250AH4(1)
250	300	10.0	10 x 12.5	15	80	85.0	ESH106M250AH9(1)
250	300	15.0	10 x 15	15	110	122.5	ESH156M250AH2(1)
250	300	15.0	13 x 20	15	120	122.5	ESH156M250AL3(1)
250	300	22.0	10 x 20	15	140	175.0	ESH226M250AH4(1)
250	300	22.0	13 x 20	15	155	175.0	ESH226M250AL3(1)
250	300	33.0	13 x 20	15	200	257.5	ESH336M250AL3(1)
250	300	33.0	13 x 25	15	200	257.5	ESH336M250AL4(1)
250	300	47.0	13 x 25	15	240	362.5	ESH476M250AL4(1)
250	300	47.0	16 x 25	15	270	362.5	ESH476M250AM7(1)
250	300	68.0	13 x 25	15	290	520.0	ESH686M250AL4(1)
250	300	68.0	16 x 32	15	300	520.0	ESH686M250AM2(1)
250	300	100.0	16 x 25	15	380	760.0	ESH107M250AM7(1)
250	300	100.0	16 x 36	15	440	760.0	ESH107M250AM3(1)
250	300	150.0	16 x 32	15	420	1135.0	ESH157M250AM2(1)
250	300	150.0	18 x 40	15	600	1135.0	ESH157M250AN3(1)
250	300	220.0	18 x 36	15	680	1660.0	ESH227M250AN2(1)
Rated Voltage	Surge Voltage	Rated Capacitance	Case Size	DF	RC	LC	Part Number

(1) Insert packaging code. See Ordering Options Table for available options.

\* When capacitance exceeds 1,000 µF, the DF value (%) is increased by 2% for every additional 1,000 µF.

Table 1 – Ratings &amp; Part Number Reference cont.

Rated Voltage	Surge Voltage	Rated Capacitance	Case Size	DF	RC	LC	Part Number
(VDC)	(VDC)	120 Hz 20°C (µF)	D x L (mm)	120 Hz 20°C (tan δ %)*	120 Hz 105°C (mA)	20°C 2 minutes (µA)	( ) Represents Part Number Options
250	300	220.0	22 x 40	15	800	1660.0	ESH227M250AQ4(1)
350	400	1.0	6.3 x 11	20	16	20.5	ESH105M350AE3(1)
350	400	2.2	8 x 11	20	31	33.1	ESH225M350AG3(1)
350	400	2.2	10 x 12	20	35	33.1	ESH225M350AH1(1)
350	400	3.3	8 x 11	20	35	44.7	ESH335M350AG3(1)
350	400	4.7	8 x 11	20	45	59.4	ESH475M350AG3(1)
350	400	4.7	10 x 20	20	65	59.4	ESH475M350AH4(1)
350	400	10.0	10 x 15	20	80	115.0	ESH106M350AH2(1)
350	400	10.0	13 x 20	20	95	115.0	ESH106M350AL3(1)
350	400	15.0	13 x 20	20	140	167.5	ESH156M350AL3(1)
350	400	22.0	13 x 20	20	150	241.0	ESH226M350AL3(1)
350	400	22.0	16 x 25	20	165	241.0	ESH226M350AM7(1)
350	400	33.0	13 x 25	20	200	356.5	ESH336M350AL4(1)
350	400	33.0	16 x 32	20	195	356.5	ESH336M350AM2(1)
350	400	47.0	16 x 36	20	210	503.5	ESH476M350AM3(1)
350	400	47.0	16 x 25	20	260	503.5	ESH476M350AM7(1)
350	400	47.0	18 x 36	20	240	503.5	ESH476M350AN2(1)
350	400	68.0	18 x 36	20	320	724.0	ESH686M350AN2(1)
350	400	100.0	18 x 32	20	400	1060.0	ESH107M350AN1(1)
350	400	100.0	18 x 40	20	300	1060.0	ESH107M350AN3(1)
350	400	150.0	22 x 40	20	480	1585.0	ESH157M350AQ4(1)
400	450	1.0	6.3 x 11	20	17	22.0	ESH105M400AE3(1)
400	450	2.2	8 x 11	20	31	36.4	ESH225M400AG3(1)
400	450	3.3	8 x 11	20	35	49.6	ESH335M400AG3(1)
400	450	4.7	8 x 11	20	45	66.4	ESH475M400AG3(1)
400	450	4.7	10 x 15	20	60	66.4	ESH475M400AH2(1)
400	450	4.7	10 x 12.5	20	55	66.4	ESH475M400AH9(1)
400	450	6.8	8 x 15	20	60	91.6	ESH685M400AG4(1)
400	450	6.8	10 x 20	20	67	91.6	ESH685M400AH4(1)
400	450	6.8	10 x 12.5	20	65	91.6	ESH685M400AH9(1)
400	450	10.0	10 x 15	20	80	130.0	ESH106M400AH2(1)
400	450	10.0	10 x 20	20	75	130.0	ESH106M400AH4(1)
400	450	15.0	10 x 20	20	100	190.0	ESH156M400AH4(1)
400	450	15.0	13 x 20	20	120	190.0	ESH156M400AL3(1)
400	450	22.0	13 x 20	20	140	274.0	ESH226M400AL3(1)
400	450	22.0	13 x 25	20	140	274.0	ESH226M400AL4(1)
400	450	33.0	13 x 25	20	200	406.0	ESH336M400AL4(1)
400	450	33.0	16 x 25	20	190	406.0	ESH336M400AM7(1)
400	450	47.0	16 x 25	20	265	574.0	ESH476M400AM7(1)
400	450	68.0	16 x 32	20	410	826.0	ESH686M400AM2(1)
400	450	68.0	18 x 36	20	325	826.0	ESH686M400AN2(1)
400	450	68.0	18 x 25	20	390	826.0	ESH686M400AN5(1)
400	450	100.0	18 x 32	20	500	1210.0	ESH107M400AN1(1)
400	450	100.0	18 x 36	20	290	1210.0	ESH107M400AN2(1)
400	450	100.0	22 x 40	20	365	1,210.0	ESH107M400AQ4(1)
400	450	120.0	18 x 32	20	520	1450.0	ESH127M400AN1(1)
400	450	120.0	18 x 36	20	550	1450.0	ESH127M400AN2(1)
400	450	150.0	18 x 40	20	620	1810.0	ESH157M400AN3(1)
400	450	150.0	18 x 36	20	560	1810.0	ESH157M400AN2(1)
420	470	1.0	6.3 x 11	20	17	22.6	ESH105M420AE3(1)
420	470	2.2	8 x 11	20	29	37.7	ESH225M420AG3(1)
420	470	3.3	8 x 11	20	34	51.6	ESH335M420AG3(1)
420	470	4.7	10 x 12.5	20	55	69.2	ESH475M420AH9(1)
420	470	6.8	10 x 15	20	68	95.7	ESH685M420AH2(1)
420	470	10.0	10 x 20	20	98	136.0	ESH106M420AH4(1)
420	470	15.0	13 x 20	20	130	199.0	ESH156M420AL3(1)
420	470	22.0	13 x 25	20	155	287.2	ESH226M420AL4(1)
Rated Voltage	Surge Voltage	Rated Capacitance	Case Size	DF	RC	LC	Part Number

(1) Insert packaging code. See Ordering Options Table for available options.

\* When capacitance exceeds 1,000 µF, the DF value (%) is increased by 2% for every additional 1,000 µF.



Table 1 – Ratings &amp; Part Number Reference cont.

Rated Voltage	Surge Voltage	Rated Capacitance	Case Size	DF	RC	LC	Part Number
(VDC)	(VDC)	120 Hz 20°C (µF)	D x L (mm)	120 Hz 20°C (tan δ %)*	120 Hz 105°C (mA)	20°C 2 minutes (µA)	( ) Represents Part Number Options
420	470	33.0	16 x 25	20	205	425.8	ESH336M420AM7(1)
420	470	47.0	16 x 25	20	235	602.2	ESH476M420AM7(1)
420	470	68.0	16 x 32	20	400	866.8	ESH686M420AM2(1)
420	470	68.0	18 x 25	20	380	866.8	ESH686M420AN5(1)
420	470	100.0	18 x 36	20	490	1270.0	ESH107M420AN2(1)
420	470	120.0	18 x 40	20	430	1522.0	ESH127M420AN3(1)
420	470	150.0	18 x 45	20	570	1900.0	ESH157M420AN7(1)
450	500	2.2	8 x 11	20	30	39.7	ESH225M450AG3(1)
450	500	2.2	10 x 12	20	37	39.7	ESH225M450AH1(1)
450	500	2.2	10 x 12.5	20	37	39.7	ESH225M450AH9(1)
450	500	3.3	8 x 15	20	42	54.6	ESH335M450AG4(1)
450	500	3.3	10 x 16	20	51	54.6	ESH335M450AH2(1)
450	500	3.3	10 x 12.5	20	40	54.6	ESH335M450AH9(1)
450	500	4.7	10 x 12.5	20	52	73.5	ESH475M450AH9(1)
450	500	4.7	10 x 20	20	60	73.5	ESH475M450AH4(1)
450	500	6.8	10 x 15	20	62	101.8	ESH685M450AH2(1)
450	500	10.0	10 x 20	20	85	145.0	ESH106M450AH4(1)
450	500	10.0	13 x 25	20	99	145.0	ESH106M450AL4AR
450	500	15.0	13 x 20	20	120	212.5	ESH156M450AL3(1)
450	500	22.0	13 x 25	20	150	307.0	ESH226M450AL4(1)
450	500	22.0	16 x 25	20	145	307.0	ESH226M450AM7(1)
450	500	33.0	16 x 25	20	210	455.5	ESH336M450AM7(1)
450	500	33.0	16 x 32	20	230	455.5	ESH336M450AM2(1)
450	500	47.0	16 x 25	20	260	644.5	ESH476M450AM7(1)
450	500	47.0	18 x 40	20	350	644.5	ESH476M450AN3(1)
450	500	68.0	18 x 32	20	370	928.0	ESH686M450AN1(1)
450	500	68.0	18 x 36	20	380	928.0	ESH686M450AN2(1)
450	500	100.0	18 x 36	20	495	1360.0	ESH107M450AN2(1)
450	500	120.0	18 x 40	20	565	1630.0	ESH127M450AN3(1)
450	500	150.0	18 x 45	20	650	2035.0	ESH157M450AN7(1)
500	550	2.2	8 x 11	25	25	144.0	ESH225M500AG3(1)
500	550	3.3	8 x 16	25	30	166.0	ESH335M500AG8(1)
500	550	4.7	8 x 16	25	34	194.0	ESH475M500AG8(1)
500	550	4.7	10 x 12.5	25	38	194.0	ESH475M500AH9(1)
500	550	6.8	10 x 16	25	50	236.0	ESH685M500AH8(1)
500	550	8.2	10 x 20	25	65	264.0	ESH825M500AH4(1)
500	550	10.0	10 x 20	25	70	300.0	ESH106M500AH4(1)
500	550	10.0	13 x 20	25	85	300.0	ESH106M500AL3(1)
500	550	15.0	13 x 25	25	100	400.0	ESH156M500AL4(1)
500	550	22.0	13 x 25	25	115	540.0	ESH226M500AL4(1)
500	550	22.0	16 x 25	25	130	540.0	ESH226M500AM7(1)
500	550	33.0	18 x 25	25	180	760.0	ESH336M500AN5(1)
500	550	47.0	16 x 32	25	180	1040.0	ESH476M500AM2(1)
500	550	47.0	18 x 30	25	230	1040.0	ESH476M500AN8(1)
500	550	68.0	18 x 32	25	250	1460.0	ESH686M500AN1(1)
500	550	68.0	18 x 36	25	290	1460.0	ESH686M500AN2(1)
500	550	82.0	18 x 40	25	335	1740.0	ESH826M500AN3(1)
Rated Voltage	Surge Voltage	Rated Capacitance	Case Size	DF	RC	LC	Part Number

(1) Insert packaging code. See Ordering Options Table for available options.

\* When capacitance exceeds 1,000 µF, the DF value (%) is increased by 2% for every additional 1,000 µF.