

HL series

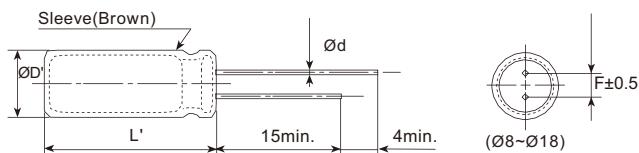
- Long life, downsized, high ripple current; For power supply applications
- Endurance: 8,000~12,000 hours at 105°C
- Compliant to AEC-Q200
- RoHS Compliant



SPECIFICATIONS

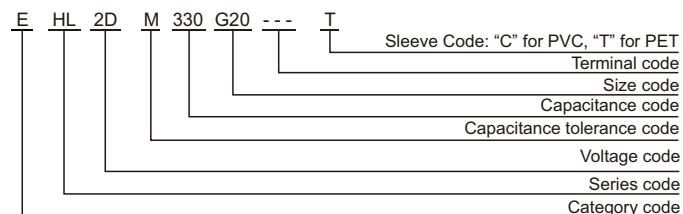
Items	Characteristics																		
Category Temperature Range	$-40\sim+105^{\circ}\text{C}$ (160~450V _{dc}) $-25\sim+105^{\circ}\text{C}$ (500V _{dc})																		
Rated Working Voltage Range	160~500 V _{dc}																		
Capacitance Tolerance	$\pm 20\%$ (M) (at 20°C, 120Hz)																		
Leakage Current	<table border="1"> <tr> <td></td> <td>After 1 minute</td> <td>After 5 minutes</td> </tr> <tr> <td>CV≤1000</td> <td>$I \leq 0.1CV + 40\mu\text{A}$</td> <td>$I \leq 0.03CV + 15\mu\text{A}$</td> </tr> <tr> <td>CV>1000</td> <td>$I \leq 0.04CV + 100\mu\text{A}$</td> <td>$I \leq 0.02CV + 25\mu\text{A}$</td> </tr> </table>			After 1 minute	After 5 minutes	CV≤1000	$I \leq 0.1CV + 40\mu\text{A}$	$I \leq 0.03CV + 15\mu\text{A}$	CV>1000	$I \leq 0.04CV + 100\mu\text{A}$	$I \leq 0.02CV + 25\mu\text{A}$	Where, I:Max.leakage current (μA), C:Nominal capacitance (μF), V: Rated voltage (V) (at 20°C)							
	After 1 minute	After 5 minutes																	
CV≤1000	$I \leq 0.1CV + 40\mu\text{A}$	$I \leq 0.03CV + 15\mu\text{A}$																	
CV>1000	$I \leq 0.04CV + 100\mu\text{A}$	$I \leq 0.02CV + 25\mu\text{A}$																	
Dissipation Factor (tanδ)	Rated Voltage(V _{dc})	160	200	250	350	400	450	500	(at 20°C, 120Hz)										
	Dissipation Factor(Max.)	0.18	0.18	0.18	0.24	0.24	0.24	0.24											
Low Temperature Characteristics (Max. Impedance Ratio)	Rated Voltage(V _{dc})	160	200	250	350	400	450	500											
	Z(-25°C)/Z(+20°C)	3	3	3	6	6	6	6											
Endurance	Z(-40°C)/Z(+20°C)	8	8	8	10	10	10	-											
	The following specifications shall be satisfied when the capacitors are restored to 20°C after DC voltage plus the rated ripple current is applied for a specified period of time at 105°C.																		
Shelf Life	Capacitance Change	$\leq \pm 20\%$ of the initial value				Rated Voltage	160 to 450V _{dc}	500V _{dc}											
	Dissipation Factor	$\leq 200\%$ of the initial specified value				Life time	L≤20: 10,000 hours	Φ10: 8,000 hours											
	Leakage Current	\leq The initial specified value					L>20: 12,000 hours	Φ≥12.5: 10,000 hours											

DIMENSIONS[mm]



ØD	10	12.5	16	18	22
Ød	0.6	0.6	0.8	0.8	0.8
F	5.0	5.0	7.5	7.5	10
ØD'	$\text{ØD} + 0.5\text{max.}$				
L'	$L + 2\text{max.}$				

PART NUMBERING SYSTEM



Radial Type

RATED RIPPLE CURRENT MULTIPLIERS

Frequency correction factor for ripple current

Freq.(Hz)	120	1k	10k	100k
WV (V _{dc}) <100	1.0	1.75	2.25	2.50
≥100	1.0	1.67	2.05	2.25

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STANDARD RATINGS

WV (Vdc)	Cap (µF)	Size ΦDxL(mm)	Rated ripple current (mArms/105°C,120Hz)	Part Number
160	33	10×16	210	EHL2CM330G16---T
	47	10×20	300	EHL2CM470G20---T
	56	10×20	318	EHL2CM560G20---T
	68	12.5×20	377	EHL2CM680W20---T
	82	10×25	416	EHL2CM820G25---T
	82	10×30	448	EHL2CM820G30---T
	100	12.5×20	575	EHL2CM101W20---T
	120	10×35	572	EHL2CM121G35---T
	150	10×45	696	EHL2CM151G45---T
	150	12.5×25	767	EHL2CM151W25---T
	180	12.5×30	885	EHL2CM181W30---T
	180	16×20	858	EHL2CM181L20---T
	220	12.5×35	1044	EHL2CM221W35---T
	220	16×25	1022	EHL2CM221L25---T
	270	12.5×40	1196	EHL2CM271W40---T
	270	12.5×45	1230	EHL2CM271W45---T
	330	16×30	1355	EHL2CM331L30---T
	330	18×25	1292	EHL2CM331M25---T
	390	16×35	1505	EHL2CM391L35---T
	470	18×30	1665	EHL2CM471M30---T
	470	18×35	1722	EHL2CM471M35---T
	560	16×50	1924	EHL2CM561L50---T
	560	18×40	1910	EHL2CM561M40---T
	680	18×45	2135	EHL2CM681M45---T
	680	18×50	2148	EHL2CM681M50---T
200	33	10×20	255	EHL2DM330G20---T
	39	10×20	268	EHL2DM390G20---T
	47	10×20	302	EHL2DM470G20---T
	56	10×25	346	EHL2DM560G25---T
	68	10×30	406	EHL2DM680G30---T
	82	12.5×20	522	EHL2DM820W20---T
	100	10×35	520	EHL2DM101G35---T
	100	12.5×25	628	EHL2DM101W25---T
	120	12.5×30	728	EHL2DM121W30---T
	120	16×20	698	EHL2DM121L20---T
	150	10×50	720	EHL2DM151G50---T
	150	18×25	823	EHL2DM151M25---T
	180	16×25	928	EHL2DM181L25---T
	180	18×20	895	EHL2DM181M20---T
	220	12.5×45	1116	EHL2DM221W45---T
	220	18×25	1050	EHL2DM221M25---T
	270	12.5×50	1268	EHL2DM271W50---T
	270	16×35	1252	EHL2DM271L35---T
	330	16×40	1428	EHL2DM331L40---T
	330	18×30	1402	EHL2DM331M30---T
	390	16×45	1575	EHL2DM391L45---T
	390	18×35	1570	EHL2DM391M35---T
	470	18×40	1748	EHL2DM471M40---T
	470	18×45	1775	EHL2DM471M45---T
	560	18×50	1952	EHL2DM561M50---T
250	27	10×16	172	EHL2EM270G16---T
	33	10×20	242	EHL2EM330G20---T
	47	10×25	316	EHL2EM470G25---T
	47	12.5×20	321	EHL2EM470W20---T
	56	12.5×20	430	EHL2EM560W20---T
	68	10×35	432	EHL2EM680G35---T
	82	10×45	518	EHL2EM820G45---T
	82	12.5×25	565	EHL2EM820W25---T
	100	12.5×30	662	EHL2EM101W30---T
	100	16×20	638	EHL2EM101L20---T
	120	16×25	758	EHL2EM121L25---T

WV (Vdc)	Cap (µF)	Size ΦDxL(mm)	Rated ripple current (mArms/105°C,120Hz)	Part Number
250	120	18×20	732	EHL2EM121M20---T
	150	12.5×40	892	EHL2EM151W40---T
	150	12.5×45	922	EHL2EM151W45---T
	180	12.5×50	1040	EHL2EM181W50---T
	180	16×30	995	EHL2EM181L30---T
	180	18×25	955	EHL2EM181M25---T
	220	16×35	1130	EHL2EM221L35---T
	220	18×30	1138	EHL2EM221M30---T
	270	16×45	1315	EHL2EM271L45---T
	270	18×35	1300	EHL2EM271M35---T
	330	16×50	1480	EHL2EM331L50---T
	330	18×40	1466	EHL2EM331M40---T
	390	18×50	1630	EHL2EM391M50---T
	15	10×16	150	EHL2VM150G16---T
	18	10×20	165	EHL2VM180G20---T
	22	10×20	200	EHL2VM220G20---T
	27	10×25	242	EHL2VM270G25---T
	27	10×30	256	EHL2VM270G30---T
	33	12.5×20	332	EHL2VM330W20---T
	39	10×35	326	EHL2VM390G35---T
	47	10×40	376	EHL2VM470G40---T
	47	12.5×25	425	EHL2VM470W25---T
	56	10×45	426	EHL2VM560G45---T
	56	12.5×30	498	EHL2VM560W30---T
	56	16×20	476	EHL2VM560L20---T
350	68	10×50	486	EHL2VM680G50---T
	68	12.5×35	583	EHL2VM680W35---T
	68	18×20	550	EHL2VM680M20---T
	82	12.5×40	658	EHL2VM820W40---T
	82	16×25	628	EHL2VM820L25---T
	100	12.5×45	752	EHL2VM101W45---T
	100	16×30	744	EHL2VM101L30---T
	100	18×25	710	EHL2VM101M25---T
	120	16×35	832	EHL2VM121L35---T
	150	16×40	964	EHL2VM151L40---T
	150	16×45	978	EHL2VM151L45---T
	150	18×30	944	EHL2VM151M30---T
	180	16×50	1095	EHL2VM181L50---T
	180	18×35	1065	EHL2VM181M35---T
	180	18×40	1086	EHL2VM181M40---T
	220	18×45	1215	EHL2VM221M45---T
	220	18×50	1222	EHL2VM221M50---T
400	12	10×16	135	EHL2GM120G16---T
	15	10×20	155	EHL2GM150G20---T
	18	10×20	180	EHL2GM180G20---T
	22	10×25	216	EHL2GM220G25---T
	27	10×30	256	EHL2GM270G30---T
	27	12.5×20	300	EHL2GM270W20---T
	33	16×20	336	EHL2GM330L20---T
	33	12.5×25	320	EHL2GM330W25---T
	39	12.5×25	390	EHL2GM390W25---T
	47	12.5×30	456	EHL2GM470W30---T
	47	16×20	438	EHL2GM470L20---T
	56	10×50	440	EHL2GM560G50---T
	56	12.5×35	528	EHL2GM560W35---T
	56	18×20	502	EHL2GM560M20---T
	68	12.5×40	600	EHL2GM680W40---T
	68	16×25	572	EHL2GM680L25---T
	82	16×30	672	EHL2GM820L30---T
	82	18×25	644	EHL2GM820M25---T

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■ STANDARD RATINGS

WV (V _{dc})	Cap (μF)	Size ΦDxL(mm)	Rated ripple current (mA rms/105°C, 120Hz)	Part Number
400	100	16×35	760	EHL2GM101L35---T
	100	16×40	780	EHL2GM101L40---T
	120	16×40	864	EHL2GM121L40---T
	120	18×30	842	EHL2GM121M30---T
	120	18×35	875	EHL2GM121M35---T
	150	16×50	1000	EHL2GM151L50---T
	150	18×40	985	EHL2GM151M40---T
	180	18×45	1098	EHL2GM181M45---T
	220	18×50	1225	EHL2GM221M50---T
450	10	10×16	120	EHL2WM100G16---T
	12	10×20	150	EHL2WM120G20---T
	15	10×25	186	EHL2WM150G25---T
	18	10×30	216	EHL2WM180G30---T
	18	12.5×20	256	EHL2WM180W20---T
	22	16×20	282	EHL2WM220L20---T
	27	10×40	292	EHL2WM270G40---T
	27	10×45	306	EHL2WM270G45---T
	27	12.5×25	342	EHL2WM270W25---T
	33	12.5×30	400	EHL2WM330W30---T
	33	16×20	386	EHL2WM330L20---T
	39	10×50	378	EHL2WM390G50---T
	39	12.5×35	462	EHL2WM390W35---T
	39	18×20	440	EHL2WM390M20---T
	47	12.5×40	528	EHL2WM470W40---T
	47	16×25	500	EHL2WM470L25---T
	56	12.5×45	592	EHL2WM560W45---T
	56	16×30	588	EHL2WM560L30---T
	56	18×25	562	EHL2WM560M25---T
	68	12.5×50	672	EHL2WM680W50---T
	68	16×35	664	EHL2WM680L35---T
	82	16×40	750	EHL2WM820L40---T
	82	18×30	734	EHL2WM820M30---T
	100	16×50	858	EHL2WM101L50---T
	100	18×35	836	EHL2WM101M35---T
	120	18×40	935	EHL2WM121M40---T
	120	22×31	901	EHL2WM121O31---T
	150	18×50	1065	EHL2WM151M50---T
500	6.8	10×20	90	EHL2HM6R8G20---T
	10	10×30	130	EHL2HM100G30---T
	10	12.5×20	125	EHL2HM100W20---T
	12	12.5×20	135	EHL2HM120W20---T
	15	10×35	170	EHL2HM150G35---T
	15	12.5×25	170	EHL2HM150W25---T
	15	16×20	165	EHL2HM150L20---T
	18	10×45	190	EHL2HM180G45---T
	18	12.5×30	190	EHL2HM180W30---T
	22	10×50	230	EHL2HM220G50---T
	22	12.5×35	225	EHL2HM220W35---T
	22	16×20	220	EHL2HM220L20---T
	33	16×25	246	EHL2HM330L25---T
	47	18×30	400	EHL2HM470M30---T

※ Specifications subject to change without notice.