

HGX SERIES
Load Life: 125°C 3000 hours, 135°C 3000 hours
◆FEATURES

- Miniaturized, High Capacitance, High Ripple Current, Low ESR, High Reliability.
- Suitable for DC Link of low voltage inverter.
- RoHS compliance.


◆SPECIFICATIONS

Items	Characteristics																	
Category Temperature Range	-40~+135℃(150℃)																	
Rated Voltage Range	25, 35Vdc																	
Capacitance Tolerance	±20%(20℃,120Hz)																	
Leakage Current(MAX)	I=0.03CV or 4μA whichever is greater. (After 1 minutes) I=Leakage Current(μA) C=Capacitance(μF) V=Rated Voltage(Vdc)																	
(tanδ) Dissipation Factor(MAX)	<table><tr><td>Rated Voltage (Vdc)</td><td>25</td><td>35</td><td rowspan="2">(20℃,120Hz)</td></tr><tr><td>tanδ</td><td>0.14</td><td>0.12</td></tr></table> When capacitance is over 1000μF, tanδ shall be added 0.02 to the listed value with increase of every 1000μF.					Rated Voltage (Vdc)	25	35	(20℃,120Hz)	tanδ	0.14	0.12						
Rated Voltage (Vdc)	25	35	(20℃,120Hz)															
tanδ	0.14	0.12																
Endurance	After applying rated voltage with rated ripple current for specified time at each temperature, the capacitors shall meet the following requirements. <table><tr><td>Capacitance Change</td><td>Within ±30% of the initial value.</td><td rowspan="3"><table><tr><td>Temperature</td><td>Life Time (hrs)</td></tr><tr><td>125℃</td><td>3000</td></tr><tr><td>135℃</td><td>3000</td></tr></table></td></tr><tr><td>Dissipation Factor</td><td>Not more than 300% of the specified value.</td></tr><tr><td>Leakage Current</td><td>Not more than the specified value.</td></tr></table>					Capacitance Change	Within ±30% of the initial value.	<table><tr><td>Temperature</td><td>Life Time (hrs)</td></tr><tr><td>125℃</td><td>3000</td></tr><tr><td>135℃</td><td>3000</td></tr></table>	Temperature	Life Time (hrs)	125℃	3000	135℃	3000	Dissipation Factor	Not more than 300% of the specified value.	Leakage Current	Not more than the specified value.
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125℃	3000																	
135℃	3000																	
Dissipation Factor	Not more than 300% of the specified value.																	
Leakage Current	Not more than the specified value.																	
Over temperature proof	After applying rated voltage for 500 hours at 150℃, the capacitors shall meet the following requirements. <table><tr><td>Capacitance Change</td><td>Within ±30% of the initial value.</td></tr><tr><td>Dissipation Factor</td><td>Not more than 300% of the specified value.</td></tr><tr><td>Leakage Current</td><td>Not more than the specified value.</td></tr></table>					Capacitance Change	Within ±30% of the initial value.	Dissipation Factor	Not more than 300% of the specified value.	Leakage Current	Not more than the specified value.							
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Leakage Current	Not more than the specified value.																	
Low Temperature Stability Impedance Ratio(MAX)	<table><tr><td>Rated Voltage (Vdc)</td><td>25</td><td>35</td><td rowspan="3">(120Hz)</td></tr><tr><td>Z(-25℃)/Z(20℃)</td><td>2</td><td>2</td></tr><tr><td>Z(-40℃)/Z(20℃)</td><td>3</td><td>3</td></tr></table>					Rated Voltage (Vdc)	25	35	(120Hz)	Z(-25℃)/Z(20℃)	2	2	Z(-40℃)/Z(20℃)	3	3			
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Z(-25℃)/Z(20℃)	2	2																
Z(-40℃)/Z(20℃)	3	3																

◆MULTIPLIER FOR RIPPLE CURRENT

Frequency (Hz)	120	1k	10k	100k≤
Coefficient	0.45	0.80	1.00	1.00

◆OPTION

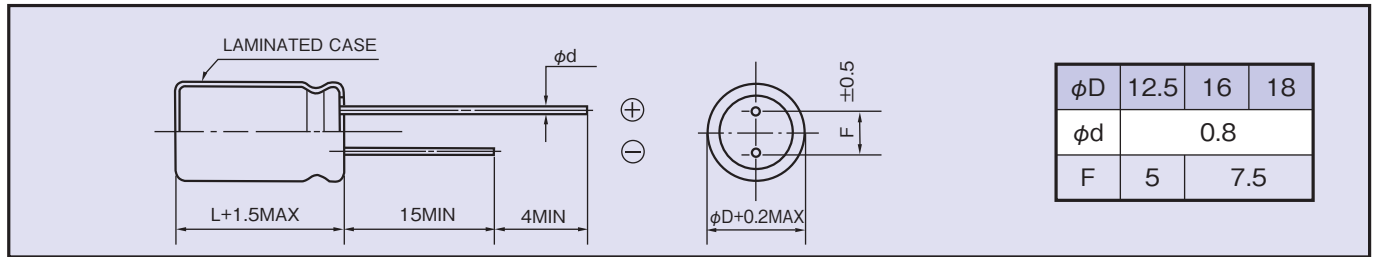
Standard item is blank.

◆PART NUMBER

Rated Voltage	Series	Capacitance	Capacitance Tolerance	Option	Lead Forming	Case Size

◆ **DIMENSIONS**

(mm)



◆ **STANDARD SIZE**

Rated Voltage (Vdc)	Capacitance (μF)	Size $\phi D \times L$ (mm)	Rated ripple current I_0 (mA rms / 135°C, 100kHz)	Rated ripple current I_0 (mA rms / 125°C, 100kHz)	ESR (Ω / 20°C, 100kHz)	MAX ripple current I_{MAX} (mA rms / 135°C, 100kHz)	MAX ripple current I_{MAX} (mA rms / 125°C, 100kHz)	MAX ripple current I_{MAX} (mA rms / 105°C, 100kHz)
25	1600	12.5×20	2060	2870	0.046	2260	2920	3910
	2400	12.5×25	2610	3640	0.034	2860	3700	4960
	3000	12.5×30	3130	4370	0.027	3440	4440	5960
	3000	16×20	2320	3240	0.034	2550	3300	4420
	3900	18×20	2490	3470	0.033	2730	3520	4730
	4300	16×25	2930	4090	0.025	3210	4150	5570
	5600	16×30	3500	4880	0.02	3840	4960	6650
	5600	18×25	3120	4360	0.025	3430	4430	5940
	6800	18×30	3720	5190	0.02	4090	5280	7080
35	1200	12.5×20	2060	2870	0.046	2260	2920	3910
	1600	12.5×25	2610	3640	0.034	2860	3700	4960
	2000	16×20	2320	3240	0.034	2550	3300	4420
	2200	12.5×30	3130	4370	0.027	3440	4440	5960
	2700	18×20	2490	3470	0.033	2730	3520	4730
	3000	16×25	2930	4090	0.025	3210	4150	5570
	3600	18×25	3120	4360	0.025	3430	4430	5940
	3900	16×30	3500	4880	0.02	3840	4960	6650
	4700	18×30	3720	5190	0.02	4090	5280	7080

Rated ripple current I_0 : Ripple current continuous operation within endurance lifetime.

Maximum ripple current I_{MAX} : Maximum ripple current continuous operation. Estimated lifetime complies with our lifetime calculation formula.

