

LHR SERIES

NEW

105°C 5000 hours, Low Thermal Resistance, Screw Terminal Type

◆FEATURES

- Load Life : 105°C 5000 hours.
- Low thermal resistance structure.
- RoHS compliance.



◆SPECIFICATIONS

Items	Characteristics												
Category Temperature Range	-25~+105℃												
Rated Voltage Range	350~450Vdc												
Capacitance Tolerance	±20%(20℃,120Hz)												
Leakage Current(MAX)	I=3 √CV or 5mA whichever is smaller.(After 5 minutes application of rated voltage) I=Leakage Current(μA) C=Capacitance(μF) V=Rated Voltage(Vdc)												
Dissipation Factor(MAX) (tanδ)	<table><tr><td>Vdc \ φD</td><td>64</td><td>77</td><td>90</td></tr><tr><td>350~450</td><td>0.25</td><td>0.25</td><td>0.25</td></tr></table> (20℃,120Hz)					Vdc \ φD	64	77	90	350~450	0.25	0.25	0.25
Vdc \ φD	64	77	90										
350~450	0.25	0.25	0.25										
Endurance	After applying rated voltage with rated ripple current for 5000 hours at 105℃, the capacitors shall meet the following requirements. <table><tr><td>Capacitance Change</td><td>Within ±20% of the initial value.</td></tr><tr><td>Dissipation Factor</td><td>Not more than 200% of the specified value.</td></tr><tr><td>Leakage Current</td><td>Not more than the specified value.</td></tr></table>					Capacitance Change	Within ±20% of the initial value.	Dissipation Factor	Not more than 200% of the specified value.	Leakage Current	Not more than the specified value.		
Capacitance Change	Within ±20% of the initial value.												
Dissipation Factor	Not more than 200% of the specified value.												
Leakage Current	Not more than the specified value.												

◆MULTIPLIER FOR RIPPLE CURRENT

Frequency (Hz)	60(50)	120(100)	300	500	1k	10k≤
Coefficient	0.80	1.00	1.17	1.23	1.30	1.40

◆PART NUMBER

□□□	LHR	□□□□□	M	□□□	□□	D×L
Rated Voltage	Series	Capacitance	Capacitance Tolerance	Option	Mounting Code	Case Size

◆Dimensions in mm (not to scale)

<Clamp Mounting>		(mm)									
(I type)		φD	Dt	W1	W2	W3	W4	W5	F		
I type	64	13.0	40.0	45.0	4.5	7.0	12	28.5			
	77	17.3	47.0	53.0	4.5	6.0	12	31.8			
	90	17.3	54.0	60.0	4.5	6.0	14	31.8			
(Y type)		φD	Dt	W1	W2	W3	W4	W5	F		
Y type	64	13.0	38.0	43.0	4.5	8.0	14	28.5			
	77	17.3	44.5	49.0	4.5	7.0	14	31.8			
	90	17.3	50.8	56.0	4.5	8.0	16	31.8			

<Stud Mounting>		(mm)		
		φD	Dt	F
		64	13.0	28.5
		77	17.3	31.8
		90	17.3	31.8

◆STANDARD SIZE

Rated Voltage (Vdc)	Capacitance (uF)	Size		Rated Ripple Current (Arms 105°C, 120Hz)	
		φDXL (mm)	Lt (mm)	Ta=105°C※1	Tc=105°C※2
350	2700	64×96	103	8.2	11.7
	3300	64×106	113	9.0	12.7
	3900	64×126	133	10.2	14.0
	4700	64×146	153	11.5	15.4
	4700	77×103	109.5	12.2	17.8
	5600	64×146	153	11.9	16.0
	5600	77×113	119.5	14.4	20.8
	6800	77×133	139.5	15.1	21.3
	6800	90×103	109.8	17.1	23.5
	8200	77×153	159.5	17.1	23.5
	8200	90×113	119.8	18.8	30.3
	10000	77×193	199.5	18.8	30.3
	10000	90×133	139.8	21.4	33.5
	12000	77×220	226.5	21.4	33.5
	12000	90×153	159.8	24.2	36.9
	15000	90×193	199.8	28.7	42.0
	18000	90×220	226.8	31.9	45.7
400	2200	64×96	103	7.7	11.1
	2700	64×106	113	8.6	12.1
	3300	64×126	133	9.8	13.4
	3900	64×146	153	10.9	14.7
	3900	77×103	109.5	11.6	17.0
	4700	77×113	119.5	13.7	19.8
	5600	77×133	139.5	15.4	21.7
	5600	90×103	109.8	16.3	26.6
	6800	77×153	159.5	17.4	23.9
	6800	90×113	119.8	18.0	28.9
	8200	77×193	199.5	18.9	25.2
	8200	90×133	139.8	20.4	31.9
	10000	77×220	226.5	21.1	27.5
	10000	90×153	159.8	23.1	35.3
	12000	90×193	199.8	27.1	39.7
	15000	90×220	226.8	30.5	43.6

Rated Voltage (Vdc)	Capacitance (uF)	Size		Rated Ripple Current (Arms 105°C, 120Hz)	
		φDXL (mm)	Lt (mm)	Ta=105°C※1	Tc=105°C※2
450	1800	64×96	103	7.3	10.5
	2200	64×106	113	8.1	11.4
	2700	64×126	133	9.2	12.7
	2700	77×103	109.5	10.4	14.0
	3300	64×146	153	10.4	14.0
	3300	77×113	119.5	11.6	16.7
	3900	77×133	139.5	13.0	18.3
	4700	77×153	159.5	14.7	20.1
	4700	90×103	109.8	15.5	25.3
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	5600	90×133	139.8	18.4	28.7
	6800	77×193	199.5	18.0	23.9
	6800	90×133	139.8	19.5	30.4
	8200	77×220	226.5	20.0	26.0
	8200	90×153	159.8	21.9	33.4
	10000	90×193	199.8	25.7	37.7
	12000	90×220	226.8	28.7	41.0

Ta: Ambient temperature under natural convection.

Tc: Case bottom temperature.

※1: Rated ripple current in continuous operation under natural convection at Ta=105°C.

※2: Rated ripple current in continuous operation under forced convection at Ta=105°C.

◆Tightening torque of bolt and Permissible current of terminal.

Clamp Bolt	Recommended Tightening torque
M3	0.6 [N·m]
M4	1.3 [N·m]

Terminal	Recommended Tightening torque (Permissible Range)	Permissible Current of Terminal
M5	2.2(1.5~3.2) [N·m]	60Arms
M6	3.2(3.0~3.5) [N·m]	100Arms