

LUR SERIES

NEW



85°C 5000 hours, Low Thermal Resistance, Screw Terminal Type

◆FEATURES

- Load Life : 85°C 5000hours.
- Low thermal resistance structure.
- RoHS compliance.

◆SPECIFICATIONS

| Items | Characteristics | | | | | | | | | | | | | | |
|--------------------------------|---|--------------------|-----------------------------------|--------------------|--|-----------------|------------------------------------|------|------|------|---------------|-----|------|------|------|
| Category Temperature Range | -25~+85°C | | | | | | | | | | | | | | |
| Rated Voltage Range | 350~500Vdc | | | | | | | | | | | | | | |
| Capacitance Tolerance | ±20% (20°C, 120Hz) | | | | | | | | | | | | | | |
| Leakage Current(MAX) | $I=3\sqrt{CV}$ 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 border="1"> <thead> <tr> <th>Vdc \ φD</th> <th>64</th> <th>77</th> <th>90</th> <th></th> </tr> </thead> <tbody> <tr> <td>350~450</td> <td>0.25</td> <td>0.25</td> <td>0.25</td> <td rowspan="2">(20°C, 120Hz)</td> </tr> <tr> <td>500</td> <td>0.30</td> <td>0.30</td> <td>0.30</td> </tr> </tbody> </table> | Vdc \ φD | 64 | 77 | 90 | | 350~450 | 0.25 | 0.25 | 0.25 | (20°C, 120Hz) | 500 | 0.30 | 0.30 | 0.30 |
| Vdc \ φD | 64 | 77 | 90 | | | | | | | | | | | | |
| 350~450 | 0.25 | 0.25 | 0.25 | (20°C, 120Hz) | | | | | | | | | | | |
| 500 | 0.30 | 0.30 | 0.30 | | | | | | | | | | | | |
| Endurance | <p>After applying rated voltage with rated ripple current for 5000 hours at 85°C, the capacitors shall meet the following requirements.</p> <table border="1"> <tbody> <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> </tbody> </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 | 350~450Vdc | 0.80 | 1.00 | 1.17 | 1.23 | 1.30 | 1.40 |
| | 500Vdc | 0.80 | 1.00 | 1.15 | 1.20 | 1.25 | 1.30 |

◆PART NUMBER

LUR **M** **D×L**
 Rated Voltage Series Capacitance Capacitance Tolerance Option Mounting Code Case Size

◆Dimensions in mm (not to scale)

<Clamp Mounting>

(I type) (Y 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 | 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>

| | 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 85°C, 120Hz) | |
|---------------------|------------------|-----------|---------|---|-----------|
| | | φDXL (mm) | Lt (mm) | Ta=85°C※1 | Tc=85°C※2 |
| 350 | 3300 | 64×96 | 103 | 12.1 | 17.3 |
| | 3900 | 64×106 | 113 | 13.3 | 18.7 |
| | 4700 | 64×126 | 133 | 15.1 | 20.6 |
| | 5600 | 64×146 | 153 | 16.9 | 22.7 |
| | 5600 | 77×103 | 109.5 | 19.5 | 28.4 |
| | 6800 | 77×133 | 139.5 | 21.4 | 30.1 |
| | 8200 | 77×153 | 159.5 | 24.1 | 33.2 |
| | 8200 | 90×103 | 109.8 | 25.1 | 41.0 |
| | 10000 | 77×193 | 199.5 | 28.2 | 37.4 |
| | 10000 | 90×133 | 139.8 | 30.4 | 47.4 |
| | 12000 | 77×193 | 199.5 | 29.5 | 39.2 |
| | 15000 | 77×220 | 226.5 | 35.8 | 46.6 |
| | 15000 | 90×193 | 199.8 | 40.6 | 59.4 |
| | 18000 | 90×193 | 199.8 | 42.3 | 61.9 |
| 22000 | 90×220 | 226.8 | 47.1 | 67.4 | |
| 400 | 2700 | 64×96 | 103 | 11.5 | 16.5 |
| | 3300 | 64×106 | 113 | 12.8 | 18.0 |
| | 3900 | 64×126 | 133 | 14.4 | 19.8 |
| | 4700 | 64×146 | 153 | 16.2 | 21.8 |
| | 4700 | 77×103 | 109.5 | 18.6 | 27.1 |
| | 5600 | 77×133 | 139.5 | 20.4 | 28.7 |
| | 6800 | 77×133 | 139.5 | 23.1 | 32.5 |
| | 6800 | 90×103 | 109.8 | 24.1 | 39.4 |
| | 8200 | 77×153 | 159.5 | 26.0 | 35.8 |
| | 8200 | 90×133 | 139.8 | 28.9 | 45.2 |
| | 10000 | 77×193 | 199.5 | 28.2 | 37.5 |
| | 10000 | 90×133 | 139.8 | 30.4 | 47.5 |
| | 12000 | 77×220 | 226.5 | 31.3 | 40.8 |
| | 12000 | 90×153 | 159.8 | 34.2 | 52.1 |
| | 15000 | 90×193 | 199.8 | 40.6 | 59.3 |
| | 18000 | 90×220 | 226.8 | 45.1 | 64.5 |

Ta: Ambient temperature under natural convection.
Tc: Case bottom temperature.

| Rated Voltage (Vdc) | Capacitance (uF) | Size | | Rated Ripple Current (Arms 85°C, 120Hz) | |
|---------------------|------------------|-----------|---------|---|-----------|
| | | φDXL (mm) | Lt (mm) | Ta=85°C※1 | Tc=85°C※2 |
| 450 | 2200 | 64×96 | 103 | 10.9 | 15.7 |
| | 2700 | 64×106 | 113 | 12.1 | 17.1 |
| | 3300 | 64×126 | 133 | 13.8 | 18.9 |
| | 3300 | 77×103 | 109.5 | 15.7 | 22.9 |
| | 3900 | 64×146 | 153 | 15.4 | 20.8 |
| | 3900 | 77×113 | 119.5 | 17.2 | 24.8 |
| | 4700 | 77×133 | 139.5 | 19.5 | 27.3 |
| | 5600 | 77×153 | 159.5 | 21.8 | 30.0 |
| | 5600 | 90×103 | 109.8 | 23.0 | 37.5 |
| | 6800 | 77×193 | 199.5 | 25.3 | 33.7 |
| | 6800 | 90×133 | 139.8 | 27.5 | 43.0 |
| | 8200 | 77×193 | 199.5 | 26.8 | 35.6 |
| | 8200 | 90×133 | 139.8 | 29.0 | 45.2 |
| | 10000 | 77×220 | 226.5 | 31.9 | 41.5 |
| | 10000 | 90×193 | 199.8 | 36.4 | 53.3 |
| | 12000 | 90×193 | 199.8 | 38.3 | 56.1 |
| | 15000 | 90×220 | 226.8 | 43.0 | 61.6 |
| 500 | 1800 | 64×96 | 103 | 9.5 | 13.6 |
| | 2200 | 64×106 | 113 | 10.6 | 14.9 |
| | 2700 | 64×126 | 133 | 12.0 | 16.5 |
| | 2700 | 77×103 | 109.5 | 13.6 | 19.8 |
| | 3300 | 64×146 | 153 | 13.6 | 18.3 |
| | 3300 | 77×113 | 119.5 | 15.1 | 21.7 |
| | 3900 | 77×133 | 139.5 | 16.9 | 23.8 |
| | 4700 | 77×153 | 159.5 | 19.0 | 26.1 |
| | 4700 | 90×103 | 109.8 | 20.2 | 33.0 |
| | 5600 | 77×153 | 159.5 | 21.2 | 29.2 |
| | 5600 | 90×133 | 139.8 | 23.9 | 37.3 |
| | 6800 | 77×193 | 199.5 | 23.3 | 31.0 |
| | 6800 | 90×133 | 139.8 | 25.5 | 39.8 |
| | 8200 | 77×220 | 226.5 | 26.0 | 33.9 |
| | 8200 | 90×153 | 159.8 | 28.6 | 43.6 |
| | 10000 | 90×193 | 199.8 | 33.5 | 49.1 |
| | 12000 | 90×220 | 226.8 | 37.4 | 53.5 |

※1: Rated ripple current in continuous operation under natural convection at Ta=85°C.
※2: Rated ripple current in continuous operation under forced convection at Ta=85°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 |