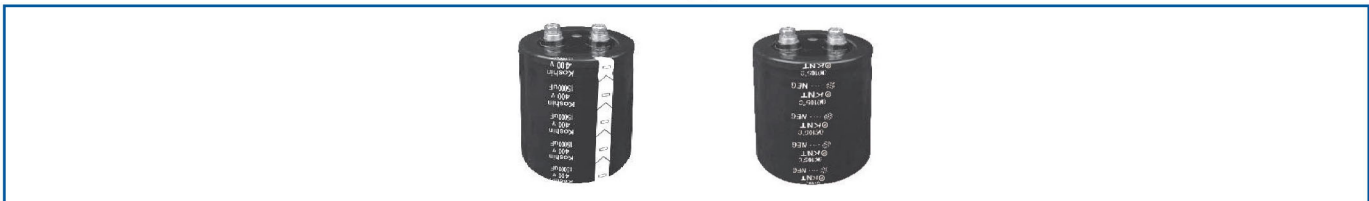


### Series KNT Screw Terminal, Wide Temperature Range, High Ripple Capacitors

Guaranteed 5000 hours at 105°C

RoHS

Photo



Marking color: White print on a black sleeve

### Specifications

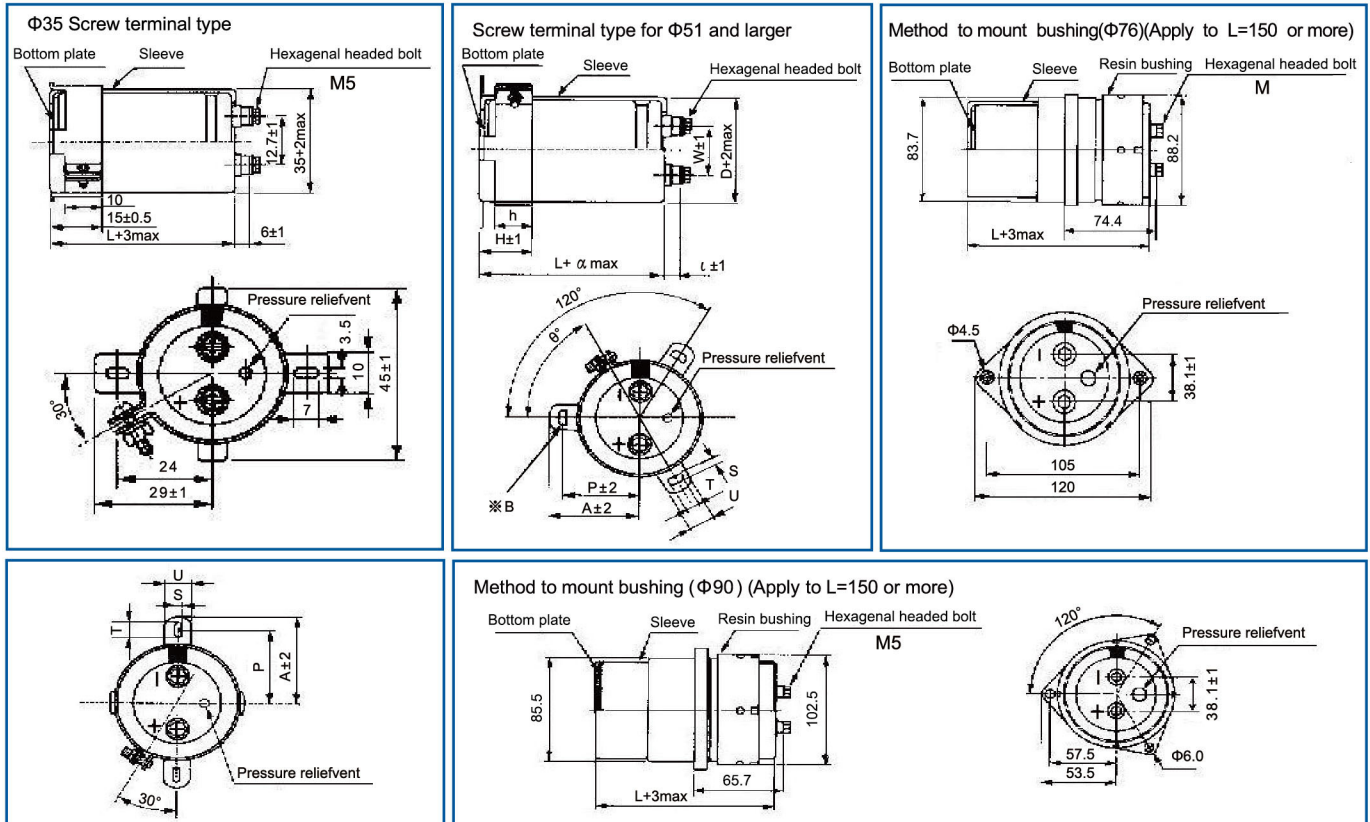
No.	Item	Performance																																																																																																																																
1	Temperature range (°C)	-40 to +105 (10~100V)    -25 to +105 (160~500V)																																																																																																																																
2	Leakage current (μA)	Less than $3\sqrt{CV}$ μA or 5mA (after five minutes)    C: Rated Capacitance(μF); V: Rated voltage(V) 20°C																																																																																																																																
3	Capacitance tolerance (%)	±20 (20°C,120Hz)																																																																																																																																
4	Tangent of the loss angle (Tan δ)	<table border="1"> <thead> <tr> <th rowspan="2">ΦD</th> <th rowspan="2">L</th> <th colspan="10">Rated voltage (V)</th> <th rowspan="2">20°C 120Hz</th> </tr> <tr> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> <th>80</th> <th>100</th> <th>160 to 250</th> <th>350 to 500</th> </tr> </thead> <tbody> <tr> <td rowspan="2">35</td> <td>80~100</td> <td>0.65</td> <td>0.45</td> <td>0.40</td> <td>0.30</td> <td>0.25</td> <td>0.25</td> <td>0.20</td> <td>0.12</td> <td>0.15</td> <td>0.20</td> <td rowspan="8"></td> </tr> <tr> <td>80~100</td> <td>0.90</td> <td>0.60</td> <td>0.50</td> <td>0.40</td> <td>0.25</td> <td>0.25</td> <td>0.20</td> <td>0.15</td> <td>0.15</td> <td>0.20</td> </tr> <tr> <td rowspan="2">51</td> <td>120</td> <td>0.85</td> <td>0.60</td> <td>0.50</td> <td>0.40</td> <td>0.30</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>0.20</td> </tr> <tr> <td>100</td> <td>-</td> <td>-</td> <td>0.65</td> <td>-</td> <td>0.35</td> <td>0.30</td> <td>0.25</td> <td>0.20</td> <td>0.20</td> <td>0.20</td> </tr> <tr> <td rowspan="2">63.5</td> <td>110~130</td> <td>1.20</td> <td>0.80</td> <td>0.70</td> <td>0.50</td> <td>0.35</td> <td>0.30</td> <td>-</td> <td>-</td> <td>0.20</td> <td>0.20</td> </tr> <tr> <td>100</td> <td>2.00</td> <td>1.20</td> <td>0.90</td> <td>0.70</td> <td>0.55</td> <td>0.50</td> <td>0.30</td> <td>0.30</td> <td>-</td> <td>0.20</td> </tr> <tr> <td rowspan="2">76</td> <td>120~150</td> <td>2.00</td> <td>1.20</td> <td>0.90</td> <td>0.70</td> <td>0.55</td> <td>0.50</td> <td>0.35</td> <td>0.30</td> <td>0.20</td> <td>0.20</td> </tr> <tr> <td>140~220</td> <td>2.40</td> <td>2.00</td> <td>1.50</td> <td>1.00</td> <td>0.75</td> <td>0.60</td> <td>0.40</td> <td>0.30</td> <td>0.25</td> <td>0.20</td> </tr> <tr> <td>100</td> <td>220,250</td> <td>2.40</td> <td>2.00</td> <td>1.50</td> <td>1.00</td> <td>0.75</td> <td>0.60</td> <td>0.40</td> <td>0.30</td> <td>0.25</td> <td>0.20</td> </tr> </tbody> </table>	ΦD	L	Rated voltage (V)										20°C 120Hz	10	16	25	35	50	63	80	100	160 to 250	350 to 500	35	80~100	0.65	0.45	0.40	0.30	0.25	0.25	0.20	0.12	0.15	0.20		80~100	0.90	0.60	0.50	0.40	0.25	0.25	0.20	0.15	0.15	0.20	51	120	0.85	0.60	0.50	0.40	0.30	-	-	-	-	0.20	100	-	-	0.65	-	0.35	0.30	0.25	0.20	0.20	0.20	63.5	110~130	1.20	0.80	0.70	0.50	0.35	0.30	-	-	0.20	0.20	100	2.00	1.20	0.90	0.70	0.55	0.50	0.30	0.30	-	0.20	76	120~150	2.00	1.20	0.90	0.70	0.55	0.50	0.35	0.30	0.20	0.20	140~220	2.40	2.00	1.50	1.00	0.75	0.60	0.40	0.30	0.25	0.20	100	220,250	2.40	2.00	1.50	1.00	0.75	0.60	0.40	0.30	0.25	0.20
		ΦD			L	Rated voltage (V)										20°C 120Hz																																																																																																																		
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5	Low temperature characteristics	Rated voltage (V)	10~100	160~500	120Hz																																																																																																																													
		Impedance ratio(max)	$Z_{(-40°C)}/Z_{(+20°C)}$	$Z_{(-25°C)}/Z_{(+20°C)}$																																																																																																																														
6	Endurance (105°C) (Applied ripple current)	Test time	5000hours(10~250V、500V:2000hours)																																																																																																																															
		Leakage current	The initial specified value or less																																																																																																																															
		Percentage of capacitance change	Within ± 20% of initial value																																																																																																																															
		Tangent of the loss angle	300% or less of the initial specified value																																																																																																																															
7	Shelf life (105°C)	Test time	1000hours																																																																																																																															
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		Pretreatment performed JIS-C-5102																																																																																																																																
8	Applicable standards	JIS-C-5101-4(IEC60384)																																																																																																																																

### Coefficient of Frequency for Ripple Current

Rated Voltage(V)	Frequency (Hz)				
	60	120	360	1K	10K~
10~100	0.90	1.00	1.08	1.15	1.15
160~250	0.88	1.00	1.08	1.15	1.20
350~500	0.82	1.00	1.20	1.35	1.40

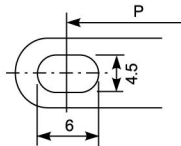
### Outline Drawing

Unit: mm



※B

3-leg brackets for  $\Phi 90$  capacitors have different hole shapes from the ordinary ones as illustrated below.



### Dimension of terminal pitch (W) and length (l) and Nominal dia. of bolt

$\Phi D$	W	l	$\alpha$	Nominal dia. of bolt
51	22.0	6	3	M5
63.5	28.6	6	3	M5
76	31.8	6	3	M5
90	31.8	6	3	M5
100	41.5	10	4	M5

### Dimensions of mounting bracket

Symbol	Leg shape $\Phi D$	3-Legs					2-Legs			
		51	63.5	76	90	100	51	63.5	76	90
P		32.5	38.1	44.5	50.8	56.3	33.2	40.5	46.5	53
A		38.5	43	49.2	58.5	62	40	46.5	53	59
T		7.5	8.0	7.0	8.0	8.0	6.0	7.0	6.0	6.0
S		5.0	5.0	5.0	5.0	5.0	4.5	4.5	4.5	4.5
U		12	14	14	16	16	14	14	14	14
$\theta^\circ$		60	60	60	60	60	30	30	30	30
H		20	25	30	35	36	25	35	35	35
h		15	20	24	25	30	15	20	20	20

### DIMENSION & PERMISSIBLE RIPPLE CURRENT

Dimension:  $\Phi$ DXL(mm)  
Ripple Current: A/rms at 120Hz, 105°C

V.DC Contents $\mu$ F	10V		16V		25V		35V	
	$\Phi$ DXL	A	$\Phi$ DXL	A	$\Phi$ DXL	A	$\Phi$ DXL	A
10000							35X80	4.7
15000							35X80	5.1
22000					35X80	4.9	35X100	5.6
33000	35X80	4.8	35X80	5.2	35X100	6.2	51X80	7.4
47000	35X100	6.2	35X100	6.8	51X80	8.3	51X100	8.4
68000	51X80	6.8	51X80	7.1	51X120	10.2	51X120	12.3
100000	51X100	8.6	51X100	9.6	63.5X100	11.5	63.5X120	13.6
150000	51X120	10.8	51X120	11.0	63.5X120	13.8	76X120	15.1
220000	63.5X120	13.2	63.5X120	14.1	76X120	17.0	90X140	17.4
330000	76X120	15.8	76X120	20.6	90X140	20.8	90X170	21.3
470000	90X140	17.0	90X140	22.1	90X170	22.4	90X220	25.4
680000	90X170	18.4	90X170	24.0	90X220	24.2	100X250	27.5
1000000	90X220	20.1	90X220	26.1	100X220	26.4		
1500000	100X220	22.1	100X250	28.8				

V.DC Contents $\mu$ F	50V		63V		80V		100V	
	$\Phi$ DXL	A	$\Phi$ DXL	A	$\Phi$ DXL	A	$\Phi$ DXL	A
2200							35X80	2.4
3300							35X80	3.3
4700					35X80	3.5	35X100	3.8
6800					35X100	3.9	51X80	5.2
10000	35X80	4.9	35X100	5.0	51X80	5.4	51X100	6.7
15000	35X100	5.5	51X80	5.9	51X100	6.4	63.5X100	7.8
22000	51X80	6.3	51X100	6.9	63.5X100	8.4	76X100	9.9
33000	51X120	8.0	63.5X100	9.4	76X100	9.9	76X140	12.7
47000	63.5X100	9.9	63.5X120	11.2	76X120	13.4	90X140	17.0
68000	63.5X120	12.8	76X120	13.5	90X140	17.0	90X170	18.2
100000	76X120	16.8	90X140	17.8	90X170	18.6	90X220	20.6
150000	90X140	19.5	90X170	21.0	90X220	21.6	100X220	23.4
220000	90X170	22.0	90X220	23.7	100X250	24.8		
330000	90X220	24.3	100X250	26.1				
470000	100X250	26.1						



Dimension:  $\Phi$ DXL(mm)

Ripple Current: A/rms at 120Hz, 105°C

### DIMENSION & PERMISSIBLE RIPPLE CURRENT

V.DC Contents $\mu$ F	160V		200V		250V	
	$\Phi$ DXL	A	$\Phi$ DXL	A	$\Phi$ DXL	A
680					35X80	1.4
1000	35X80	1.6	35X80	1.7	35X100	1.9
1500	35X80	2.1	35X100	2.3	51X80	2.4
2200	35X100	2.7	51X80	2.9	51X100	3.2
3300	51X80	3.8	51X100	3.9	63.5X100	4.3
4700	51X100	4.5	63.5X100	5.1	63.5X120	5.9
6800	63.5X100	6.8	63.5X120	7.0	76X120	7.1
10000	63.5X120	7.8	76X120	8.2	90X140	9.6
15000	76X120	9.8	76X140	10.4	90X170	12.7
22000	76X140	12.5	90X140	15.1	90X220	15.4
33000	90X140	13.4	90X220	16.6	100X250	17.0
47000	90X220	17.2	90X250	19.9		
68000	100X250	19.2				

V.DC Contents $\mu$ F	350V		400V		450V		500V	
	$\Phi$ DXL	A	$\Phi$ DXL	A	$\Phi$ DXL	A	$\Phi$ DXL	A
220			35X80	1.6	35X80	1.8		
330	35X80	2.1	35X80	2.3	35X100	2.4	51X80	2.7
470	35X80	2.8	35X100	3.1	51X80	3.4	51X80	3.2
680	51X80	4.1	51X80	4.2	51X100	4.4	51X100	4.2
1000	51X80	6.5	51X80	6.6	51X100	7.0	51X120	5.5
1500	51X100	8.6	51X120	9.1	51X120	9.2	63.5X110	7.1
2200	51X120	11.0	63.5X100	11.5	63.5X110	11.8	63.5X130	9.3
2700	63.5X100	12.7	63.5X110	13.1	63.5X130	13.8	63.5X150	11.0
					76X110	14.5	76X130	11.0
3300	63.5X100	14.4	63.5X130	15.4	63.5X150	16.5	63.5X170	12.9
					76X130	17.1	76X150	13.0
3900	63.5X130	16.8	63.5X150	17.9	63.5X170	18.3		
			76X110	18.2			76X150	14.1
4700	63.5X150	19.8	63.5X170	20.7			76X190	17.2
	76X120	19.7	76X130	20.3	76X150	21.7	90X150	16.3
5600	63.5X170	22.7						
	76X130	22.2	76X150	23.7	76X190	26.4		
6800					90X150	24.1	90X150	17.8
	76X150	26.2	76X170	27.6				
8200			90X150	26.9	90X170	28.3	90X170	20.7
	76X170	30.3						
10000	90X150	29.3	90X170	31.0	90X190	32.5	90X220	25.5
	90X150	32.4	90X190	32.9	90X220	35.1	90X250	29.9
12000	90X190	36.0	90X220	38.3	90X220	39.2		
15000	90X220	42.9	100X220	44.5	90X250	45.6		
22000	100X250	48.0						

