

HU Series 105°C

Features

- Load life : 105°C 6000 hour
- High ripple capability
- RoHS Compliant



HU系列

● Specifications

Item	Performance Characteristics						
Operating Temp. Range	-40~+105℃			-25~+105℃			
Rated Voltage Range	16 to 100 VDC			160 to 450 VDC			
Capacitance Range	2200 to 680000 μF			270 to 22000 μF			
Capacitance Tolerance	±20% (120Hz, 20℃)						
Leakage Current	IL ≤ 3√CV (μA) After 5 minutes with rated working voltage applied						
Dissipation Factor(Tan δ) (max, 120Hz, 20℃)	Less than the value under table(%)	Φ(mm) WV(V)	35	51	64	77	
			16	0.6	0.7	0.8	1.2
			25	0.4	0.5	0.7	0.8
			35	0.3	0.5	0.6	0.7
			50	0.25	0.3	0.5	0.6
			63	0.2	0.25	0.3	0.4
			80	0.2	0.2	0.25	0.3
			100	0.15	0.2	0.25	0.3
			160-250	0.15	0.15	0.2	0.2
350-450	0.2	0.2	0.25	0.25			
Low Temp. Characteristics (Max Impedance Ratio) (120Hz)	Z(-25℃)/Z(+25℃)	3					
	Z(-40℃)/Z(+25℃)	12					
Load Life	Test conditions Duration time: 6000hrs Ambient temperature: +105℃ Applied voltage: Rated DC working voltage After test requirements at +20℃ Capacitance change: ≤±15% of the initial measured value Dissipation factor: ≤175% of the initial specified value Leakage current: ≤Not more than the specified value						
Shelf Life	Test conditions Duration time: 1000hrs Ambient temperature: +105℃ Applied voltage: None Capacitance change: ≤±15% of the initial measured value Dissipation factor: ≤150% of the initial specified value Leakage current: ≤Not more than the specified value After test requirements at +20℃ : Same limits as Load life. Pre-treatment for measurements shall be conducted after application of DC working voltage for 30minutes						
Industrial Standard	JIS C-5101-4(IEC 60384-4)						

● Multiplier for ripple current vs frequency

W.V (VDC) \ Fre.(Hz)	50(60)	120	1K	10K	100K
16~50	0.8	1.0	1.03	1.05	1.08
63~100	0.8	1.0	1.03	1.07	1.10
160~400	0.8	1.0	1.03	1.13	1.18

● Multiplier for ripple current vs temperature

Temp.(°C)	≤60	70	85
Multiplier	1.8	1.6	1.0

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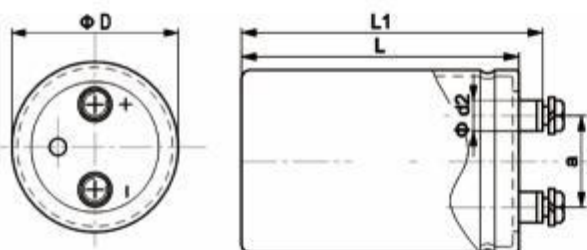
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● Dimensional drawings

Ring clip/clamp mounting:



M5:Min.reach of screw = 8mm

M6:Min.reach of screw

● Packing

Terminal	Dimensions(mm) with insulating sleeve				
	D±2	L±3	L ±	d max.	a±0.5
M5	35	50~120	56.5~126.5	10.3	12.7
M5	51	80~140	86.5~146.5	10.3	22
M5	63.5	80~140	86.5~146.5	10.3	28.6
M5	76.2/89	100~240	106.4~246.5	10.3	31.8
M6	76.2/89	100~240	106.4~246.5	17.5	31.8

● PackingPacking

Diameter D(mm)	Length L(mm)	Packing (pcs.)
35	≤70mm	120
42	≤70mm	120
51	≤70mm	70
63.5	all	24
76.2	all	15
89	all	12

● Accessories

The following items are included in the deliverypackage, but are not fastened to the capacitors.

	Thread	Maximum torque
For terminal	M5	2 Nm
	M6	2.5 Nm

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● Case Size

WV(V) Cap(µF)	16 (20)		25(32)		35(44)		50(63)	
	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple
6800							35*50	3.7
10000					35*60	3.5	35*60	5.0
15000			35*50	3.8	35*80	5.7	35*80	7.8
22000	35*60	5.1	35*60	6.8	35*100	7.1	35*120	12.8
33000	35*80	6.9	35*80	9.4	35*100	10.2	51*100	13.2
47000	35*100	9.5	35*100	12.5	35*120	13.7	51*100	14.7
68000	51*80	12.7	51*80	14.3	51*100	15.1	51*140	17.8
100000	51*100	13.5	51*100	15.5	51*120	19.2	63.5*140	19.8
150000	51*140	17.6	51*140	24.2	63.5*120	23.8	76.2*140	25.7
220000	63.5*120	20.1	63.5*20	25.8	76.2*140	27.4	76.2*160	32.7
330000	63.5*140	25.2	76.2*120	26.7	76.2*160	35.7		
470000	76.2*140	27.5						
680000	76.2*140	35.1						

Ripple Current (A, rms) at 105°C, 120Hz

WV(V) Cap(µF)	63(69)		80(92)		100(125)		160(200)	
	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple
1000							35*60	2.8
1500							35*60	3.1
2200							35*100	4.7
3300					35*60	4.1	35*120	6.8
4700			35*60	4.0	35*80	5.2	51*80	7.5
6800	35*50	4.3	35*60	5.3	35*80	6.2	51*120	11.5
10000	35*60	6.2	35*80	7.3	35*100	7.9	51*140	13.4
15000	35*80	8.7	35*120	10.3	51*100	12.4	63.5*140	14.8
22000	35*120	13.1	51*80	12.3	51*120	16.2	76.2*140	15.4
33000	51*100	13.9	51*120	16.1	51*140	21.3		
47000	51*120	18.6	63.5*120	18.5	63.5*140	24.3		
68000	63.5*120	21.3	63.5*140	24.1	76.2*140	28.4		

Ripple Current (A, rms) at 105°C, 120Hz

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● Case Size

WV(SV) Cap(μF)	200		250		350		400		450	
	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple
220									35X50	1.0
330							35X60	1.2	35X60	1.2
470					35*60	1.5	35X80	1.6	35X80	1.8
680			35*60	1.8	35*80	2.7	35X100	2.1	35X120	2.3
1000	35*60	2.3	35*80	3.1	35*100	3.2	35X120	2.8	51X80	2.9
1500	35*80	3.2	35*80	3.8	51*80	4.1	51X100	3.8	51X120	3.7
2200	35*100	4.8	35*120	5.3	51*120	6.0	51X140	4.7	63.5X120	4.9
3300	35*120	6.2	51*120	7.5	51*140	7.8	63.5X120	5.8	76.2X120	6.3
4700	51*100	7.8	51*140	9.1	63.5*120	8.0	76.2X120	6.9	76.2X160	8.6
6800	51*140	9.8	63.5*120	9.8	76.2*120	8.9	76.2X160	9.8		
10000	63.5*120	11.2	76.2*140	12.3	76.2*160	12.3				
15000	76.2*140	14.2	76.2*160	15.1						
22000	76.2*160	17.8								

Ripple Current (A, rms) : at 105°C, 120Hz

- For detail specifications, please refer to Engineering Bulletin