RDC Series

• 85℃ 2,000Hrs assured.

- Non-solvent proof.
- For SMPS, Inverter.
- RoHS compliant.
- Halogen-free capacitors are also available.

RDA → RDC

Downsized

SPECIFICATIONS

Item	Characteristics	
Rated Voltage Range	16 ～ 100 VDC	160 ～ 500 VDC
Operating Temperature Range	-40 ～ +85℃	-25 ～ +85℃
Capacitance Tolerance	±20% (M) (at 20℃, at 120Hz)	
Leakage Current	I=0.02CV(μA) or 3mA, whichever is smaller. Where, I:Max. Leakage current(μA) C:Nominal capacitance(μF) V:Rated voltage(VDC) (at 20℃, 5 minutes)	
※ Dissipation Factor(Tanδ)		

Rated Voltage(VDC)	16	25	35	50～63	100	160～250	315～400	450～500
Tanδ(Max.)	0.40	0.35	0.30	0.25	0.20	0.15	0.15	0.20

(at 20℃, 120Hz)

Temperature Characteristics (Max.Impedance ratio)

Rated Voltage(VDC)	16	25	35	50～63	100	160～250	315～400	450～500
Z(-25℃)/Z(20℃)	4	3	3	2	2	4	4	8
Z(-40℃)/Z(20℃)	15	10	8	6	5	-	-	-

(at 120Hz)

Load Life

The following specifications shall be satisfied when the capacitors are restored to 20℃ after the rated voltage is applied for 2,000 hours at 85℃.

Capacitance change	≦ ±20% of the initial value
Tanδ	≦ 200% of the initial specified value
Leakage Current	≦ The initial specified value

Shelf Life

The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them at 85℃ for 1,000 hours without voltage applied. The rated voltage shall be applied to the capacitors for a minimum of 30 minutes, at least 25 hours and not more than 48 hours before the measurements.

Capacitance change	≦ ±20% of the initial value
Tanδ	≦ 200% of the initial specified value
Leakage Current	≦ The initial specified value

Others: Satisfied characteristics KS C IEC 60384-4

※ For capacitors with CV products ＞ 100,000 Higher Tanδ value may apply.
When the capacitance exceed 1,000μF, 0.01 shall be added every 1,000μF increase.

RATED RIPPLE CURRENT

When capacitors are operated in any other condition at 120Hz, the maximum ripple current must be multiplied by the figure shown in the table.

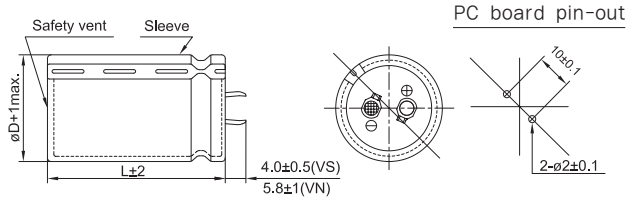
Frequency multiplying factor

VDC \ Freq.(Hz)	60	120	300	1k	10k～
16～50VDC	0.95	1.00	1.03	1.05	1.08
63～100VDC	0.92	1.00	1.07	1.13	1.19
160～250VDC	0.81	1.00	1.17	1.32	1.45
315～500VDC	0.77	1.00	1.16	1.30	1.41

DIMENSIONS OF RDC Series

Unit(mm)

ø D= ø 22~ ø 35 VN/VS type



Marking : BLACK SLEEVE, SILVER INK
The standard design has no bottom plate.

RATINGS OF RDC Series

VDC / μF \ ø D	16				25				35			
	22	25.4	30	35	22	25.4	30	35	22	25.4	30	35
3,900									22×25 2.22			
4,700									22×30 2.41	25.4×25 2.42		
5,600					22×25 2.21				22×35 2.75	25.4×25 2.64		
6,800					22×30 2.40	25.4×25 2.56			22×40 2.80	25.4×30 2.74	30×25 2.97	
8,200	22×25 2.51				22×35 2.72	25.4×25 2.80			22×45 3.11	25.4×35 3.10	30×30 3.13	
10,000	22×25 2.77				22×40 3.09	25.4×30 3.12	30×25 3.21			25.4×40 3.53	30×30 3.46	35×25 3.20
12,000	22×30 2.86	25.4×25 2.95			22×45 3.48	25.4×35 3.43	30×30 3.86	35×25 3.54		25.4×45 3.98	30×35 4.01	35×30 4.02
15,000	22×35 3.29	25.4×30 3.46	30×25 3.66		22×50 4.00	25.4×40 3.95	30×30 4.00	35×25 3.95			30×40 4.90	35×35 5.01
18,000	22×40 3.72	25.4×35 3.98	30×30 3.98			25.4×45 4.45	30×35 4.46	35×30 4.63			30×45 5.43	35×40 5.54
22,000	22×50 4.37	25.4×40 4.26	30×30 4.21			25.4×50 5.02	30×45 5.21	35×35 5.16				35×45 6.04
27,000		25.4×45 4.72	30×35 4.82				30×50 5.94	35×40 5.92				35×50 6.89
33,000			30×40 5.36	35×30 5.15				35×45 6.75				
39,000			30×45 6.01	35×35 5.95				35×50 7.56				
47,000			30×50 6.79	35×40 6.76								
56,000				35×45 7.62								

VDC / μF \ ø D	50				63				100			
	22	25.4	30	35	22	25.4	30	35	22	25.4	30	35
820									22×25 1.86			
1,000									22×30 1.93			
1,200									22×30 2.09	25.4×25 2.10		
1,500									22×35 2.41	25.4×30 2.34	30×25 2.46	
1,800					22×25 1.82				22×40 2.71	25.4×35 2.75	30×25 2.72	
2,200	22×25 1.91				22×30 2.31	25.4×25 2.30			22×45 3.08	25.4×40 3.13	30×30 3.09	35×25 3.14
2,700	22×30 2.11	25.4×25 2.13			22×35 2.43	25.4×30 2.43				25.4×45 3.57	30×35 3.55	35×30 3.71
3,300	22×30 2.37	25.4×25 2.38			22×35 2.62	25.4×30 2.64	30×25 2.78			25.4×50 4.06	30×40 4.05	35×30 4.05
3,900	22×35 2.65	25.4×30 2.68			22×40 2.93	25.4×35 2.97	30×30 3.00				30×45 4.54	35×35 4.49
4,700	22×40 2.99	25.4×35 3.03	30×25 2.81		22×50 3.39	25.4×40 3.36	30×30 3.32	35×25 3.36			30×50 5.11	35×40 5.11
5,600	22×45 3.36	25.4×35 3.31	30×30 3.37	35×25 3.42		25.4×45 3.77	30×35 3.75	35×25 3.76				35×45 5.75
6,800	22×50 3.81	25.4×40 3.81	30×35 3.85	35×30 3.85		25.4×50 4.27	30×40 4.27	35×30 4.15				
8,200		25.4×50 4.37	30×40 4.36	35×30 4.41			30×45 4.83	35×35 4.79				
10,000			30×45 4.97	35×35 4.92			30×50 5.49	35×40 5.47				
12,000			30×50 5.60	35×40 5.58				35×45 6.19				
15,000				35×45 6.44								
18,000				35×50 6.71	← Case Size ø D×L(mm) ← Rated Ripple Current(Arms/85°C, 120Hz)							

RATINGS OF RDC Series

μF \ VDC / ø D	160				200				250			
	22	25.4	30	35	22	25.4	30	35	22	25.4	30	35
330									22×30 1.49	25.4×25 1.51	30×20 1.48	
390									22×35 1.67	25.4×30 1.63	30×25 1.66	
470					22×30 1.78	25.4×25 1.80			22×40 1.88	25.4×30 1.86	30×25 1.89	35×20 1.89
560	22×30 1.95				22×35 2.00	25.4×30 1.97	30×25 2.01		22×45 2.13	25.4×35 2.09	30×30 2.14	35×25 2.09
680	22×30 2.15				22×40 2.27	25.4×30 2.24	30×25 2.28			25.4×50 2.44	30×35 2.43	35×25 2.46
820	22×35 2.42	25.4×30 2.45			22×45 2.58	25.4×35 2.53	30×30 2.59				30×40 2.75	35×30 2.77
1,000	22×40 2.75	25.4×35 2.79				25.4×40 2.88	30×35 2.95	35×25 2.90			30×45 3.31	35×35 3.22
1,200		25.4×40 3.15	30×30 3.13	35×25 3.27			30×40 3.34	35×30 3.31				35×40 3.42
1,500		25.4×45 3.60	30×35 3.63	35×30 3.57			30×45 3.84	35×35 3.82				35×45 4.06
1,800			30×40 4.09	35×30 4.05				35×40 4.33				
2,200				35×35 4.63				35×45 4.92				
2,700				35×40 5.30								

μF \ VDC / ø D	315				350				400			
	22	25.4	30	35	22	25.4	30	35	22	25.4	30	35
150	22×25 0.98								22×30 1.02			
180	22×30 1.10				22×30 1.11				22×35 1.14			
220	22×35 1.26	25.4×25 1.23	30×20 1.25		22×35 1.26				22×40 1.29	25.4×30 1.27	30×25 1.30	
270	22×40 1.43	25.4×30 1.41	30×25 1.43	35×20 1.45	22×40 1.49	25.4×30 1.46	30×25 1.49		22×45 1.48	25.4×35 1.45	30×30 1.48	
330	22×45 1.62	25.4×35 1.61	30×25 1.62	35×20 1.61	22×45 1.66	25.4×35 1.63	30×30 1.67			25.4×40 1.65	30×30 1.65	35×25 1.67
390		25.4×40 1.79	30×30 1.78	35×25 1.86		25.4×40 1.88	30×30 1.88	35×25 1.94		25.4×45 1.84	30×35 1.85	35×30 1.88
470			30×35 2.02	35×30 2.07		25.4×45 2.18	30×35 2.20	35×30 2.25			30×40 2.09	35×30 2.07
560			30×40 2.28	35×35 2.33			30×45 2.40	35×30 2.37				35×35 2.34
680				35×40 2.66				35×35 2.78				35×45 2.74
820				35×45 3.00				35×40 3.15	← Case Size ø D×L(mm) ← Rated Ripple Current(Arms/85°C, 120Hz)			

RATINGS OF RDC Series

VDC / μF \ ø D	450				500			
	22	25.4	30	35	22	25.4	30	35
68					22 × 30 0.40			
82					22 × 30 0.51	25.4 × 25 0.53		
100						25.4 × 35 0.69		
120	22 × 30 0.91	25.4 × 25 0.91				25.4 × 40 0.86		
150	22 × 35 1.04	25.4 × 30 1.05				25.4 × 45 0.91	30 × 30 0.88	
180	22 × 40 1.18	25.4 × 30 1.15	30 × 25 1.17			25.4 × 50 0.96	30 × 35 0.99	
220	22 × 45 1.33	25.4 × 35 1.31	30 × 30 1.36				30 × 40 1.15	
270		25.4 × 40 1.55	30 × 35 1.60	35 × 25 1.59			30 × 50 1.44	35 × 35 1.36
330			30 × 40 1.90	35 × 30 1.88				35 × 40 1.49
390			30 × 45 2.09	35 × 35 2.08				35 × 45 1.71
470				35 × 40 2.40				35 × 50 2.08
560				35 × 45 2.70	← Case Size ø D×L(mm) ← Rated Ripple Current(Arms/85°C, 120Hz)			