MCD series

Small size | High ripple | RoHS Compliant

- 85℃ 5,000Hrs assured.
- High ripple properties suited for use in industrial power supplies for inverter circuitry, etc.
- Suited for high frequency regenerative voltage for AC servomotor, general inverter.
- RoHS compliant
- Halogen-free capacitors are also available.

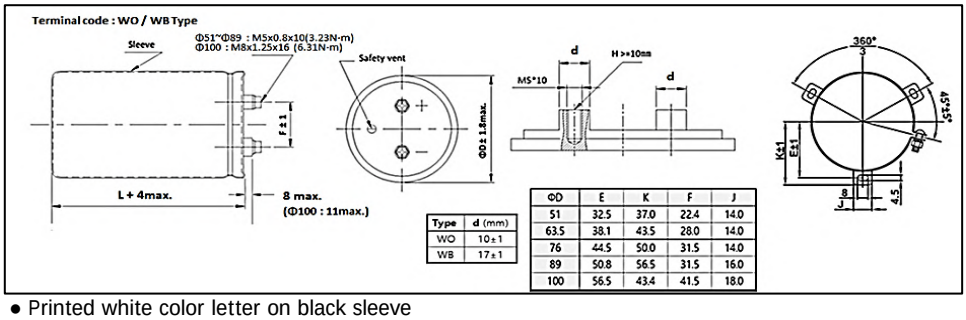
MCT ⟹ MCD

High ripple

■ Specifications

Item	Characteristics
Rated Voltage Range	350 ~ 500 Vdc
Operating Temperature Range	-25 ~ +85℃
Capacitance Tolerance	±20% (M) (at 20℃, 120Hz)
Leakage Current	After 5 minutes application of rated voltage, leakage current not more than $I=3\sqrt{CV}$ or 5mA whichever is smaller Where, I:Max. Leakage current(μA), C:Nominal capacitance(μF), V:Rated voltage(Vdc) (at 20℃, 5min)
Dissipation Factor(Tanδ)	The dissipation factor (Tanδ) shall not exceed the values shown in the ratings. (at 20℃, 120Hz)
Temperature characteristics (Max,impedance ratio)	Rated voltage (Vdc): 350 ~ 500 Z(-25℃)/Z(20℃): 8 (at 120Hz)
Load life	The following specifications shall be satisfied when the capacitors are restored to 20℃ after the rated voltage is applied for specified life times at 85℃ 5,000hrs. Capacitance change ≤±20%of the initial value Tan δ ≤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 for 1,000 hours at 85℃ without voltage applied. The rated voltage shall be applied to the capacitors for a minimum of 30 minutes at least 24 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

■ Dimensions



Type	d (mm)
WO	10±1
WB	17±1

ΦD	E	K	F	J
51	32.5	37.0	22.4	14.0
63.5	38.1	43.5	28.0	14.0
76	44.5	50.0	31.5	14.0
89	50.8	56.5	31.5	16.0
100	56.5	43.4	41.5	18.0

- Printed white color letter on black sleeve

■ Code numbering system

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17

M C D □ □ □ M □ □ □ □ □ □ □ □ □ □ □

- Terminal type
- Size (76X100: TA0) See to p19
- Capacitance
- Capacitance tolerance(M:±20%, K:±10%, V :-10~20%)
- Working voltage(ex. 160V→160)
- Series name

Ø35	P
Ø51	R
Ø63.5	S
Ø76	T
Ø89	U
Ø100	V

All of the specifications & dimensions are subject to change without notice

MCD series

■Standard Ratings

Note1) Ripple current = Arms/85℃,120Hz

WV (Vdc)	Cap (uF)	Size ØxL(mm)	Tan δ	Ripple[1)]	Code No
350	1,000	51 x 55	0.20	8.4	MCD350□102R55WOR
	1,200	51 x 60	0.20	8.6	MCD350□122R60WOR
	1,500	51 x 65	0.20	9.3	MCD350□152R65WOR
	1,800	51 x 75	0.20	10.3	MCD350□182R75WOR
	2,200	51 x 85	0.20	11.9	MCD350□222R85WOR
	2,700	51 x 95	0.20	13.3	MCD350□272R95WOR
		63.5 x 70	0.20	13.6	MCD350□272S70WOR
	3,300	51 x 115	0.20	13.6	MCD350□332RB5WOR
		63.5 x 80	0.20	14.0	MCD350□332S80WOR
	3,900	63.5 x 85	0.20	14.9	MCD350□392S85WOR
		76 x 70	0.20	14.3	MCD350□392T70WOR
	4,700	63.5 x 100	0.20	16.4	MCD350□472SA0WOR
		76 x 80	0.20	15.7	MCD350□472T80WOR
	5,600	63.5 x 115	0.20	18.1	MCD350□562SB5WOR
		76 x 90	0.20	17.5	MCD350□562T90WOR
	6,800	63.5 x 135	0.20	20.3	MCD350□682SD5WOR
		76 x 100	0.20	19.5	MCD350□682TA0WOR
	8,200	76 x 115	0.20	22.2	MCD350□822TB5WOR
		90 x 90	0.20	24.0	MCD350□822U90WOR
	10,000	76 x 135	0.20	25.0	MCD350□103TD5WOR
		90 x 100	0.20	27.0	MCD350□103UA0WOR
	12,000	76 x 155	0.20	28.0	MCD350□123TF5WOR
		90 x 120	0.20	30.1	MCD350□123UC0WOR
	15,000	90 x 145	0.20	35.4	MCD350□153UE5WOR
	18,000	90 x 165	0.20	39.0	MCD350□183UG5WOR
	22,000	90 x 205	0.20	43.4	MCD350□223UK5WOR
400	1,000	51 x 60	0.20	8.6	MCD400□102R60WOR
	1,200	51 x 65	0.20	9.3	MCD400□122R65WOR
	1,500	51 x 80	0.20	10.8	MCD400□152R80WOR
	1,800	51 x 85	0.20	12.0	MCD400□182R85WOR
	2,200	51 x 100	0.20	13.0	MCD400□222RA0WOR
		63.5 x 70	0.20	12.8	MCD400□222S70WOR
	2,700	63.5 x 80	0.20	14.5	MCD400□272S80WOR
		76 x 65	0.20	14.3	MCD400□272T65WOR
	3,300	63.5 x 90	0.20	14.9	MCD400□332S90WOR
		76 x 70	0.20	15.3	MCD400□332T70WOR
	3,900	63.5 x 100	0.20	16.5	MCD400□392SA0WOR
		76 x 80	0.20	17.1	MCD400□392T80WOR
	4,700	63.5 x 120	0.20	18.8	MCD400□472SC0WOR
		76 x 90	0.20	18.3	MCD400□472T90WOR
	5,600	63.5 x 135	0.20	20.9	MCD400□562SD5WOR
		76 x 100	0.20	20.2	MCD400□562TA0WOR
	6,800	63.5 x 165	0.20	23.8	MCD400□682SG5WOR
		76 x 120	0.20	23.1	MCD400□682TC0WOR
		90 x 90	0.20	26.3	MCD400□682U90WOR
	8,200	76 x 145	0.20	26.1	MCD400□822TE5WOR
		90 x 105	0.20	29.5	MCD400□822UA5WOR
	10,000	76 x 165	0.20	29.5	MCD400□103TG5WOR
		90 x 120	0.20	33.2	MCD400□103UC0WOR
	12,000	90 x 145	0.20	37.1	MCD400□123UE5WOR
	15,000	90 x 185	0.20	42.9	MCD400□153UI5WOR
	18,000	90 x 205	0.20	48.2	MCD400□183UK5WOR
450	1,000	51 x 70	0.20	9.3	MCD450□102R70WOR
	1,200	51 x 80	0.20	9.9	MCD450□122R80WOR
	1,500	51 x 90	0.20	10.4	MCD450□152R90WOR
	1,800	51 x 105	0.20	11.5	MCD450□182RA5WOR
		63.5 x 70	0.20	11.9	MCD450□182S70WOR
	2,200	63.5 x 85	0.20	12.3	MCD450□222S85WOR
		76 x 65	0.20	12.5	MCD450□222T65WOR

WV (Vdc)	Cap (uF)	Size ØxL(mm)	Tan δ	Ripple[1)]	Code No
450	2,700	63.5 x 90	0.20	13.7	MCD450□272S90WOR
		76 x 75	0.20	13.7	MCD450□272T75WOR
	3,300	63.5 x 115	0.20	15.6	MCD450□332SB5WOR
		76 x 85	0.20	15.5	MCD450□332T85WOR
	3,900	63.5 x 135	0.20	17.3	MCD450□392SD5WOR
		76 x 90	0.20	17.0	MCD450□392T90WOR
	4,700	63.5 x 145	0.20	19.2	MCD450□472SE5WOR
		76 x 115	0.20	19.2	MCD450□472TB5WOR
	5,600	63.5 x 165	0.20	21.4	MCD450□562SG5WOR
		76 x 135	0.20	21.6	MCD450□562TD5WOR
		90 x 95	0.20	24.2	MCD450□562U95WOR
	6,800	76 x 145	0.20	23.8	MCD450□682TE5WOR
		90 x 115	0.20	27.5	MCD450□682UB5WOR
	8,200	76 x 185	0.20	27.2	MCD450□822TI5WOR
		90 x 135	0.20	30.5	MCD450□822UD5WOR
	10,000	90 x 155	0.20	34.1	MCD450□103UF5WOR
	12,000	90 x 185	0.20	38.2	MCD450□123UI5WOR
	15,000	90 x 215	0.20	43.1	MCD450□153UL5WOR
500	1,000	51 x 85	0.20	10.3	MCD500□102R85WOR
	1,200	63.5 x 70	0.20	10.4	MCD500□122S70WOR
	1,500	63.5 x 80	0.20	11.6	MCD500□152S80WOR
	1,800	63.5 x 90	0.20	12.7	MCD500□182S90WOR
	2,200	63.5 x 100	0.20	14.2	MCD500□222SA0WOR
	2,700	76 x 90	0.20	15.8	MCD500□272T90WOR
	3,300	76 x 105	0.20	17.8	MCD500□332TA5WOR
	3,900	76 x 120	0.20	19.9	MCD500□392TC0WOR
	4,700	90 x 105	0.20	23.5	MCD500□472UA5WOR
	5,600	90 x 120	0.20	26.0	MCD500□562UC0WOR
	6,800	90 x 145	0.20	30.0	MCD500□682UE5WOR
	8,200	90 x 165	0.20	33.5	MCD500□822UG5WOR
	10,000	90 x 205	0.20	38.3	MCD500□103UK5WOR

■ Rated ripple current multipliers

Frequency (Hz)	50	60	120	1K	10K
Coefficient	0.80	0.82	1.00	1.35	1.40

All of the specifications & dimensions are subject to change without notice