

FILM CAPACITORS · MODULES

CBB 133 DM SERIES

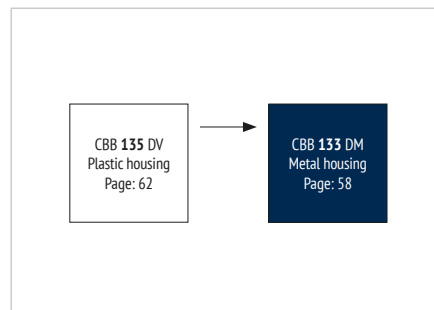
CBB 133 DM SERIES

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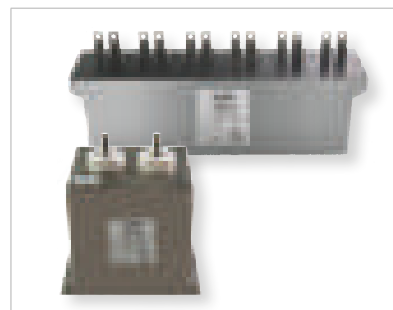
FEATURES

- Customer Specific Designs
- High ripple current capability
- Self-healing
- Long lifetime
- Metal Case, fire retardant resin

OVERVIEW



PRODUCT



APPLICATIONS

- High power frequency converters
- Electric and hybrid electric vehicles, Traction and Trains

CHARACTERISTICS

ITEM	CHARACTERISTICS
Climatic Category	40/85/56 (IEC 61071)
Operating Temperature	-40 ~ +70 °C ($\Theta_{hotspot} \leq 85$ °C)
Storage Temperature	-40 ~ +85 °C
Rated Voltage U_{RDC}	750 ~ 3.000 V _{DC}
Capacitance Range	500 ~ 65.000 μ F
Capacitance Tolerance	± 10 % (K), ± 5 % (J)
Voltage between Terminals U_{TT}	1,5 * U_{RDC} (20 °C, 10s)
Voltage between Terminals & Case U_{TC}	≥ 3.000 V _{AC} (20 °C, 50 Hz, 10s)
Max. Overvoltage	1,1 * U_{RDC} (30 % of time under load) 1,15 * U_{RDC} (30 min. per day) 1,2 * U_{RDC} (5 min. per day) 1,3 * U_{RDC} (1 min. per day) 1,5 * U_{RDC} (max. 30 ms, 100ms per day)
Insulation Resistance R_i °C	≥ 5.000 M Ω * μ F (20 °C, 100 V _{DC} , 1 min)
Dielectric Dissipation Factor $\tan \delta$	$\leq 2 * 10^{-4}$ (20 °C, 100 Hz)
Life Time Expectancy	100.000h, failure rate ≤ 100 FIT ($\Theta_{hotspot} \leq 70$ °C, U_{RDC})
Reference Standard	IEC 61071:2007

ENVIRONMENTAL

The products are RoHS, WEEE and REACH compliant.

The detailed version please see separate "Environmental Certificates" document or www.jianghai-europe.com

APPROVALS

UL94-V0:

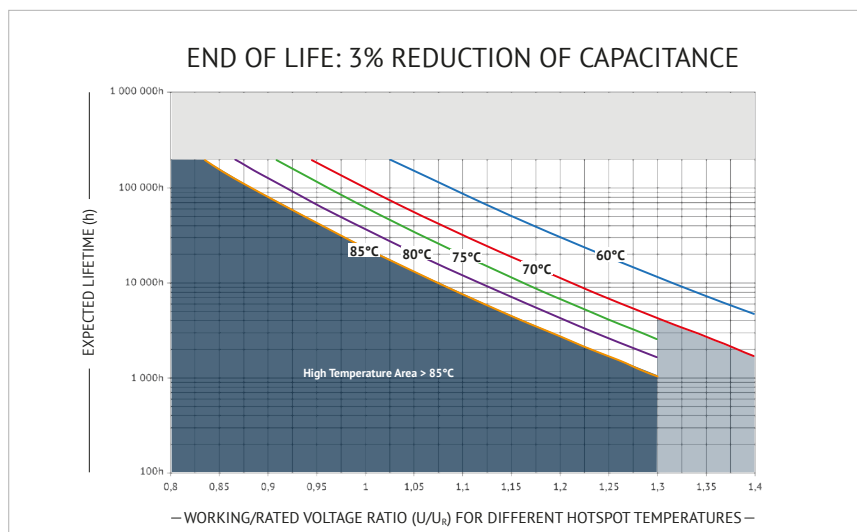
Plastic & Compound Mass

UL810:

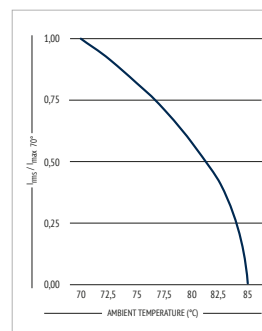
CZDS2.E227010
(Construction)

(except customized)

LIFETIME



CURRENT DERATING



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ENGINEERED SOLUTIONS

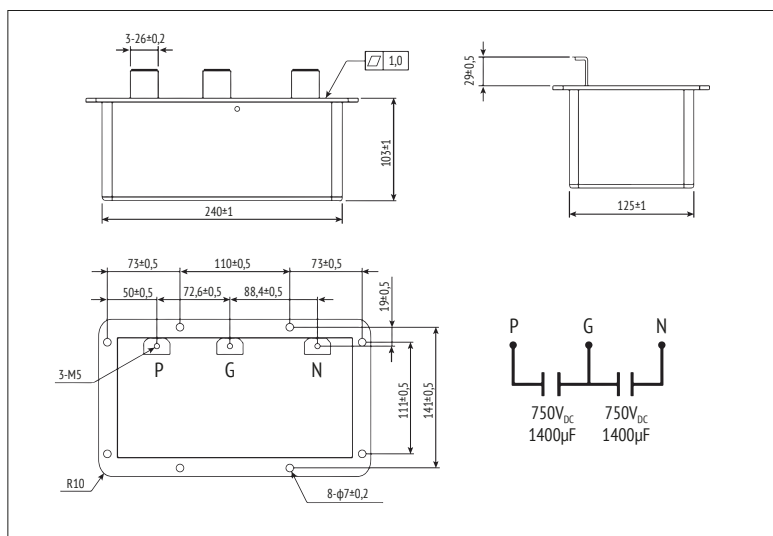
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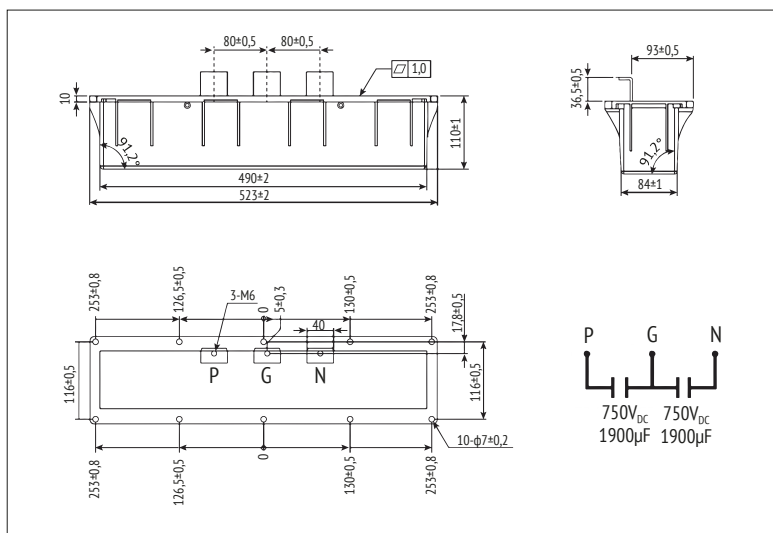
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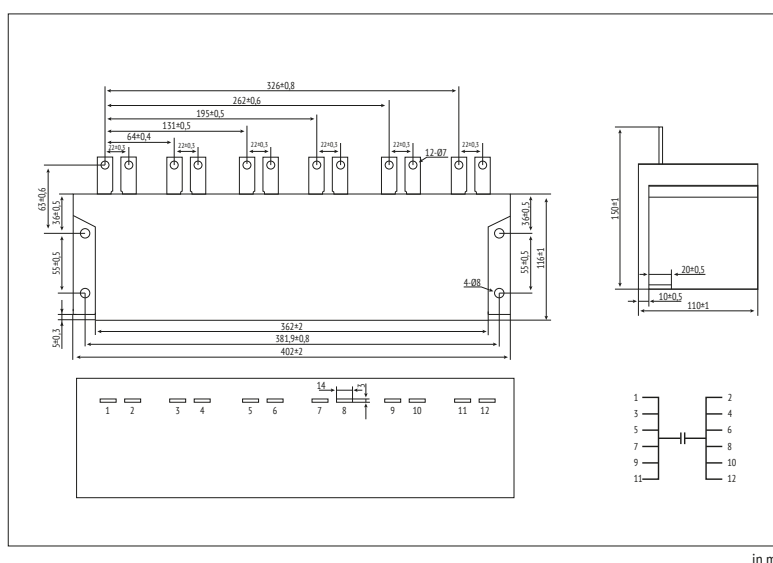
EXAMPLE DRAWING #1 ►



EXAMPLE DRAWING #2 ►



EXAMPLE DRAWING #3 ►



in mm

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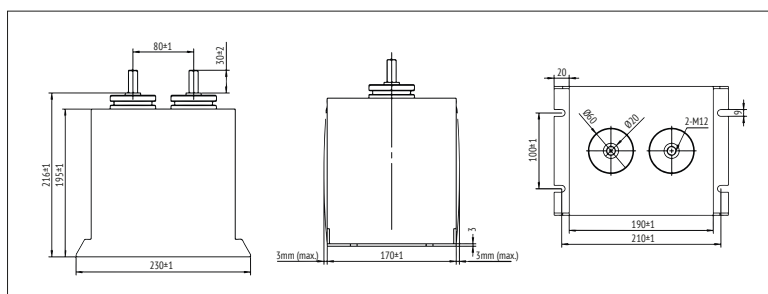


ENGINEERED SOLUTIONS

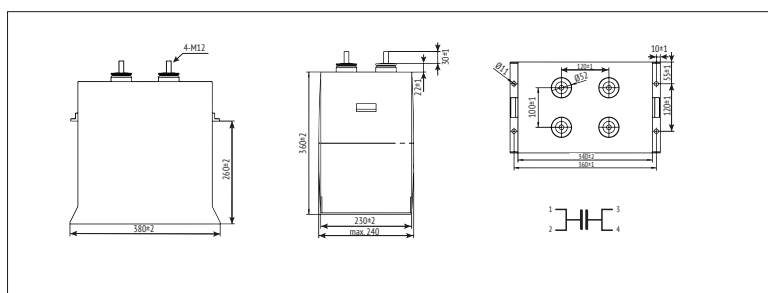
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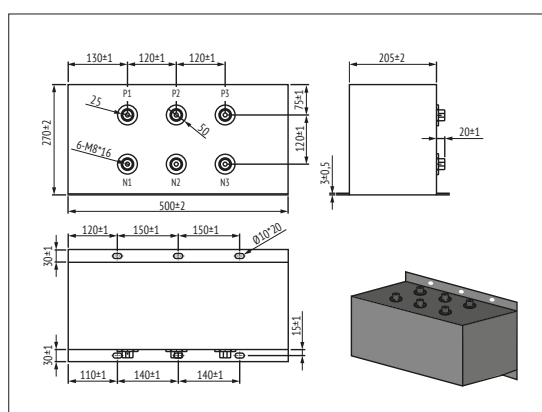
■ EXAMPLE DRAWING #4



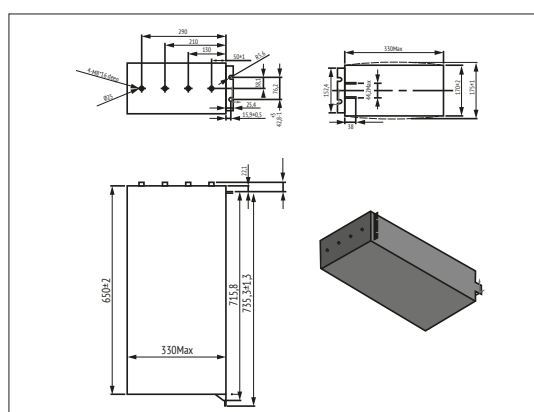
■ EXAMPLE DRAWING #5



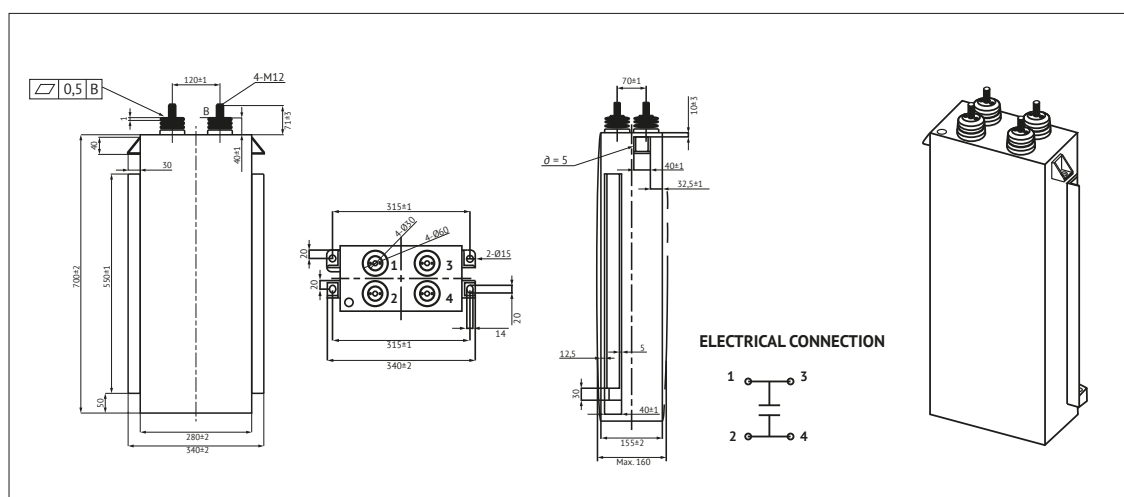
■ EXAMPLE DRAWING #6



■ EXAMPLE DRAWING #7



■ EXAMPLE DRAWING #8



in mm

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MARKING

	BRAND
CBB 133	SERIES DESIGNATION
2500µF ±10%	CAPACITANCE AND TOLERANCE
U_R = 800V_{DC} SH	U _R RATED VOLTAGE
U_{TC} = 3000V 50/60 HZ	U _{TC} VOLTAGE BETWEEN TERMINALS AND CASE, FREQUENCY
-40~+85°C IEC61071	TEMPERATURE RANGE, REFERENCE STANDARD
Discharge before handling	SAFETY WARNING
J35F23104	DATE CODE

ORDER CODE

FC	S	2K	DM	158	K	024010013	E 3
Capacitor type	Product shape	DC rated voltage code (V)	Series code	Capacitance Code Examples (µF)	Capacitance tolerance	Dimension Code	For internal use
Film Cap. = FC	Square box = S	750 Q3 800 2K 900 R2 950 K3 1020 3A 1100 A3 1200 3B 2250 3T 2500 3E 3000 3F	CBB 133 = DM	1500 158 2800 288 13500 139	+5% J +10% K	0 2 4 0 1 0 0 1 3	

RATINGS

U _k (V _{DC})	C _k (µF)	I _{MAX} 60°C 10kHz (A)	I ⁽¹⁾ (A)	R _s 20°C 10kHz (mΩ)	L _s 20°C (nH)	W (mm)	H (mm)	T (mm)	ORDER CODE
750 Q3	2800 3800	80 80	2200 3800	0,8 0,6	80 80	240 490	103 110	125 84	FCSQ3DM288K024010013E3 FCSQ3DM388K049011009E3
800 2K	2500 2500	250 300	3500 3500	0,6 0,4	50 50	190 402	195 116	170 110	FCS2KDM258K019020017E3 FCS2KDM258K040012011E3
900 R2	18000	400	3600	0,7	50	500	460	120	FCSR2DM189K050046012E3
950 K3	3 x 2500 2 x 3750	3 x 135 2 x 140	3 x 8400 2 x 6200	3 x 1,5 2 x 1,2	50 50	500 500	205 205	270 270	FCSK3DM258J050021027E3 FCSK3DM758J050021027E3
1020 3A	13500	300	5050	0,5	60	330	650	170	FCS3ADM139K033065017E3
1100 A3	900	100	9000	1	80	163	152	162	FCSA3DM907K016015016E3
1200 3B	8000 9000 20.000 65.000	260 500 250 400	6000 18.000 100.000 100.000	0,5 1,2 1 1	80 50 50 50	620 680 280 460	200 210 700 880	140 230 155 185	FCS3BDM808K062020014E3 FCS3BDM908J068021023E3 FCS3BDM209S028070016E3 FCS3BDM659S046088019E3
2250 3T	4000	400	19.000	0,5	60	340	175	670	FCS3TDM408J034018067E3
2500 3E	30.000	100	90.000	0,8	100	395	1170	220	FCS3EDT309K040117022E3
3000 3F	1500	150	4000	1	100	340	360	230	FCS3FDM158J034036023E3

(1) Maximum permissible peak current

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