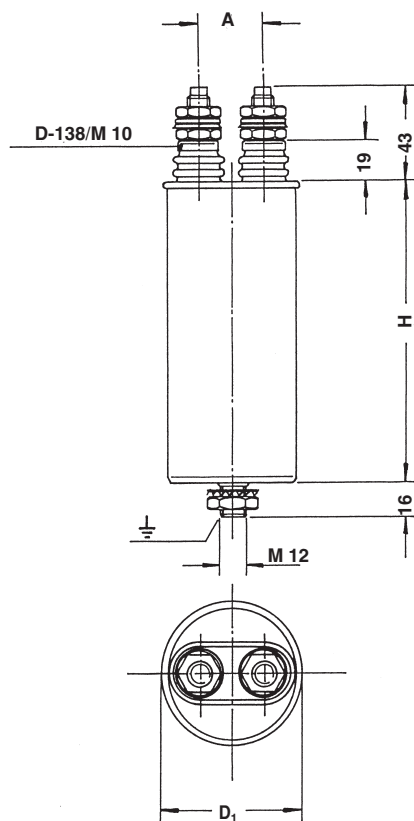


Medium Frequency Capacitors

MEDIUM-FREQUENCY CAPACITORS, SELF-COOLED, SMALL CAPACITIES FOR COMPLETING FRACTIONAL OUTPUTS

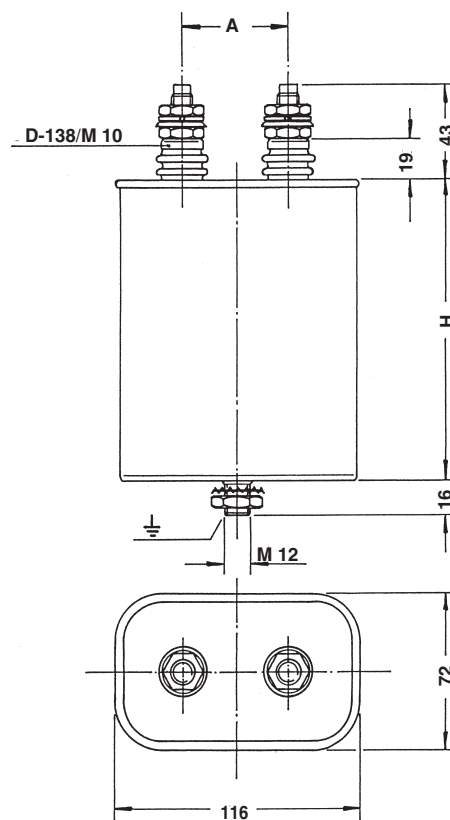
DESIGN

- All-film winding in insulated aluminum casing with non-magnetic lid;
- IP00, indoor;
- Operating temperature - 10°C/+ 65°C (= maximum temperature at surface of casing);
- Porcelain terminals with bolts M10;
- The maximum permissible values U_N max., P_V max., and I_{max} must be observed.



Version A

$I_{max} = 80A$
 $D1 \times H = 60 \times 109mm$



Version B

$I_{max} = 80A$
 $H = 180mm$

SMALL CAPACITORS SELF-COOLED					
U_N MAX. (V)	C_N (μF)	R_S (Ohm)	P_V MAX. (W)	VERSION	TYPE Phao . . .
2200	0.22	1 x 10 ⁻³	3	A	.. 2.2/0.22 μ F
1800	0.45	1 x 10 ⁻³	3	A	.. 1.8/0.45 μ F
1500	1.00	1 x 10 ⁻³	3	A	.. 1.5/1.00 μ F
1300	2.00	1 x 10 ⁻³	3	A	.. 1.3/2.00 μ F
900	4.00	1 x 10 ⁻³	3	A	.. 900/4.00 μ F
2200	1.00	5 x 10 ⁻⁴	9	B	.. 2.2/1.00 μ F
2200	1.50	5 x 10 ⁻⁴	9	B	.. 2.2/1.50 μ F
2200	2.00	5 x 10 ⁻⁴	9	B	.. 2.2/2.00 μ F
2200	3.00	5 x 10 ⁻⁴	9	B	.. 2.2/3.00 μ F
1800	4.00	5 x 10 ⁻⁴	9	B	.. 1.8/4.00 μ F

Formula for calculating P_v(W) and I(A) :

$$Q = 2 \pi \times f \times U^2 \times C \times 10^{-9} \text{ (kVAr)}$$

$$I = Q/U \text{ (A)}$$

$$P_v = I^2 \times R_s + Q \times 10^{-4} \text{ (W)}$$

EXAMPLE

Type Phao 1.5/1 μ F(= version A) on U = 1000V and f = 4000Hz ?

$$Q = 2 \pi \times 4000 \times 1000^2 \times 10^{-6} \text{ (Var)} = 25130 \text{ Var}$$

$$I = 25130/1000 = 25.13\text{A}$$

$$P_v = 25.13^2 \times 1 \times 10^{-3} + 25130 \times 10^{-4} = 3.145\text{W}$$

= > version A not suitable, take version B type Phao 2.2/1 μ F.



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