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**POWER FACTOR CORRECTION CAPACITORS**

**MV & HV**



**MADE IN ITALY**



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## GENERAL FEATURES

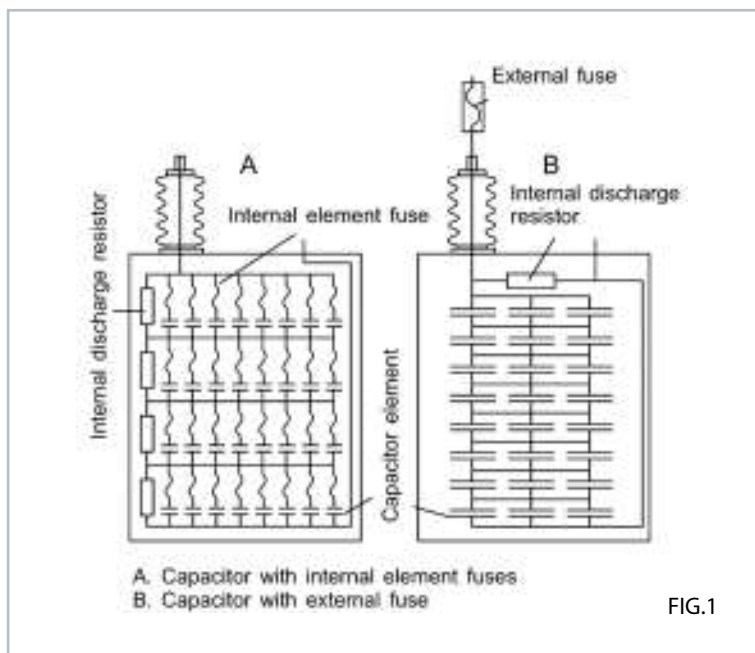
Standards: DIN EN 60871-1 VDE 0560-410:2015-04, IEC 60871-1, GOST 1282-88  
 Maximum voltage: up to 24 kV  
 Maximum output reactive power: 1000 kVar (Single Phase Configuration)  
 Rated frequency: 50/60 Hz  
 Capacitance tolerance: -5% +15%  
 Temperature category: -40 °C +55 °C  
 Watt loss per kVar: 0,20 W/kVar (max)  
 Mounting position: vertical or horizontal

## CONSTRUCTION FEATURES

- Impregnated by Jarylec (non-PCB, bio-degradable, environmentally - friendly, non - toxic, low viscosity capacitor oil);
- Capacitors are protected by internal elements fused or by external unit fuse (Fig 1);
- Mild or stainless-steel case with polyurethane light gray paint finish for resistant to severely corrosive atmospheres;
- Wet process - porcelain bushing glazed for high strength and durability and hermetically sealed to the capacitor case;
- Internal discharge resistors that reduce terminal voltage at 50 V or less within 10/5 minutes after capacitor has been disconnected from source;
- Name plate containing required data as per relevant standard.

## CAPACITORS FEATURES

- All polypropylene (APP) film dielectric;
- Low losses;
- Indoor and outdoor application up to 200 kV BIL;
- Superior electrical performances;
- Improved case rupture characteristics.



## ROUTINE TESTS, TYPE TEST AND SPECIAL TEST

Gruppo Energia subjects all MV and HV capacitors to all routine tests required by IEC standards 60871 and it issues relevant certificates. The HV laboratory of Gruppo Energia is equipped to perform all routine tests, type tests and the special tests as foreseen for by IEC 60871.

## CAPACITORS OPERATION

Capacitors will operate safely at 135% of kVAR rating under following operating conditions:

- kVar caused by excess voltage at rated frequency;
- kVar added by the harmonic voltage superimposed on the power frequency voltage;
- kVar attributable to manufacturing tolerance.

The maximum recommended working voltage of capacitor is 110% of rated voltage, Gruppo Energia capacitors include a safety factor that permits them to tolerate without damage momentary over voltages caused due to switching/load fluctuation.

## DIMENSIONS AND WEIGHT

	Bushing BILL			
	95 kV	125 kV	150 kV	200 kV
Bushing Creepage (mm):	380	450	550	750
D (mm):	210	265	270	360
C (mm):	410	465	470	560

## SINGLE PHASE TYPE:

Weight: 18 Kg.	50 kVar		
Un Voltage	Dimension (mm)		
kV	A	B	E
4,8	130	100	150
7,2	130	100	150
13,28	130	100	150
19,92	140	100	150

Weight: 19 Kg.	100 kVar		
Un Voltage	Dimension (mm)		
kV	A	B	E
4,8	210	200	150
7,2	210	200	150
13,28	210	200	150
19,92	230	200	150

Weight: 27 Kg.	150 kVar		
Un Voltage	Dimension (mm)		
kV	A	B	C
4,8	300	220	150
7,2	300	220	150
13,28	320	220	150
19,92	320	220	150

Weight: 33 Kg.	200 kVar		
Un Voltage	Dimension (mm)		
kV	A	B	E
4,8	370	180	150
7,2	370	180	150
13,28	370	180	150
19,92	400	180	150

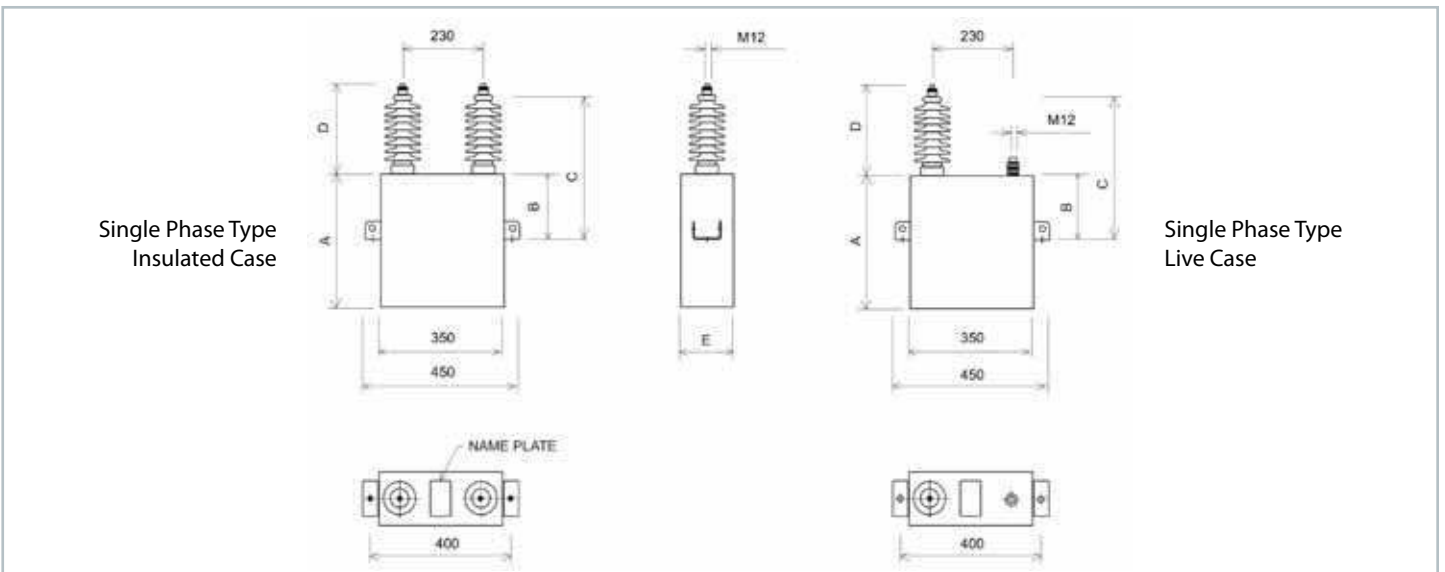
Weight: 41 Kg.	300 kVar		
Un Voltage	Dimension (mm)		
kV	A	B	E
4,8	500	220	150
7,2	500	220	150
13,28	520	220	150
19,92	540	220	150

Weight: 49 Kg.	400 kVar		
Un Voltage	Dimension (mm)		
kV	A	B	E
4,8	640	340	150
7,2	640	340	150
13,28	660	340	150
19,92	670	340	150

Weight: 60 Kg.	500 kVar		
Un Voltage	Dimension (mm)		
kV	A	B	C
4,8	830	200	150
7,2	830	200	150
13,28	830	200	150
19,92	920	100	150

Weight: 67 Kg.	600 kVar		
Un Voltage	Dimension (mm)		
kV	A	B	E
4,8	970	200	150
7,2	970	200	150
13,28	970	200	150
19,92	1100	200	150

## CONSTRUCTION DIAGRAM



All dimensions are indicative and will be confirmed at the time of order.

## THREE PHASE TYPE:

Weight: 25 Kg.	50 kVar		
Un Voltage	Dimension (mm)		
kV	A	B	E
6,3	230	470	350
7,2	230	470	350
10,5	330	570	360
12	330	570	360

Weight: 29 Kg.	75 kVar		
Un Voltage	Dimension (mm)		
kV	A	B	E
6,3	240	505	350
7,2	240	505	350
10,5	262	530	360
12	262	530	360

Weight: 33 Kg.	100 kVar		
Un Voltage	Dimension (mm)		
kV	A	B	E
6,3	312	555	350
7,2	312	555	350
10,5	375	618	360
12	375	618	360

Weight: 43 Kg.	150 kVar		
Un Voltage	Dimension (mm)		
kV	A	B	E
6,3	410	675	350
7,2	410	675	350
10,5	500	743	360
12	500	743	360

Weight: 51 Kg.	225 kVar		
Un Voltage	Dimension (mm)		
kV	A	B	E
6,3	550	815	350
7,2	550	815	350
10,5	617	860	360
12	617	860	360

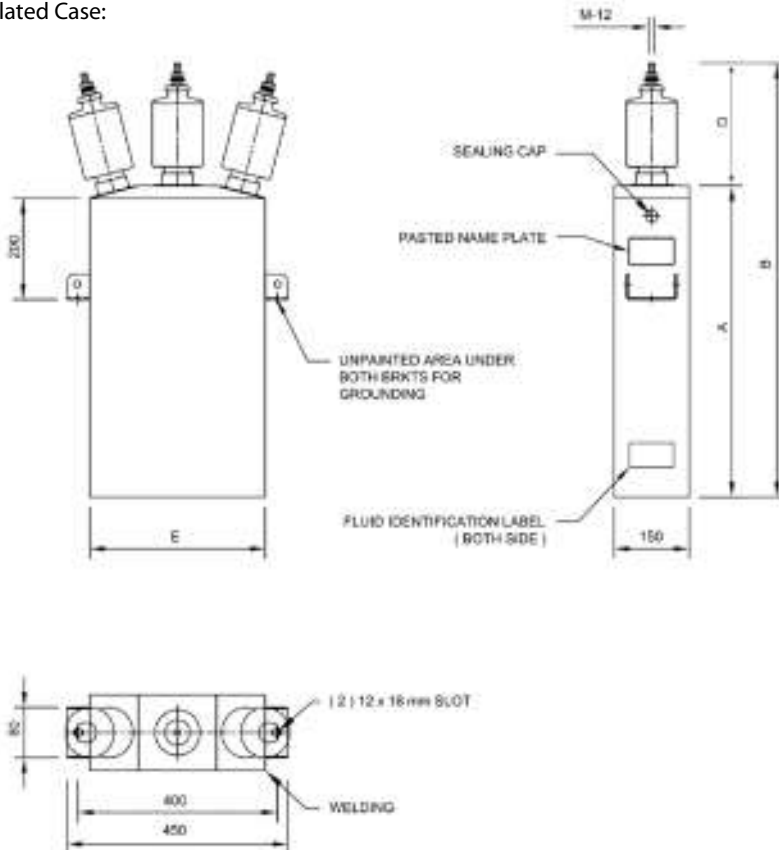
Weight: 69 Kg.	300 kVar		
Un Voltage	Dimension (mm)		
kV	A	B	E
6,3	725	990	350
7,2	725	990	350
10,5	855	1098	360
12	855	1098	360

Weight: 87 Kg.	450 kVar		
Un Voltage	Dimension (mm)		
kV	A	B	E
6,3	1020	1285	350
7,2	1020	1285	350
10,5	1070	1313	360
12	1070	1313	360

Weight: 105 Kg.	600 kVar		
Un Voltage	Dimension (mm)		
kV	A	B	E
6,3	1020	1285	350
7,2	1020	1285	350
10,5	1070	1313	360
12	1070	1313	360

## CONSTRUCTION DIAGRAM

Three Phase Type,  
Insulated Case:



All dimensions are indicative and will be confirmed at the time of order.



MADE IN ITALY



**GRUPPO ENERGIA srl**  
Via Cavezzo, 36  
25045 Castegnato (Bs) - Italy  
Phone: +39 030.32.03.01  
Fax: +39 030.24.11.006  
Mobile +39 348.00.76.538  
mail: [info@gruppoenergia.it](mailto:info@gruppoenergia.it)

