

Three phase filtering reactors for capacitor banks



Three phase reactors for harmonic rejection filters and protections of capacitors to compensate the reactive energy in installations with high content of harmonics.

The rejection filter avoids:

- Capacitor resonances that may have destructive results for the capacitor banks, main transformer and main switchboard.
- Any current amplification in the capacitor banks caused by harmonics to avoid its overtemperature and destruction.

Overtemperature and overload protection via bimetal thermal resetting relay.


Vacuum impregnation with epoxy varnish high binding power with special properties that protect windings and magnetic core from dust and humidity.

Connection with screw terminal blocks: rating up to 20 A.

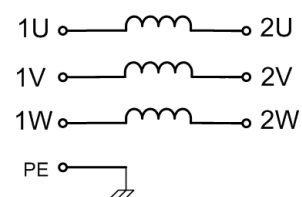
Connection with screws for flat terminals: rating from 20 to 60 A.

Connection with flat busbars: rating over 60 A.

Technical characteristics

Line voltage	3 x 400 V
Network overvoltage	106 % x U ₁
Harmonic distortion THD U	3 ^o = 0,5 % 5 ^o = 6 % 7 ^o = 5 % 11 ^o = 3,5 % 13 ^o = 3 %
Frequency	50 Hz
Attenuation coefficient	p = 7%
Resonance frequency	189 Hz
Capacitor voltage	3 x 440 V
Inductance tolerance:	L ± 3 %
Admissible overload	1,1 I _N
Linearity	1,6 I _N
Insulation class	F (155 °C)
Ambient temperature	40 °C
Protection degree	IP-00
Test voltage	3 kV
Safety class	Class I 
Protection	Bimetal thermal contact
Standard	IEC/UNE-EN 60076-6

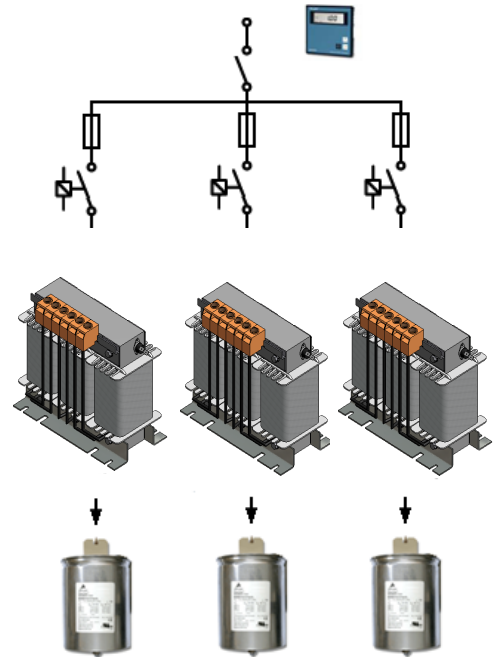
Electrical diagram



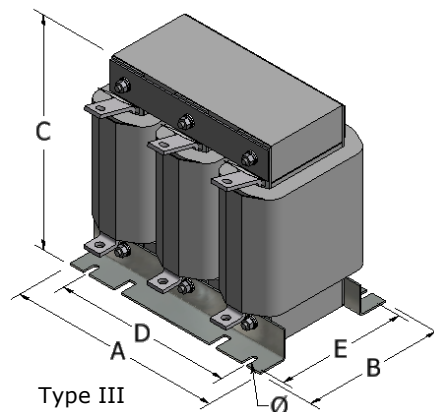
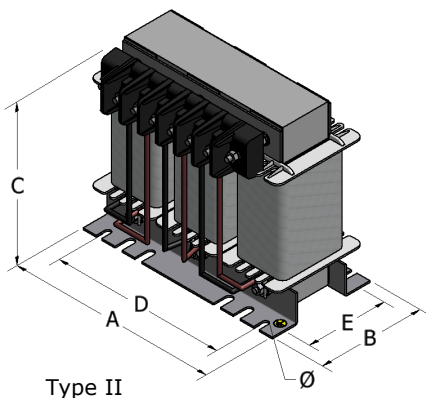
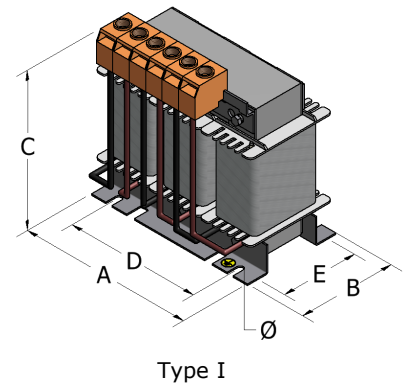
SERIES IRT

Selection of the reactor according to each capacitor bank step, rating and voltage capacitor.

Effective Rating kVAr	Reference	Capacitor	Current Arms	Inductance mH
2,5	IRT002	440V 2,8 kVAr	4,1	15,331
5	IRT005	440V 5,6 kVAr	8,2	7,665
6,25	IRT006	440V 7,0 kVAr	10,2	6,132
10	IRT010	440V 11,3 kVAr	16,4	3,833
12,5	IRT012	440V 14,1 kVAr	20,5	3,066
15	IRT015	440V 16,9 kVAr	24,5	2,555
20	IRT020	440V 22,6 kVAr	32,7	1,916
25	IRT025	440V 28,1 kVAr	40,9	1,533
30	IRT030	440V 33,8 kVAr	49,1	1,278
40	IRT040	440V 45,0 kVAr	65,4	0,958
50	IRT050	440V 56,3 kVAr	81,8	0,767
60	IRT060	440V 67,5 kVAr	98,2	0,639
75	IRT075	440V 84,4 kVAr	122,7	0,511
100	IRT100	440V 112,5 kVAr	163,6	0,383



Effective Rating kVAr	Reference	Dimensions mm						Weight kg	Type
		A	B	C	D	E	Ø		
2,5	IRT002	150	90	150	100	62	7	3	I
5	IRT005	180	100	190	140	61	7	5	I
6,25	IRT006	180	125	190	140	86	7	8	I
10	IRT010	180	145	190	140	106	7	10	I
12,5	IRT012	240	135	215	200	88	7	10	II
15	IRT015	240	135	210	200	88	7	11	II
20	IRT020	240	155	210	200	108	7	16	II
25	IRT025	240	155	210	200	108	7	16	II
30	IRT030	265	170	250	200	113	7	22	II
40	IRT040	265	170	250	200	113	7	23	II
50	IRT050	265	155	245	200	123	7	26	III
60	IRT060	265	190	245	200	157	7	38	III
75	IRT075	300	185	305	200	137	11	43	III
100	IRT100	300	195	305	200	146	11	47	III



* Other features, power, voltage, etc., on request

* Torytrans reserves the right to modify the information in any time and without prior notice.