

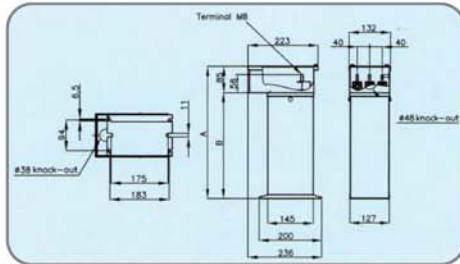


CAPACITOR UNIT

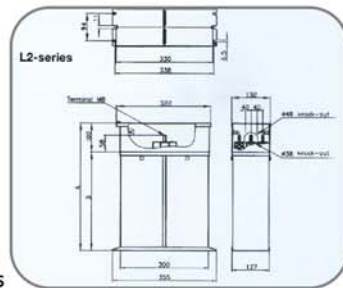
Capacitor elements of metallized polypropylene-film are self-healing and dry without impregnation liquid. Each capacitor element is assembled with copper busbar inside steel box and individually protected with patented internal protection.



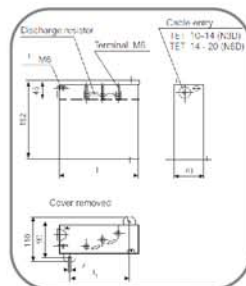
L1-Series



L2-Series



N6-Series



Type	Self-healing, Dry type
Dielectric	: Metallized polypropylene-film
Internal Protection	: Internal fuse
Flame Protection	: Vermiculite
Rated Voltage	: 200 V to 1000 V
Rated Power	: 10 to 120 KVAR
Over Current	: 1.3 x In Continuous
Over Voltage	: 1.1 x Un Continuous
Frequency	: 50/60 Hz
Dielectric Loss	: ≤ 0.2 W/kVAR
Total Losses	: ≤ 0.4 W/kVAR
Humidity	: 95%
Discharge Device	: Internal discharge resistor (3 min. 75V)
Enclosure	: Rectangular Steel IP42
Temperature category	: $-40^{\circ}\text{C}/+50^{\circ}\text{C}$ or $+55^{\circ}\text{C}$ as request
Standards	: IEC 60831-1/2

TABLE 1 - STANDARD TYPES FOR INDOOR MOUNTING

TYPE	DIMENSION (MM.)		
	HEIGHT	WIDTH	DEPTH
N6D	192	70	377
SL1D	348	127	150
FL2D	341	127	300
SL2D	438	127	300
AL2D	536	127	300
TL2D	633	127	300

TABLE 2 - REACTIVE POWER AT 400V AND 525V 50HZ

POWER RATING (KVAR) AT 400V	TYPE	WEIGHT
		(KG)
15 Kvar	N6D	5
20 Kvar	N6D	5
25 Kvar	N6D	5
30 Kvar	SL1D	7
40 Kvar	FL2D	10
50 Kvar	FL2D	10
60 Kvar	SL2D	13
75 Kvar	SL2D	14
80 Kvar	AL2D	15
90 Kvar	AL2D	15
100 Kvar	AL2D	17

POWER RATING (KVAR) at 525V	TYPE	WEIGHT
		(KG)
30 kvar	FL2D	10
40 kvar	FL2D	12
50 kvar	FL2D	14
60 kvar	SL2D	15
65 kvar	SL2D	16
70 kvar	SL2D	17
75 kvar	SL2D	17
80 kvar	SL2D	19
85 kvar	AL2D	20
90 kvar	AL2D	21
100 kvar	AL2D	22
120 kvar	TL2D	22

*Other power rating and voltages also available on request.



REACTOR

Given the pressure to compensate reactive power, harmonics may cause resonance with the supplying transformer and capacitors. The solution is to install blocking reactors in series with capacitors. The detuned system design keeps the tuning frequency below the lowest harmonic in the system. Reactive power at the fundamental frequency is possible, with no risk of resonance.



Model	: XKIB
Type	: Indoor
Frequency	: 50/60 Hz
Rated Voltage	: 200 V to 690 V
Inductance tolerance	: $\pm 3\%$
Tuning frequency	: 6, 7, 13 or 14%
Enclosure	: IP 00
Temperature category	: Class F
Standards	: IEC 76, IEC 289

Iron Core Reactor With 6% (204 Hz) Tuning Frequency For Capacitor 525v

REACTIVE POWER (kVAR)	INDUCTANCE (mH)	DIMENSION (MM.)			WEIGHT (Kg)
		HEIGHT	WIDTH	DEPTH	
30	1.755	230	240	160	21
40	1.316	230	240	180	25
50	1.053	240	300	180	27
65	0.810	280	300	180	30
75	0.702	280	300	180	33
80	0.658	280	300	185	35
90	0.585	320	300	190	38
100	0.526	330	300	200	41
120	0.439	330	300	220	50

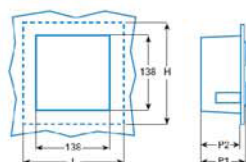
PFC (Power factor controller)

Power factor controllers provide your network with efficient reactive power compensation, measurement and supervision. Improved user-friendliness due to multilingual user interface, clear text and symbol messages, graphics, alarm log and communication. Power factor controller offers advanced condition monitoring for your network as well as for the capacitor bank.



The supervision and condition monitoring functions add to the simplified programming with intelligent self set-up to ensure optimal use of the reactive power compensation system.

MODEL	N-6, N-12	NC-12
DISPLAY	LCD backlighted	
SWITCHING STEP	6 or 12 step	12 step
FREQUENCY	50 Hz	
SUPPLY VOLTAGE	110V, 230V or 400V	
MEASURING VOLTAGE	MAX 460V.	MAX 800V.
PROTECTION CLASS	IP41 front face, IP20 DIN-rail installation	
MEASUREMENTS	Cos phi, V, I, P, Q, S, THD(U), temperature	Cos phi, V, I, P, Q, S, Capacitor overload (I _{rms} /I ₁), THD(U), THD(I), V and I harmonic spectrum (1st - 15th), temperature
COMMUNICATION	-	RS485/Modbus(Optional)
STANDARDS	IEC 61010-1, IEC 61000-6-2, IEC 61000-6-4, UL 61010A-1, IEC 60529	



DIMENSIONS AND WEIGHT					
Type	Dimensions (mm.)				weight (kg)
	H	L	P1	P2	
N-6/N-12	150	150	70	60	1
NC-12	150	150	80	70	1