



SPECIFICATION OF LOW VOLTAGE DETUNED FILTER CAPACITOR BANK

BANK :

Type designation	D175/2x25+50+75-400-50/189-0618E
Rated power	175 kvar
Steps	2x25+50+75 kvar
Rated frequency	50 Hz
Tuning frequency	189 Hz (7 %)
Rated voltage	400 V
Rated current	296 A
Insulation level of bank	3 / - kV
Cabinet (W x H x D)	600x1800x600 mm
Total mass of bank	243 kg
Degree of protection	IP 20C
Mounting	indoor
Temperature category	0 / + 40 °C
Colour	RAL 7035
Maximum power losses at rated values	1400 W

STEPS 1-2: 25+25 kvar/400V:

Harmonics dimensioning	50 / 150 / 250 / 350 f/Hz 39.7 / 1.4 / 13.4 / 4.8 I/A
Rated current (rms)	42.2 A
Rated inductance (iron core reactor)	2 x 1.533 mH
Contacteur type	2 x CL45A300MN
Step fuses	3 x gG 100 A
<u>Capacitor unit :</u>	
Type of capacitor unit	SL2D 40+40/525-50 IP00
Rated voltage	525 V
Rated capacitance (Y)	462.5+462.5 µF
Discharging time 75 V	180 s
Reconnection time	30 s

STEPS 3: 50 kvar/400V:

Harmonics dimensioning	50 / 150 / 250 / 350 f/Hz 79.4 / 2.7 / 26.9 / 9.7 I/A
Rated current (rms)	84.4 A
Rated inductance (iron core reactor)	0.767 mH
Contacteur type	CL08A300MN
Step fuses	3 x gG 100 A
<u>Capacitor unit :</u>	
Type of capacitor unit	SL2D 80/525-50 IP00
Rated voltage	525 V
Rated capacitance (Y)	925 µF
Discharging time 75 V	180 s
Reconnection time	30 s



STEP 4: 75 kvar/400V:

Harmonics dimensioning	50 / 150 / 250 / 350 f/Hz 119.1 / 4.1 / 40.3 / 14.4 I/A
Rated current (rms)	126.6 A
Rated inductance (iron core reactor)	0.511 mH
Contacteur type	CK75CA311N
Step fuses	3 x gG 160 A
<u>Capacitor unit :</u>	
Type of capacitor unit	TL2D 120/525-50 IP00
Rated voltage	525 V
Rated capacitance (Y)	1388 μ F
Discharging time 75 V	180 s
Reconnection time	30 s

Power factor controller:

Type	NC-12
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STANDARDS :

SGS FI 26351 certificate
IEC/EN 61439-1&2 (bank)
IEC/EN 60831 1&2 (capacitors)
IEC/EN 60529 (IP-code)

Voltage dimensioning :

Suitable for continuous overvoltage	1.1 x Un
Harmonic voltages	U ₃ = 0,5 %, U ₅ = 6 %, U ₇ = 5%
Capacitor unit nominal voltage	525 V