



**SPECIFICATION OF LOW VOLTAGE DETUNED FILTER CAPACITOR BANK**

**BANK :**

Type designation	<b>D175/12+25+37+2x50-400-50/189-0818E</b>
Rated power	175 kvar
Steps	12+25+37+2x50 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)	800x1800x600 mm
Total mass of bank	271 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: 12.5+25 kvar/400V:**

Harmonics dimensioning	50 / 150 / 250 / 350 f/Hz 19.8 / 0.7 / 6.7 / 2.4 I/A
Rated current (rms)	21.1 A
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)	3.067 mH
Rated inductance (iron core reactor)	1.533 mH
Contactor type	2 x CL45A300MN
Step fuses	3 x gG 80 A
<u>Capacitor unit :</u>	
Type of capacitor unit	SL2D 20+40/525-50 IP00
Rated voltage	525 V
Rated capacitance (Y)	231.3+462.5 µF
Discharging time 75 V	180 s
Reconnection time	30 s

**STEPS 3: 37.5 kvar/400V:**

Harmonics dimensioning	50 / 150 / 250 / 350 f/Hz 59.5 / 2.0 / 20.1 / 7.3 I/A
Rated current (rms)	63.3 A
Rated inductance (iron core reactor)	1.022 mH
Contactor type	CL08A300MN
Step fuses	3 x gG 80 A
<u>Capacitor unit :</u>	
Type of capacitor unit	SL2D 60/525-50 IP00
Rated voltage	525 V
Rated capacitance (Y)	693.8 µF
Discharging time 75 V	180 s
Reconnection time	30 s



**STEPS 4-5: 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 $\mu$ F
Discharging time 75 V	180 s
Reconnection time	30 s

**Power factor controller:**

Type	NC-12
------	-------

**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 <sub>3</sub> = 0,5 %, U <sub>5</sub> = 6 %, U <sub>7</sub> = 5%
Capacitor unit nominal voltage	525 V