

FHS series - Floor standing power factor systems (with anti-harmonic de-tuned capacitor banks)

- For networks with THDU ≤6% and/or THDI ≤40%

Growing use of power electronic devices such as: variable speed drives, inverters, UPS systems, battery chargers, LED lighting etc. is causing increasing levels of harmonic distortion in electrical networks, often leading to problems with capacitor installations.

Installation of de-tuned (*reactor-connected*) capacitors designed to force the resonant frequency of the network below the frequency of the lowest harmonic present (*usually the 5th*), thereby ensuring no resonant circuit or amplification of harmonic currents. Such an installation also has a partial filtering effect, reducing the level of voltage distortion on the supply. De-tuned capacitors safer than non-de-tuned capacitors and future-proof for conditions of more and more deteriorating power quality in modern mains.

Complete ready-to-connect floor standing power factor system comprising:

- Suitably ventilated floor standing enclosure with roof mounted exhaust fan
- Mains isolator, door interlocking (*with early make/late break auxiliary contact*)
- HR heavy duty racks comprising: capacitors, reactors, switchgear, fusegear and busbars
- High end reactive control relay **DCRG 8** (*incorporating digital display of all important network parameters*)
Configurable to monitor three voltage and current phases and provide accurate indication of:
 - Active, Apparent power as well as Active, Reactive, Apparent Energy monitoring
 - Current and Voltage Harmonics analysis (*up to 31st harmonic*)
 - Calendar-clock with backup reserve power
 - Event logging: alarms, setup, changes, etc. (*internal memory stores last 250 events*)
 - Internal panel temperature monitoring
- Expandable with up to 4 expansion modules for:
 - additional steps, Analog I/O's, RS323, RS485, Ethernet, GPRS/GSM modem communication



DCRG 8 (Door mount)



FHS...

type	kvar at:		steps (kvar) at 400V				Expands to kvar	dimensions (mm)		
	400V	440V	13.5	27	54	108		(H)	(W)	(D)

Anti-harmonic systems incorporating 7% de-tuned capacitor banks (480V capacitors)

- **7% - 189 Hz De-tuned reactors** *for networks with 3rd and 5th Harmonics*

FHS122074	122	131	1	2	1	-	405	2280	900	600
FHS149074	149	161	1	1	2	-	405	2280	900	600
FHS176074	176	190	1	2	2	-	405	2280	900	600
FHS203074	203	219	1	1	3	-	405	2280	900	600
FHS230074	230	248	1	2	3	-	405	2280	900	600
FHS257074	257	277	1	1	2	1	405	2280	900	600
FHS297074	297	320	-	1	1	2	405	2280	900	600
FHS338074	338	364	1	2	1	2	405	2280	900	600
FHS365074	365	393	1	1	2	2	405	2280	900	600
FHS405074	405	436	-	1	1	3	-	2280	900	600
FHS446074	446	481	1	2	1	3	864	2280	1800	600
FHS473074	473	510	1	1	2	3	864	2280	1800	600
FHS513074	513	553	-	1	1	4	864	2280	1800	600
FHS554074	554	597	1	2	1	4	864	2280	1800	600
FHS621074	621	669	-	1	1	5	864	2280	1800	600
FHS675074	675	727	-	1	2	5	864	2280	1800	600
FHS729074	729	786	-	1	1	6	864	2280	1800	600
FHS770074	770	830	1	2	1	6	864	2280	1800	600
FHS837074	837	902	-	1	1	7	864	2280	1800	600
FHS864074	864	931	-	-	2	7	-	2280	1800	600

Anti-harmonic systems incorporating 14% de-tuned capacitor banks (525V capacitors)

- **14% - 134 Hz De-tuned reactors** *for networks with a high levels of 3rd Harmonics*

FHS095144	95	102	1	1	1	-	203	2280	900	600
FHS149144	149	161	1	1	2	-	203	2280	900	600
FHS203144	203	219	1	1	3	-	-	2280	900	600
FHS257144	257	277	1	1	4	-	432	2280	1800	600
FHS311144	311	335	1	1	5	-	432	2280	1800	600
FHS365144	365	393	1	1	6	-	432	2280	1800	600
FHS419144	419	452	1	1	7	-	432	2280	1800	600
FHS432144	432	466	-	-	8	-	-	2280	1800	600
FHS473144	473	510	1	1	8	-	648	2280	2700	600
FHS527144	527	568	1	1	9	-	648	2280	2700	600
FHS581144	581	626	1	1	10	-	648	2280	2700	600
FHS635144	635	684	1	1	11	-	648	2280	2700	600
FHS648144	648	698	-	-	12	-	-	2280	2700	600