

Harmonic Filter Reactors

Basic and Standard Harmonic Filter Reactors

- Power range: 3.13 to 200 kvar
- Voltage range: 230 V to 690 V, 50/60 Hz
- Detuning factor $p = 5.67 \dots 14 \%$
- Low-loss design

// Application Recommendations

Used together with LKT type Power Factor Correction Capacitors, Harmonic Filter Reactors make it possible to install detuned versions of fixed capacitor banks and Power Factor Correction Systems. This enables switchgear manufacturers to plan and manufacture customer-specific systems.

/ Type Overview

Type series			Basic	Standard
Type			FDK / FDKT	FKD / FDR
Rated voltage			400...525 V	230...690 V
Rated stage power			6.25...200 kvar	3.13...50 kvar
Rated frequency		50 / 60 Hz	● / -	● / ●
Series resonance frequency	p = 5.67 %	210 / 252 Hz	- / -	● / -
	p = 7 %	189 / 227 Hz	● / -	● / ●
	p = 8 %	177 / 212 Hz	- / -	● / -
	p = 14 %	134 / 160 Hz	● / -	● / -
Temperature range			-10 ... +60 °C	
Winding material			Al	Al /Cu
Insulation class			H (180 °C)	F (155 °C)
Temperature switch	pre-assembled		only FDKT	●
	Switching temperature		130...150 °C	140 °C
	Switching capacity		6.3A / 250 V AC	2.5A / 250 V AC
Ingress protection			IP00 according to IEC 60529	
Power loss max.			10 W/kvar	6 W/kvar
Connection			Terminal strip ≤ 25 kvar Ring terminal ≥ 50 kvar	Connecting cable
Catalogue page			Page 27 ff.	Page 33 ff.

/ Series Resonance Frequency

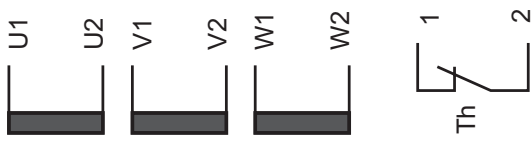
Version	Series resonance frequency (50 Hz Mains)	Detuning factor	For mains with utility audio frequency ¹⁾
P1	134 Hz	P = 14 %	≥ 166 Hz
P8	177 Hz	P = 8 %	≥ 217 Hz
P7	189 Hz	P = 7 %	≥ 228 Hz
P5	210 Hz	P = 5.67 %	≥ 270 Hz

1) Utility company specifications inconsistent with the above must be taken into account.

Please also refer to the design notes given in our manual of Power Factor Correction. Further series resonance frequencies are available on request.

/ Connection

Coil input: U1, V1, W1
Coil output: U2, V2, W2



/ Important Note

Please only use the correct number of the appropriate power capacitors as specified in our "Selection Aid: Harmonic Filter Reactors → Capacitors" in our Technical Annex. Apart from possibly overloading the installed components, the utility company's remote control systems could also be adversely affected.