

FRE6-450-480-60Hz

FRE6-450-480-60Hz, Static detuned capacitor bank 60 Hz

Code: R63EA7.

> Frequency (Hz): 60 Hz
> kvar (480 V): 450
> Aut.Switch (A): 3 x 800
> Composition: 6x75
> Mounting: Floor-mounted
> P%: 7

Description

The capacitor banks with detuned filters of the **OPTIM FRE** series have been designed for reactive energy correction in networks with fluctuating load levels, high harmonic presence and a risk of resonance.

The power variations are relatively quick (measured in milliseconds), and the operation is thus carried out by thyristors, which are connected to a voltage controller board, so that the connection and disconnection of the capacitor is carried out with zero voltage difference. Transients are prevented between the connection and disconnection of the steps, obtaining an immediate response to the load fluctuations.

Application

The most common application is with individual loads or in installations where a quick compensation response is needed (e.g. welding units, motors for lifting units, lifts, etc.) and where the network has high harmonic content.



FRE6-450-480-60Hz

Automatic capacitor banks with detuned filters and thyristors

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Specifications

AC power supply	
Frequency	60 Hz

Electrical characteristics	
Losses (W)	< 0,5 W/kvar
Discharge resistance	75 V / 3 min
Surge	10 % 8 h over 24 h 15 % up to 15 min over 24 hours 20 % up to 5 min over 24 hours 30 % up to 1 min over 24 hours
Tolerance C	-5% / 10 %

Mechanical characteristics	
Size (mm) width x height x depth	1360 x 1900 x 650 (mm)
Envelope	Sheet metal RAL 7035 Grey / RAL 3005 Garnet
Thermal management	Natural or forced according to options
Fastening	Vertical / Self-supporting
Weight (kg)	560

Environmental characteristics	
Protection class	IP 21
Relative humidity (without condensation)	80%
Working temperature	T° class D: Daily average: 45 °C, annual average: 35 °C, maximum: 55 °C, minimum: -50 °C

Current measurement circuit	
Permanent overload	1,3 In
Transformation ratio	In / 5A

Protection	
Element	Individual protection of each step with fuses with high rupture power (HRP). NH-00 Series.

OPTIM FRE 60Hz
Automatic capacitor banks with rejection filters (static contactor), 60 Hz.

CODE	TYPE	kvar (240 V)	Aut.Switch (A)	Composition	kvar (480 V)
OPTIM FRES, automatic thyristor banks with computer SMART III regulator. Steps protections by Circuit Breaker					
R64RBN.	OPTIM FRES-25-240-60Hz	25	3 x 100	2x5+10	
R64RBP.	OPTIM FRES-30-240-60Hz	30	3 x 125	3x10	
R64RBS.	OPTIM FRES-40-240-60Hz	40	3 x 160	4x10	



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CODE	TYPE	kvar (240 V)	Aut.Switch (A)	Composition	kvar (480 V)
OPTIM FRE4, automatic thyristor banks with computer SMART III regulator. Steps protections by blade fuse type NH-00.					
R64SF2.	OPTIM FRE4-50-240-60Hz	50	3 x 200	2x12,5+25	
R64SF3.	OPTIM FRE4-62,5-240-60Hz	62,5	3 x 250	12,5+2x25	
R64SF4.	OPTIM FRE4-75-240-60Hz	75	3 x 250	3x25	
R64SF5.	OPTIM FRE4-87,5-240-60Hz	87,5	3 x 400	12,5+3x25	
R64SF6.	OPTIM FRE4-100-240-60Hz	100	3 x 400	4x25	
R64SF8.	OPTIM FRE4-140-240-60Hz	140	3 x 400	20+3x40	
R64SF9.	OPTIM FRE4-160-240-60Hz	160	3 x 630	4x40	
R64SG3.	OPTIM FRE6-180-240-60Hz	180	3 x 630	20+4x40	
R64SG4.	OPTIM FRE6-200-240-60Hz	200	3 x 630	5x40	
OPTIM FRE6, automatic thyristor banks with computer SMART III regulator. Steps protections by blade fuse type NH-00.					
R64SG6.	OPTIM FRE6-220-240-60Hz	220	3 x 800	20+5x40	
R64SG7.	OPTIM FRE6-240-240-60Hz	240	3 x 800	6x40	
OPTIM FRE8, automatic thyristor banks with computer SMART III regulator. Steps protections by blade fuse type NH-00.					
R64SH1.	OPTIM FRE8-280-240-60Hz	280	3 x 1000	7x40	
R64SH2.	OPTIM FRE8-320-240-60Hz	320	3 x 1000	8x40	
OPTIM FRE10, automatic thyristor banks with computer SMART III regulator. Steps protections by blade fuse type NH-00.					
R64SJ4.	OPTIM FRE10-360-240-60Hz	360	3 x 1250	9x40	
R64SJ6.	OPTIM FRE10-400-240-60Hz	400	3 x 1250	10x40	
OPTIM FRE12, automatic thyristor banks with computer SMART III regulator. Steps protections by blade fuse type NH-00.					
R64SK4.	OPTIM FRE12-440-240-60Hz	440	3 x 1600	11x40	
R64SK6.	OPTIM FRE12-480-240-60Hz	480	3 x 1600	12x40	
FRE4, automatic thyristor banks with computer SMART III regulator. Steps protections by blade fuse type NH-00.					
R63CA1.	FRE4-75-480-60Hz		3 x 125	3x25	75
R63CA2.	FRE4-100-480-60Hz		3 x 200	2x25+50	100
R63CA3.	FRE4-125-480-60Hz		3 x 250	25+2x50	125
R63CA5.	FRE4-150-480-60Hz		3 x 250	2x25+2x50	150
R63CA6.	FRE4-175-480-60Hz		3 x 400	25+3x50	175
R63CA7.	FRE4-200-480-60Hz		3 x 400	4x50	200
R63CA8.	FRE4-262,5-480-60Hz		3 x 400	37,5+3x75	262,5
R63CA9.	FRE4-300-480-60Hz		3 x 630	4x75	300
FRE6, automatic thyristor banks with computer SMART III regulator. Steps protections by blade fuse type NH-00.					
R63EA4.	FRE6-337,5-480-60Hz		3 x 630	37,5+4x75	337,5
R63EA5.	FRE6-375-480-60Hz		3 x 630	5x75	375
R63EA6.	FRE6-412,5-480-60Hz		3 x 800	37,5+5x75	412,5
R63EA7.	FRE6-450-480-60Hz		3 x 800	6x75	450
FRE8, automatic thyristor banks with computer SMART III regulator. Steps protections by blade fuse type NH-00.					
R63GA4.	FRE8-525-480-60Hz		3 x 1000	7x75	525
R63GA6.	FRE8-600-480-60Hz		3 x 1000	8x75	600



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CODE	TYPE	kvar (240 V)	Aut.Switch (A)	Composition	kvar (480 V)
FRE10, automatic thyristor banks with computer SMART III regulator. Steps protections by blade fuse type NH-00.					
R63HA4.	FRE10-675-480-60Hz		3 x 1250	9x75	675
R63HA6.	FRE10-750-480-60Hz		3 x 1250	10x75	750
FRE12, automatic thyristor banks with computer SMART III regulator. Steps protections by blade fuse type NH-00.					
R63KA4.	FRE12-825-480-60Hz		3 x 1600	11x75	825
R63KA6.	FRE12-900-480-60Hz		3 x 1600	12x75	900

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