

Data Sheet 11.20/1

Low Frequency Converter for Drying of Transformers, Type LFH

Application

The Frequency Converters of type LFH are used to supply low-frequency alternating current into a low-frequency heating system (LFH system) for drying of distribution transformers. The converter supplies a sinusoidal output voltage that is variable in amplitude and frequency.

Principle

The heart of the LFH series is an active front-end rectifier and a power inverter (Figure 1).

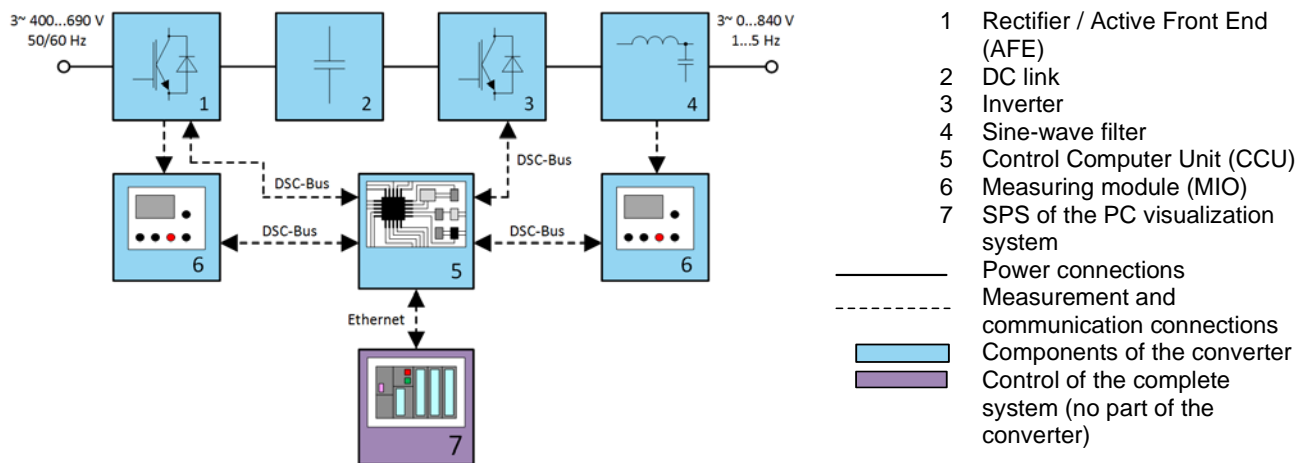


Figure 1: Principle structure of the Frequency Converter LFH

Table 1: Common parameters

Mains power supply		
Voltage	V	400 ± 10%, 3NPE ¹⁾
Power		Stiff grid: 100 kVA ¹⁾ Diesel generator: 200 kVA ^{1) 2)}
Frequency	Hz	50/60 ± 1 Hz
Operating conditions		
Temperature	°C	+5 ... +40 °C
Relative humidity		max. 85%, no condensation
Altitude		max. 1000 m above sea level
Pollution degree acc. to IEC 60664-1, Clause 4.5		2
Environmental condition acc. IEC 60721-3-3, Clause 5		3K3/3B1/3C2/3S1/3M3

1) For other mains voltages on request.

2) For stand-alone island grid operation of a single LFH unit.

Table 2: Output main parameters

Type	Voltage range	Frequency	Current	Max. apparent power ³⁾
	V	Hz	A	kVA
LFH 200	40 ... 735 ³⁾ 735...840 for 20 A maximum	DC, 1 ... 5	2...200 ³⁾	85 ^{1) 3)}
LFH 400			2...400 ³⁾	
LFH 600			2...600 ³⁾	

3) The output power and the output current of the converter are limited by the absolute maximum ratings (electrical limits) and the output power hyperbola.

Table 3: Dimensions and weights

Type	Dimensions	Weight
	L x W x H	
	mm	kg
LFH 200	693 x 1406 x 2350	900
LFH 400	693 x 1406 x 2350	900
LFH 600	818 x 1606 x 2350	1100

Type designation:

LFH-xxx

xxx - output current