



## CLZ-FPT-69/5-60Hz-HD

CLZ-FPT-69/5-60Hz-HD, Three-phase tubular power capacitor 60 Hz

Code: R2H796.

- > Terminal: F
- > Frequency (Hz): 60
- > kvar (660 V): 4,6
- > kvar (690 V): 5
- > Use voltage (V): 690

### Description

CLZ-HD (Heavy duty) capacitor range is composed of capacitors with a tubular casing, of the dry-type, covering a wide range of power and voltage ratings, at 50 and 60 Hz. The CLZ-HD capacitors are designed to be installed in installations with extreme working conditions. The design, manufacturing and testing processes guarantee the production of top quality and long lasting capacitors. Those CLZ-HD capacitors offer a new refrigeration technology by means of nitrogen gas\*, being a refrigerating system of high benefits, inert and non flammable.

### Application

Its application is based on compensation in installations with static or variable loads (capacitor banks). Especially designed to be installed in roughly environments with the most extreme conditions due to its longer life and high temperature resistance.



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### Specifications

#### AC power supply

Frequency	60 Hz
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#### Electrical characteristics

Losses (W)	Dielectric: < 0,2 W / kvar Total: < 0,4 W / kvar
Discharge resistance	50 V / 1 min (0,5 - 30 kvar) 75 V / 3 min (33 - 50 kvar)
Surge	10 % 8h in 24 h 15 % up to 30 min in 24 hours 20 % up to 5 min in 24 hours 30 % up to 1 min in 24 hours
Tolerance C	-5 ... +10 %
Maximum phase current	400 x In
Voltage	690 V
Insulation voltage, circuit	3 / 12 kV

#### Mechanical characteristics

Size (mm) width x height x depth	63.5 x 188 x 63.5 (mm)
Envelope	Aluminum
Fastening	M12 fastening screws earth conductor
Ventilation	Natural or forced depending on the cabinet
Weight (kg)	1

#### Environmental characteristics

Protection class	IP 20 / IP 54 with terminal cover (optional) (for models Ø 85, 100, 116 mm)
Relative humidity (without condensation)	95%
Installation, location, position.	Vertical / Horizontal. Minimum distance between condensers 2 cm.
Working temperature	T <sup>a</sup> class D: Daily average: 45 °C, annual average: 35 °C, maximum: 65 °C, minimum: -50 °C

#### Standards

Certifications	VDE 560
Electrical safety, Maximum height (m)	4000
Standards	IEC 60831-1-1/2, IEC 70/7, UNE 20827, UNE 20010, BS 1650

#### Current measurement circuit

Allowable overload	1,8 In
Permanent overload	1,8 In

#### Protection

Circuit breaker type	Dielectric regeneration Expansion system
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#### CLZ-FP HD 60Hz



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Code: R2H796.

Three-phase tubular power capacitor (Heavy Duty range)

CODE	TYPE	kvar (230 V)	kvar (240 V)	Use voltage (V)	kvar (400 V)	kvar (440 V)	kvar (460 V)	kvar (480 V)	kvar (525 V)	kvar (600 V)	kvar (660 V)	kvar (690 V)
<b>Faston terminal, Un = 3 x 240 V / 60 Hz</b>												
R2H622.	CLZ-FPT-24/2,5-60Hz-HD	2,3	2,5	240								
<b>Terminal block, Un = 3 x 240 V / 60 Hz</b>												
R2H626.	CLZ-FP-24/5-60Hz-HD	4,6	5	240								
R2H627.	CLZ-FP-24/6,25-60Hz-HD	5,75	6,25	240								
R2H628.	CLZ-FP-24/7,5-60Hz-HD	6,9	7,5	240								
R2H62B.	CLZ-FP-24/10-60Hz-HD	9,2	10	240								
R2H62D.	CLZ-FP-24/12,5-60Hz-HD	11,5	12,5	240								
R2H62E.	CLZ-FP-24/15-60Hz-HD	13,8	15	240								
<b>Faston terminal, Un = 3 x 440 V / 60 Hz</b>												
R2H641.	CLZ-FPT-44/1,25-60Hz-HD			400   440	1	1,25						
R2H642.	CLZ-FPT-44/2,5-60Hz-HD			400   440	2,1	2,5						
R2H643.	CLZ-FPT-44/3-60Hz-HD			400   440	2,5	3						
R2H644.	CLZ-FPT-44/3,75-60Hz-HD			400   440	3,1	3,75						
R2H646.	CLZ-FPT-44/5-60Hz-HD			400   440	4,15	5						
<b>Terminal block, Un = 3 x 440 V / 60 Hz</b>												
R2H647.	CLZ-FP-44/6,25-60Hz-HD			400   440	5,2	6,25						
R2H648.	CLZ-FP-44/7,5-60Hz-HD			400   440	6,2	7,5						
R2H64B.	CLZ-FP-44/10-60Hz-HD			400   440	8,3	10						
R2H64D.	CLZ-FP-44/12,5-60Hz-HD			400   440	10,3	12,5						
R2H64E.	CLZ-FP-44/15-60Hz-HD			400   440	12,4	15						
R2H64J.	CLZ-FP-44/20-60Hz-HD			400   440	16,5	20						
R2H64L.	CLZ-FP-44/25-60Hz-HD			400   440	20,7	25						
R2H64N.	CLZ-FP-44/30-60Hz-HD			400   440	24,8	30						
R2H64R.	CLZ-FP-44/40-60Hz-HD			400   440	33,1	40						
R2H64S.	CLZ-FP-44/50-60Hz-HD			400   440	41,3	50						
<b>Faston terminal, Un = 3 x 480 V / 60 Hz</b>												
R2H762.	CLZ-FPT-48/2,5-60Hz-HD			480			2,3	2,5				
R2H766.	CLZ-FPT-48/5-60Hz-HD			480			4,6	5				
R2H767.	CLZ-FPT-48/6,25-60Hz-HD			480			5,75	6,25				
R2H768.	CLZ-FPT-48/7,5-60Hz-HD			480			6,9	7,5				
<b>Terminal block, Un = 3 x 480 V / 60 Hz</b>												
R2H66B.	CLZ-FP-48/10-60Hz-HD			480			9,2	10				
R2H66D.	CLZ-FP-48/12,5-60Hz-HD			480			11,5	12,5				
R2H66E.	CLZ-FP-48/15-60Hz-HD			480			13,8	15				
R2H66J.	CLZ-FP-48/20-60Hz-HD			480			18,4	20				
R2H66L.	CLZ-FP-48/25-60Hz-HD			480			23	25				
R2H66N.	CLZ-FP-48/30-60Hz-HD			480			27,6	30				
R2H66R.	CLZ-FP-48/40-60Hz-HD			480			36,75	40				
R2H66S.	CLZ-FP-48/50-60Hz-HD			480			46	50				
<b>Faston terminal, Un = 3 x 525 V / 60 Hz</b>												
R2H772.	CLZ-FPT-52/2,5-60Hz-HD			525				2,1	2,5			



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R2H776.	CLZ-FPT-52/5-60Hz-HD			525				4,2	5			
R2H777.	CLZ-FPT-52/6,25-60Hz-HD			525				5,2	6,25			
R2H778.	CLZ-FPT-52/7,5-60Hz-HD			525				6,25	7,5			
<b>Terminal block, Un = 3 x 525 V / 60 Hz</b>												
R2H67A.	CLZ-FP-52/8,5-60Hz-HD			525				7,1	8,5			
R2H67B.	CLZ-FP-52/10-60Hz-HD			525				8,4	10			
R2H67C.	CLZ-FP-52/11,5-60Hz-HD			525				9,6	11,5			
R2H67D.	CLZ-FP-52/12,5-60Hz-HD			525				10,5	12,5			
R2H67E.	CLZ-FP-52/15-60Hz-HD			525				12,5	15			
R2H67I.	CLZ-FP-52/17-60Hz-HD			525				14,2	17			
R2H67J.	CLZ-FP-52/20-60Hz-HD			525				16,7	20			
R2H67K.	CLZ-FP-52/22,5-60Hz-HD			525				18,8	22,5			
R2H67L.	CLZ-FP-52/25-60Hz-HD			525				20,9	25			
R2H67N.	CLZ-FP-52/30-60Hz-HD			525				25	30			
R2H67P.	CLZ-FP-52/34-60Hz-HD			525				28,4	34			
R2H67R.	CLZ-FP-52/40-60Hz-HD			525				33,4	40			
<b>Faston terminal, Un = 3 x 600 V / 60 Hz</b>												
R2H782.	CLZ-FPT-60/2,5-60Hz-HD			600						2,5		
R2H786.	CLZ-FPT-60/5-60Hz-HD			600						5		
R2H787.	CLZ-FPT-60/6,25-60Hz-HD			600						6,25		
R2H788.	CLZ-FPT-60/7,5-60Hz-HD			600						7,5		
<b>Terminal block, Un = 3 x 600 V / 60 Hz</b>												
R2H68A.	CLZ-FP-60/10-60Hz-HD			600						10		
R2H68B.	CLZ-FP-60/12,5-60Hz-HD			600						12,5		
R2H68E.	CLZ-FP-60/15-60Hz-HD			600						15		
R2H68I.	CLZ-FP-60/17,5-60Hz-HD			600						17,5		
R2H68J.	CLZ-FP-60/20-60Hz-HD			600						20		
R2H68K.	CLZ-FP-60/21-60Hz-HD			600						21		
R2H68L.	CLZ-FP-60/25-60Hz-HD			600						25		
R2H68N.	CLZ-FP-60/30-60Hz-HD			600						30		
R2H68P.	CLZ-FP-60/34,5-60Hz-HD			600						34,5		
<b>Faston terminal, Un = 3 x 690 V / 60 Hz</b>												
R2H792.	CLZ-FPT-69/2,5-60Hz-HD			690							2,3	2,5
R2H796.	CLZ-FPT-69/5-60Hz-HD			690							4,6	5
R2H798.	CLZ-FPT-69/7,5-60Hz-HD			690							6,9	7,5
<b>Terminal block, Un = 3 x 690 V / 60 Hz</b>												
R2H69B.	CLZ-FP-69/10-60Hz-HD			690						9,15		10
R2H69D.	CLZ-FP-69/12,5-60Hz-HD			690						11,4		12,5
R2H69E.	CLZ-FP-69/15-60Hz-HD			690						13,7		15
R2H69J.	CLZ-FP-69/20-60Hz-HD			690						18,3		20
R2H69L.	CLZ-FP-69/25-60Hz-HD			690						22,9		25
R2H69N.	CLZ-FP-69/30-60Hz-HD			690						27,5		30
R2H69R.	CLZ-FP-69/40-60Hz-HD			690						36,6		40



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R2H69S.	CLZ-FP-69/50-60Hz-HD			690						45,75		50

All models are of the inert gas type, except for those with a 63.5 mm diameter and 136x355 mm size. The dimensions (dxh) are shown for the tube only. Please consult the dimensions drawing at the end of this section for more information about the actual dimensions. Terminal: maximum cross-section of type A cables: 16 mm<sup>2</sup>, type B: 25 mm<sup>2</sup>, type C: 35 mm<sup>2</sup>, F: Faston 6.3x0.8 mm and 12 A maximum current.



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### Dimensions

