



HEF990H

Moulded Case Circuit Breaker h1600 3P 70kA 1600A LSI

Technical characteristics

Architecture

Type of order	Toggle
Number of poles	3 P
Type of pole	3P3D

Functions

Complete device with protection unit	Yes
Trip Unit	LSI
Integrated earth fault protection	No

Configuration

Number of modules	12
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Main electrical features

Rated operational voltage Ue	220 / 690 V
Frequency	50/60 Hz

Voltage

Rated insulation voltage	800 V
Rated impulse withstand voltage	8 kV
With under voltage release	No

Electric current

Rated current	1600 A
Rated ultimate short-circuit breaking capacity I _{cu} under 690V AC IEC 60947-2	45 kA
Thermal protection nob setting xIN	0.4 / 0.5 / 0.63 / 0.8 / 0.9 / 0.95 / 1
Breaking capacity on 1 pole for IT 230V NF 60947-2	60 kA
Breaking capacity on 1 pole for IT 400V NF 60947-2	9 kA
Rated service breaking capacity I _{cs} AC according IEC 60947-2	71 %
Rated ultimate short-circuit breaking capacity I _{cu} under 230V AC IEC 60947-2	100 kA
Rated ultimate short-circuit breaking capacity I _{cu} under 240V AC IEC 60947-2	100 kA
Rated ultimate short-circuit breaking capacity I _{cu} under 400V AC IEC 60947-2	70 kA
Rated ultimate short-circuit breaking capacity I _{cu} under 415V AC IEC 60947-2	70 kA
Rated ultimate short-circuit breaking capacity I _{cu} under 440V AC IEC 60947-2	70 kA

Current correction factors

Correction factor of rating current for 2 devices placed side-by-side	1
Correction factor of rating current for 3 devices placed side-by-side	1
Correction factor of rating current for 4 and 5 devices placed side-by-side	1
Correction factor of rating current for 6 devices placed side-by-side	1

Power

Total power loss under IN	168.9 W
Power loss per pole at In	56.3 W

Tripping

Tripmode	LSI
Thermal protection trip time	5 / 10 / 11 / 19 / 21 / 29 ms
Time of response when opening	10 ms

Electrical specifications

Magnetic trip delay time	100 to 200 ms
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Endurance

Electric endurance in number of cycles	1000
Number of mechanical operations	4000

Installation, mounting

DIN rail mounting with optional adaptor	No
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Connection

Connection cross-sect. flexible conductor	3x240mm ²
Connection cross-sect. rigid cable	3x240mm ²
Connection	Front connection
Type of connection	Terminal

Settings

Range of the magnetic adjustment	8960 / 11200 / 14000 / 17920 / 19200 / 19200 / 19200 A
Magnetic protection nob setting xIN	2.5 / 5 / 10
Setting type In or Ith	IrTh

Equipment

Number of auxiliary contacts as normally closed contact	0
Number of auxiliary contacts as normally open contact	0
Number of auxiliary contacts as change-over contact	0
Motor drive optional	Yes

Use cases

Category of use	A
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Standards

Use conditions

Operating temperature	-25...70 °C
Altitude	2000 m
Air humidity protection	for all climates
Storage/transport temperature	-35...70 °C
