



HNF990H

## MCCB h1600 3P 50kA 1600A LSI

Product Datasheet

### 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

### Compatibility

Compatible with DIN rail mounting	no
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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 Icu 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 Ics AC according IEC 60947-2	100 %
Rated ultimate short-circuit breaking capacity Icu under 230V AC IEC 60947-2	100 kA
Rated ultimate short-circuit breaking capacity Icu under 240V AC IEC 60947-2	100 kA
Rated ultimate short-circuit breaking capacity Icu under 400V AC IEC 60947-2	50 kA
Rated ultimate short-circuit breaking capacity Icu under 415V AC IEC 60947-2	50 kA
Rated ultimate short-circuit breaking capacity Icu 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 I <sub>N</sub>	168,9 W
Power loss per pole at I <sub>N</sub>	56,3 W

### Tripping

Trip mode	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

Tightening torque	65Nm
DIN rail mounting with optional adaptor	no

### Connection

Connection cross-sect. flexible conductor	3x240mm <sup>2</sup>
Connection cross-sect. rigid cable	3x240mm <sup>2</sup>
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 xI <sub>N</sub>	2,5 / 5 / 10
Setting type I <sub>N</sub> or I <sub>th</sub>	I <sub>rTh</sub>

### Equipment

Motor drive optional	yes
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### Use cases

Category of use	A
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**Standards**

Standard text	IEC 60947-2
European directive WEEE	concerned

**Safety**

Protection index IP	IP4X
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**Use conditions**

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