



HNF991H

Moulded Case Circuit Breaker h1600 4P 50kA 1600A LSI

Technical properties

Architecture

Type of order	Toggle
Number of poles	4 P
Type of pole	4P4D N:0/50/100%

Functions

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

Configuration

Number of modules	16
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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
Thermal setting current on neutral pole	0 / 0.5 / 1 In
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
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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 _N	168.9 W
Power loss per pole at I _N	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

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

Settings

Range of the magnetic adjustment	8960 / 11200 / 14000 / 17920 / 19200 / 19200 / 19200 A
Magnetic protection nob setting xI _N	2.5 / 5 / 10
Setting type I _N or I _{th}	I _r Th

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

Standard text	IEC 60947-2
European directive WEEE	concerned

Use conditions

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