



HNF991H

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

Technical properties

Architecture

| | |
|-----------------|-----|
| Number of poles | 4 P |
|-----------------|-----|

Functions

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

Configuration

| | |
|-------------------|----|
| Number of modules | 16 |
|-------------------|----|

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 |

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 |
| Endurance | |
| Electric endurance in number of cycles | 1000 |
| Number of mechanical operations | 4000 |
| Installation, mounting | |
| DIN rail mounting with optional adaptor | No |
| Connection | |
| Type of connection | Terminal |
| 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 |
| Standards | |
| Standard text | IEC 60947-2 |
| European directive WEEE | concerned |
| Use conditions | |

| | |
|-------------------------------|-------------|
| Operating temperature | -25...70 °C |
| Altitude | 2000 m |
| Storage/transport temperature | -35...70 °C |