



HEF991H

## Moulded Case Circuit Breaker h1600 4P 70kA 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 $U_e$ | 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 |
|--------------------------------------|---|

|   |                   |
|---|-------------------|
| Thermal setting current on neutral pole | 0 / 0.5 / 1 $I_n$ |
|---|-------------------|

|  |       |
|--|-------|
| 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  |
| <b>Power</b>  |  |
| Total power loss under IN   | 168.9 W  |
| Power loss per pole at In   | 56.3 W   |
| <b>Tripping</b>   |  |
| Tripmode  | LSI  |
| Thermal protection trip time  | 5 / 10 / 11 / 19 / 21 / 29 ms                          |
| Time of response when opening   | 10 ms  |
| <b>Electrical specifications</b>  |  |
| Magnetic trip delay time  | 100 to 200 ms  |
| <b>Endurance</b>  |  |
| Electric endurance in number of cycles                                      | 1000   |
| Number of mechanical operations   | 4000   |
| <b>Installation, mounting</b>   |  |
| DIN rail mounting with optional adaptor                                     | No   |
| <b>Connection</b>   |  |
| Type of connection  | Terminal   |
| <b>Settings</b>   |  |
| 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   |
| <b>Equipment</b>  |  |
| 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  |
| <b>Use cases</b>  |  |
| Category of use   | A  |
| <b>Standards</b>  |  |
| Standard text   | IEC 60947-2  |
| European directive WEEE   | concerned  |
| <b>Use conditions</b>   |  |

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