



MCB 4P 10kA C-125A 6M

HLF499S

Architecture

| | |
|---------------------------|-----|
| Number of protected poles | 4 |
| Number of poles | 4 P |
| Type of pole | 4 P |
| Curve | C |

Connectivity

| | |
|---|------------------|
| Bottom connection alignment for modular devices | Aligned terminal |
| Top connection alignment for modular devices | Aligned terminal |

Main electrical features

| | |
|---|----------|
| Frequency | 50/60 Hz |
| Rated short circuit breaking capacity I _{cn} AC according IEC60898-1 | 10 kA |
| Type of supply voltage | AC |
| Rated operational voltage U _e | 415 V |

Voltage

| | |
|---------------------------------|--------|
| Rated insulation voltage | 500 V |
| Rated impulse withstand voltage | 6000 V |

Electric current

| | |
|--|--------|
| Rated ultimate short-circuit breaking capacity I _{cu} under 400V AC IEC 60947-2 | 10 kA |
| Rated short circuit breaking capacity I _{cn} under 230V AC according IEC60898-1 | 10 kA |
| Rated short circuit breaking capacity I _{cn} under 400V AC according IEC60898-1 | 10 kA |
| Rated service breaking capacity I _{cs} AC according IEC 60898-1 | 7,5 kA |
| Rated service breaking capacity I _{cs} AC according IEC 60947-2 | 75 % |
| Breaking capacity on 1 pole with 400 V NF 60947-2 | 4,5 kA |
| Breaking capacity on 1 pole with 415 V NF 60947-2 | 4,5 kA |
| Rated ultimate short-circuit breaking capacity I _{cu} under 230V AC IEC 60947-2 | 10 kA |
| Rated ultimate short-circuit breaking capacity I _{cu} under 240V AC IEC 60947-2 | 10 kA |

Technical Properties

| | |
|--|--------------|
| Rated ultimate short-circuit breaking capacity Icu under 415V AC IEC 60947-2 | 10 kA |
| Magnetic regulating current at 40° C | 5/10 In |
| min/maxi threshold value of the AC thermal operation | 1,13/1,45 In |

Electric current / temperature

| | |
|--|---------|
| Rating current 30°C | 125 A |
| Rating current 35°C | 122 A |
| Rating current 40°C | 119 A |
| Rating current 45°C | 115,7 A |
| Rating current 50°C | 112 A |
| Rating current 55°C | 109,1 A |
| Rating current 60°C | 105,6 A |
| Rating current 40°C according to IEC 60947-2 | 125 A |
| Rating current 45°C according to IEC 60947-2 | 122 A |
| Rating current 50°C according to IEC 60947-2 | 119 A |
| Rating current 55°C according to IEC 60947-2 | 115,7 A |
| Rating current 60°C according to IEC 60947-2 | 112 A |
| Rating current 65°C according to IEC 60947-2 | 109,1 A |
| Rating current 70°C according to IEC 60947-2 | 105,6 A |

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 | 0,95 |
| Correction factor of rating current for 4 and 5 devices placed side-by-side | 0,9 |
| Correction factor of rating current for 6 devices placed side-by-side | 0,85 |

Power

| | |
|---------------------------|---------|
| Power loss per pole at In | 11,56 W |
| Total power loss under IN | 42,25 W |

Endurance

| | |
|--|-------|
| Electric endurance in number of cycles | 4000 |
| Number of mechanical operations | 20000 |

Dimensions

| | |
|-----------------------------|--------|
| Depth of installed product | 70 mm |
| Height of installed product | 90 mm |
| Width of installed product | 106 mm |

Installation, mounting

| | |
|---|------------|
| Type of top connection for modular devices | with screw |
| Tightening torque | 3,5 to 5Nm |
| Type of bottom rail clip for modular devices | plastic |
| Type of top rail clip for modular devices | Plastic |
| Type of Bottom Connection for modular devices | with screw |
| Bottom removability for modular devices | yes |
| Top removability for modular devices | yes |

Connection

| | |
|--|--|
| Connection cross-section at output with screw, for flexible conductor | 1/50 mm ² |
| Connection cross-section of the access with screws, with flexible conductor | 1/50 mm ² |
| Connection cross-section at output with screw, for massive conductor | 1/70 mm ² |
| Connection cross-section for rigid conductor, upstream terminals with screws | 1/70 mm ² |
| Connection cross-sect. rigid cable | 70mm ² |
| Connection cross-sect. flexible conductor | 50mm ² |
| Nominal tightening torque bottom terminal | 3,6 Nm |
| Nominal tightening torque top terminal | 3,6 Nm |
| Type of connection | terminal with tightening compensation system |

Standards

| | |
|-------------------------|-------------------------|
| Standard text | EN 60898-1, IEC 60947-2 |
| European directive WEEE | concerned |

Safety

| | |
|---------------------|------|
| Protection index IP | IP20 |
|---------------------|------|

Use conditions

| | |
|--|------------------|
| Degree of pollution according to IEC 60664 / IEC 60947-2 | 3 |
| Altitude | 2000 m |
| Storage temperature | -25 to 80 °C |
| Air humidity protection | for all climates |

temperatur

| | |
|----------------------------|-------|
| Temperature of calibration | 30 °C |
|----------------------------|-------|