



HES026DC

**MCCB h3+ P160 TM 4x25A 70kA**

Product Datasheet

**Architecture**

|                           |                |
|---------------------------|----------------|
| Type of order             | Toggle         |
| Neutral position          | left           |
| Number of protected poles | 4              |
| Number of poles           | 4 P            |
| Type of pole              | 4P4D N:0/100%  |
| Fixing mode               | fixing plate   |
| Type of case              | Fixed built-in |

**Functions**

|                                        |        |
|----------------------------------------|--------|
| Complete device with protection unit   | yes    |
| Reversing switch                       | no     |
| Version as main switch                 | yes    |
| Version as emergency stop installation | no     |
| Version as safety switch               | no     |
| Version as maintenance-/service switch | yes    |
| Trip Unit                              | TM A/A |
| Integrated earth fault protection      | no     |
| Concurrently switching N-neutral       | yes    |
| Version as switch disconnecter compact | yes    |
| Isolation suitability                  | yes    |
| Sealable                               | yes    |

**Compatibility**

|                                   |    |
|-----------------------------------|----|
| Compatible with DIN rail mounting | no |
| Compatible with RCD AOB           | no |

**Controls and indicators**

|                                 |     |
|---------------------------------|-----|
| Motor drive integrated          | no  |
| With Contact position indicator | yes |
| With fault indicator            | yes |

**Connectivity**

|                                |    |
|--------------------------------|----|
| ACP connection (communication) | no |
| CIP connection (communication) | no |
| MIP connection (communication) | no |
| OAC connection (communication) | no |
| PTA connection (communication) | no |
| ZSI connection (communication) | no |

**Main electrical features**

|                              |             |
|------------------------------|-------------|
| Rated operational voltage Ue | 220 / 690 V |
| Type of supply voltage       | AC          |
| 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                                                                    | 25 A           |
| Rated ultimate short-circuit breaking capacity Icu under 110-138V AC IEC 60947-2 | 85 kA          |
| Rated ultimate short-circuit breaking capacity Icu under 690V AC IEC 60947-2     | 6 kA           |
| Thermal protection nob setting xIN                                               | 0,63 / 0,8 / 1 |
| Rating current 10°C according to IEC 60947                                       | 30,1 A         |
| Rating current 150°C according to IEC 60947                                      | 29,6 A         |
| Rating current 20°C according to IEC 60947                                       | 28,9 A         |
| Rating current 25°C according to IEC 60947                                       | 28,3 A         |
| Rating current 30°C according to IEC 60947                                       | 27,7 A         |
| Rating current 35°C according to IEC 60947                                       | 27 A           |
| Rating current 40°C according to IEC 60947                                       | 26,4 A         |
| Rating current 45°C according to IEC 60947                                       | 25,7 A         |
| Rating current 50°C according to IEC 60947                                       | 25 A           |
| Rating current 55°C according to IEC 60947                                       | 24,3 A         |
| Rating current 60°C according to IEC 60947                                       | 23,5 A         |
| Rating current 65°C according to IEC 60947                                       | 22,8 A         |
| Rating current 70°C according to IEC 60947                                       | 22 A           |
| Rated service breaking capacity Ics under 220V AC according IEC 60947-2          | 85 kA          |
| Rated service breaking capacity Ics under 230V AC according IEC 60947-2          | 85 kA          |
| Rated service breaking capacity Ics under 240V AC according IEC 60947-2          | 85 kA          |
| Rated service breaking capacity Ics under 380V AC according IEC 60947-2          | 50 kA          |
| Rated service breaking capacity Ics under 400V AC according IEC 60947-2          | 50 kA          |
| Rated service breaking capacity Ics under 415V AC according IEC 60947-2          | 50 kA          |
| Rated service breaking capacity Ics under 660V AC according IEC 60947-2          | 6 kA           |
| Rated service breaking capacity Ics under 690V AC according IEC 60947-2          | 6 kA           |
| Breaking capacity on 1 pole for IT 230V NF 60947-2                               | 6 kA           |
| Breaking capacity on 1 pole for IT 400V NF 60947-2                               | 6 kA           |
| Breaking capacity on 1 pole for IT 415V NF 60947-2                               | 6 kA           |
| Breaking capacity on 1 pole for IT 690V NF 60947-2                               | 2,5 kA         |
| Rated ultimate short-circuit breaking capacity Icu under 230V AC IEC 60947-2     | 85 kA          |
| Rated ultimate short-circuit breaking capacity Icu under 240V AC IEC 60947-2     | 85 kA          |
| Rated ultimate short-circuit breaking capacity Icu under 400V AC IEC 60947-2     | 70 kA          |
| Rated ultimate short-circuit breaking capacity Icu under 415V AC IEC 60947-2     | 70 kA          |
| Range of the thermal adjustment                                                  | 16 / 20 / 25 A |
| Rated short-circuit making capacity Icm under 110-138V AC according IEC 60947-2  | 187 kA         |

|                                                                                   |        |
|-----------------------------------------------------------------------------------|--------|
| Rated short-circuit making capacity $I_{cm}$ under 220V AC according IEC 60947-2  | 187 kA |
| Rated short-circuit making capacity $I_{cm}$ under 230V AC according IEC 60947-2  | 187 kA |
| Rated short-circuit making capacity $I_{cm}$ under 240V AC according IEC 60947-2  | 187 kA |
| Rated short-circuit making capacity $I_{cm}$ under 380V AC according IEC 60947-2  | 154 kA |
| Rated short-circuit making capacity $I_{cm}$ under 400V AC according IEC 60947-2  | 154 kA |
| Rated short-circuit making capacity $I_{cm}$ under 415V AC according IEC 60947-2  | 154 kA |
| Rated short-circuit making capacity $I_{cm}$ under 660V AC according IEC 60947-2  | 9 kA   |
| Rated short-circuit making capacity $I_{cm}$ under 690V AC according IEC 60947-2  | 9 kA   |
| Rated service breaking capacity $I_{cs}$ under 110-138V AC according IEC 60947-2  | 85 kA  |
| Rated ultimate short-circuit breaking capacity $I_{cu}$ under 220V AC IEC 60947-2 | 85 kA  |
| Rated ultimate short-circuit breaking capacity $I_{cu}$ under 380V AC IEC 60947-2 | 70 kA  |
| Rated ultimate short-circuit breaking capacity $I_{cu}$ under 660V AC IEC 60947-2 | 6 kA   |

#### Frequency

|           |             |
|-----------|-------------|
| Frequency | 50 to 60 Hz |
|-----------|-------------|

#### Power

|                                         |         |
|-----------------------------------------|---------|
| Power loss per pole at $0.63 \cdot I_n$ | 2,66 W  |
| Power loss per pole at $0.8 \cdot I_n$  | 4,16 W  |
| Total power loss at $0.63 \cdot I_n$    | 7,99 W  |
| Total power loss at $0.8 \cdot I_n$     | 12,48 W |
| Total power loss under $I_n$            | 19,5 W  |
| Power loss per pole at $I_n$            | 6,5 W   |

#### Tripping

|                             |    |
|-----------------------------|----|
| Short-time delayed tripping | no |
|-----------------------------|----|

#### Endurance

|                                        |       |
|----------------------------------------|-------|
| Electric endurance in number of cycles | 10000 |
| Number of mechanical operations        | 40000 |

#### Cover, door

|               |     |
|---------------|-----|
| Interlockable | yes |
|---------------|-----|

### Dimensions

|                                                          |        |
|----------------------------------------------------------|--------|
| Depth of installed product                               | 97 mm  |
| Height of installed product                              | 130 mm |
| Width of installed product                               | 120 mm |
| Critical distance switching emission/earthed part bottom | 50 mm  |
| Critical distance switching emission/earthed part left   | 50 mm  |
| Critical distance switching emission/earthed part right  | 50 mm  |
| Critical distance switching emission/earthed part top    | 50 mm  |
| Critical distance switching emission/live part           | 75 mm  |

### Installation, mounting

|                                              |     |
|----------------------------------------------|-----|
| Tightening torque                            | 6Nm |
| DIN rail mounting with optional adaptator    | yes |
| Suitable for front mounting center           | no  |
| Suitable for distribution board installation | yes |
| Suitable for front mounting                  | no  |
| Suitable for ground mounting                 | yes |
| Suitable for intermediate mounting           | no  |

### Connection

|                                           |                       |
|-------------------------------------------|-----------------------|
| Connection cross-sect. flexible conductor | 6 / 70mm <sup>2</sup> |
| Connection cross-sect. rigid cable        | 6 / 95mm <sup>2</sup> |
| Connection                                | Front connection      |
| Type of connection                        | with screw            |

### Protection

|                                                              |                 |
|--------------------------------------------------------------|-----------------|
| Earth fault protection (GF)                                  | no              |
| Instantaneous protection (Ii)                                | yes             |
| Instantaneous protection (Ii): deactivatable                 | no              |
| Instantaneous protection (Ii): type                          | fixed           |
| Instantaneous protection (Ii): reference for current setting | Ii... x In      |
| Instantaneous protection (Ii): dial setting coefficient      | 6 / 8 / 10 / 12 |
| Long Time overload protection (Itd)                          | yes             |
| Long time delay protection (Itd): deactivatable              | no              |
| Long Time protection (Itd): delay type                       | fixed           |
| Neutral overload protection (NP)                             | yes             |
| Neutral overload protection (NP): current (IN)               | 100 %           |
| Pre-Trip Alarm (PTA)                                         | no              |
| Short time protection (std)                                  | no              |
| Short time protection by I <sup>2</sup> t curve              | no              |

### Cable

|                |    |
|----------------|----|
| Cable Material | Cu |
|----------------|----|

### Settings

|                                     |                         |
|-------------------------------------|-------------------------|
| Range of the magnetic adjustment    | 150 / 200 / 250 / 300 A |
| Magnetic protection nob setting xIN | 6 / 8 / 10 / 12         |
| Time adjustable                     | no                      |

### Equipment

|                               |     |
|-------------------------------|-----|
| Motor drive optional          | no  |
| Can be accessorized           | yes |
| Accept terminal cover         | yes |
| With optional voltage release | yes |

### Use cases

|                 |   |
|-----------------|---|
| Category of use | A |
|-----------------|---|

### Use

|                                 |                        |
|---------------------------------|------------------------|
| Vibrations and shocks withstand | IEC 68068-2-52 Test FC |
|---------------------------------|------------------------|

### Standards

|                                                              |             |
|--------------------------------------------------------------|-------------|
| Standard text                                                | IEC 60947-2 |
| European directive WEEE                                      | concerned   |
| Product categories described in the W3E directive 2012/19/EU | Category 5  |

### Safety

|                     |      |
|---------------------|------|
| Protection index IP | IP4X |
|---------------------|------|

### Use conditions

|                                                          |                                    |
|----------------------------------------------------------|------------------------------------|
| Degree of pollution according to IEC 60664 / IEC 60947-2 | 3                                  |
| Altitude                                                 | 2000 m                             |
| Air humidity protection                                  | 95%HR 55°C sev Kn (IEC 68-2-30/52) |

### temperatur

|                            |       |
|----------------------------|-------|
| Temperature of calibration | 50 °C |
|----------------------------|-------|