

# Product Datasheet

## HMS160JR



HMS160JR

### Moulded Case Circuit Breaker h3+ P160 LSI 3P3D 160A 50kA FTC

#### Technical Features

##### Electric current

|                                                                                           |         |
|-------------------------------------------------------------------------------------------|---------|
| Rated current                                                                             | 160 A   |
| Rated ultimate short-circuit breaking capacity I <sub>cu</sub> under 230 V AC IEC 60947-2 | 65 kA   |
| Rated ultimate short-circuit breaking capacity I <sub>cu</sub> under 240 V AC IEC 60947-2 | 65 kA   |
| Rated ultimate short-circuit breaking capacity I <sub>cu</sub> under 400 V AC IEC 60947-2 | 50 kA   |
| Rated ultimate short-circuit breaking capacity I <sub>cu</sub> under 415 V AC IEC 60947-2 | 50 kA   |
| Breaking capacity on 1-pole for AC 230 V IEC 60947-2                                      | 2.50 kA |
| Breaking capacity on 1-pole for AC 400 V IEC 60947-2                                      | 2.50 kA |

##### Architecture

|                           |                 |
|---------------------------|-----------------|
| Number of poles           | 3               |
| Control/operation element | Toggle          |
| Device construction type  | Fixed built-in  |
| Neutral position          | Without neutral |

##### Electric current

|                                                                                           |       |
|-------------------------------------------------------------------------------------------|-------|
| Rated ultimate short-circuit breaking capacity I <sub>cu</sub> under 690 V AC IEC 60947-2 | 6 kA  |
| Rated service breaking capacity I <sub>cs</sub> under 220 V AC according to IEC 60947-2   | 65 kA |
| Rated service breaking capacity I <sub>cs</sub> under 230 V AC according to IEC 60947-2   | 65 kA |
| Rated service breaking capacity I <sub>cs</sub> under 240 V AC according to IEC 60947-2   | 65 kA |
| Rated service breaking capacity I <sub>cs</sub> under 380 V AC according to IEC 60947-2   | 50 kA |
| Rated service breaking capacity I <sub>cs</sub> under 400 V AC according to IEC 60947-2   | 50 kA |
| Rated service breaking capacity I <sub>cs</sub> under 415 V AC according to IEC 60947-2   | 50 kA |
| Rated service breaking capacity I <sub>cs</sub> under 690 V AC according to IEC 60947-2   | 6 kA  |
| Rated current 10°C according to IEC 60947                                                 | 160 A |
| Rated current 15°C according to IEC 60947                                                 | 160 A |
| Rated current 20°C according to IEC 60947                                                 | 160 A |
| Rated current 25°C according to IEC 60947                                                 | 160 A |
| Rated current 30°C according to IEC 60947                                                 | 160 A |
| Rated current at 35°C according to IEC 60947                                              | 160 A |
| Rated current at 40°C according to IEC 60947                                              | 160 A |
| Rated current 45°C according to IEC 60947                                                 | 160 A |
| Rated current 50°C according to IEC 60947                                                 | 160 A |
| Rated current 55°C according to IEC 60947                                                 | 160 A |
| Rated current at 60°C according to IEC 60947                                              | 159 A |
| Rated current 70°C according to IEC 60947                                                 | 135 A |
| Rated current 65°C according to IEC 60947                                                 | 145 A |

##### Settings

|                                                           |             |
|-----------------------------------------------------------|-------------|
| Ir1 current dial setting                                  | 63 A        |
|                                                           | 70 A        |
|                                                           | 80 A        |
|                                                           | 90 A        |
|                                                           | 100 A       |
|                                                           | 110 A       |
|                                                           | 125 A       |
|                                                           | 135 A       |
|                                                           | 150 A       |
|                                                           | 160 A       |
| Adjustment range short-term delayed short-circuit release | 86 - 1600 A |

##### Frequency

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

##### Installation, mounting

|                               |          |
|-------------------------------|----------|
| Nominal tightening torque     | 6 - 6 Nm |
| Mounting-/Connection Position | Front    |

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### Voltage

|                                      |             |
|--------------------------------------|-------------|
| Rated impulse withstand voltage Uimp | 8000 V      |
| Rated insulation voltage Ui          | 800 V       |
| Rated operational voltage Ue         | 220 - 690 V |

### Functions

|           |     |
|-----------|-----|
| Trip unit | LSI |
|-----------|-----|

### Power

|                           |      |
|---------------------------|------|
| Total power loss under IN | 27 W |
| Power loss per pole at In | 9 W  |

### Endurance

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

### Equipment

|                                                         |   |
|---------------------------------------------------------|---|
| Number of auxiliary contacts as change-over contact     | 0 |
| Number of auxiliary contacts as normally closed contact | 0 |
| Number of auxiliary contacts as normally open contact   | 0 |

### Safety

|                               |      |
|-------------------------------|------|
| Ingress Protection (IP) class | IP4X |
|-------------------------------|------|

### Use conditions

|                       |             |
|-----------------------|-------------|
| Operating temperature | -25 - 70 °C |
|-----------------------|-------------|

### Connection

|                                  |                        |
|----------------------------------|------------------------|
| Cross-section flexible conductor | 6 - 70 mm <sup>2</sup> |
|----------------------------------|------------------------|

### Cover, door

|               |     |
|---------------|-----|
| Interlockable | Yes |
|---------------|-----|

### Connection

|                               |                        |
|-------------------------------|------------------------|
| Cross-section rigid conductor | 6 - 95 mm <sup>2</sup> |
| Connector/plug type           | Terminal               |

### Cable

|                |                     |
|----------------|---------------------|
| Cable material | Copper<br>Aluminium |
|----------------|---------------------|

### Use conditions

|                                                          |   |
|----------------------------------------------------------|---|
| Degree of pollution according to IEC 60664 / IEC 60947-2 | 3 |
|----------------------------------------------------------|---|

### Dimensions

|        |        |
|--------|--------|
| Height | 130 mm |
| Width  | 90 mm  |
| Depth  | 97 mm  |

### Controls and indicators

|                        |    |
|------------------------|----|
| Motor drive integrated | No |
|------------------------|----|

### Compatibility

|                                 |     |
|---------------------------------|-----|
| Suitable for DIN Rail           | No  |
| Compatible with RDC AOB         | No  |
| Suitable for distribution board | Yes |

### Power supply

|                       |               |
|-----------------------|---------------|
| Position power supply | Bidirectional |
|-----------------------|---------------|

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|                                                         |        |
|---------------------------------------------------------|--------|
| <b>Electrical protection</b>                            |        |
| Long-time overload protection (ltd): delay (tr)         | 0.5 s  |
|                                                         | 1.5 s  |
|                                                         | 2.5 s  |
|                                                         | 5 s    |
|                                                         | 7.5 s  |
|                                                         | 9 s    |
|                                                         | 10 s   |
|                                                         | 12 s   |
|                                                         | 14 s   |
|                                                         | 16 s   |
|                                                         |        |
| Short-time protection (std): current (lsd)              | 1.5    |
|                                                         | 2      |
|                                                         | 3      |
|                                                         | 4      |
|                                                         | 5      |
|                                                         | 6      |
|                                                         | 7      |
|                                                         | 8      |
|                                                         | 10     |
|                                                         |        |
| Short-time protection (std): delay (tsd)                | 50 ms  |
|                                                         | 100 ms |
|                                                         | 200 ms |
|                                                         | 300 ms |
|                                                         | 400 ms |
| Instantaneous protection (li): dial setting coefficient | 3      |
|                                                         | 4      |
|                                                         | 5      |
|                                                         | 6      |
|                                                         | 7      |
|                                                         | 8      |
|                                                         | 9      |
|                                                         | 10     |
|                                                         | 11     |
|                                                         |        |
| <b>Sustainability</b>                                   |        |
| RoHS conform                                            | Yes    |