

# Product data sheet

Specifications



Circuit breaker frame, MasterPact NW40HDC-C, 4000A, 900VDC, 100kA/500VDC (Icu), 3 poles, drawout, without control unit

48669

## Main

|                                |                                  |
|--------------------------------|----------------------------------|
| Range                          | MasterPacT                       |
| Product name                   | MasterPact NW DC                 |
| Circuit breaker name           | MasterPact NW40HDC-C             |
| Product or component type      | Circuit breaker                  |
| Device application             | DC voltage switching             |
| Poles description              | 3P                               |
| Control unit                   | Without control unit             |
| [In] rated current             | 4000 A at 40 °C                  |
| Performance type               | H 85 kA 500 V DC                 |
| [Ue] rated operational voltage | 500/900 V DC                     |
| Suitability for isolation      | Yes conforming to EN/IEC 60947-2 |
| Selectivity category           | Category B                       |
| Control type                   | Push-button                      |
| Mounting mode                  | Drawout                          |

## Complementary

|                                                      |                                                                                                                                                                                                                                                                                                                                         |
|------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| [Icu] rated ultimate short-circuit breaking capacity | 100 kA Icu at 500 V DC L/R = 5 ms<br>25 kA Icu at 900 V DC L/R = 30 ms<br>35 kA Icu at 900 V DC L/R = 15 ms<br>50 kA Icu at 500 V DC L/R = 30 ms<br>50 kA Icu at 750 V DC L/R = 15 ms<br>50 kA Icu at 750 V DC L/R = 30 ms<br>85 kA Icu at 500 V DC L/R = 15 ms<br>85 kA Icu at 750 V DC L/R = 5 ms<br>85 kA Icu at 900 V DC L/R = 5 ms |
| [Ics] rated service breaking capacity                | 100 kA at 500 V DC (L/R = 5 ms)<br>25 kA at 900 V DC (L/R = 30 ms)<br>35 kA at 900 V DC (L/R = 15 ms)<br>50 kA at 500 V DC (L/R = 30 ms)<br>50 kA at 750 V DC (L/R = 15 ms)<br>50 kA at 750 V DC (L/R = 30 ms)<br>85 kA at 500 V DC (L/R = 15 ms)<br>85 kA at 750 V DC (L/R = 5 ms)<br>85 kA at 900 V DC (L/R = 5 ms)                   |
| [Icw] rated short-time withstand current             | 85 kA 1 s                                                                                                                                                                                                                                                                                                                               |

|                                                  |                                                                                                                                                                                                                                                                          |
|--------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>[Icm] rated short-circuit making capacity</b> | 100 kA L/R = 5 ms 500 V DC<br>25 kA L/R = 30 ms 900 V DC<br>35 kA L/R = 15 ms 900 V DC<br>50 kA L/R = 30 ms 500 V DC<br>50 kA L/R = 15 ms 750 V DC<br>50 kA L/R = 30 ms 750 V DC<br>85 kA L/R = 15 ms 500 V DC<br>85 kA L/R = 5 ms 750 V DC<br>85 kA L/R = 5 ms 900 V DC |
| <b>Sensor rating</b>                             | 4000 A                                                                                                                                                                                                                                                                   |
| <b>[Ui] rated insulation voltage</b>             | 1000 V DC                                                                                                                                                                                                                                                                |
| <b>[Uimp] rated impulse withstand voltage</b>    | 12 kV                                                                                                                                                                                                                                                                    |
| <b>Power dissipation in W</b>                    | 4000 W                                                                                                                                                                                                                                                                   |
| <b>Maximum breaking time</b>                     | 30...75 ms                                                                                                                                                                                                                                                               |
| <b>Maximum closing response time</b>             | 70 ms                                                                                                                                                                                                                                                                    |
| <b>Mounting support</b>                          | Backplate<br>Rails                                                                                                                                                                                                                                                       |
| <b>Upside connection</b>                         | Rear                                                                                                                                                                                                                                                                     |
| <b>Downside connection</b>                       | Rear                                                                                                                                                                                                                                                                     |
| <b>Connection pitch</b>                          | 150 mm                                                                                                                                                                                                                                                                   |
| <b>Mechanical durability</b>                     | 10000 cycles without maintenance conforming to IEC 60947-2<br>20000 cycles with maintenance conforming to IEC 60947-2                                                                                                                                                    |
| <b>Electrical durability</b>                     | 2000 cycles 500 V DC without maintenance conforming to IEC 60947-2<br>1000 cycles 900 V DC without maintenance conforming to IEC 60947-2                                                                                                                                 |
| <b>Height</b>                                    | 439 mm                                                                                                                                                                                                                                                                   |
| <b>Width</b>                                     | 441 mm                                                                                                                                                                                                                                                                   |
| <b>Depth</b>                                     | 594 mm                                                                                                                                                                                                                                                                   |
| <b>Net weight</b>                                | 90...116 kg                                                                                                                                                                                                                                                              |
| <b>Standards</b>                                 | IEC 60947-2                                                                                                                                                                                                                                                              |
| <b>Product certifications</b>                    | ASTA<br>ASEFA                                                                                                                                                                                                                                                            |

## Environment

|                                              |                                                              |
|----------------------------------------------|--------------------------------------------------------------|
| <b>Pollution degree</b>                      | 4 conforming to IEC 60664-1                                  |
| <b>Ambient air temperature for operation</b> | -25...70 °C                                                  |
| <b>Ambient air temperature for storage</b>   | -40...85 °C                                                  |
| <b>Operating altitude</b>                    | 0...2000 m without derating<br>2000 m...5000 m with derating |

## Packing Units

|                                     |            |
|-------------------------------------|------------|
| <b>Unit Type of Package 1</b>       | PCE        |
| <b>Number of Units in Package 1</b> | 1          |
| <b>Package 1 Height</b>             | 0.1 cm     |
| <b>Package 1 Width</b>              | 0.1 cm     |
| <b>Package 1 Length</b>             | 0.2 cm     |
| <b>Package 1 Weight</b>             | 172.284 kg |

# Contractual warranty

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Warranty (in months)

18



## Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

[Environmental Data explained >](#)

[How we assess product sustainability >](#)



### Environmental footprint

|                                                        |                                               |
|--------------------------------------------------------|-----------------------------------------------|
| Total lifecycle Carbon footprint                       | 3 210 kg CO2 eq.                              |
| Carbon footprint of the manufacturing phase [A1 to A3] | 503 kg CO2 eq.                                |
| Carbon footprint of the distribution phase [A4]        | 12 kg CO2 eq.                                 |
| Carbon footprint of the installation phase [A5]        | 17 kg CO2 eq.                                 |
| Carbon footprint of the use phase [B2, B3, B4, B6]     | 2 496 kg CO2 eq.                              |
| Carbon footprint of the end-of-life phase [C1 to C4]   | 181 kg CO2 eq.                                |
| Environmental Disclosure                               | <a href="#">Product Environmental Profile</a> |

## Use Better



### Materials and Substances

|                                        |                                                                                                                                       |
|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| Packaging made with recycled cardboard | Yes                                                                                                                                   |
| Packaging without single use plastic   | No, we have minimized the use of plastic in the packaging in compliance with regulations and considering quality and safety standards |
| SCIP Number                            | A5b47f2e-24bf-47cc-87fb-b0762b13883c                                                                                                  |
| EU RoHS Directive                      | <a href="#">Compliant By Exemption</a>                                                                                                |
| REACH Regulation                       | <a href="#">Reference contains Substances of Very High Concern above the threshold</a>                                                |

## Use Longer



### Lifetime extension

|        |    |
|--------|----|
| Repair | No |
|--------|----|

## Use Again



### Repack and remanufacture

|                                 |                                                                                                                                                                                                                 |
|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Recyclability potential, in %   | 69                                                                                                                                                                                                              |
| End of life manual availability | <a href="#">End of Life Information</a>                                                                                                                                                                         |
| Take-back                       | No                                                                                                                                                                                                              |
| WEEE Label                      |  The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |