

# Product data sheet

Specifications



Circuit breaker frame, MasterPact NW20HDC-C, 2000A, 900VDC, 100kA/500VDC (Icu), 3 poles, fixed, without control unit

48651

## Main

Range	MasterPacT
Product name	MasterPact NW DC
Circuit breaker name	MasterPact NW20HDC-C
Product or component type	Circuit breaker
Device application	DC voltage switching
Poles description	3P
Control unit	Without control unit
[In] rated current	2000 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	Fixed

## Complementary

[Icu] rated ultimate short-circuit breaking capacity	100 kA Icu at 500 V DC L/R = 5 ms 25 kA Icu at 900 V DC L/R = 30 ms 35 kA Icu at 900 V DC L/R = 15 ms 50 kA Icu at 500 V DC L/R = 30 ms 50 kA Icu at 750 V DC L/R = 15 ms 50 kA Icu at 750 V DC L/R = 30 ms 85 kA Icu at 500 V DC L/R = 15 ms 85 kA Icu at 750 V DC L/R = 5 ms 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) 25 kA at 900 V DC (L/R = 30 ms) 35 kA at 900 V DC (L/R = 15 ms) 50 kA at 500 V DC (L/R = 30 ms) 50 kA at 750 V DC (L/R = 15 ms) 50 kA at 750 V DC (L/R = 30 ms) 85 kA at 500 V DC (L/R = 15 ms) 85 kA at 750 V DC (L/R = 5 ms) 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 25 kA L/R = 30 ms 900 V DC 35 kA L/R = 15 ms 900 V DC 50 kA L/R = 30 ms 500 V DC 50 kA L/R = 15 ms 750 V DC 50 kA L/R = 30 ms 750 V DC 85 kA L/R = 15 ms 500 V DC 85 kA L/R = 5 ms 750 V DC 85 kA L/R = 5 ms 900 V DC
<b>Sensor rating</b>	2000 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>	2000 W
<b>Maximum breaking time</b>	30...75 ms
<b>Maximum closing response time</b>	70 ms
<b>Mounting support</b>	Backplate Rails
<b>Upside connection</b>	Rear
<b>Downside connection</b>	Rear
<b>Connection pitch</b>	115 mm
<b>Mechanical durability</b>	10000 cycles without maintenance conforming to IEC 60947-2 20000 cycles with maintenance conforming to IEC 60947-2
<b>Electrical durability</b>	5000 cycles 500 V DC without maintenance conforming to IEC 60947-2 2000 cycles 900 V DC without maintenance conforming to IEC 60947-2
<b>Height</b>	352 mm
<b>Width</b>	422 mm
<b>Depth</b>	427 mm
<b>Net weight</b>	60...86 kg
<b>Standards</b>	IEC 60947-2
<b>Product certifications</b>	ASEFA ASTA

## 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 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>	93.734 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	888 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	277 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	7 kg CO2 eq.
Carbon footprint of the installation phase [A5]	10 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	495 kg CO2 eq.
Carbon footprint of the end-of-life phase [C1 to C4]	100 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
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## 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