

Product data sheet

Specifications



Circuit breaker frame, MasterPact NW20HDC-E, 2000A, 900VDC, 100kA/500VDC (Icu), 4 poles, fixed, without control unit

48653

Main

Range	MasterPacT
Product name	MasterPact NW DC
Circuit breaker name	MasterPact NW20HDC-E
Product or component type	Circuit breaker
Device application	DC voltage switching
Poles description	4P
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

[Icm] rated short-circuit making capacity	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
Sensor rating	2000 A
[Ui] rated insulation voltage	1000 V DC
[Uimp] rated impulse withstand voltage	12 kV
Power dissipation in W	2000 W
Maximum breaking time	30...75 ms
Maximum closing response time	70 ms
Mounting support	Backplate Rails
Upside connection	Rear
Downside connection	Rear
Connection pitch	115 mm
Mechanical durability	10000 cycles without maintenance conforming to IEC 60947-2 20000 cycles with maintenance conforming to IEC 60947-2
Electrical durability	5000 cycles 500 V DC without maintenance conforming to IEC 60947-2 2000 cycles 900 V DC without maintenance conforming to IEC 60947-2
Height	352 mm
Width	537 mm
Depth	427 mm
Net weight	85...106 kg
Standards	IEC 60947-2
Product certifications	ASEFA ASTA

Environment

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

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	0.1 cm
Package 1 Width	0.1 cm
Package 1 Length	0.2 cm
Package 1 Weight	1.0 g

Contractual warranty

Warranty (in months)

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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	1 749 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	332 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	8 kg CO2 eq.
Carbon footprint of the installation phase [A5]	12 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	1 278 kg CO2 eq.
Carbon footprint of the end-of-life phase [C1 to C4]	119 kg CO2 eq.
Environmental Disclosure	Product Environmental Profile

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

Use Longer



Lifetime extension

Repair	No
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Use Again



Repack and remanufacture

Recyclability potential, in %	69
End of life manual availability	End of Life Information
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