



- DESIGN: MODULAR
- DEGREE OF PROTECTION: IP66
- YEARS OF WARRANTY: 5
- UV RESISTANCE: YES
- READY TO CONNECT: YES
- WEIGHT: 11.940 KG



The connection switchgear from Polish producer KENO is designed to power photovoltaic inverters in grounded and isolated photovoltaic installations. It realizes protection against the effects of short circuits and overloads, as well as protection against the effects of direct and indirect discharges on the AC side. Due to the high degree of IP protection, outdoor installation is possible. The design of the switchgear is intended for surface mounting. Depending on the equipment, switchboards can perform various functions.

BASIC PARAMETERS AC SIDE

AC Surge Protector Type	Noark T1/T2
Overcurrent circuit breaker	Noark B80A 3F
Residual current circuit breaker	1 x 300mA type A

ELECTRICAL AND MECHANICAL PARAMETERS OF THE HOUSING

Model	GW-IP66
The number of modules	54
Dimensions of housing without chokes and MC4 (Length Width Height)	210.00 400.00 500.00
Design in accordance with	EN 61439-1, EN 61439-2, EN62208, EN 60670-1, IEC 60670-24
Level of security	IP66
Protection class	II
Rated insulation voltage U_i	1000 V in accordance with the standard EN 62208 both for alternating current (AC), as well as direct (DC)
The incandescent rod test	960°C
Impact resistance	IK10
UV resistance	UV resistance (EN 62208)

Operating Temperature °C

-25 +60 °C

Material

Glass fibre reinforced polyester

Overcurrent circuit breaker used (MCB) (1)

Manufacturer / Model

Noark / Ex9BN 3P B80

Rated current

80A; 3-F

Rated operational voltage U_e

230/415 V AC

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72 V DC to the pole (1P, 2P)

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48 V DC to the pole (3P, 4P)

Minimum voltage

12 V AC/DC

Rated impulse withstand voltage U_{imp} in accordance with IEC 60898-1

6 kV

Rated impulse withstand voltage U_{imp} in accordance with IEC 60947-2

6 kV

Rated short-circuit breaking capacity I_{cn} in accordance with IEC 60898-1

6 kA

Rated short-circuit breaking capacity I_{cn} in accordance with IEC 60947-2

10 kA

Rated voltage of the insulation U_i

690 V AC

Number of poles

3

Frequency

50/60 Hz

Characteristic

B

Design in accordance with

IEC/EN 60898-1, IEC/EN 60947-2

Mechanical durability

20 000 connections

Electrical durability

10 000 connections

Energy limitation class

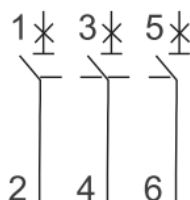
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Category of use

A

Feed direction

Any (top or bottom)



Overvoltage limiter used AC (SPD)

Manufacturer / Model

Noark Ex9UE1+2 12.5 3PN 275

Connection

L-N/PE

N-PE

Made in accordance with

EN 61643-11

Type of delimiter

Typee 1+2 (klasa I+II, B+C, T1+T2)

Making the insert

MOV (Warystor)GDT (Iskiernik)

Rated voltage U_n

230 V AC

Reference test voltage U_{REF}

255 V AC

Continuous working voltage U_c

275 V AC

255 V AC

Frequency f

25 kA to the pole

50 kA to the pole

Specific energy W/R

156.25 kJ/Ω

Maximum impulse current I_{imp} (10/350 μs)

12.5 kA to the pole

50 kA to the pole

Maximum discharge current I_{max} (8/20 μs)

50 kA to the pole

Voltage protection level U_p for electricity I_n

1.5 kV

1.5 kV

Voltage protection level U_p for electricity I_{max}

1.8 kV

1.5 kV

Voltage protection level U_p dla 5 kA (8/20 μs)

1 kV

-

N-PE Follow current extinguishing capability I_{fi}

-

100 A

5 s

335 V

335 V

200 ms

335 V

1200 V

Residual current I_{PE} by U_{REF}

≤ 1 mA

-

Limiter voltage for current 1mA

387 - 473 V

Response time

≤ 25 ns

≤ 100 ns

Maximum fuse protection

160 A gG

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Ability to withstand short-circuit current

50kA

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Short-circuit withstand I_{SCCR}

10kA

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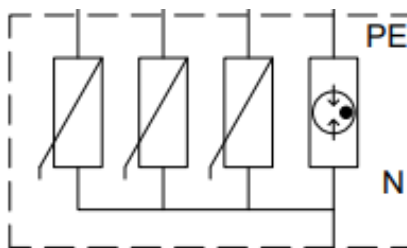
Current factor k

1kA

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Type of system LV

TN-S, TT (3+1)



Residual current circuit breaker used (RCD)

Manufacturer / Model

Noark / Ex9L-N 300mA

Made in accordance with

EN 61008

Number of fields

2 / 4

Characteristic

A

Rated operational voltage U_e	240/415 V AC
Rated current	40 / 63 A
Minimum voltage for the RCD function	Independence from tension
Voltage range for test button	150 — 440 V
Frequency f	50 Hz
Rated voltage of the insulation U_i	500 V
Conditional rated short-circuit current I_{nc}	6 kA
Rated residual current $I_{\Delta n}$	300mA
Tenderness	sensitive to residual sinusoidal current, rectified pulsed and smooth, high frequency (1 kHz)
Response time	immediate
Rated impulse withstand voltage U_{imp}	6 kV
Shock resistance	3000 A
Mechanical durability	20 000 connections
Electrical durability	4 000 connections
Maximum fuse protection against overload	
$I_n = 40$ A	32 A gG
$I_n = 63$ A	50 A gG
Maximum fuse protection against short-circuit effects	
$I_n = 40$ A	63 A gG
$I_n = 63$ A	63 A gG
Rated making and breaking capacity I_m I_m	
$I_n = 40$ A	500 A
$I_n = 63$ A	630 A
Feed direction	Any (top or bottom)

