



- DESIGN: MODULAR
- DEGREE OF PROTECTION: IP65
- YEARS OF WARRANTY: 5
- UV RESISTANCE: YES
- READY TO CONNECT: YES
- WEIGHT: 2.700 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 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 T2
Overcurrent circuit breaker	Noark B16A 3F
Residual current circuit breaker	1 x 100mA type A

ELECTRICAL AND MECHANICAL PARAMETERS OF THE HOUSING

Model	PHS 12 T
Number of fields	12
Dimensions of housing without chokes and MC4 (Length Width Height)	144.00 319.00 259.00
Design in accordance with	EN 60670-1, EN 62208
Level of security	IP65
Protection class	II
Rated insulation voltage U_i	400 V AC, 1500 V DC
The incandescent rod test	650°C
Impact resistance	IK08
UV resistance	YES
Recyclable plastic	bezhalogenowy

Working temperature

-25°C - +60°C

Overcurrent circuit breaker used (MCB) (1)

Manufacturer / Model Noark / Ex9BN 3P B16

Rated current 16A; 3-F

Rated operational voltage U_e 230/415 V AC

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

- 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 3

Category of use A

Feed direction Any (top or bottom)

Overvoltage limiter used AC (SPD)

Manufacturer / Model Noark Ex9UE2 20 3PN 275

Connection L-N/PE N-PE

Made in accordance with EN 61643-11

Type of delimiter Typee 2 (klasa II, C, T2)

Making the insert MOV (Warystor) GDT (Iskiernik)

Rated voltage U_n 230 / 400 V AC

Reference test voltage U_{REF} 255 V AC

Continuous working voltage U_c 275 V AC 255 V AC

Frequency f 50/60 Hz

Nominal discharge current I_n (8/20 μ s) 20 kA to the pole 40 kA to the pole

Maximum impulse current I_{imp} (10/350 μ s) - 12 kA to the pole

Maximum discharge current I_{max} (8/20 μ s) 40 kA to the pole

Voltage protection level U_p for electricity I_n 1.4 kV 1.5 kV

Voltage protection level U_p for electricity I_{max} 2 kV 1.5 kV

Voltage protection level U_p dla 5 kA (8/20 μ s) 1 kV -

N-PE Follow current extinguishing capability I_{fi} - 100 A

Occasional surges U_t (paused) 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

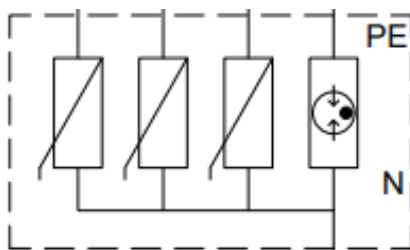
Maximum fuse protection 125 A gG -

Ability to withstand short-circuit current 50kA -

Short-circuit withstand I_{SCCR} 10kA -

Current factor k 1kA

Type of system LV TN-S, TT (3+1)



Residual current circuit breaker used (RCD)

Manufacturer / Model Noark / Ex9L-N 100mA

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 $I_{\Delta n}$ 100mA

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

$I_n = 40 \text{ A}$ 32 A gG

$I_n = 63 \text{ A}$ 50 A gG

Maximum fuse protection against short-circuit effects

$I_n = 40 \text{ A}$ 63 A gG

$I_n = 63 \text{ A}$ 63 A gG

Rated making and breaking capacity $I_m I_m$

$I_n = 40 \text{ A}$ 500 A

$I_n = 63 \text{ A}$ 630 A

Feed direction Any (top or bottom)

