



- DESIGN: MODULAR
- DEGREE OF PROTECTION: IP65
- YEARS OF WARRANTY: 5
- UV RESISTANCE: YES
- READY TO CONNECT: YES
- WEIGHT: 4.600 KG



The connection panel from the Polish manufacturer KENO is intended for supplying power to photovoltaic inverters., Protections against short circuits and overloads., It also ensures protection against the effects and direct on the alternating and direct current sides. The distribution board should be used in grounded and isolated photovoltaic installations. 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 DC SIDE

Number of inputs PV string outputs	2 2
Quantity Type of DC surge arrester Type	2 Dehn T1/T2
Connection type	Array MC4 Stäubli

BASIC PARAMETERS AC SIDE

AC Surge Protector Type	Dehn T1/T2
Overcurrent circuit breaker	Noark B20A 3F
Residual current circuit breaker	1 x 100mA type A

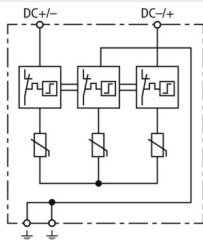
ELECTRICAL AND MECHANICAL PARAMETERS OF THE HOUSING

Model	PHS 24 T
Number of fields	24
Dimensions of housing without chokes and MC4 (Length Width Height)	120.00 128.00 201.00
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

DC surge arrester used (SPD)

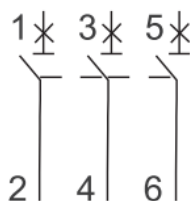
Manufacturer / Model	Dehn DCB YPV 1200
Made in accordance with	EN 50539-11
Surge protection	T1 / T2
The greatest tension PV [DC+ -> DC-] (U_{CPV})	≤ 1200 V
The greatest tension PV [DC+/DC- -> PE] (U_{CPV})	≤ 1200 V
Short-circuit withstand (I_{SCPV})	10 kA
Nominal discharge current (8/20 μ s) (I_n)	20 kA
Maximum discharge current (8/20 μ s) (I_{max})	40 kA
Total surge current (8/20 μ s) [DC+/DC- -> PE] (I_{total})	40 kA
Total surge current (10/350 μ s) [DC+/DC- -> PE] (I_{total})	12,5 kA
Surge current (10/350 μ s) [DC+ -> PE/DC- -> PE] (I_{imp})	6,25 kA
Voltage protection level [(DC+/DC-) -> PE] (U_p)	< 3,8 kV
Voltage protection level [DC+ -> DC-] (U_p)	< 3,8 kV
Response time (t_A)	≤ 25 ns
Working temperature range (TU)	-40°C ... +80°C
Operation / failure indicator	green / red



Overcurrent circuit breaker used (MCB) (1)

Manufacturer / Model	Noark / Ex9BN 3P B20
Rated current	20A; 3-F

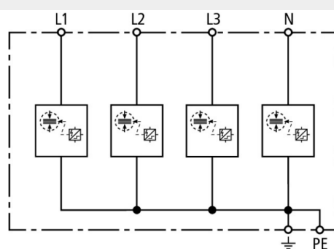
Rated operational voltage U_e	230/415 V AC
-	72 V DC to the pole (1P, 2P)
-	48 V DC to the pole (3P, 4P)
Minimum voltage	12 V AC/DC
Rated impulse withstand voltage U_{imp} in accordance with IEC 60898-1	6 kV
Rated impulse withstand voltage U_{imp} in accordance with IEC 60947-2	6 kV
Rated short-circuit 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	Dehn DSH TNS 255
Made in accordance with	EN 61643-11 / IEC 61643-11
Surge protection	T1 / T2
Number of fields	2
Rated voltage AC (U_n)	230 V (50 / 60 Hz)
The greatest voltage of permanent work AC (U_c)	255 V (50 / 60 Hz)
Surge current (10/350 μ s) [L1+L2+L3+N-PE] (I_{total})	25 kA
Specific energy [L1+L2+L3+N-PE] (W/R)	156.25 kJ/ Ω
Surge current (10/350 μ s) [L, N-PE] (I_{imp})	12,5 kA

Specific energy [L,N-PE] (W/R)	39,06 kJ/Ω
Nominal discharge current (8/20 μs) [L/N-PE] / [L1+L2+L3+NPE] (I_n)	12,5 / 25 kA
Voltage protection level [L-PE]/[N-PE] (U_p)	≤ 1,5 / ≤ 1,5 kV
Follow current extinguishing capability AC (I_{fi})	25 kArms
Response time (t_A)	≤ 100 ns
Maximum fuse protection	160 A gG
Occasional surges (TOV) [L-N] (U_t) - characteristic	440 V / 120 min - durable
Working temperature range (TU)	-40°C ...
Operation / failure indicator	green / red



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
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$I_n = 63 \text{ A}$	50 A gG
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Maximum fuse protection against short-circuit effects

$I_n = 40 \text{ A}$	63 A gG
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$I_n = 63 \text{ A}$	63 A gG
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Rated making and breaking capacity I_m I_m

$I_n = 40 \text{ A}$	500 A
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$I_n = 63 \text{ A}$	630 A
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Feed direction	Any (top or bottom)
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