



- DESIGN: MODULAR
- DEGREE OF PROTECTION: IP66
- YEARS OF WARRANTY: 5
- UV RESISTANCE: YES
- READY TO CONNECT: YES
- WEIGHT: 11.800 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	5 5
Quantity Type of DC surge arrester Type	5 Dehn T1/T2
Connection type	Array MC4 Stäubli

BASIC PARAMETERS AC SIDE

AC Surge Protector Type	Dehn T1/T2
Overcurrent circuit breaker	Noark B100A 3F
FR switch disconnecter	100A
Phase signaling	YES

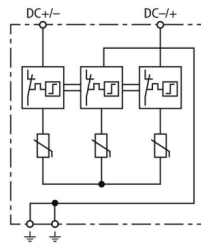
ELECTRICAL AND MECHANICAL PARAMETERS OF THE HOUSING

Model	BF-IP66 48
The number of modules	48
Dimensions of housing without chokes and MC4 (Length Width Height)	210.00 400.00 500.00

Design in accordance with	EN/IEC 62208, EN/IEC 61439-1-4, Dyrektywa RoHS 2011/65/EU Dyrektywa Niskonapięciowa 2006/95/EC (do 1500 VDC)
Level of security	IP66
Protection class	II
Rated insulation voltage U_i	1000 V AC, 1500 V DC
The incandescent rod test	960°C
Impact resistance	IK10 +35°C / IK08 -25°C
UV resistance	UL 508
Flammability class	UL 94-5VA / UL 94-V0
NEMA standard	NEMA 4, 4X, 12, 13
Temperature °C (short-term)	-40 ... 120°C
Temperature °C (continuous work)	-40 ... 80°C
Temperature °F (short-term)	-40 ... 250°F
Temperature °F (continuous work)	-40 ... 175°F

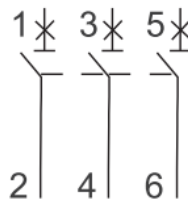
DC surge arrester used (SPD)

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_{SCP})	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



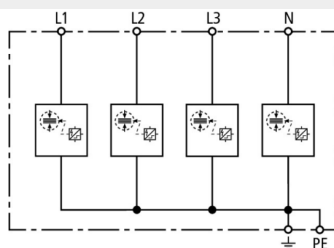
Overcurrent circuit breaker used (MCB) (1)

Manufacturer / Model	Noark / Ex9BN 3P B100
Rated current	100A; 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 μ s) [L/N-PE] / [L1+L2+L3+NPE] (I_n)	12,5 / 25 kA
Voltage protection level [L-PE]/[N-PE] (U_p)	$\leq 1,5$ / $\leq 1,5$ 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



Switch disconnecter used

Model	Ex9I125 0P 100A
Design in accordance with	IEC/EN 60947-3
Rated operational voltage U_e	230/400 V AC
Frequency	50/60 Hz
Rated current I_e AC-22A 230/400 V AC	100
Number of poles	0
Category of use	AC-22A
Rated voltage of the insulation U_i	500 V
Rated impulse withstand voltage U_{imp}	6 kV

Rated short-time withstand current I_{cw} , 1s	12 x I_e
Rated short-circuit making current I_{cm} (wartość szczytowa)	2500 A
Maximum fuse protection	160 A gG
Mechanical durability	20 000 connections
Electrical durability	4 000 connections

Phase indicator used

Model	Ex9PDe
Made in accordance with	EN 60947-5-1
Rated operational voltage U_e	24/48 DC 240 V AC
Rated current I_e	$\leq 20\text{mA}$ / LED
Conventional thermal current in open space I_n	20 mA
Frequency f	50 Hz
Rated voltage of the insulation U_i	500V
Rated voltage impact resistance U_{imp}	4kV
Electrical durability	$\geq 30\,000$ work hours
Diode luminance	$\geq 40\text{ cd/m}^2$

