EM-1346 DCAC

STANDARD SERIES

- DESIGN: MODULAR
- DEGREE OF PROTECTION: IP65
- **UV RESISTANCE: YES**
- **READY TO CONNECT: YES**
- **WEIGHT: 5.91 KG**

The connection panel is intended for supplying power to photovoltaic inverters., protects against the effects of short circuits and overloads, It also ensures protection against the effects 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 | T2
Connection type	Array MC4 Stäubli

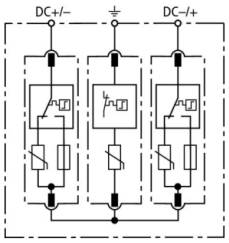
BASIC PARAMETERS AC SIDE	
AC Surge Protector | Type	Dehn | T2
Overcurrent circuit breaker	Noark B25A 3F
Residual current circuit breaker	1 x 300mA type A

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)	144.00 | 320.00 | 384.00
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	-25ºC – +60ºC

DC surge arrester used (SPD)

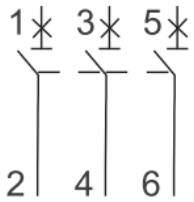
Manufacturer / Model	Dehn DG M YPV SCI 1000
Made in accordance with	PN-EN 50539-11
Surge protection	T2
Maximum PV voltage (U_{CPV})	1000V
Short-circuit withstand (I_{SCPV})	10 kA
Total discharge current (8/20 µs) (I_{total})	40 kA
Nominal discharge current (8/20 µs) [(DC+/DC-) --> PE] (I_n)	12,5 kA
Maximum discharge current (8/20 µs) [(DC+/DC-) --> PE] (I_{max})	25 kA
Voltage protection level (U_p)	≤ 4 kV
Voltage protection level by 5 kA (U_p)	≤ 3,5 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 B25
Rated current	25A; 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)

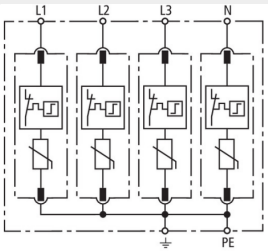
Minimum voltage	12 V AC/DC
Rated impulse withstand voltage U_{imp} in accordance with IEC 60898-1	6 kV
Rated impulse withstand voltage U_{imp} in accordance with IEC 60947-2	6 kV
Rated short-circuit breaking capacity I_{cn} in accordance with IEC 60898-1	6 kA
Rated short-circuit breaking capacity I_{cn} 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 DG M TN 275
Surge arrester according to PN-EN 61643-11	Type 2 / klasa II
Energy coordination with the terminal device (≤ 10 m)	Type 2 + Type 3
Rated voltage AC (U_n)	230 / 400 V (50 / 60 Hz)
The greatest voltage of permanent work AC (U_c)	275 V (50 / 60 Hz)
Nominal discharge current (8/20 µs) (I_n)	20 kA
Maximum discharge current (8/20 µs) (I_{max})	40 kA
Voltage protection level [L-PE]/[N-PE] (U_p)	≤ 1,5 / ≤ 1,5 kV
Voltage protection level [L-PE] / [N-PE] by 5 kA (U_p)	≤ 1 / ≤ 1 kV
Response time (t_A)	≤ 25 ns
Maximum fuse protection	125 A gG
Short-circuit withstand at maximum fuse (I_{SCCR})	50 kArms

Occasional surges (TOV) (U_t) – characteristic	335 V / 5 s – durable
Occasional surges (TOV) (U_t) – characteristic	440 V / 120 min – safe damage



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 text 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 IΔn	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 Im I_m	
I_n = 40 A	500 A

I_n = 63 A	630 A
Feed direction	Any (top or bottom)