

# TECHNICAL DATA SHEET



DCB-NF-1I-1000V-I16A-I-II-10

DCB-NF-1I-1000V-I16A-II-10

## Product Description:

Photovoltaic DC Protection Board-Wall Mounted (surface type ) IP65. Intended for use with high voltage DC Strings up to 1000Vdc and a Max Current of 16A per String. This product caters for the 1 individually connected PV string Isolatable by means of built in miniature circuit breaker. Each String also has a DC Surge protective device – individually providing protection to each string. For ease of installation, PV String connection is via original Multi-Contact MC-4 Connectors for input and output connection. A M6 Earth Stud is Provided for earth connection.



*Picture shown for illustrative and representative purposes only and may differ from actual Product*

*Segen Solar (Pty) Ltd Reserves the right to implement Changes to specifications depicted in this datasheet to conform to equipment or Regulatory requirements*

*Version: Rev 1*

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Technical Datasheet		
Item Number	DCB-NF-1I-1000V-I16A-II-1O	DCB-NF-1I-1000V-I16A-I-II-1O
Max. Open Circuit Voltage $V_{oc}$ *	1000 Vdc	1000 Vdc
Max Current - On Load Switching**	16Adc / String	16 Adc / String
Number of individual Strings	1	1
Number of Inputs	1	1
Number of Outputs	1	1
DC String Connection Input***	1 x MC-4 set	1 x MC-4 set
DC string Connection Output***	1 x MC-4 set	1 x MC-4 set
Earth Connection	M6 Brass Earth Stud	M6 Brass Earth Stud
Surge Protection Device****	DEHN DC - Type 2	DEHN DC - Type 1 & 2
SPD Short Circuit Current Rating- (I <sub>scpv</sub> )	10kA	1000 A
SPD Total Discharge Current (8/20 $\mu$ s) (I <sub>total</sub> )	40kA	
Nominal discharge current (8/20 $\mu$ s) [(DC+/DC-) --> PE] (I <sub>n</sub> )	12,5kA	15kA
Max. discharge current (8/20 $\mu$ s) [(DC+/DC-) --> PE] (I <sub>max</sub> )	25kA	30kA
Voltage protection level (U <sub>p</sub> )	$\leq 2.5$ kV	3kV
Voltage protection level at 5 kA (U <sub>p</sub> )	$\leq 2$ kV	
Response time (t <sub>A</sub> )	$\leq 25$ ns	$\leq 25$ ns
Total discharge current (10/350 $\mu$ s) [DC+/DC- -> PE] (I <sub>total</sub> )		12,5kA
Lightning impulse current (10/350 $\mu$ s) [DC+ -> PE/DC- -> PE] (I <sub>imp</sub> )		6,25kA
Specific energy [DC+ -> PE/DC- -> PE] (W/R)		9,76 kJ/Ohms
Operating state / fault indication	Green / Red	Green / Red
Enclosure*****	PVC with Smokey Swing Door	PVC with Smokey Swing Door
IP Rating	IP65	IP65
Double Insulated	Yes	Yes
Dimension (H X W X D)	231 x 238 x 118 mm	231 x 238 x 118 mm
UV Protection	YES	YES
Halogen Free	YES	YES
Resistance to Impact	IK08	IK08
Glow Wire Resistance- Enclosure Only	650 °C	650 °C
Max. Operating Voltage	1000Vac / 1500Vdc	1000Vac / 1500Vdc
Assembly General Operating Temperature	-10°C to +40°C	-10°C to +40°C
<b>Notes:</b>		
* Please co-ordinate Max open circuit voltage of PV String with the inverter MPPT Max Voc.		
** On Load Switching permitted, however, if possible remove load first by switching inverter off - Circuit Breaker may also trip in abnormal conditions		
*** Please use protective caps for unused MC-4 Connectors- Use MC-4 In-Line connectors for PV String field wire connection		
**** SPD Type 2 and Type 1 & 2- according to EN 50539-11		
***** UNE-EN62208 and IEC 62214		

**NB: All equipment to be installed and operated by Qualified Personnel only.**

