

For protecting low-voltage consumer's installations against overvoltage.
 For use in accordance with IEC 60364-7-712:2002-05 (installation of photovoltaic systems)

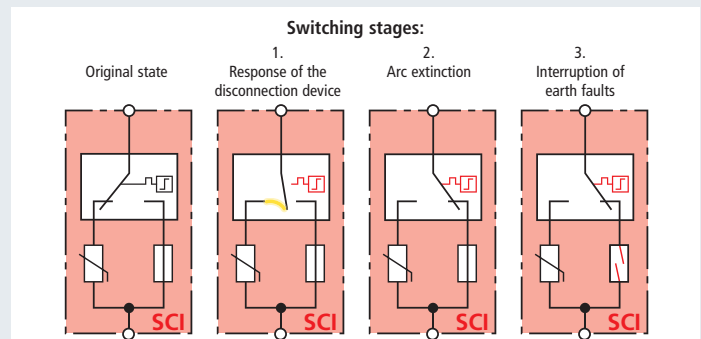
- Prewired modular complete unit for use in photovoltaic systems consisting of a base part and plug-in protection modules
- Combined disconnection and short-circuiting device with safe electrical isolation in the protection module prevents fire damage due to d.c. arcs
- Tried and tested fault-resistant Y circuit prevents damage to the surge protective devices in case of insulation faults in the generator circuit
- Safe replacement of protection modules without arc formation due to integrated d.c. fuse

- DEHNguard M YPV SCI 600:** Multipole modular surge arrester with three-step d.c. switching device for use in photovoltaic systems up to 600 V
- DEHNguard M YPV SCI 1000:** For photovoltaic systems up to 1000 V
- DEHNguard M YPV SCI 1200:** For photovoltaic systems up to 1200 V
- DEHNguard M YPV SCI ... FM:** With remote signalling contact for monitoring device (floating changeover contact)

The modular surge arresters type DEHNguard M YPV SCI ... (FM) were particularly designed for protecting equipment in photovoltaic systems. The innovative three-step d.c. switching device makes these arresters especially safe so that they fulfil the requirements of modern photovoltaic systems. The application characteristics of the modular arrester design of the Red/Line product family are similarly unique as the three-step d.c. switching device. The module locking system firmly fixes the protection modules in the base part of the arrester. Neither shock nor vibration nor the enormous forces of discharge do affect the safe connection to the protection module. Nevertheless, the protection modules can be easily replaced without tools. For this purpose, the user-friendly module release button of the protection modules has to be simply pressed. In order to avoid incorrect insertion by the installer or user every protective path of the DEHNguard M YPV SCI ... (FM) and every protection module is mechanically coded. To fulfil the specific requirements of photovoltaic systems, the tried and tested safety philosophies of the fault-resistant Y circuit consisting of three varistor protective circuits and the combined disconnection and short-circuiting device were integrated in a single device.

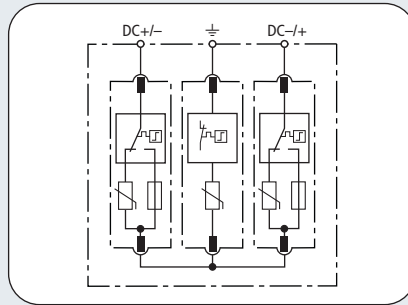
This synergy reduces the probability of an arrester failure in case of operating and fault states which have to be considered in photovoltaic systems. This ensures that the arrester is protected in case of overload without presenting a fire risk to the system. Even in case of voltages up to 1200 V d.c. an arc, which is likely to occur when a conventional disconnection device is activated in the surge protective device, is quenched immediately and without risk. Fire protection is the top priority of the DEHNguard M YPV SCI ... (FM) arrester. A fuse particularly developed for photovoltaic systems was integrated into the short-circuit path to ensure safe electrical isolation, which allows deenergised replacement of the protection module without arc

formation, in case of a faulty surge protection module. This unique design combines surge protection, fire protection and the protection of persons. DEHNguard M YPV SCI ... (FM) can be used in all low-, medium- and high-performance photovoltaic systems without backup fuse due to the high breaking capacity of the integrated fuse.

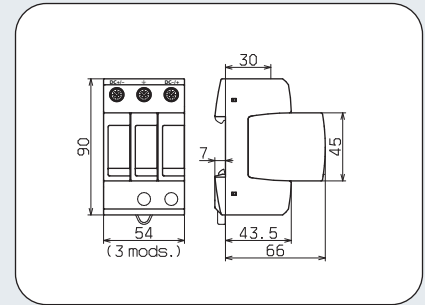


The green and red indication shows operational readiness of every protective circuit. Apart from this standard visual indication, DEHNguard M YPV SCI ... (FM) arresters also feature a three-pole terminal for remote signalling. With their floating changeover contact, the remote signal can be used as make or break contact according to the particular circuit concept. The DEHNguard M YPV SCI ... (FM) surge arresters of the modular DEHNguard M family incorporate multifunctional terminals on a standardised spacing of 1 module for connecting conductors and busbars for easy wiring with other DIN mounted devices.

NEW



Basic circuit diagram DG M YPV SCI ...



Dimension drawing DG M YPV SCI ...

DG M YPV SCI ...: Multipole modular surge arrester with 3-step d.c. switching device for use in PV systems.

	DG M YPV SCI 600	DG M YPV SCI 1000	DG M YPV SCI 1200
SPD according to EN 61643-11	Type 2	Type 2	Type 2
SPD according to IEC 61643-1	Class II	Class II	Class II
Max. PV voltage U_{PVmax}	≤ 600 V	≤ 1000 V	≤ 1200 V
Total discharge current I_{total}	40 kA	40 kA	30 kA
Nominal discharge current (8/20 μ s) [(DC+/DC-) \rightarrow PE] I_n	12.5 kA	12.5 kA	12.5 kA
Max. discharge current (8/20 μ s) [(DC+/DC-) \rightarrow PE] I_{max}	25 kA	25 kA	25 kA
Voltage protection level U_p	≤ 2.5 kV	≤ 4 kV	≤ 4.5 kV
Voltage protection level for 5 kA U_p	≤ 2 kV	≤ 3.5 kV	≤ 4 kV
Response time t_A	≤ 25 ns	≤ 25 ns	≤ 25 ns
Operating temperature range T_U	-40°C...+80°C	-40°C...+80°C	-40°C...+80°C
Breaking capacity of the internal fuse	30 kA / 1000 V DC	30 kA / 1000 V DC	30 kA / 1200 V DC
Operating state/fault indication	green / red	green / red	green / red
Cross-sectional area (min.)	1.5 mm ² solid/flexible	1.5 mm ² solid/flexible	1.5 mm ² solid/flexible
Cross-sectional area (max.)	35 mm ² stranded/ 25 mm ² flexible	35 mm ² stranded/ 25 mm ² flexible	35 mm ² stranded/ 25 mm ² flexible
For mounting on	35 mm DIN rail acc. to EN 60715	35 mm DIN rail acc. to EN 60715	35 mm DIN rail acc. to EN 60715
Enclosure material	thermoplastic, red, UL 94 V-0	thermoplastic, red, UL 94 V-0	thermoplastic, red, UL 94 V-0
Degree of protection	IP 20	IP 20	IP 20
Dimension	3 mod(s), DIN 43880	3 mod(s), DIN 43880	3 mod(s), DIN 43880
Ordering information			
Type	DG M YPV SCI 600	DG M YPV SCI 1000	DG M YPV SCI 1200
Part No.	952 511	952 510	952 512
Packing unit	1 pc(s).	1 pc(s).	1 pc(s).

Accessory Part for DEHNguard® M YPV SCI ... (FM)

Varistor-based protection module for DG M YPV SCI
DG MOD PV SCI ...: Protection module for DEHNguard M YPV SCI ... with parallel connection of varistor and short-circuiting device with integrated back-up fuse



Type	Pu pc(s)	Part No.
DG MOD PV SCI 300	1	952 053
DG MOD PV SCI 500	1	952 051
DG MOD PV SCI 600	1	952 054

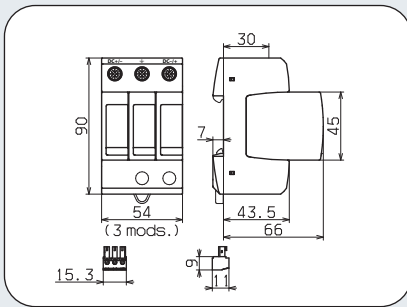
Accessory Part for DEHNguard® M YPV SCI ... (FM)

Varistor-based protection module
DG MOD ...: Varistor-based protection module for DEHNguard M ... and DEHNguard S ... surge arresters

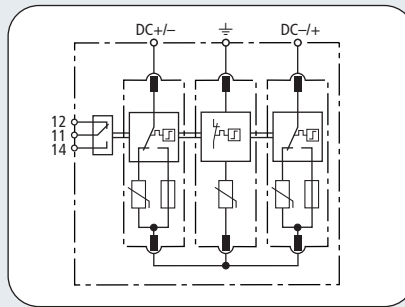


Type	Pu pc(s)	Part No.
DG MOD 275	1	952 010
DG MOD 440	1	952 015
DG MOD 600	1	952 016

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Dimension drawing DG M YPV SCI ... FM



Basic circuit diagram DG M YPV SCI ... FM



DG M YPV SCI ... FM: Multipole modular surge arrester with 3-step d.c. switching device for use in PV systems with remote signalling contact (floating changeover contact).

	DG M YPV SCI 600 FM	DG M YPV SCI 1000 FM	DG M YPV SCI 1200 FM
SPD according to EN 61643-11	Typ 2	Typ 2	Typ 2
SPD according to IEC 61643-1	Class II	Class II	Class II
Max. PV voltage U_{PVmax}	≤ 600 V	≤ 1000 V	≤ 1200 V
Total discharge current I_{total}	40 kA	40 kA	30 kA
Nominal discharge current (8/20 μ s) [(DC+/DC-) \rightarrow PE] I_n	12.5 kA	12.5 kA	12.5 kA
Max. discharge current (8/20 μ s) [(DC+/DC-) \rightarrow PE] I_{max}	25 kA	25 kA	25 kA
Voltage protection level U_p	≤ 2.5 kV	≤ 4 kV	≤ 4.5 kV
Voltage protection level for 5 kA U_p	≤ 2 kV	≤ 3.5 kV	≤ 4 kV
Response time t_A	≤ 25 ns	≤ 25 ns	≤ 25 ns
Operating temperature range T_U	-40°C...+80°C	-40°C...+80°C	-40°C...+80°C
Breaking capacity of the internal fuse	30 kA / 1000 V DC	30 kA / 1000 V DC	30 kA / 1200 V DC
Operating state/fault indication	green / red	green / red	green / red
Cross-sectional area (min.)	1.5 mm ² solid/flexible	1.5 mm ² solid/flexible	1.5 mm ² solid/flexible
Cross-sectional area (max.)	35 mm ² stranded/ 25 mm ² flexible	35 mm ² stranded/ 25 mm ² flexible	35 mm ² stranded/ 25 mm ² flexible
For mounting on	35 mm DIN rail acc. to EN 60715	35 mm DIN rail acc. to EN 60715	35 mm DIN rail acc. to EN 60715
Enclosure material	thermoplastic, red, UL 94 V-0	thermoplastic, red, UL 94 V-0	thermoplastic, red, UL 94 V-0
Degree of protection	IP 20	IP 20	IP 20
Dimension	3 mod(s), DIN 43880	3 mod(s), DIN 43880	3 mod(s), DIN 43880
Type of remote signalling contact	changeover contact	changeover contact	changeover contact
a.c. switching capacity	250 V/0.5 A	250 V/0.5 A	250 V/0.5 A
d.c. switching capacity	250 V/0.1 A; 125 V/0.2 A; 75 V/0.5 A	250 V/0.1 A; 125 V/0.2 A; 75 V/0.5 A	250 V/0.1 A; 125 V/0.2 A; 75 V/0.5 A
Cross-sectional area for remote signalling terminals	max. 1.5 mm ² solid/flexible	max. 1.5 mm ² solid/flexible	max. 1.5 mm ² solid/flexible
Ordering information			
Type	DG M YPV SCI 600 FM	DG M YPV SCI 1000 FM	DG M YPV SCI 1200 FM
Part No.	952 516	952 515	952 517
Packing unit	1 pc(s).	1 pc(s).	1 pc(s).

Accessory Part for DEHNguard® M YPV SCI ... (FM)

Varistor-based protection module

DG MOD ...: Varistor-based protection module for DEHNguard M ... and DEHNguard S ... surge arresters

Type	Pu pc(s)	Part No.
DG MOD 275	1	952 010
DG MOD 440	1	952 015
DG MOD 600	1	952 016



Accessory Part for DEHNguard® M YPV SCI ... (FM)

Varistor-based protection module for DG M YPV SCI

DG MOD PV SCI ...: Protection module for DEHNguard M YPV SCI ... with parallel connection of varistor and short-circuiting device with integrated back-up fuse

Type	Pu pc(s)	Part No.
DG MOD PV SCI 300	1	952 053
DG MOD PV SCI 500	1	952 051
DG MOD PV SCI 600	1	952 054



**Lightning Protection
Surge Protection
Safety Equipment**

DEHN, Inc.
851 S. Kings Hwy.
Fort Pierce, FL 34945

Local Phone: 772.460.9315
Toll-free Phone: 877.927.6510
Fax: 772.460.9316

Email: info@dehn-usa.com
www.dehn-usa.com
www.dehn.de