

VAL-MS 600DC-PV/2+V-FM - Type 2 surge arrester



2800641

<https://www.phoenixcontact.com/ro/produse/2800641>

Vă rugăm să țineți cont de faptul că datele afișate în acest document PDF au fost generate din catalogul nostru online. Datele complete sunt disponibile în documentația pentru utilizator. În cazul descărcărilor, se aplică Termenii și condițiile generale de utilizare ale companiei noastre.



Surge protective device for 2-pos. isolated and grounded 600 V DC PV systems, for DIN rail mounting, 3-pos. base element with remote indication contact, three pluggable temperature-monitored protective elements, status message on each plug.

Avantajele dumneavoastră

- Quality proven millions of times over in the widest range of applications
- Rapid installation with bridges, thanks to industry-standard overall width of 1 HP
- Easy testing and insulation measurement, thanks to pluggable protection modules
- Wide range of applications due to various nominal voltages
- High degree of modularity provides individual solutions for every application

Date comerciale

Număr articol	2800641
Unitate de ambalare	1 Bucată
Cantitate minimă pentru comandă	1 Bucată
Cod produs	CL1324
Pagina de catalog	Pagina 73 (C-4-2019)
GTIN	4046356612562
Greutate pe bucată (inclusiv ambalajul)	317,2 g
Greutate pe bucată (fără ambalaj)	314,37 g
Cod tarifar vamal	85363010
Țara de origine	DE

VAL-MS 600DC-PV/2+V-FM - Type 2 surge arrester



2800641

<https://www.phoenixcontact.com/ro/produse/2800641>

Date tehnice

Notes

General

Note	The device is intended for touch proof installation in a housing. Ensure that there is a gap of at least 8 mm between the active and grounded parts in the connection area.
------	---

Product properties

Product type	PV arrester
Product family	VALVETRAB MS
IEC test classification	PV II
	PV T2
EN type	T2
IEC power supply system	DC
Type	DIN rail module, two-section, divisible
Distance between live and grounded parts	8 mm
Installation location	Interior
Installation location of the disconnect device	Internal
Accessibility	Accessible
Connection configuration	Y configuration
SPD failure behavior	OCFM (Open-Circuit Failure Mode)
Surge protection fault message	Optical, remote indicator contact

Data management status

Article revision	11
------------------	----

Insulation characteristics

Overvoltage category	III
Pollution degree	2

Electrical properties

Indicator/remote signaling

Connection name	Remote fault indicator contact
Switching function	Changeover contact
Operating voltage	5 V AC ... 250 V AC
	30 V DC
Operating current	5 mA AC ... 1.5 A AC
	1 A DC

Connection data

Connection method	Screw connection
Screw thread	M5
Tightening torque	3 Nm (1.5 mm ² ... 16 mm ²)

VAL-MS 600DC-PV/2+V-FM - Type 2 surge arrester



2800641

<https://www.phoenixcontact.com/ro/produse/2800641>

	4.5 Nm (25 mm ² ... 35 mm ²)
Stripping length	16 mm
Conductor cross section flexible	1.5 mm ² ... 25 mm ²
Conductor cross section rigid	1.5 mm ² ... 35 mm ²
Conductor cross section AWG	15 ... 2
Connection method	Fork-type cable lug
Conductor cross section flexible	1.5 mm ² ... 16 mm ²

Remote fault indicator contact

Connection method	Plug-in/screw connection via COMBICON
Screw thread	M2
Tightening torque	0.25 Nm
Stripping length	7 mm
Conductor cross section flexible	0.14 mm ² ... 1.5 mm ²
Conductor cross section rigid	0.14 mm ² ... 1.5 mm ²
Conductor cross section AWG	28 ... 16

Dimensions

Dimensional drawing	
Width	53.4 mm
Height	98.7 mm
Depth	65.7 mm (incl. DIN rail 7.5 mm)
Horizontal pitch	3 Div.

Material specifications

Color	black (RAL 9005)
	black (RAL 9005)
Flammability rating according to UL 94	V-0
CTI value of material	600
Insulating material	PA 6.6-FR
	PBT-FR
Material group	I
Housing material	PA 6.6-FR
	PBT-FR

Mechanical properties

Mechanical data

Open side panel	No
-----------------	----

Protective circuit

VAL-MS 600DC-PV/2+V-FM - Type 2 surge arrester



2800641

<https://www.phoenixcontact.com/ro/produse/2800641>

Mode of protection	(L+) - (L-)
	(L+) - PE
	(L-) - PE
Direction of action	(L+)-PE & (L-)-PE & (L+)-(L-)
Rated load current I_L	80 A
Residual current I_{PE}	$\leq 20 \mu\text{A DC}$
	$\leq 300 \mu\text{A AC}$
Standby power consumption P_C	$\leq 20.00 \text{ mVA}$
Nominal discharge current I_n (8/20) μs	15 kA
Maximum discharge current I_{max} (8/20) μs	40 kA
Total discharge current I_{total} (8/20) μs	40 kA
Voltage protection level U_p	$\leq 2.7 \text{ kV}$
Residual voltage U_{res}	$\leq 2.7 \text{ kV}$ (at I_n)
	$\leq 2.2 \text{ kV}$ (at 5 kA)
	$\leq 2.5 \text{ kV}$ (at 10 kA)
	$\leq 2.9 \text{ kV}$ (at 20 kA)
	$\leq 3.4 \text{ kV}$ (at 30 kA)
	$\leq 3.8 \text{ kV}$ (at 40 kA)
Response time t_A	$\leq 25 \text{ ns}$

PV protective circuit

Connection configuration	Y configuration
SPD failure behavior	OCFM (Open-Circuit Failure Mode)

Protective circuit DC voltage side (DC)

Open circuit voltage U_{OCSTC}	$\leq 670 \text{ V DC}$
Maximum discharge current I_{max} (8/20) μs	40 kA
Response time t_A	$\leq 25 \text{ ns}$
Total discharge current I_{total} (8/20) μs	40 kA
Insulation resistance R_{iso}	$> 5 \text{ G}\Omega$ (at 500 V DC)
Nominal discharge current I_n (8/20) μs	15 kA
Rated load current I_L	80 A
Continuous operating current I_{CPV}	20 μA
Maximum continuous operating voltage U_{CPV}	800 V DC
Short-circuit current rating I_{SCPV}	2000 A
Residual voltage U_{res}	$\leq 2.7 \text{ kV}$ (at I_n)
	$\leq 2.2 \text{ kV}$ (at 5 kA)
	$\leq 2.5 \text{ kV}$ (at 10 kA)
	$\leq 2.9 \text{ kV}$ (at 20 kA)
	$\leq 3.4 \text{ kV}$ (at 30 kA)
	$\leq 3.8 \text{ kV}$ (at 40 kA)
Residual current I_{PE}	$\leq 20 \mu\text{A DC}$
	$\leq 300 \mu\text{A AC}$
Voltage protection level U_p	$\leq 2.7 \text{ kV}$
Standby power consumption P_C	$\leq 20.00 \text{ mVA}$

VAL-MS 600DC-PV/2+V-FM - Type 2 surge arrester



2800641

<https://www.phoenixcontact.com/ro/produse/2800641>

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20 (only when all terminal points are used)
Ambient temperature (operation)	-40 °C ... 80 °C
Ambient temperature (storage/transport)	-40 °C ... 80 °C
Altitude	≤ 2000 m (amsl)
Permissible humidity (operation)	5 % ... 95 %
Shock (operation)	60g (Half-sine / 11 ms / 3x ±X, ±Y, ±Z)
Vibration (operation)	7.5g (5-500 Hz/2.5 h/XYZ)

Approvals

UL specifications

Maximum continuous operating voltage MCOV	800 V DC
Short-circuit current rating (SCCR)	50 kA
Voltage protection rating VPR	2 kV
Nominal discharge current I_n	20 kA
Mode of protection	(L+) - (L-)
	(L+) - G
	(L-) - G
Nominal voltage	800 V DC
Power distribution system	DC PV
SPD Type	1

UL indicator/remote signaling

Operating voltage	125 V AC
AC operating current	1 A AC

UL connection data

Tightening torque	30 lb _f ·in.
Conductor cross section AWG	14 ... 2

Standards and regulations

Standards/specifications	EN 61643-31
Note	2019
Standards/specifications	IEC 61643-31
Note	2018

Mounting

Mounting type	DIN rail: 35 mm
---------------	-----------------

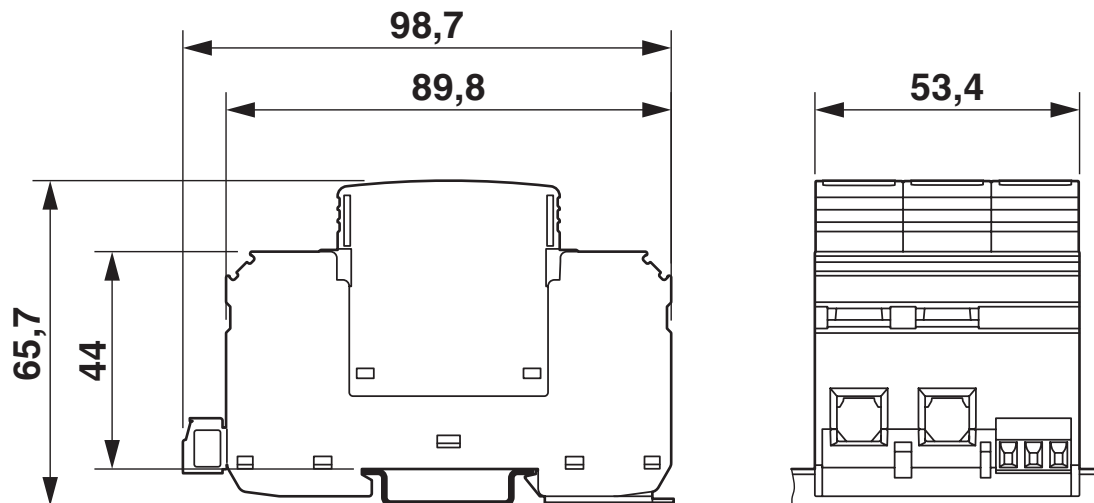
VAL-MS 600DC-PV/2+V-FM - Type 2 surge arrester

2800641

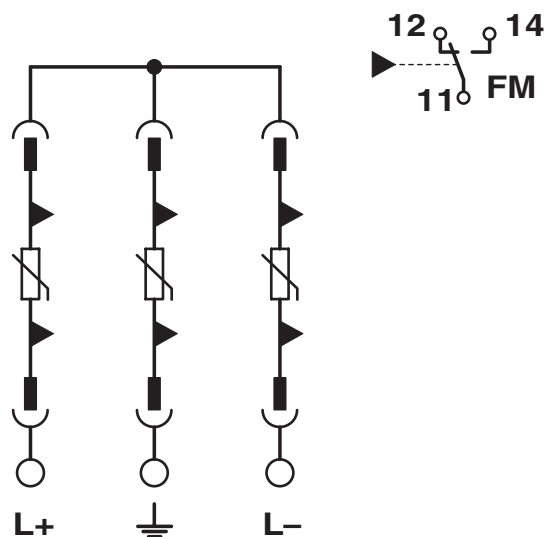
<https://www.phoenixcontact.com/ro/produse/2800641>

Desene

Dimensional drawing



Circuit diagram



VAL-MS 600DC-PV/2+V-FM - Type 2 surge arrester



2800641

<https://www.phoenixcontact.com/ro/produse/2800641>

Aprobări

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/ro/produse/2800641>



EAC

ID de înregistrare: EAC-Zulassung



KEMA-KEUR

ID de înregistrare: 71-123544 REV.2



EAC

ID de înregistrare: RU C-DE.*09.B.00169



UL Listed

ID de înregistrare: FILE E 330181



cUL Listed

ID de înregistrare: FILE E 330181



IECEE CB Scheme

ID de înregistrare: NL-81006/A1

CCA

ID de înregistrare: NTR-NL 7937

UAE-RoHS

ID de înregistrare: 22-09-51251

cULus Listed

VAL-MS 600DC-PV/2+V-FM - Type 2 surge arrester



2800641

<https://www.phoenixcontact.com/ro/produse/2800641>

Clasificări

ECLASS

ECLASS-11.0	27130805
ECLASS-13.0	27171402

ETIM

ETIM 9.0	EC000941
----------	----------

UNSPSC

UNSPSC 21.0	39121620
-------------	----------

Environmental product compliance

EU RoHS

Îndeplinește cerințele conform directivei RoHS	Da, Nicio reglementare privind excepțiile
--	---

China RoHS

Environment friendly use period (EFUP)	EFUP-E
	Nu există substanțe periculoase peste valorile limită

EU REACH SVHC

Trimitere la substanța candidată REACH (nr. CAS)	Nicio substanță cu un procentaj masic mai mare de 0,1 %
--	---

VAL-MS 600DC-PV/2+V-FM - Type 2 surge arrester



2800641

<https://www.phoenixcontact.com/ro/produse/2800641>

Accesorii

ZBN 18 CUS - Zack marker strip

0825059

<https://www.phoenixcontact.com/ro/produse/0825059>



Zack marker strip, can be ordered: Strip, white, labeled according to customer specifications, mounting type: snap into tall marker groove, for terminal block width: 18 mm, lettering field size: 18 x 5 mm, Number of individual labels: 5

ZBN 18,LGS:ERDE - Marker for terminal blocks

2749589

<https://www.phoenixcontact.com/ro/produse/2749589>



Marker for terminal blocks, Strip, white, labeled, horizontal: Grounding symbol, mounting type: snapped, for terminal block width: 18 mm, lettering field size: 18 x 5 mm, Number of individual labels: 5

VAL-MS 600DC-PV/2+V-FM - Type 2 surge arrester



2800641

<https://www.phoenixcontact.com/ro/produse/2800641>

ZBN 18,LGS:L1-N,ERDE - Marker for terminal blocks

2749576

<https://www.phoenixcontact.com/ro/produse/2749576>



Marker for terminal blocks, Strip, white, labeled, horizontal: L1, L2, L3, N, GND, mounting type: snapped, for terminal block width: 18 mm, lettering field size: 18 x 5 mm, Number of individual labels: 5

ZBN 18:UNBEDRUCKT - Zack marker strip

2809128

<https://www.phoenixcontact.com/ro/produse/2809128>



Zack marker strip, Strip, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, PLOTMARK, mounting type: snapped, for terminal block width: 18 mm, lettering field size: 18 x 5 mm, Number of individual labels: 5

VAL-MS 600DC-PV/2+V-FM - Type 2 surge arrester



2800641

<https://www.phoenixcontact.com/ro/produse/2800641>

ATP-QTTCB - Partition plate

3206238

<https://www.phoenixcontact.com/ro/produse/3206238>

Partition plate, depth: 54 mm, width: 2 mm, height: 102 mm, color: gray



B-STIFT - Marker pen

1051993

<https://www.phoenixcontact.com/ro/produse/1051993>

Marker pen, for manual labeling of unprinted Zack strips, smear-proof and waterproof, line thickness 0.5 mm



VAL-MS 600DC-PV/2+V-FM - Type 2 surge arrester



2800641

<https://www.phoenixcontact.com/ro/produse/2800641>

SZK PZ2 VDE - Screwdriver

1206463

<https://www.phoenixcontact.com/ro/produse/1206463>



Screwdriver, PZ crosshead, VDE insulated, size: PZ 2 x 100 mm, 2-component grip, with non-slip grip

VAL-MS 600DC-PV-ST - Type 2 surge protection plug

2800623

<https://www.phoenixcontact.com/ro/produse/2800623>



Replacement plug for PV arrester combinations from the VAL-MS 600DC-PV-... product range

Phoenix Contact 2024 © - Toate drepturile rezervate
<https://www.phoenixcontact.com>

PHOENIX CONTACT România
Splaiul Unirii 165 Timpuri Noi Square TNO1, Etaj 1
Bucuresti 030133
+40 21 350 88 12 - 3
sales.ro@phoenixcontact.com