

# Surge protection device - TT-ST-2/2-S-24DC - 2920735

Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)



Spring cage modular terminal block with integrated surge protection, for assembly on NS 35/7.5, voltage  $U_N$  24 V DC, terminal width: 6.2 mm, cover width: 2.2 mm



## Key Commercial Data

Packing unit	10 pc
GTIN	
GTIN	4046356168373

## Technical data

### Dimensions

Height	100 mm
Width	6.2 mm
Depth	63.5 mm

### Ambient conditions

Ambient temperature (operation)	-40 °C ... 85 °C
Degree of protection	IP20

### General

Housing material	PA 6.6
Flammability rating according to UL 94	V-0
Color	black
Standards for clearances and creepage distances	EN 60664-1
Mounting type	DIN rail: 35 mm
Type	Double-level terminal block
Number of positions	2
Direction of action	Line-Earth Ground

### Protective circuit

# Surge protection device - TT-ST-2/2-S-24DC - 2920735

## Technical data

### Protective circuit

IEC test classification	C1
	C3
VDE requirement class	C1
	C3
Nominal voltage $U_N$	24 V DC
Maximum continuous voltage $U_C$	30 V DC
	21 V AC
Rated current	10 A (50 °C)
Operating effective current $I_C$ at $U_C$	$\leq 5 \mu\text{A}$ (DC)
	$\leq 20 \mu\text{A}$ (60 Hz)
Residual current $I_{PE}$	$\leq 10 \mu\text{A}$ (DC)
	$\leq 40 \mu\text{A}$ (60 Hz)
Nominal discharge current $I_n$ (8/20) $\mu\text{s}$ (line-earth)	310 A (per path)
Total discharge current $I_{total}$ (8/20) $\mu\text{s}$	620 A
Nominal pulse current $I_{an}$ (10/1000) $\mu\text{s}$ (line-earth)	62 A (per path)
Output voltage limitation at 1 kV/ $\mu\text{s}$ (line-earth) spike	$\leq 45$ V
Output voltage limitation at 1 kV/ $\mu\text{s}$ (line-earth) static	$\leq 45$ V
Residual voltage at $I_n$ (line-earth)	$\leq 48$ V
Residual voltage with $I_{an}$ (10/1000) $\mu\text{s}$ (line-earth)	$\leq 48$ V
Voltage protection level $U_p$ (line-earth)	$\leq 45$ V (C1 - 250 A)
Response time $t_A$ (line-earth)	$\leq 1$ ns
Input attenuation aE, asym.	typ. 0.3 dB ( $\leq 1$ MHz / 50 $\Omega$ )
	typ. 0.1 dB ( $\leq 150$ kHz / 150 $\Omega$ )
Cut-off frequency $f_g$ (3 dB), asym. (GND) in 50 Ohm system	typ. 3 MHz
Cut-off frequency $f_g$ (3 dB), asym. (GND) in 150 Ohm system	typ. 500 kHz
Capacity (line-earth)	$\leq 2$ nF
Surge protection fault message	none
Max. required back-up fuse	10 A (T)
Impulse durability (line-earth)	C1 - 500 V / 250 A
	C3 - 25 A
Alternating current carrying capacity (line-earth)	2 A - 5x 1 s

### Connection data

Connection method	Spring-cage connection
Connection method IN	Spring-cage
Connection method OUT	Spring-cage
Stripping length	8 mm
Conductor cross section flexible	0.5 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross section solid	0.5 mm <sup>2</sup> ... 4 mm <sup>2</sup>
Conductor cross section AWG	24 ... 12

# Surge protection device - TT-ST-2/2-S-24DC - 2920735

## Technical data

### Standards and Regulations

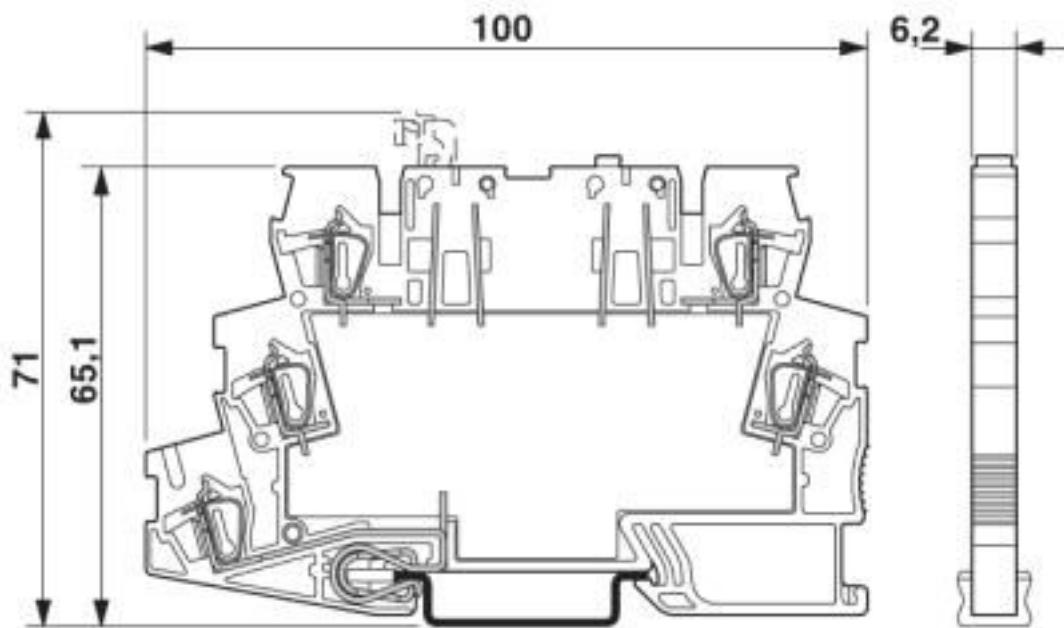
Standards/regulations	IEC 61643-21
	EN 61643-21
Standards/specifications	IEC 61643-21/A1 2008
	EN 61643-21/A1 2009

### Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

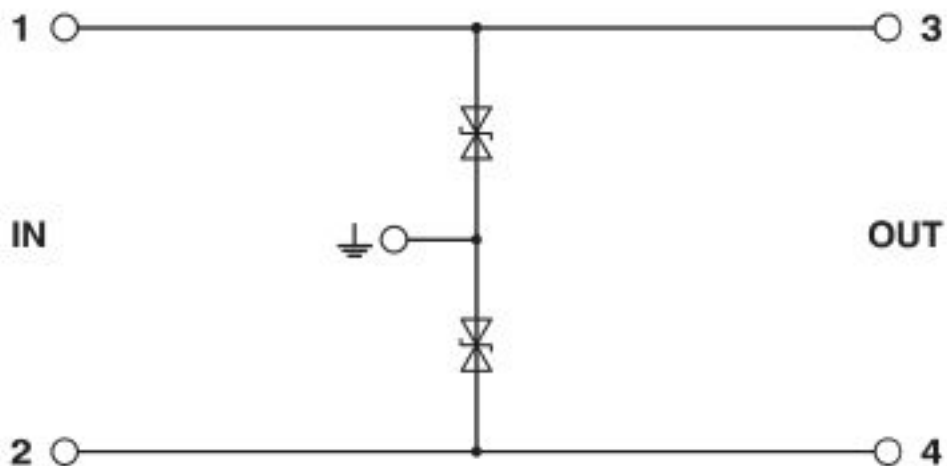
## Drawings

Dimensional drawing



# Surge protection device - TT-ST-2/2-S-24DC - 2920735

Circuit diagram



## Classifications

### eCl@ss

eCl@ss 10.0.1	27130807
eCl@ss 4.0	27130800
eCl@ss 4.1	27130800
eCl@ss 5.0	27130800
eCl@ss 5.1	27130800
eCl@ss 6.0	27130800
eCl@ss 7.0	27130807
eCl@ss 8.0	27130807
eCl@ss 9.0	27130807

### ETIM

ETIM 2.0	EC000943
ETIM 3.0	EC000943
ETIM 4.0	EC000943
ETIM 5.0	EC000943
ETIM 6.0	EC000943
ETIM 7.0	EC000943

### UNSPSC

UNSPSC 6.01	30212010
UNSPSC 7.0901	39121610
UNSPSC 11	39121610
UNSPSC 12.01	39121610

# Surge protection device - TT-ST-2/2-S-24DC - 2920735

## Classifications

### UNSPSC

UNSPSC 13.2	39121620
UNSPSC 18.0	39121620
UNSPSC 19.0	39121620
UNSPSC 20.0	39121620
UNSPSC 21.0	39121620

## Approvals

### Approvals

#### Approvals

DNV GL / UL Listed / EAC

#### Ex Approvals

### Approval details

DNV GL		<a href="https://approvalfinder.dnvgl.com/">https://approvalfinder.dnvgl.com/</a>	TAE00001N7
--------	--	---	------------

UL Listed		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 138168
-----------	--	---	---------------

EAC			RU C- DE.*09.B.00169
-----	--	--	-------------------------

## Accessories

### Accessories

#### End cover

End cover - TT-D-STTCO-BK - 2858894



End cover for TERMITRAB TT-ST-..., width: 2.2 mm, color: Black

## Surge protection device - TT-ST-2/2-S-24DC - 2920735

### Accessories

#### Labeled terminal marker

Zack Marker strip, flat - ZBF 6,LGS:FORTL.ZAHLEN - 0808749



Zack Marker strip, flat, Strip, white, labeled, printed horizontally: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 91 ... 100, mounting type: snap into flat marker groove, for terminal block width: 6.2 mm, lettering field size: 5.15 x 6.15 mm, Number of individual labels: 10

---

#### Marker pen

Marker pen - B-STIFT - 1051993



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

---

#### Terminal marking

Zack Marker strip, flat - ZBF 6:UNBEDRUCKT - 0808710



Zack Marker strip, flat, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snap into flat marker groove, for terminal block width: 6.2 mm, lettering field size: 5.15 x 6.15 mm, Number of individual labels: 10

---

Zack Marker strip, flat - ZBF 6/WH-100:UNBEDRUCKT - 0808736



Zack Marker strip, flat, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snap into flat marker groove, for terminal block width: 6.2 mm, lettering field size: 5.15 x 6.15 mm, Number of individual labels: 10

---

#### Additional products

End cover - TT-D-STTCO-BK - 2858894



End cover for TERMITRAB TT-ST-..., width: 2.2 mm, color: Black

## Surge protection device - TT-ST-2/2-S-24DC - 2920735

### Accessories

Shield connection - SSA 3-6 - 2839295



Shield fast connection for 3 ... 6 mm cable diameter. Potential connecting cable: 200 mm, 1 mm<sup>2</sup>, color: black

---

Shield connection - SSA 5-10 - 2839512



Shield fast connection for 5 ... 10 mm cable diameter. Potential connecting cable: 200 mm, 1 mm<sup>2</sup>, color: black

---

---

Phoenix Contact 2020 © - all rights reserved  
<http://www.phoenixcontact.com>

PHOENIX CONTACT GmbH & Co. KG  
Flachsmarktstr. 8  
32825 Blomberg  
Germany  
Tel. +49 5235 300  
Fax +49 5235 3 41200  
<http://www.phoenixcontact.com>

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [Pluggable Terminal Blocks](#) category:*

*Click to view products by [Phoenix Contact](#) manufacturer:*

Other Similar products are found below :

[57.510.0053](#) [MC 1.5/ 6-ST-3.5 GY AU](#) [734-104](#) [734-302](#) [8-141-P](#) [8426620000](#) [860505](#) [860810](#) [GBPACX-12](#) [93.731.4953.0](#) [PV05-5,08-K](#)  
[PVP02-5,00](#) [PVP03-3,50](#) [PVP04-3,50](#) [PVS02-5,00](#) [1-1986160-3](#) [1377680000](#) [1531000000](#) [1546228-5](#) [ELFH16150](#) [ELFP03110](#)  
[ELFP10210](#) [ELFT06250](#) [ELVP03100](#) [1700101](#) [1700410](#) [1700425](#) [1702246](#) [1705229](#) [1710175](#) [1714537](#) [1717806](#) [1719600](#) [1728941](#)  
[1734692](#) [1734795](#) [1736036](#) [1740194](#) [1740291](#) [1740628](#) [1740990](#) [1746952](#) [1750207](#) [1752441](#) [1752865](#) [1754115](#) [1754144](#) [1756913](#)  
[1760051](#) [1760336](#)