



# CITEL

NEW SPD  
with  
**INTEGRATED COUNTER**



## DACN1-25CVGS SERIES

[www.citel.fr](http://www.citel.fr)

### SURGE COUNTER

The „SC“-line includes a surge counter which detects, counts and displays the number of discharged surges on a display easily readable from the front of the SPD. With a threshold value of 100 A, the number of events is stored in a permanent memory.

### DUAL DISCONNECTION MECHANISM

Additional to the common separation gap, the DACN1 is equipped with an «arc cutter», a special part, which provides additional safety by separating and insulating the poles.

01

Surge counter

### DIN RAIL MOUNTING

Easy and quick to install in any electrical cabinet by mounting on a standard DIN rail.



### DISCONNECTION INDICATOR

At the end of its life, the surge protector must safely disconnect from the grid. A clearly visible indicator alerts the user of the need to replace the device.

### REMOTE SIGNALING

Indicates the state of the SPD remotely, recommended for a permanent monitoring of the unit by a plant control system (PLC). In the event of a safety disconnection, the internal contact will signal the status change to any remote device.

### A PATENTED TECHNOLOGY

- no passive aging
- increased life-duration
- leakage current free
- increased TOV withstand
- follow-current free



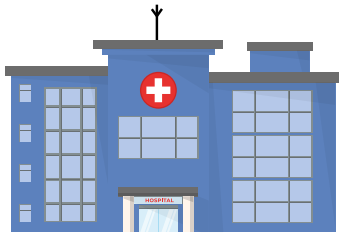


## CHARACTERISTICS

CITEL MODEL		DACN1-25CVGS-31-275	DACN1-25CVGS-11-275
Description		3-phase+N	single phase
Network		230/400 V	230/400 V
Max. AC operating voltage	Uc	275 Vac	275 Vac
Temporary Over Voltage (TOV) characteristic - 5 sec.	UT	335 Vac withstand	335 Vac withstand
Temporary Over Voltage (TOV) characteristic - 120 mn	UT	440 Vac withstand	440 Vac withstand
Nominal discharge current 15 x 8/20 $\mu$ s impulses	In	25 kA	25 kA
Max. discharge current max. withstand @ 8/20 $\mu$ s by pole	I <sub>max</sub>	100 kA	100 kA
Impulse current by pole max. withstand 10/350 $\mu$ s	I <sub>imp</sub>	25 kA	25 kA
Total lightning current max. withstand 10/350 $\mu$ s	I <sub>total</sub>	100 kA	100 kA
Withstand on Combination waveform Class III test	Uoc	6 kV	6 kV
Protection level L/N @ In (8/20 $\mu$ s) and @ 6 kV (1.2/50 $\mu$ s)	Up	1.5 kV	1.5 kV
Admis. short-circuit current	I <sub>sc</sub>	50 000 A	50 000 A
<b>Part number</b>			
<b>With counter</b>		64136	64191
<b>Without counter</b>		64135	64176

# 3 TYPICAL APPLICATIONS

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## NEEDS

System availability

+ Protection

Standard requirements

+ Monitoring



According to IEC 62305-3 Chapter E.7

- Visual inspection every year (LPL I and II)
- Complete inspection every 2 years (LPL I and II)
- Complete inspection every year in case of critical situation (sensitive internal systems, office blocks, commercial buildings, places with a high number of people)
- Complete inspection following any known lightning discharge to the LPS



## DACN1-25CVGS SURGE COUNTER SUPPORTS MAINTENANCE

- Many counts in a short time : check necessary
- Unexpected drop in counts : faulty grounding?
- Increased effectiveness of inspection : checking the counter display in addition to the status indicator of the SPDs.
- Improved maintenance procedures : constant monitoring of the number of detected surges
- Planning of predictive maintenance

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## NEEDS

System availability and durability

- Machine downtime



## DACN1-25CVGS SURGE COUNTER HELPS TO UNDERSTAND THE INSTALLATION

- Detects switching operations: by monitoring the number of detected surges before and after installing a new machinery
- Indicates need for additional protection
- Detects vulnerable spots: by installing numerous DACN1-25CVGS at crucial points in the installation, comparing the counts may reveal the vulnerable section in the setup.
- Indicates risks before the installation fails
- Indicates stress in the system
- Threshold: 100 A are dangerous

3



## NEED

Safety

+ Investigation



## DACN1-25CVGS SURGE COUNTER ENABLES ADVANCED ANALYSIS FOR EXPERTS

- Evaluating the current flow
- Performing of deeper analysis
- Helps to calculate position of lightning strike



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