



CITEL

NEW SPD
with
INTEGRATED COUNTER



DACN1-25CVGS SERIES

<https://citel.cn>

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.

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.

01

Surge counter

DIN RAIL MOUNTING

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

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.

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.

A PATENTED TECHNOLOGY

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



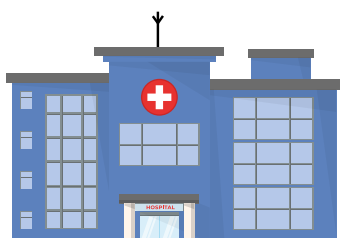


CHARACTERISTICS

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 μ s impulses	In	25 kA	25 kA
Max. discharge current max. withstand @ 8/20 μ s by pole	I _{max}	100 kA	100 kA
Impulse current by pole max. withstand 10/350 μ s	I _{imp}	25 kA	25 kA
Total lightning current max. withstand 10/350 μ s	I _{total}	100 kA	100 kA
Withstand on Combination waveform Class III test	Uoc	6 kV	6 kV
Protection level L/N @ In (8/20 μ s) and @ 6 kV (1.2/50 μ s)	Up	1.5 kV	1.5 kV
Admis. short-circuit current	I _{sc}	50 000 A	50 000 A
Part number			
With counter		64136	64191
Without counter		64135	64176

3 TYPICAL APPLICATIONS

1



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

2



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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