CITEL

NEW AC/DC RANGES
DAC/DDC

www.citel.fr

OUR OBJECTIVE
the safety of your equipment for 80 years

A LONG HISTORY...

Since 1937, CITEL has been protecting installations around the world from transient overvoltages that result from switching events and lightning strikes. With a thorough understanding of local standards and regulations, along with continuous investment in R&D, CITEL designs, manufactures and sells millions of SPD's each year.
CITEL develops many critical protection components internally.
Our teams all over the world are proud to help bring the market a comprehensive product range of surge protectors with our unique client-focused service & quality.

1937
CITEL founded

1944
Manufacture of the first surge arrester

1985
CITEL USA

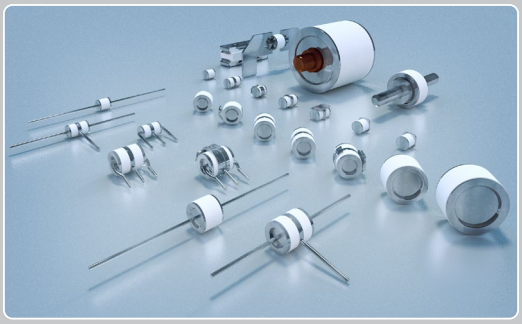
1988
CITEL Germany

1988
1st AC modular surge protector

1992
Reims factory

1996
CITEL Shanghaï

SINCE 1937



A UNIQUE COMPETENCE

Citel is the leading manufacturer that exclusively produces both SPDs and SPD components.

It constantly pioneers new technologies thanks to a bold innovation strategy, high-level R&D and in-house regional test labs around the world.

Citel is recognized as an industry leader that is instrumental in the development of international codes and standards.

1997
- AC surge protector new range «DS» series
- VG Technology for AC surge protector

2010
CITEL Russia

2012
CITEL India

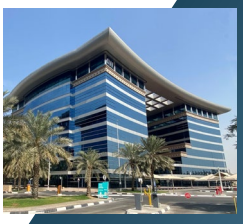
2012
Implementation of a test laboratory in Reims

2017
CITEL Thailand

2017
New test laboratory
240 kA
Citel China

2019
AC / DC
new ranges

2021
CITEL Dubai



PROTECT YOUR INSTALLATIONS

against transient overvoltages due to lightning strikes and switching operations

Surge protector is an essential element of the protection strategy of our low voltage and photovoltaic powerline installations. It guarantees the safety and durability of the equipment and therefore contributes to a certain economy.

CITEL has completely renewed its product ranges in order to respond to the different sectors of the market activities and to different standards increasingly demanding.

- Energy
- Photovoltaic
- Led lighting
- Telecom
- Radiocom
- Industry
- Datacenter
- Security
- Internet of things
- GDT & GSG
- Renewable energies
- Smart city

INTERNATIONAL COLLABORATION OF OUR TEAMS

DESIGNED IN EUROPE, USA & CHINA

In collaboration with an industrial design specialist, we have designed and created a more reliable, efficient, ergonomic and practical module to anticipate the needs of our customers.

REALIZED IN FRANCE

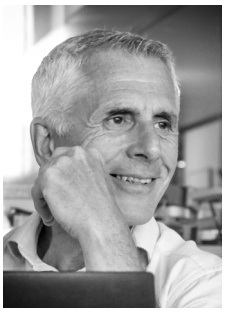
Our research and development teams worked in collaboration: research of the best materials, global technical design, tests in our various laboratories, follow-up of the certifications in order to design a range that meets all the international requirements.

MANUFACTURED IN FRANCE AND CHINA

Manufactured, tested, controlled in our own factories in France and China, with strict quality system and our own tools.

CERTIFIED IN GERMANY, USA AND CHINA

The necessary certification of the new ranges have been carried out in the German, US and China accredited laboratories.





THE NEW SPD GENERATION

Safer than ever !

SECURITY

The SPD is the safety element of the installation. Its role is to protect the equipment against transient overvoltages without failure. However, the SPD can be subjected to maximum attack conditions and must be able to support them in safety disconnection mode. As the leader of surge protection, we have designed surge protectors that meet the most extreme constraints, beyond the normative requirements.

PERFORMANCE

In order to ensure total safety during the use of our surge protectors, we have focused on :

- Safety disconnection
- Resistance to fire and short circuits
- Mechanical robustness

DESIGN AND ERGONOMICS

With its new design, CITEL surge protectors are easily identifiable in your installation.

EXCLUSIVE KNOW-HOW

CITEL is a specialist in the internal components of surge protectors : the Gas Spark Gap (GSG) and the varistors used are of our own design and we adapt them to obtain the best performances.

WARRANTY

Sure of our products, their warranty is extended to 5 years

A NEW TECHNOLOGY

STRENGTHENING OF INTERNAL PARTS

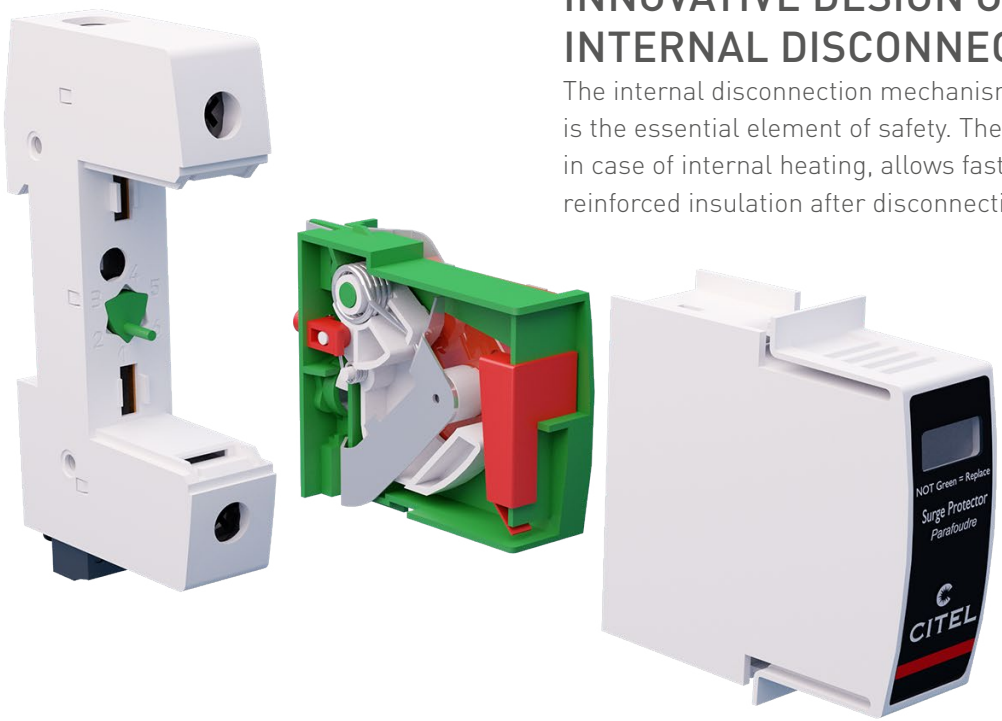
The robustness of the surge protector is essential to support the electromechanical forces generated during the passage of transient currents. We have reduced the internal impedances, improved the contacts, simplified and reinforced the conductive parts.

INCREASED QUALITY OF PLASTIC MATERIALS

The choice of plastic materials is guided by :
- Normative compliance (fire resistance, environment)
- Mechanical robustness
- Aesthetics

INNOVATIVE DESIGN OF INTERNAL DISCONNECTION

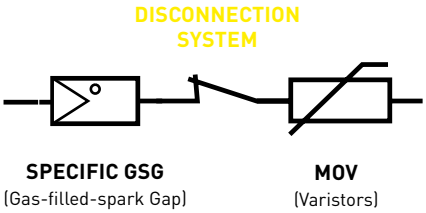
The internal disconnection mechanism of the device is the essential element of safety. The new concept, in case of internal heating, allows faster cut-off and reinforced insulation after disconnection.



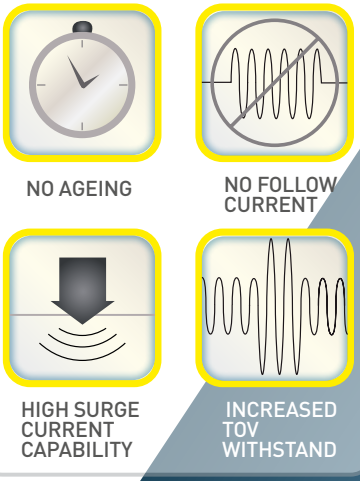
SINCE 1998
CITEL
VG
TECHNOLOGY
3RD GENERATION

VG TECHNOLOGY

The exclusive VG Technology by CITEL offers unique hybrid technology and multiple benefits not found in traditional surge protection solutions. The patented design incorporates a **combination of MOV and Gas filled Spark-Gap (GSG) technology to maximize the SPD's performance level and reliability**. VG technology is optimized for robustness and network stability, providing the highest level of protection available.



BENEFITS OF VG TECHNOLOGY



BETTER USER EXPERIENCE

Products even more adapted to your needs

DIN RAIL MOUNTING

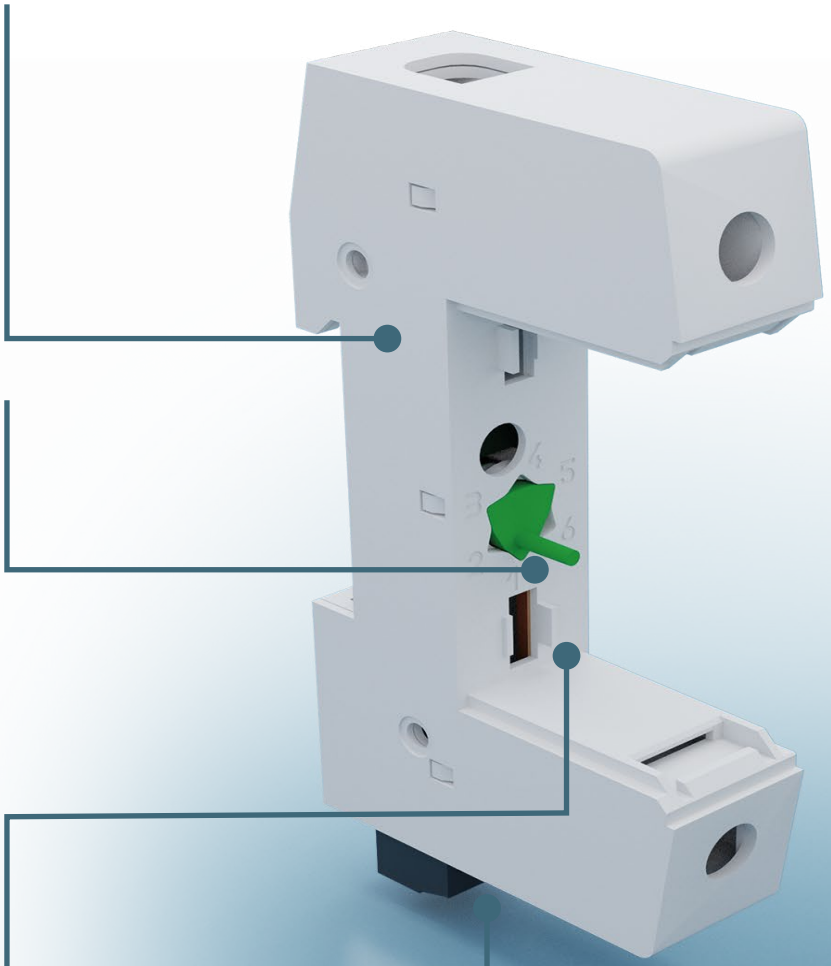
The modular format and symmetrical DIN rail mounting make the surge protector compliant with all installations.

VOLTAGE SELECTOR

Voltage selector avoid mistakes when replacing module.

CONTACT QUALITY

ust conduct very high impulse currents and the plug-in contacts must withstand these constraints. Quality of materials, increased surface area, optimized elasticity and specific surface treatment are used to meet these requirements.



REMOTE SIGNALING

It indicates the state of the arrester remotely, and is recommended when the arrester is not easily accessible. In case of safety disconnection of one or more modules, the internal contact switches and can activate any remote device.

EASY PLUGGABLE

The plugging and unplugging operation is greatly improved thanks to the quality of the module / base contacts. The extraction of the pluggable modules in case of maintenance is largely facilitated.

DISCONNECTION INDICATOR

At the end of its life, the surge protector disconnects from the network and must indicate its state. The indicator clearly informs user about the need to replace the out-of-service module.

IDENTIFICATION

The colored band on the front of the module makes it possible to identify its use or its type. Grey for AC type 1, Red for AC type 2, Blue for AC type 3, Orange for DC, Green for N/PE branch (GDT).

QR CODE

The QR code refers to the product installation instruction allowing a permanent availability of this essential document.

A CERTIFIED RANGE

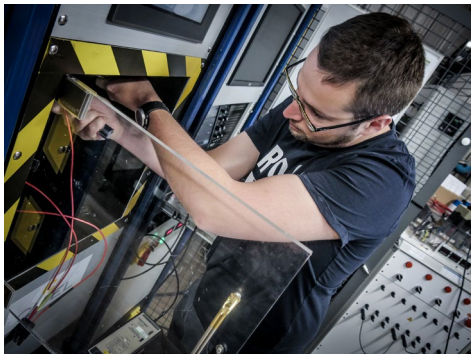
for the standards of today and tomorrow

UL1449

STANDARDS

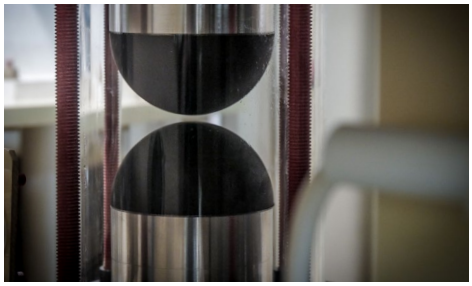
Surge Protection standards are changing and constraints are tightening with each new edition. Several CITEL experts, members of national and international committees, are involved in the development of these standards, to be close to the requirements of the market.

This range has been designed to last and therefore to anticipate future changes in standards.



INTERNAL TESTS

All the technological choices of our ranges were first tested in our testing laboratories, to validate compliance with current standards, but also by providing a functional margin beyond the requirements and anticipate future developments.



CERTIFICATIONS

The final step is certification provided by the official certifications organizations. Thanks to our expertise in surge tests, a part of the process has been performed in our own facilities, under control of official certification bodies.
Our Shanghai Laboratory has received a CERTIFICATE OF APPROVAL for Customer's Testing Facility, for the testing of electrotechnical equipment and components under the IECEE System.
It has been approved by Dekra at Stage 2.

OUR MEANS OF TESTING

In order to test its products internally for standards compliance and to evolve toward greater reliability CITEL has several centers of expertise and research(France, USA, China) equipped with :

- Various transient surge current and surge voltage generators such as 8/20, 10/350,10/1000, 1.2/50...
- AC and DC Power Sources for short circuit and load current tests with possible superimposed and synchronized pulses for AC sources.
- Various equipment's for environmental tests (impact, vibration, climate, damp, fire...)

THE SPD WHICH PROTECTS

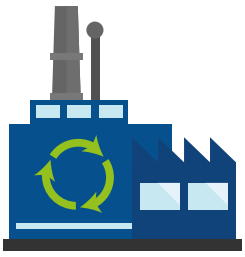
your equipment and our planet

Besides our constant work on the quality of our products, we take into account the ecological issues of our planet.

This is why CITEL is working to optimize its production equipment in order to reduce the impact on the environment. We have chosen for our new range high quality raw materials.

Our products use **HALOGEN FREE** material and comply with **RoHS** regulations**.**
CITEL is **ISO 14001** certified and meet the requirements of the **WEEE** directive**.**

Production respecting environmental standards



Purchase of materials compliant with the environmental regulations

Commitment for recycling

NEW DAC RANGE FOR AC & DC NETWORK

A COMPLETE RANGE WITH MANY OPTIONS

The new ranges of SPDs have been designed by CITEL to answer to all the needs of AC or DC power surge protection in accordance with standards. Type 1+2+3 versions, Compact units, integrated electrical fuse, DC power versions, VG techonogy...all these features allow a optimized selection of the relevant SPD in close relation with the installation requirements.

SINCE 1998 CITEL VG TECHNOLOGY 3RD GENERATION

COMPACT VERSION

INTEGRATED FUSE

DC POWER LINES

REMOTE SIGNALING

MONOBLOC VERSION

AC TYPE 1 RANGE

DAC1-13S / DAC1-13VGS / DACN1-25S / ZPAC

OPTIONS

• Extreme duty pluggable Type 1+2+3 or Type 1+2 SPDs designed to protect AC powerline at the main switchboard of an installation equipped with lightning rod (LPS).
• Available in multipolar versions to protect single or 3-phase AC networks
• Equipped with a high efficiency internal disconnector linked to a front disconnection indicator and a remote signalling feature .
• Very high discharge current capability in small dimensions and the best possible behavior to the AC network (no follow current).
• In option : VG technology

AC TYPE 2 RANGE

DAC50S / DAC50VGS / DACFxxS/ DAC80S

OPTIONS

• Pluggable surge protectors Type 2 or Type 2+3 designed to protect AC powerline at the main switchboard of the installation.
• Based on high energy varistor equipped with thermal disconnector and failure indicator to provide a maximum protection efficiency, an high impulse current capability and a improved reliability.
• Available in multipolar version and in several voltages to protect single or 3-phase networks, with remote signalling.
• In option : VG technology.
• Available with an internal fuse against short-circuit currents, which avoids the use of a external fuse or circuit-breaker as requested by standard (DACF).

AC COMPACT RANGE

DAC40CS / DAC15CS / DACN10S

OPTIONS

• Pluggable compact surge protectors Type 2 or Type 3 designed to protect electrical installation at the main switchboard or at secondary panels.
• Compact format which allow to install it in limited space.
• Based on high energy varistor equipped with thermal disconnector and failure indicator, guaranteeing a maximum protection efficiency, an high impulse current capability and a improved reliability.
• Available in 2 impulse current versions, in multipolar configuration and in several operating voltages to protect all kind of single or 3-phase AC networks.
• Remote signaling

DC & DC COMPACT RANGE

DDCxxS /DDCxxCS

OPTIONS

• Type 1+2 or Type 2 pluggable surge protectors designed for equipment connected to DC powerlines.
• Technology based on high energy varistor equipped with thermal disconnection mechanism which offers protection efficiency and and a maximal reliability.
• Available in compact version from 12 to 350 Vdc DC powerline.
• Remote signaling

DACN1-25VGS-760 series

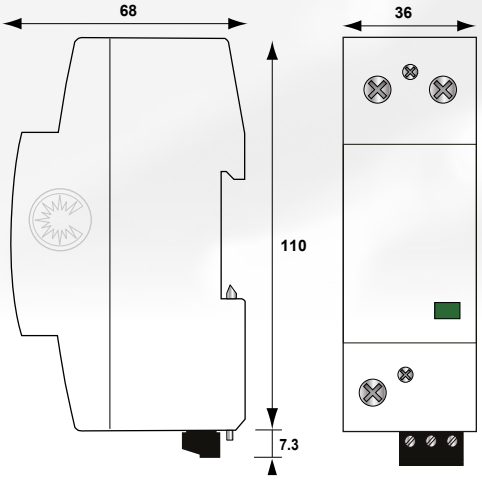
Type 1 + 2 + 3 AC Surge Protectors

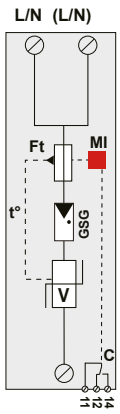
- **Type 1 + 2 + 3 Surge Protector**
- **for 690 V AC Network**
- **VG Technology**
- **In : 35 kA**
- **Iimp : 25 kA**
- **Remote signaling**
- **Optimized to TOV**
- **EN 61643-11, IEC 61643-11, UL1449 ed.4 and GB/T 18802.1 compliance**

10-year WARRANTY

SINCE 1998 CITEL VG TECHNOLOGY 3RD GENERATION

TÜVRheinland



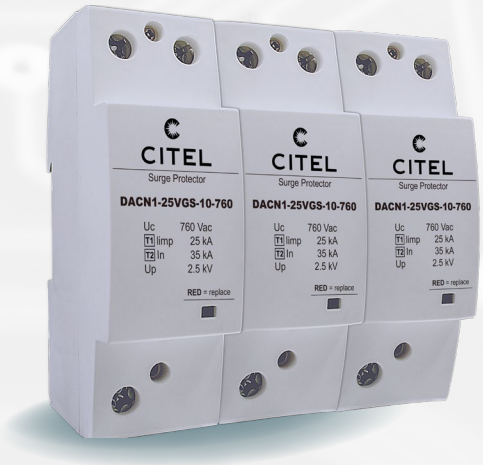


V: High energy varistor
GSG: Specific gas Tube
MI: Disconnection indicator
Ft: Thermal fuse
t°: Thermal disconnection system
C: Contact for remote signal

CITEL model		DACN1-25VGS-10-760
Description		Type 1+2+3 AC surge protector - 1-pole
Max. AC operating voltage	Uc	760 Vac
Temporary Over Voltage (TOV) characteristics - 5 sec	UT	1000 Vac
Temporary Over Voltage (TOV) characteristics - 20 mn	UT	1325 Vac
Residuel current *- Leakage current at Uc*	Ipe	none
Max. Load current *(if connection serie)*	IL	100 A
Follow current	If	none
Nominal discharge current *15 x 8/20µs impulses*	In	35 kA
Maximal discharge current *max. withstand @ 8/20 µs*	Imax	70 kA
Impulse current by pole *max. withstand @ 10/350 µs by pole*	Iimp	25 kA
Specific energy by pole	W/R	156 kJ/ohm
Withstand on combination waveform *Class III test*	Uoc	6 kV
Protection level *@ In (8/20µs) et 6 kV (1.2/50µs)*	Up	2.5 kV
Residual voltage *@ 25kA (8/20µs)*	Up-25kA	2.1 kV
Residual voltage *@ 5kA (8/20µs)*	Up-5kA	1.6 kV
Admissible short-circuit current	Isccr	50 000 A
Associated disconnectors		
Thermal disconnector		internal
Fuses		Fuse type gG - 315 A
Existing upstream ground breaker (if any)		Type «S» or delayed
Mechanical characteristics		
Dimensions		see diagram, 2 TE (DIN43880)
Connection to network		by screw terminals : 2.5-25 mm² (35mm² rigid)
Disconnection indicator		1 mechanical indicator Green/Red
Remote signaling of disconnection		output on changeover contact
Failsafe mode		Disconnection from AC network
Max. voltage/current for remote signaling		250 V/0.5 A (AC), 30 V/3 A (DC)
Wiring for remote signaling		1.5 mm² max.
Mounting		Symmetrical rail 35 mm² (EN60715)
Operating temperature		-40/+85°C
Protection rating		IP20
Housing material		Thermoplastic UL94 V-0
Standards		
Compliance		IEC 61643-11 / NF EN 61643-11 / UL1449 ed.4 / GB/T 18802.1
Certification		TUV Rheinland
Part number		
		29221012

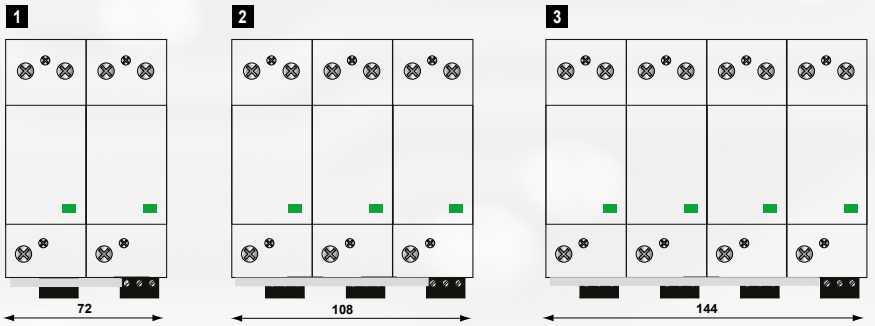
DACN1-25VGS-760 series

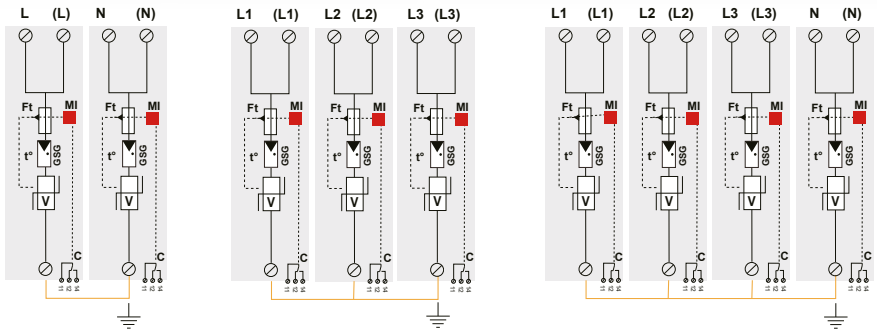
Type 1 + 2 + 3 AC Multipolar Surge Protectors



DACN1-25VGS-xx-xxx

- Maximum operating voltage
- Configuration: **10** (single-pole 1+0), **20** (2+0), **30** (3+0), **40** (4+0)
- «**S**» = Remote signal
- VG Technology
- Iimp: 25 kA
- Non pluggable





Model	P/N	Network	AC System	Protection Mode	Iimp total	Up L/PE	Up N/PE	Dimension DIN43880	Diagram
DACN1-25VGS-40-760	29224012	400/690 V 3-phase+N	TN System (4+0)	L/PE and N/PE	100 kA	2.5 kV	2.5 kV	8TE	3
DACN1-25VGS-30-760	29223012	400/690 V 3-phase	TN-C System (3+0)	L/PE	75 kA	2.5 kV	-	6TE	2
DACN1-25VGS-20-760	29222012	400 V Single phase	IT System (2+0)	L/PE and N/PE	50 kA	2.5 kV	2.5 kV	4 TE	1

DAC1-13VGS series

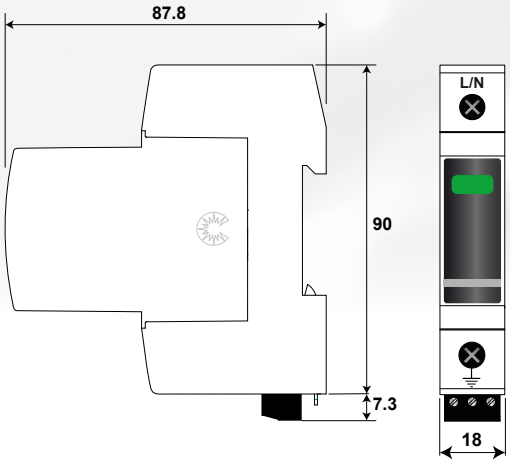
Type 1 + 2 + 3 AC Surge Protectors

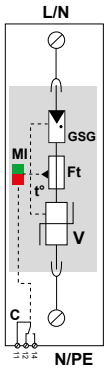
- VG Technology
- In : 20 kA
- Iimp : 12.5 kA @ 10/350µs impulse
- Itotal : 50 kA @ 10/350µs impulse (3L+N)
- Remote signaling
- No leakage current
- Optimized to TOV
- EN 61643-11, IEC 61643-1 certified
- UL1449 ed.4 compliance

10-year WARRANTY

SINCE 1998 CITEL VG TECHNOLOGY 3RD GENERATION

KEMA KEUR





V : High energy varistor network
GSG : Specific gas Tube
Ft : Thermal fuse
C : Remote signaling contact
t° : Thermal disconnection system
MI : Disconnection indicator

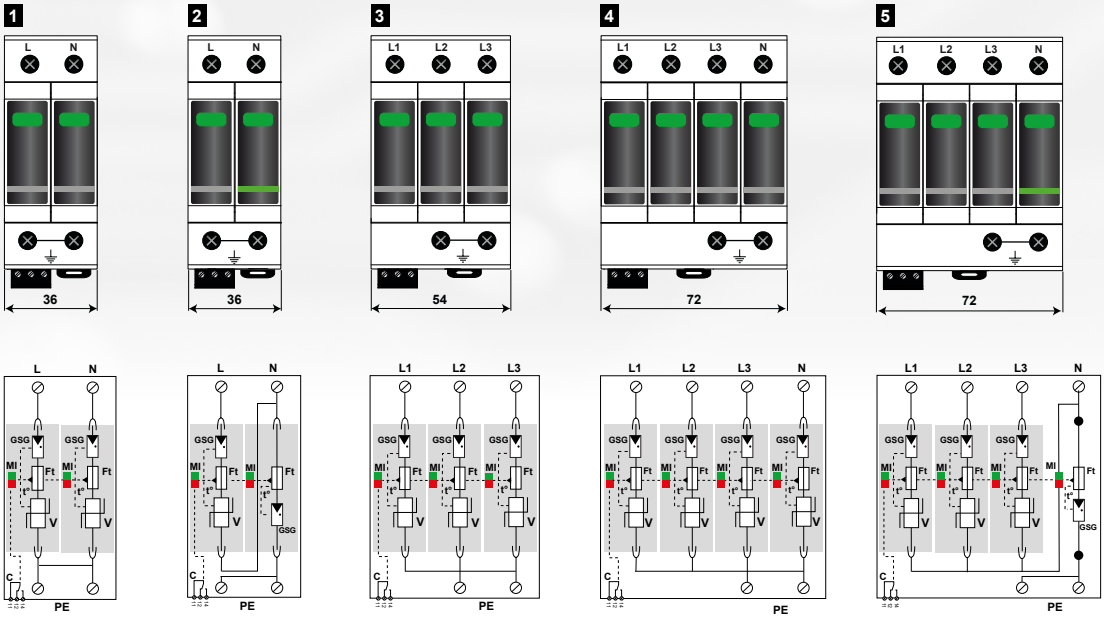
CITEL Model		DAC1-13VGS-10-320	DAC1-13VGS-10-275	DAC1-13VGS-10-150
Description		Type 1+2+3 AC surge protector - 1-pole - pluggable		
Max. AC operating voltage	Uc	320 Vac	275 Vac	150 Vac
Temporary Over Voltage (TOV) characteristic - 5 sec.	UT	335 Vac withstand	335 Vac withstand	180 Vac withstand
Temporary Over Voltage (TOV) characteristic - 120 mn	UT	440 Vac withstand	440 Vac withstand	230 Vac withstand
Residual current *- Leakage current at Uc*	Ipe	None	None	None
Follow current	If	None	None	None
Nominal discharge current *15 x 8/20 µs impulses*	In	20 kA	20 kA	20 kA
Max. discharge current *max. withstand @ 8/20 µs by pole*	Imax	50 kA	50 kA	50 kA
Impulse current by pole *max. withstand 10/350µs*	Iimp	12.5 kA	12.5 kA	12.5 kA
Specific energy by pole	W/R	40 kJ/ohm	40 kJ/ohm	40 kJ/ohm
Withstand on Combination waveform *Class III test*	Uoc	6 kV	6 kV	6 kV
Protection level *@ In (8/20µs) and 6 kV (1.2/50µs)*	Up	1.5 kV	1.5 kV	1.5 kV
Residual Voltage *@ 5 kA (8/20µs)*	Up-5kA	0.9 kV	0.7 kV	0.4 kV
Admissible short-circuit current	Isccr	50 000 A	50 000 A	50 000 A
Associated disconnectors				
Thermal disconnector		Internal		
Fuses		125 A min. - 315 A max. - gG type / or CITEL SFD-13		
Existing upstream ground fault breaker (if any)		Type «S» or delayed		
Mechanical characteristics				
Dimensions		see diagram - 1TE (DIN43880)		
Connection to Network		By screw terminals: 2.5-25 mm² (35mm² rigid)		
Failsafe Mode		Disconnection from AC network		
Disconnection indicator		1 mechanical indicator Green/Red		
Max. voltage/current for remote signaling		250 V/0.5 A (AC) / 30 V/3 A (DC)		
Wiring for remote signaling		1.5 mm² max.		
Mounting		Symmetrical rail 35 mm (EN60715)		
Operating temperature		-40/+85°C		
Protection rating		IP20		
Housing material		Thermoplastic UL94 V-0		
Spare unit		MDAC1-13VG-320	MDAC1-13VG-275	MDAC1-13VG-150
Standards				
Certification		KEMA /EAC		
Compliance		IEC 61643-11 / EN 61643-11 / UL1449 ed.4		
Part number				
		821730321	821730221	821730121

DAC1-13VGS series

Type 1 + 2 + 3 AC Multipolar Surge Protectors

DAC1-13VGS-xx-xxx

- Maximum operating voltage
- Configuration: 10 (1+0), 11 (1+1), 20 (2+0), 30 (3+0), 40 (4+0), 31 (3+1)
- «S» Remote signal
- «VG» VG-Technology
- «13» limp: 12.5 kA



Model	P/N	Network	AC system	Protection Mode	Itotal	Up L/PE	Up L/N	Up N/PE	Dimension DIN43880	Diagram
DAC1-13VGS-31-320	821730324	230/400 V 3-Phase+N	TT-TNS System (3+1)	L/N and N/PE	50 kA	-	1.5 kV	1.5 kV	4 TE	
DAC1-13VGS-31-275	821730224	230/400 V 3-Phase+N	TT-TNS System (3+1)	L/N and N/PE	50 kA	-	1.5 kV	1.5 kV	4 TE	5
DAC1-13VGS-31-150	821730124	120/208 V 3-Phase+N	TT-TNS System (3+1)	L/N and N/PE	50 kA	-	1.5 kV	1.5 kV	4 TE	
DAC1-13VGS-40-320	821730344	230/400 V 3-Phase+N	TNS System (4+0)	L/PE and N/PE	50 kA	1.5 kV	-	1.5 kV	4 TE	
DAC1-13VGS-40-275	871730244	230/400 V 3-Phase+N	TNS System (4+0)	L/PE and N/PE	50 kA	1.5 kV	-	1.5 kV	4 TE	4
DAC1-13VGS-40-150	821730144	120/208 V 3-Phase+N	TNS System (4+0)	L/PE and N/PE	50 kA	1.5 kV	-	1.5 kV	4 TE	
DAC1-13VGS-30-320	821730323	230/400 V 3-Phase	TNC System (3+0)	L/PE	37.5 kA	1.5 kV	-	-	3 TE	
DAC1-13VGS-30-275	821730223	230/400 V 3-Phase	TNC System (3+0)	L/PE	37.5 kA	1.5 kV	-	-	3 TE	3
DAC1-13VGS-30-150	821730123	120/208 V 3-Phase	TNC System (3+0)	L/PE	37.5 kA	1.5 kV	-	-	3 TE	
DAC1-13VGS-11-320	821730342	230 V single phase	TT-TN System (1+1)	L/N and N/PE	25 kA	-	1.5 kV	1.5 kV	2 TE	
DAC1-13VGS-11-275	821730242	230 V single phase	TT-TN System (1+1)	L/N and N/PE	25 kA	-	1.5 kV	1.5 kV	2 TE	2
DAC1-13VGS-11-150	821730142	120 V single phase	TT-TN System (1+1)	L/N and N/PE	25 kA	-	1.5 kV	1.5 kV	2 TE	
DAC1-13VGS-20-320	821730322	230 V single phase	TN System (2+0)	L/PE and N/PE	25 kA	1.5 kV	-	1.5 kV	2 TE	
DAC1-13VGS-20-275	821730222	230 V single phase	TN System (2+0)	L/PE and N/PE	25 kA	1.5 kV	-	1.5 kV	2 TE	1
DAC1-13VGS-20-150	821730122	120 V single phase	TN System (2+0)	L/PE and N/PE	25 kA	1.5 kV	-	1.5 kV	2 TE	

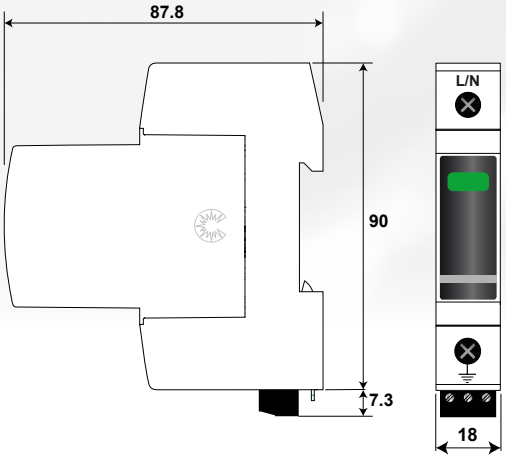
DAC1-13S SERIES

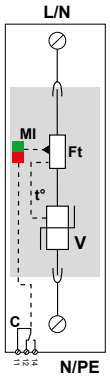
Type 1 + 2 AC Surge Protectors

- **Pluggable Type 1+2 AC power SPD**
- **In : 20 kA**
- **Iimp : 12.5 kA @ 10/350µs impulse**
- **Itotal : 50 kA @ 10/350µs impulse (3L+N)**
- **Remote signaling**
- **EN 61643-11, IEC 61643-1 certified**
- **UL1449 ed.4 compliance**

5-year WARRANTY

KEMA KEUR





V : High energy varistor network
Ft : Thermal fuse
C : Remote signaling contact
t° : Thermal disconnection system
MI : Disconnection indicator

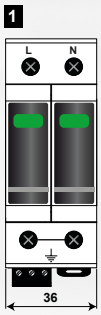
CITEL Model		DAC1-13S-10-440	DAC1-13S-10-320	DAC1-13S-10-275	DAC1-13S-10-150
Description		1+2 AC surge protector - 1-pole - pluggable			
Max. AC operating voltage	Uc	440 Vac	320 Vac	275 Vac	150 Vac
Temporary Over Voltage (TOV) Characteristic - 5 sec.	UT	580 Vac withstand	335 Vac withstand	335 Vac withstand	180 Vac withstand
Temporary Over Voltage (TOV) Characteristic -120 mn	UT	770 Vac disconnection	440 Vac disconnection	440 Vac disconnection	230 Vac disconnection
Residual current *Leakage current at Uc*	Ipe	< 1 mA	< 1 mA	< 1 mA	< 1 mA
Follow current	If	None	None	None	None
Nominal discharge current *15 x 8/20 µs impulses*	In	20 kA	20 kA	20 kA	20 kA
Max. discharge current *max. withstand @ 8/20 µs by pole*	Imax	50 kA	50 kA	50 kA	50 kA
Impulse current by pole *max. withstand 10/350µs*	Iimp	12.5 kA	12.5 kA	12.5 kA	12.5 kA
Specific energy by pole	W/R	40 kJ/ohm	40 kJ/ohm	40 kJ/ohm	40 kJ/ohm
Protection level *@ In (8/20µs)*	Up	1.7 kV	1.6 kV	1.3 kV	0.9 kV
Residual voltage *@ 5kA (8/20µs)*	Up-5kA	1.5 kV	1.2 kV	1 kV	0.6 kV
Admissible short-circuit current	Isccr	50 000 A	50 000 A	50 000 A	50 000 A
Associated disconnectors					
Thermal disconnector		internal			
Fuses		125 A min. - 315 A max. - gG type / or CITEL SFD-13			
Existing upstream ground fault breaker (if any)		Type "S" or delayed			
Mechanical characteristics					
Dimensions		see diagram, 1TE, DIN 43880			
Connection to Network		By screw terminals: 2.5-25 mm² (35mm² rigid)			
Failsafe mode		Disconnection from AC network			
Disconnection indicator		1 mechanical indicator Green/Red			
Max. voltage/current for remote signaling		250 V/0.5 A (AC) / 30 V/3 A (DC)			
Wiring for remote signaling		max 1.5 mm²			
Mounting		Symmetrical rail 35 mm (EN60715)			
Operating temperature		-40/+85°C			
Protection rating		IP20			
Housing material		Thermoplastic UL94 V-0			
Spare unit		MDAC1-13-440	MDAC1-13-320	MDAC1-13-275	MDAC1-13-150
Standards					
Certification		EAC	KEMA / EAC	KEMA / EAC	KEMA / EAC
Compliance		IEC 61643-11 / NF EN 61643-11 / UL1449 ed.4			
Part number					
		821710421	821710321	821710221	821710121

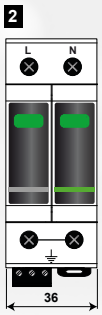
DAC1-13S SERIES

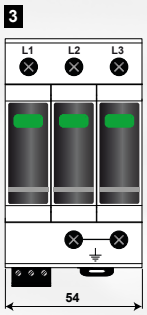
Type 1 + 2 AC Multipolar Surge Protectors

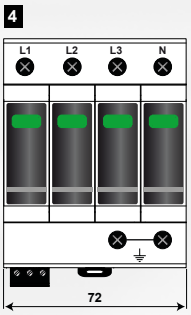
DAC1-13S-xx-xxx

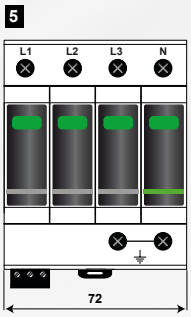
- Maximum operating voltage
- Configuration: 10 (1+0), 11 (1+1), 20 (2+0), 30 (3+0), 40 (4+0), 31 (3+1)
- «S» Remote signal
- «13» limp: 12.5 kA

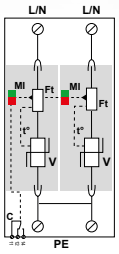


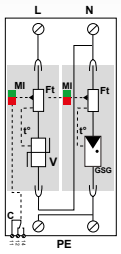


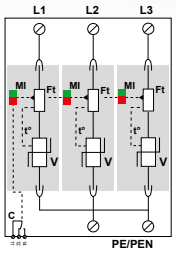


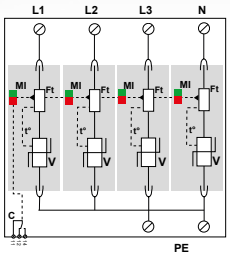


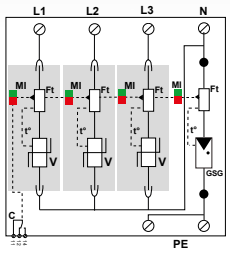












Model	P/N	Network	AC system	Protection Mode	Itotal	Up L/PE	Up L/N	Up N/PE	Dimension DIN43880	Diagram
DAC1-13S-31-320	821710344	230/400 V 3-Phase+N	TT-TNS System (3+1)	L/N and N/PE	50 kA	-	1.6 kV	1.5 kV	4 TE	5
DAC1-13S-31-275	821710244	230/400 V 3-Phase+N	TT-TNS System (3+1)	L/N and N/PE	50 kA	-	1.3 kV	1.5 kV	4 TE	
DAC1-13S-31-150	821710144	120/208 V 3-Phase+N	TT-TNS System (3+1)	L/N and N/PE	50 kA	-	0.9 kV	1.5 kV	4 TE	
DAC1-13S-40-440	821710424	230/400 V 3-Phase+N	IT System (4+0)	L/PE and N/PE	50 kA	1.7 kV	-	1.7 kV	4 TE	4
DAC1-13S-40-320	821710324	230/400 V 3-Phase+N	TNS System (4+0)	L/PE and N/PE	50 kA	1.6 kV		1.6 kV	4 TE	
DAC1-13S-40-275	821710224	230/400 V 3-Phase+N	TNS System (4+0)	L/PE and N/PE	50 kA	1.3 kV	-	1.3 kV	4 TE	
DAC1-13S-40-150	821710124	120/208 V 3-Phase+N	TNS System (4+0)	L/PE and N/PE	50 kA	0.9 kV	-	0.9 kV	4 TE	
DAC1-13S-30-440	821710423	230/400 V 3-Phase	IT System (3+0)	L/PE	37.5 kA	1.7 kV	-	-	3 TE	3
DAC1-13S-30-320	821710323	230/400 V 3-Phase	TNC System (3+0)	L/PE	37.5 kA	1.6 kV	-	-	3 TE	
DAC1-13S-30-275	821710223	230/400 V 3-Phase	TNC System (3+0)	L/PE	37.5 kA	1.3 kV	-	-	3 TE	
DAC1-13S-30-150	821710123	120/208 V 3-Phase	TNC System (3+0)	L/PE	37.5 kA	0.9 kV	-	-	3 TE	
DAC1-13S-11-320	821710342	230 V single phase	TT-TN System (1+1)	L/N and N/PE	25 kA	-	1.6 kV	1.5 kV	2 TE	2
DAC1-13S-11-275	821710242	230 V single phase	TT-TN System (1+1)	L/N and N/PE	25 kA	-	1.3 kV	1.5 kV	2 TE	
DAC1-13S-11-150	821710142	120 V single phase	TT-TN System (1+1)	L/N and N/PE	25 kA	-	0.9 kV	1.5 kV	2 TE	
DAC1-13S-20-440	821710422	230 V single phase	IT System (2+0)	L/PE and N/PE	25 kA	1.7 kV	-	1.7 kV	2 TE	1
DAC1-13S-20-320	821710322	230 V single phase	TN System(2+0)	L/PE and N/PE	25 kA	1.6 kV	-	1.6 kV	2 TE	
DAC1-13S-20-275	821710222	230 V single phase	TN System(2+0)	L/PE and N/PE	25 kA	1.3 kV	-	1.3 kV	2 TE	
DAC1-13S-20-150	821710122	120 V single phase	TN System (2+0)	L/PE and N/PE	25 kA	0.9 kV	-	0.9 kV	2 TE	

ZPAC1 SERIES

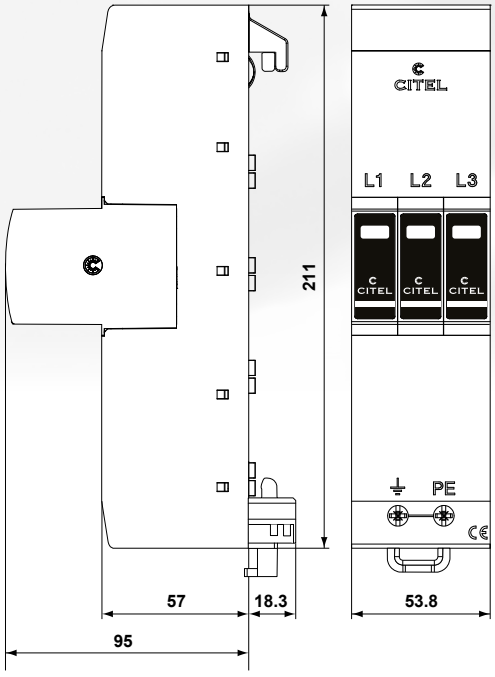
Type 1+2+3 AC surge protector - 3-phase+N

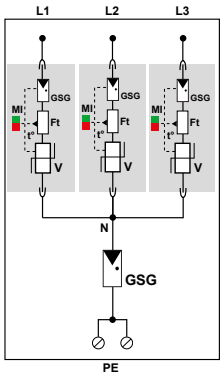
- **Type 1+2+3 AC SPD for 40 mm busbar systems**
- **Ultra fast and error-free mounting**
- **In : 20 kA**
- **Iimp : 12.5kA or 8 kA**
- **Iimp total : 50 kA or 32 kA**
- **No leakage current**
- **Optimized to TOV**
- **EN 61643-11 / IEC 61643-11 certified**
- **UL1449 ed. 4 compliance**
- **VDE-AR-N 4100 compliance (use of Type 1 overvoltage protection devices (SPD) in main power supply systems)**

10-year WARRANTY

KEMA KEUR

SINCE 1998 CITEL VG TECHNOLOGY 3RD GENERATION





V : High energy varistor network
GSG : Specific gas Tube
Ft : Thermal fuse
t° : Thermal disconnection system
MI : Disconnection indicator

CITEL Model		ZPAC1-13VG-31-275	ZPAC1-8VG-31-275
Network		230/400 V 3L+N	230/400 V 3L+N
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
Temporary Over Voltage N/PE (TOV HT)	UT	1200V/300 V/200 ms withstand	1200V/300 V/200 ms withstand
Residual current - *Leakage current at Uc*	Ipe	None	None
Follow current	If	None	None
Nominal discharge current *15 x 8/20 µs impulses*	In	20 kA	20 kA
Max. discharge current *max. withstand @ 8/20 µs by pole*	Imax	50 kA	50 kA
Impulse current by pole *max. withstand 10/350µs*	Iimp	12.5 kA	8 kA
Specific energy by pole	W/R	40 kJ/ohm	16 kJ/ohm
Total lightning current - *@ 10/350µs by pole*	Itotal	50 kA	32 kA
Withstand on Combination waveform *Class III test*	Uoc	6 kV	6 kV
Protection level *@ In (8/20µs) and 6 kV (1.2/50µs)*	Up L/N Up N/PE	1.5 kV 1.5 kV	1.5 kV 1.5 kV
Residual Voltage *@ 5 kA (8/20µs)*	Up-5kA	0.7 kV	0.7 kV
Admissible short-circuit current	Isccr	50 000 A	50 000 A
Associated disconnectors			
Thermal disconnector		Internal	
Fuses (existing upstream)		160 A max. - gG type	
Mechanical characteristics			
Dimensions		see diagram - 3TE (DIN43880)	
Connection to Network		Mounting on 40 mm busbar and wire for PE: 10-50 mm²	
Failsafe Mode		Disconnection from AC network	
Disconnection indicator		1 mechanical indicator by pole Green/Red	
Mounting		Symmetrical rail 35 mm (EN60715)	
Operating temperature		-40/+85°C	
Protection rating		IP20	
Housing material		Thermoplastic UL94 V-0	
Spare unit		MDAC1-13VG-275	MDAC1-8VG-275
Standards			
Certification		KEMA /EAC	
Compliance		IEC 61643-11 / EN 61643-11 / UL1449 ed.4	
Part number			
		64004	64006

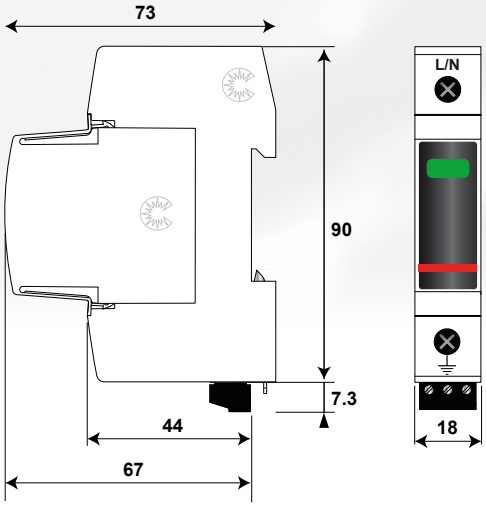
CITEL

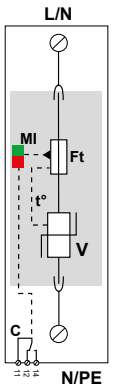
DAC80S SERIES

Type 2 AC surge protector

- **Re-inforced Type 2 Surge Protector**
- **In: 40 kA**
- **Imax: 80 kA**
- **Pluggable module by phase**
- **Remote Signaling**
- **IEC 61643-11, EN 61643-11 and UL1449 ed.4 compliance**

10-year WARRANTY





V : High energy varistor network
Ft : Thermal fuse
C : Remote signaling contact
t° : Thermal disconnection system
MI : Disconnection indicator

CITEL Model		DAC80S-10-440	DAC80S-10-320	DAC80S-10-275	DAC80S-10-150
Description		Type 2 AC surge protector - one-pole - pluggable			
Maximum AC operating voltage	Uc	440 Vac	320Vac	275 Vac	150 Vac
Temporary Over Voltage (TOV) Charasteristics - 5 sec.	UT	580 Vac withstand	335 Vac withstand	335 Vac withstand	180 Vac withstand
Temporary Over Voltage (TOV) Charasteristics -120mn	UT	770 Vac disconnection	440 Vac disconnection	440 Vac disconnection	230 Vac disconnection
Residual current *Leakage current at Uc*	Ipe	< 1 mA	< 1 mA	< 1 mA	< 1 mA
Follow current	If	None	None	None	None
Nominal discharge current *15 x 8/20 µs impulses*	In	40 kA	40 kA	40 kA	40 kA
Max. discharge current *max. withstand @ 8/20 µs by pole*	Imax	80 kA	80 kA	80 kA	80 kA
Protection level *@ In (8/20µs)*	Up	1.8 kV	1.4 kV	1.2 kV	0.9 kV
Residual voltage *@ 5 kA (8/20µs)*	Up-5kA	1.4 kV	1 kV	0.9 kV	0.7 kV
Admissible short-circuit current	Isccr	50 000 A	50 000 A	50 000 A	50 000 A
Associated disconnectors					
Thermal disconnector		internal			
Fuses		50 A min. - 125 A max. - gG Type			
Installation ground fault breaker (if any)		Type "S" or delayed			
Mechanical characteristics					
Dimensions		see diagram - 1TE (DIN43880)			
Connection to Network		By screw terminals: 2.5-25 mm² (35mm² rigid)			
Failsafe mode		Disconnection from network			
Disconnection indicator		1 mechanical indicator Green/Red			
Max. voltage/current for remote signaling		250 V/0.5 A (AC) / 30V/3 A (DC)			
Wiring for remote signaling		max. 1.5 mm²			
Mounting		Symmetrical rail 35 mm (EN60715)			
Operating temperature		-40/+85°C			
Protection rating		IP20			
Housing material		Thermoplastic UL94 V-0			
Spare unit		MDAC80-440	MDAC80-320	MDAC80-275	MDAC80-150
Standards					
Compliance		EN 61643-11 / IEC 61643-11 / UL1449 ed.4			
Part number					
		821210421	821210321	821210221	821210121

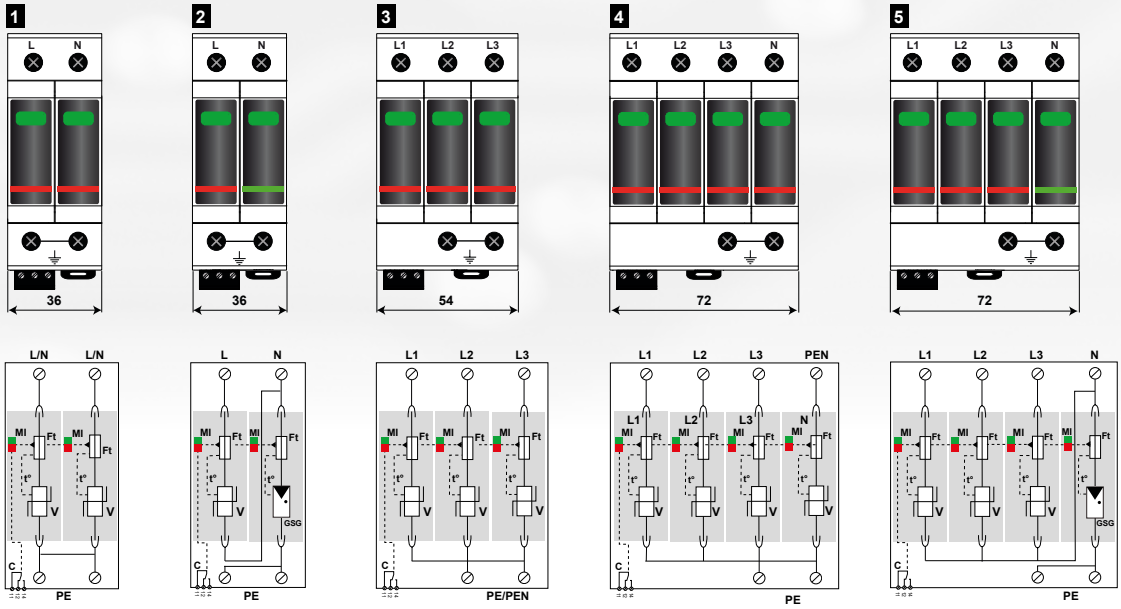
CITEL

DAC80S SERIES

Type 2 AC Multipolar Surge Protector

DAC80S-xx-xxx

- Maximum operating voltage
- Configuration: 10 (1+0), 11 (1+1), 20 (2+0), 30 (3+0), 40 (4+0), 31 (3+1)
- «S» Remote signal
- «80» Imax: 80 kA

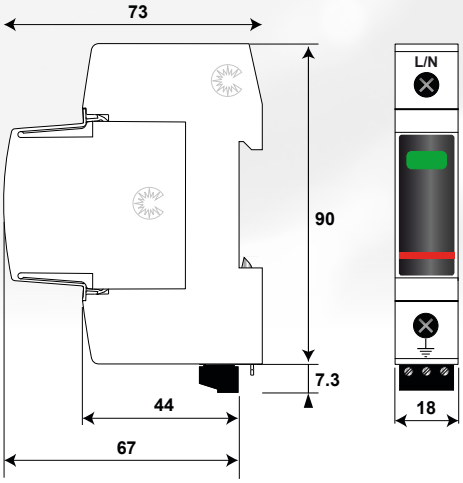


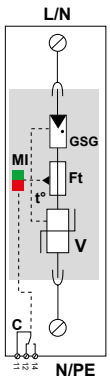
Model	Part number	Network	AC system	Protection Mode	Up L/PE	Up L/N	Up N/PE	Dimensions DIN43880	Diagram
DAC80S-31-320	821210344	230/400 V 3-phase+N	TT-TNS system (3+1	L/N and N/PE	-	1.4 kV	1.5 kV	4 TE	
DAC80S-31-275	821210244	230/400 V 3-phase+N	TT-TNS system (3+1	L/N and N/PE	-	1.2 kV	1.5 kV	4 TE	5
DAC80S-31-150	821210144	120/208 V 3-phase+N	TT-TNS system (3+1	L/N and N/PE	-	0.9 kV	1.5 kV	4 TE	
DAC80S-40-440	821210424	230/400 V 3-phase+N	IT system (4+0)	L/PE and N/PE	1.8 kV	-	1.8 kV	4 TE	
DAC80S-40-320	821210324	230/400 V 3-phase+N	TNS system (4+0)	L/PE and N/PE	1.4 kV	-	1.4 kV	4 TE	4
DAC80S-40-275	821210224	230/400 V 3-phase+N	TNS system (4+0)	L/PE and N/PE	1.2 kV	-	1.2 kV	4 TE	
DAC80S-40-150	821210124	120/208 V 3-phase+N	TNS system (4+0)	L/PE and N/PE	0.9 kV	-	0.9 kV	4 TE	
DAC80S-30-440	821210423	230/400 V 3-phase	IT system (3+0)	L/PE	1.8 kV	-	-	3 TE	
DAC80S-30-320	821210323	230/400 V 3-phase	TNC system (3+0)	L/PE	1.4 kV	-	-	3 TE	
DAC80S-30-275	821210223	230/400 V 3-phase	TNC system (3+0)	L/PE	1.2 kV	-	-	3 TE	
DAC80S-30-150	821210123	120/208 V 3-phase	TNC system (3+0)	L/PE	0.9 kV	-	-	3 TE	
DAC80S-11-320	821210342	230 V single phase	TT-TN system(1+1)	L/N and N/PE	-	1.4 kV	1.5 kV	2 TE	
DAC80S-11-275	821210242	230 V single phase	TT-TN system(1+1)	L/N and N/PE	-	1.2 kV	1.5 kV	2 TE	2
DAC80S-11-150	821210142	120 V single phase	TT-TN system(1+1)	L/N and N/PE	-	0.9 kV	1.5 kV	2 TE	
DAC80S-20-440	821210422	230 V single phase	IT system (2+0)	L/PE and N/PE	1.8 kV	-	1.8 kV	2 TE	
DAC80S-20-320	821210322	230 V single phase	TN system (2+0)	L/PE and N/PE	1.4 kV	-	1.4 kV	2 TE	1
DAC80S-20-275	821210222	230 V single phase	TN system (2+0)	L/PE and N/PE	1.2 kV	-	1.2 kV	2 TE	
DAC80S-20-150	821210122	120 V single phase	TN system (2+0)	L/PE and N/PE	0.9 kV	-	0.9 kV	2 TE	

DAC50VGS SERIES

Type 2 + 3 AC Surge Protectors

- **Type 2 + 3 AC surge protectors**
- **VG Technology**
- **In: 20 kA**
- **No leakage current**
- **Optimized to TOV**
- **Remote signaling**
- **IEC 61643-11, EN 61643-11 certified**
- **UL1449 ed.4 compliance**





CITEL Model		DAC50VGS-10-320	DAC50VGS-10-275	DAC50VGS-10-150
Description		Type 2 AC surge protector - 1-pole - pluggable		
Maximum AC operating voltage	Uc	320 Vac	275 Vac	150 Vac
Temporary Over Voltage (TOV) Characteristic - 5 sec.	UT	335 Vac withstand	335 Vac withstand	180 Vac withstand
Temporary Over Voltage (N/PE TOV) Characteristic -120mn	UT	440 Vac withstand	440 Vac withstand	230 Vac withstand
Residual current *Leakage current at Uc*	Ipe	None	None	None
Follow current	If	None	None	None
Nominal discharge current *5 x 8/20 µs impulses*	In	20 kA	20 kA	20 kA
Maximum discharge current *max. withstand 8/20µs by pole*	Imax	50 kA	50 kA	50 kA
Withstand on combination waveform *- Class III test*	Uoc	6 kV	6 kV	6 kV
Protection level *@ In (8/20µs) and 6 kV(1.2/50µs)*	Up	1.5 kV	1.5 kV	1.5 kV
Residual voltage *@ 5 kA (8/20µs)*	Up-5kA	0.9 kV	0.7 kV	0.4 kV
Admissible short-circuit current	Isccr	50 000 A	50 000 A	50 000 A
Associated disconnectors				
Thermal disconnector		internal		
Fuses		50 A min. - 160 A max. - gG Type		
Existing upstream ground fault breaker (if any)		Type "S" or delayed		
Mechanical characteristics				
Dimensions		see diagram - 1 TE (DIN43880)		
Connection to Network		By screw terminals: 2.5-25 mm² (35mm² rigid)		
Failsafe mode		Disconnection from AC network		
Disconnection indicator		1 mechanical indicator Green/Red		
Max. voltage/current for remote signaling		250 V/0.5 A (AC) / 30 V/3 A (DC)		
Wiring for remote signaling		max. 1.5 mm²		
Mounting		Symmetrical rail 35 mm (EN60715)		
Operating temperature		-40/+85°C		
Protection rating		IP20		
Housing material		Thermoplastic UL94 V-0		
Spare unit		MDAC50VG-320	MDAC50VG-275	MDAC50VG-150
Standards				
Certification		KEMA / EAC		
Compliance		EN 61643-11 / IEC 61643-11 / UL1449 ed.4		
Part number				
		821130321	821130221	821130121

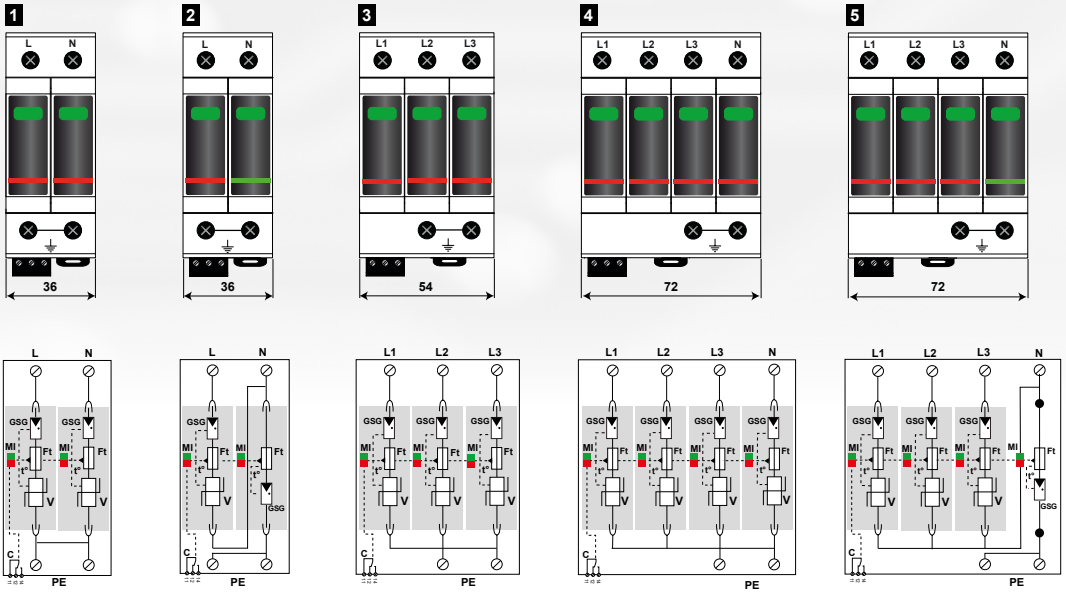
V : High energy varistor network
GSG : Specific gas Tube
Ft : Thermal fuse
C : Remote signaling contact
t° : Thermal disconnection system
MI : Disconnection indicator

DAC50VGS SERIES

Type 2+3 AC Multipolar Surge Protectors

DAC50VGS-xx-xxx

- Maximum operating voltage
- Configuration: 10 (1+0), 11 (1+1), 20 (2+0), 30 (3+0), 40 (4+0), 31 (3+1)
- «S» Remote signal
- «VG» VG Technology
- «50» Imax: 50 kA



Model	P/N	Network	AC system	Protection mode	Up L/PE	Up L/N	Up N/PE	Dimension DIN43880	Diagram
DAC50VGS-31-320	821130344	230/400 V 3-Phase+N	TT-TNS System (3+1)	L/N and N/PE	-	1.5 kV	1.5 kV	4 TE	5
DAC50VGS-31-275	821130244	230/400 V 3-Phase+N	TT-TNS System (3+1)	L/N and N/PE	-	1.5 kV	1.5 kV	4 TE	
DAC50VGS-31-150	821130144	120/208 V 3-Phase+N	TT-TNS System (3+1)	L/N and N/PE	-	1.5 kV	1.5 kV	4 TE	
DAC50VGS-40-320	821130324	230/400 V 3-Phase+N	TNS System (4+0)	L/PE and N/PE	1.5 kV		1.5 kV	4 TE	4
DAC50VGS-40-275	821130224	230/400 V 3-Phase+N	TNS System (4+0)	L/PE and N/PE	1.5 kV	-	1.5 kV	4 TE	
DAC50VGS-40-150	821130124	120/208 V 3-Phase+N	TNS System (4+0)	L/PE and N/PE	1.5 kV	-	1.5 kV	4 TE	
DAC50VGS-30-320	821130323	230/400 V 3-Phase	TNC System (3+0)	L/PE	1.5 kV	-	-	3 TE	3
DAC50VGS-30-275	821130223	230/400 V 3-Phase	TNC System (3+0)	L/PE	1.5 kV	-	-	3 TE	
DAC50VGS-30-150	821130123	120/208 V 3-Phase	TNC System (3+0)	L/PE	1.5 kV	-	-	3 TE	
DAC50VGS-11-320	821130342	230 V Single Phase	TT-TN System (1+1)	L/N and N/PE	-	1.5 kV	1.5 kV	2 TE	2
DAC50VGS-11-275	821130242	230 V Single Phase	TT-TN System (1+1)	L/N and N/PE	-	1.5 kV	1.5 kV	2 TE	
DAC50VGS-11-150	821130142	120 V Single Phase	TT-TN System (1+1)	L/N and N/PE	-	1.5 kV	1.5 kV	2 TE	
DAC50VGS-20-320	821130322	230 V Single Phase	TN System (2+0)	L/PE and N/PE	1.5 kV	-	1.5 kV	2 TE	1
DAC50VGS-20-275	821130222	230 V Single Phase	TN System (2+0)	L/PE and N/PE	1.5 kV	-	1.5 kV	2 TE	
DAC50VGS-20-150	821130122	120 V Single Phase	TN System (2+0)	L/PE and N/PE	1.5 kV	-	1.5 kV	2 TE	

DAC50S SERIES

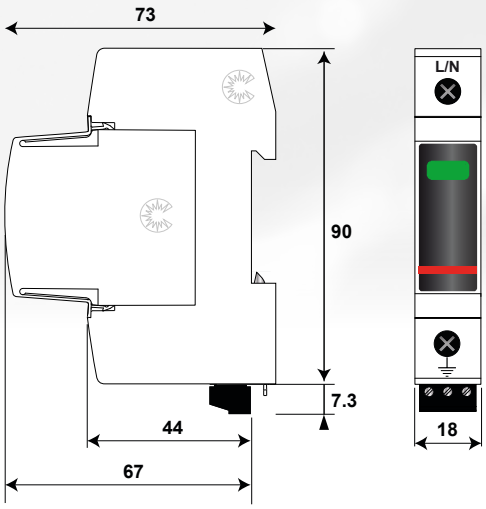
Type 2 AC surge protector

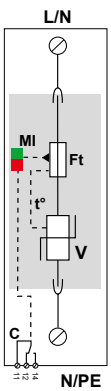
- **Type 2 AC Surge Protector**
- **In: 20 kA**
- **Imax: 50 kA**
- **Pluggable module for each phase**
- **Remote signaling**
- **IEC 61643-11, EN 61643-11 certified**
- **UL1449 ed.4 compliance**

5-year WARRANTY

UL1449

CITEL Model		DAC50S-10-760	DAC50S-10-440	DAC50S-10-275	DAC50S-10-150
Description		Type 2 AC surge protector - one-pole - pluggable			
Maximum AC operating voltage	Uc	760 Vac	440 Vac	275 Vac	150 Vac
Temporary Over Voltage (TOV) Charasteristics - 5 sec.	UT	1000 Vac withstand	580 Vac withstand	335 Vac withstand	180 Vac withstand
Temporary Over Voltage (TOV) Charasteristics -120mn	UT	1325 Vac disconnection	770 Vac disconnection	440 Vac disconnection	230 Vac disconnection
Residual current *Leakage current at Uc*	Ipe	< 1 mA	< 1 mA	< 1 mA	< 1 mA
Follow current	If	None	None	None	None
Nominal discharge current *15 x 8/20 µs impulses*	In	20 kA	20 kA	20 kA	20 kA
Max. discharge current *max. withstand @ 8/20 µs by pole*	Imax	50 kA	50 kA	50 kA	50 kA
Protection level *@ In (8/20µs)*	Up	2.9 kV	2 kV	1.25 kV	0.9 kV
Residual voltage *@ 5 kA (8/20µs)*	Up-5kA	2.6 kV	1.5 kV	1 kV	0.6 kV
Admissible short-circuit current	Isccr	50 000 A	50 000 A	50 000 A	50 000 A
Associated disconnectors					
Thermal disconnector		internal			
Fuses		50 A min. - 125 A max. - gG Type			
Installation ground fault breaker (if any)		Type "S" or delayed			
Mechanical characteristics					
Dimensions		see diagram - 1TE (DIN43880)			
Connection to Network		By screw terminals: 2.5-25 mm² (35mm² rigid)			
Failsafe mode		Disconnection from network			
Disconnection indicator		1 mechanical indicator Green/Red			
Max. voltage/current for remote signaling		250 V/0.5 A (AC) / 30V/3 A (DC)			
Wiring for remote signaling		max. 1.5 mm²			
Mounting		Symmetrical rail 35 mm (EN60715)			
Operating temperature		-40/+85°C			
Protection rating		IP20			
Housing material		Thermoplastic UL94 V-0			
Spare unit		MDAC50-760	MDAC50-440	MDAC50-275	MDAC50-150
Standards					
Certification		OVE / EAC / UL			
Compliance		EN 61643-11 / IEC 61643-11 / UL1449 ed.4			
Part number					
		821110721	821110421	821110221	821110121





V : High energy varistor network
Ft : Thermal fuse
C : Remote signaling contact
t° : Thermal disconnection system
MI : Disconnection indicator

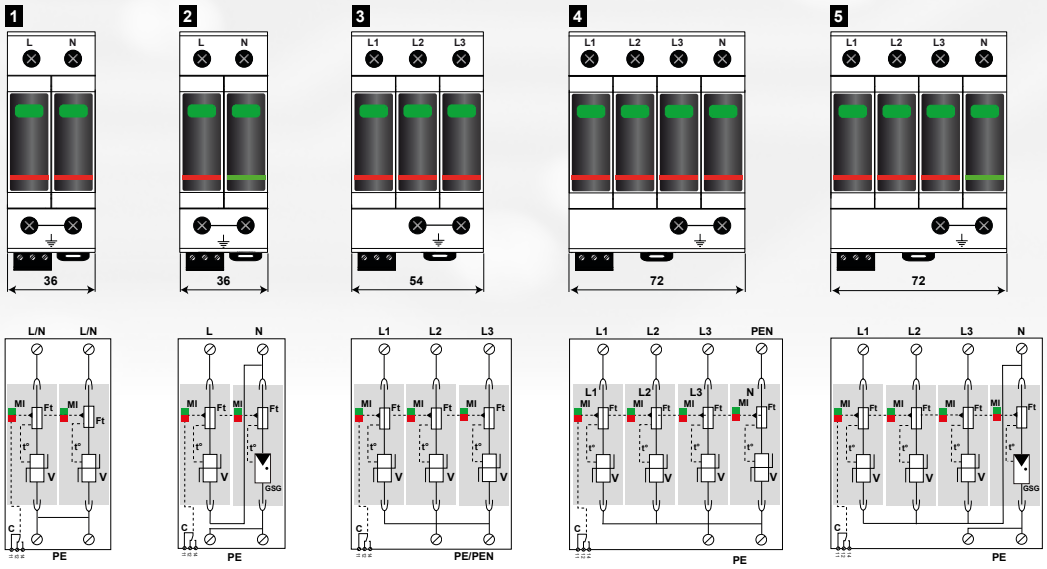
CITEL

DAC50S SERIES

Type 2 AC Multipolar Surge Protector

DAC50S-xx-xxx

- Maximum operating voltage
- Configuration: 10 (1+0), 11 (1+1), 20 (2+0), 30 (3+0), 40 (4+0), 31 (3+1)
- «S» Remote signal
- «50» Imax: 50 kA



Model	Part number	Network	AC system	Protection Mode	Up L/PE	Up L/N	Up N/PE	Dimensions DIN43880	Diagram
DAC50S-31-275	821110244	230/400 V 3-phase+N	TT-TNS system (3+1	L/N and N/PE	-	1.25 kV	1.5 kV	4 TE	5
DAC50S-31-150	821110144	120/208 V 3-phase+N	TT-TNS system (3+1	L/N and N/PE	-	0.9 kV	1.5 kV	4 TE	
DAC50S-40-440	821110424	230/400 V 3-phase+N	IT system (4+0)	L/PE and N/PE	2 kV	-	2 kV	4 TE	4
DAC50S-40-275	821110224	230/400 V 3-phase+N	TNS system (4+0)	L/PE and N/PE	1.25 kV	-	1.25 kV	4 TE	
DAC50S-40-150	821110124	120/208 V 3-phase+N	TNS system (4+0)	L/PE and N/PE	0.9 kV	-	0.9 kV	4 TE	
DAC50S-30-760	821110723	690 V 3-phase	TNC system (3+0)	L/PE	2.9 kV	-	-	3 TE	3
DAC50S-30-440	821110423	230/400 V 3-phase	IT system (3+0)	L/PE	2 kV	-	-	3 TE	
DAC50S-30-275	821110223	230/400 V 3-phase	TNC system (3+0)	L/PE	1.25 kV	-	-	3 TE	
DAC50S-30-150	821110123	120/208 V 3-phase	TNC system (3+0)	L/PE	0.9 kV	-	-	3 TE	
DAC50S-11-275	821110242	230 V single phase	TT-TN system(1+1)	L/N and N/PE	-	1.25 kV	1.5 kV	2 TE	2
DAC50S-11-150	821110142	120 V single phase	TT-TN system(1+1)	L/N and N/PE	-	0.9 kV	1.5 kV	2 TE	
DAC50S-20-440	821110422	230 V single phase	IT system (2+0)	L/PE and N/PE	2 kV	-	2 kV	2 TE	1
DAC50S-20-275	821110222	230 V single phase	TN system (2+0)	L/PE and N/PE	1.25 kV	-	1.25 kV	2 TE	
DAC50S-20-150	821110122	120 V single phase	TN system (2+0)	L/PE and N/PE	0.9 kV	-	0.9 kV	2 TE	

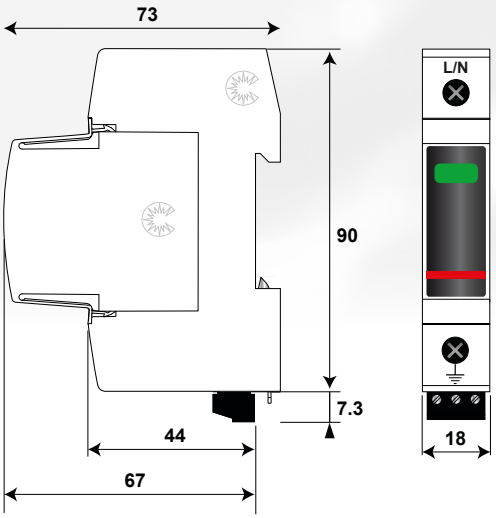
DACF25S SERIES

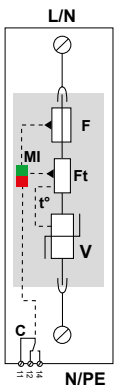
Type 2 AC surge protectors with integrated fuse

- **Surge protectors with Integrated Fuse (SPDI)**
- **Not external fuse required**
- **In: 15 kA**
- **Imax: 25 kA**
- **Pluggable module for each phase**
- **Remote signaling**
- **IEC 61643-11, EN 61643-11 certified**
- **UL1449 ed.4 compliance**

INTEGRATED FUSE

5-year WARRANTY





V : High energy varistor network
F : Overcurrent protection (fuse)
Ft : Thermal fuse
C : Remote signaling contact
t° : Thermal disconnection system
MI : Disconnection indicator

CITEL Model		DACF25S-10-440	DACF25S-10-320	DACF25S-10-275	DACF25S-10-150
Description		Type 2 AC SPD with integrated fuse (SPDI) - 1-pole - pluggable			
Max. AC operating voltage	Uc	440 Vac	320 Vac	275 Vac	150 Vac
Temporary Over Voltage (TOV) Characteristics - 5 sec.	UT	580 Vac withstand	335 Vac withstand	335 Vac withstand	180 Vac withstand
Temporary Over Voltage (TOV) Characteristics -120 mn	UT	770 Vac disconnection	440 Vac disconnection	440 Vac disconnection	230 Vac disconnection
Residual current *Leakage current at Uc*	Ipe	< 1 mA	< 1 mA	< 1 mA	< 1 mA
Follow current	If	None	None	None	None
Nominal discharge current *15 x 8/20 µs impulses*	In	15 kA	15 kA	15 kA	15 kA
Max. discharge current *max. withstand @ 8/20 µs by pole*	Imax	25 kA	25 kA	25 kA	25 kA
Protection level *@ In (8/20µs)*	Up	2 kV	1.5 kV	1.25 kV	0.9 kV
Residual voltage *@ 5 kA (8/20µs)*	Up-5kA	1.5 kV	1.2 kV	1 kV	0.6 kV
Admissible short-circuit current	Isccr	100 000 A	100 000 A	100 000 A	100 000 A
Associated disconnectors					
Thermal disconnector		internal			
Fuses		internal (equivalent AC rating : 40 A, gG Type)			
Existing upstream ground fault breaker (if any)		Type "S" or delayed			
Mechanical characteristics					
Dimensions		see diagram, 1 TE (DIN43880)			
Connection to Network		By screw terminals: 2.5-25 mm² (35mm² rigid)			
Failsafe mode		Disconnection from network			
Disconnection indicator		1 mechanical indicator Green/Red			
Max. voltage/current for remote signaling		250 V/0.5 A (AC) / 30 V/3 A (DC)			
Wiring for remote signaling		max. 1.5 mm²			
Mounting		Symmetrical rail 35 mm (EN60715)			
Operating temperature		-40/+85°C			
Protection rating		IP20			
Housing material		Thermoplastic UL94 V-0			
Spare unit		MDACF25-440	MDACF25-320	MDACF25-275	MDACF25-150
Standards					
Certification		EAC	EAC	KEMA / EAC	EAC
Compliance		IEC 61643-11 / NF EN 61643-11 / UL1449 ed.4			
Part number					
		821410421	821410321	821410221	821410121

**) SPDI :SPD including all its safety devices : thermal disconnector AND electrical fuse against short circuit currents.*

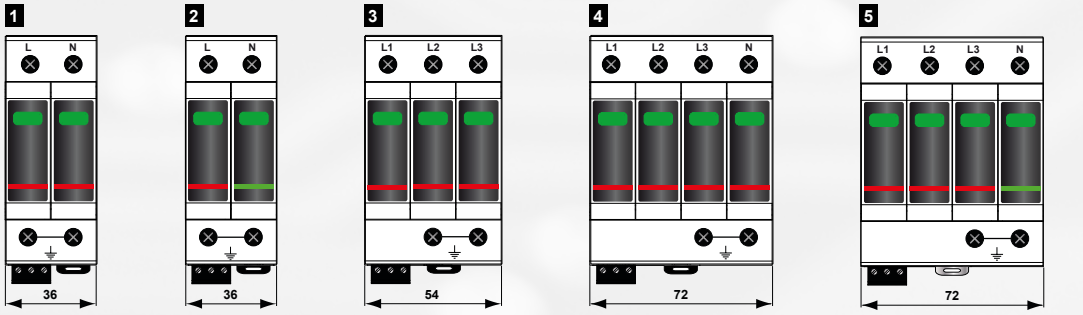
CITEL

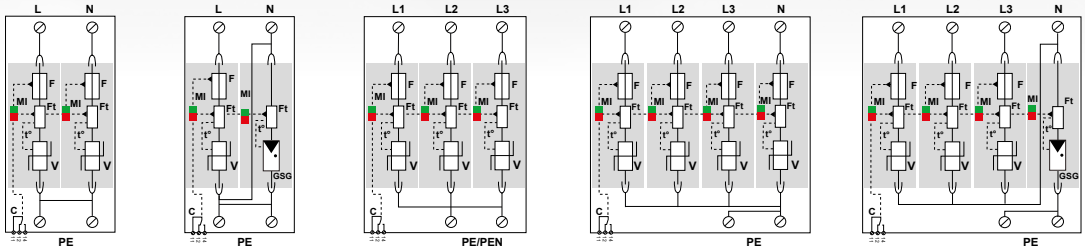
DACF25S SERIES

Type 2 AC Multipolar surge protectors with integrated fuse

DACF25S-xx-xxx

- Maximum operating voltage
- Configuration: 10 (1+0), 11 (1+1), 20 (2+0), 30 (3+0), 40 (4+0), 31 (3+1)
- «S» Remote signal
- «25» Imax: 25 kA
- «F» Integrated overcurrent protection (fuse)





Model	P/N	Network	AC system	Protection mode	Up L/PE	Up L/N	Up N/PE	Dimension DIN43880	Diagram
DACF25S-31-320	821410344	230/400 V 3-Phase+N	TT-TNS System (3+1)	L/N and N/PE	-	1.5 kV	1.5 kV	4 TE	
DACF25S-31-275	821410244	230/400 V 3-Phase+N	TT-TNS System (3+1)	L/N and N/PE	-	1.25 kV	1.5 kV	4 TE	5
DACF25S-31-150	821410144	120/208 V 3-Phase+N	TT-TNS System (3+1)	L/N and N/PE	-	0.9 kV	1.5 kV	4 TE	
DACF25S-40-440	821410424	230/400 V 3-Phase+N	IT System (4+0)	L/PE and N/PE	2 kV	-	2 kV	4 TE	
DACF25S-40-320	821410324	230/400 V 3-Phase+N	TNS System (4+0)	L/PE and N/PE	1.5 kV	-	1.5 kV	4 TE	4
DACF25S-40-275	821410224	230/400 V 3-Phase+N	TNS System (4+0)	L/PE and N/PE	1.25 kV	-	1.25 kV	4 TE	
DACF25S-40-150	821410124	120/208 V 3-Phase+N	TNS System (4+0)	L/PE and N/PE	0.9 kV	-	0.9 kV	4 TE	
DACF25S-30-440	821410423	230/400 V 3-Phase	IT System (3+0)	L/PE	2 kV	-	-	3 TE	
DACF25S-30-320	821410323	230/400 V 3-Phase	TNC System (3+0)	L/PE	1.5 kV	-	-	3 TE	3
DACF25S-30-275	821410223	230/400 V 3-Phase	TNC System (3+0)	L/PE	1.25 kV	-	-	3 TE	
DACF25S-30-150	821410123	120/208 V 3-Phase	TNC System (3+0)	L/PE	0.9 kV	-	-	3 TE	
DACF25S-11-320	821410342	230 V Single Phase	TT-TN System (1+1)	L/N and N/PE	-	1.5 kV	1.5 kV	2 TE	
DACF25S-11-275	821410242	230 V Single Phase	TT-TN System (1+1)	L/N and N/PE	-	1.25 kV	1.5 kV	2 TE	2
DACF25S-11-150	821410142	120 V Single Phase	TT-TN System (1+1)	L/N and N/PE	-	0.9 kV	1.5 kV	2 TE	
DACF25S-20-440	821410422	230 V Single Phase	IT System (2+0)	L/PE and N/PE	2 kV	-	2 kV	2 TE	
DACF25S-20-320	821410322	230 V Single Phase	TN System (2+0)	L/PE and N/PE	1.5 kV	-	1.5 kV	2 TE	1
DACF25S-20-275	821410222	230 V Single Phase	TN System (2+0)	L/PE and N/PE	1.25 kV	-	1.25 kV	2 TE	
DACF25S-20-150	821410122	120 V Single Phase	TN System (2+0)	L/PE and N/PE	0.9 kV	-	0.9 kV	2 TE	

DAC40CS SERIES

Compact 1-phase Type 2 Surge Protector

- **Common/Differential mode**
- **Pluggable module**
- **IEC 61643-11, EN 61643-11 certified**
- **UL1449 ed.4 compliance**

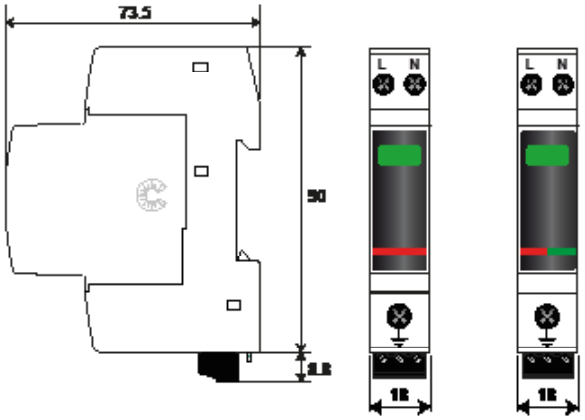
COMPACT VERSION

5-year WARRANTY

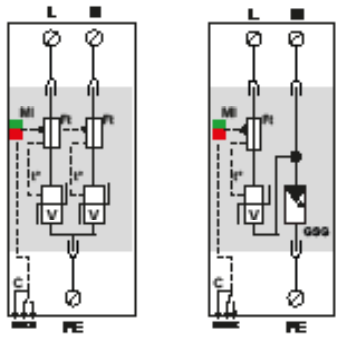
KEMA KEUR

DAC40CS-xx-xxx

- «40» Imax: 40 kA
- «S» Remote signal
- Configuration: 11 (1+1), 20 (2+0)
- Maximum operating voltage



DAC40CS-**20** DAC40CS-**11**



V : High energy varistor network
GSG : Specific Gas Tube
Ft : Thermal fuse
C : Remote signaling contact
t° : Thermal disconnection system
MI : Disconnection indicator

CITEL Model		DAC40CS-20-440	DAC40CS-11-275	DAC40CS-11-150
Description		Compact 1-phase Type 2 surge protector - Pluggable		
Network		230 V single-phase		
Protection mode		L/PE and N/PE	L/N and N/PE	L/N and N/PE
AC system		IT	TT-TN	TT-TN
Max. AC operating voltage	Uc	440 Vac	275 Vac	150 Vac
Temporary Over Voltage (TOV) Charasteristic - *5 sec.*	UT	580 Vac withstand	335 Vac withstand	180 Vac withstand
Temporary Over Voltage (TOV) Charasteristic - *120mn*	UT	770 Vac disconnection	440 Vac disconnection	230 Vac disconnection
Temporary Over Voltage N/PE (TOV HT)	UT	-	1200 V/300A/200 ms withstand	1200 V/300A/200 ms withstand
Residual current *Leakage current at Uc*	Ipe	< 1 mA	None	None
Follow current	If	None	None	None
Nominal discharge current *15 x 8/20 µs impulses*	In	20 kA	20 kA	20 kA
Max. discharge current *max. withstand @ 8/20 µs by pole*	Imax	40 kA	40 kA	40 kA
Total discharge current - *@8/20µs*	Itotal	80 kA	40 kA	40 kA
Protection level @In *(8/20µs)*	Up L/N Up N/PE Up L/PE	- 1.8 kV 1.8 kV	1.25 kV 1.5 kV -	0.9 kV 1.5 kV -
Admissible short-circuit current	Isccr	10 000 A	10 000 A	10 000 A
Associated disconnectors				
Thermal disconnector		internal		
Fuses		50 A min. - 125 A max. - Type gG		
Existing upstream ground fault breaker (if any)		Type "S" or delayed		
Mechanical characteristics				
Dimensions		see diagram, 1TE (DIN43880)		
Connection to Network		by screw terminals: L/n =1.5-10mm² (16 mm²) / PE = 2.5-25mm² (35 mm² rigid)		
Failsafe mode		Disconnection from network		
Disconnection indicator		1 mechanical indicator Green/Red		
Max. voltage/current for remote signaling		250 V/0.5 A (AC) / 30 V/3 A (DC)		
Wiring for remote signaling		Max. 1.5 mm²		
Mounting		Symmetrical rail 35 mm (EN60715)		
Operating temperature		-40/+85°C		
Protection rating		IP20		
Housing material		Thermoplastic UL94 V-0		
Spare unit		MDAC40C-20-440	MDAC40C-11-275	MDAC40C-11-150
Standards				
Certification		KEMA		
Compliance		IEC 61643-11 / NF EN 61643-11 / UL1449 ed.4		
Part number				
		821510421	821520221	821520121

CITEL

DAC40CS SERIES

Compact 3-phase Type 2 Surge Protector

- **Common/Differential mode**
- **Pluggable module**
- **IEC 61643-11, EN 61643-11 certified**
- **UL1449 ed.4 compliance**

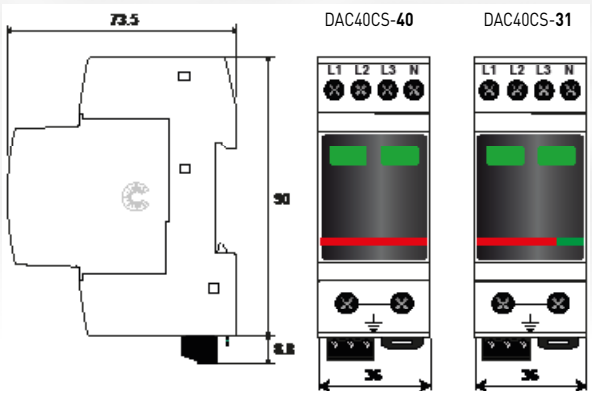
COMPACT VERSION

5-year WARRANTY

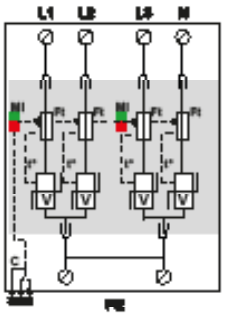
KEMA KEUR

DAC40CS-xx-xxx

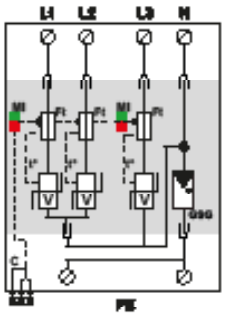
- «40» Imax: 40 kA
- «S» Remote signal
- Configuration: 40 (4+0), 31 (3+1)
- Maximum operating voltage



DAC40CS-**40**



DAC40CS-**31**



V : High energy varistor network
GSG : Specific Gas Tube
Ft : Thermal fuse
C : Remote signaling contact
t° : Thermal disconnection system
MI : Disconnection indicator

CITEL Model		DAC40CS-40-440	DAC40CS-31-275	DAC40CS-31-150
Description		Compact 3-phase+N Type 2 surge protector - Pluggable		
Network		230/400 V 3-phase	230/400 V 3-phase	120/208 V 3-phase
Protection mode		L/PE and N/PE	L/N and N/PE	L/N and N/PE
AC system		IT	TT-TN	TT-TN
Max. AC operating voltage	Uc	440 Vac	275 Vac	150 Vac
Temporary Over Voltage (TOV) Charasteristic - *5 sec.*	UT	580 Vac withstand	335 Vac withstand	180 Vac withstand
Temporary Over Voltage (TOV) Charasteristic - *120mn*	UT	770 Vac disconnection	440 Vac disconnection	230 Vac disconnection
Temporary Over Voltage N/PE (TOV HT)	UT	-	1200 V/300A/200 ms withstand	1200 V/300A/200 ms withstand
Residual current *Leakage current at Uc*	Ipe	< 1 mA	None	None
Follow current	If	None	None	None
Nominal discharge current *15 x 8/20 µs impulses*	In	20 kA	20 kA	20 kA
Max. discharge current *max. withstand @ 8/20 µs by pole*	Imax	40 kA	40 kA	40 kA
Total discharge current *@8/20µs*	Itotal	160 kA	40 kA	40 kA
Protection level @In *(8/20µs)*	Up L/N Up N/PE Up L/PE	- 1.8 kV 1.8 kV	1.25 kV 1.5 kV -	0.9 kV 1.5 kV -
Admissible short-circuit current	Isccr	10000 A	10000 A	10000 A
Associated disconnectors				
Thermal disconnector		internal		
Associated fuses		50 A min. - 125 A max. - Type gG		
Existing upstream ground fault breaker (if any)		Type "S" or delayed		
Mechanical characteristics				
Dimensions		see diagram, 2 TE (DIN43880)		
Connection to Network		by screw terminals: L/N = 1.5-10mm² (16 mm²) or PE = 2.5-25mm² (35 mm² rigid)		
Failsafe mode		Disconnection from network		
Disconnection indicator		2 mechanical indicators, Green/Red		
Max. voltage/current for remote signaling		250 V/0.5 A (AC) / 30 V/3 A (DC)		
Wiring for remote signaling		Max. 1.5 mm²		
Mounting		Symmetrical rail 35 mm (EN60715)		
Operating temperature		-40/+85°C		
Protection rating		IP20		
Housing material		Thermoplastic UL94 V-0		
Spare unit		MDAC40C-40-440	MDAC40C-31-275	MDAC40C-31-150
Standards				
Certification		KEMA		
Compliance		IEC 61643-11 / NF EN 61643-11 / UL1449 ed.4		
Part number				
		821510422	821520222	821520122

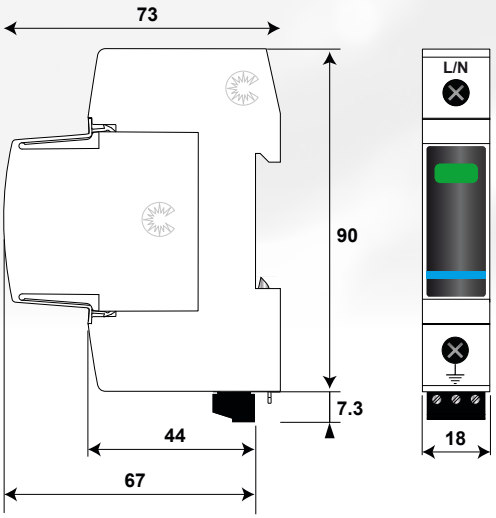
DACF15S SERIES

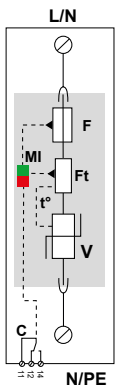
Type 2 AC surge protectors with integrated fuse

- **Surge protectors with Integrated Fuse (SPDI)**
- **Not external fuse required**
- **In: 5 kA**
- **Imax: 15 kA**
- **Pluggable module for each phase**
- **Remote signaling**
- **IEC 61643-11, EN 61643-11 certified**
- **UL1449 ed.4 compliance**

INTEGRATED FUSE

5-year WARRANTY





V : High energy varistor network
F : Overcurrent protection (fuse)
Ft : Thermal fuse
C : Remote signaling contact
t° : Thermal disconnection system
MI : Disconnection indicator

CITEL Model		DACF15S-10-440	DACF15S-10-320	DACF15S-10-275	DACF15S-10-150
Description		Type 2 AC SPD with integrated fuse (SPDI*) - 1-pole - pluggable			
Max. AC operating voltage	Uc	440 Vac	320 Vac	275 Vac	150 Vac
Temporary Over Voltage (TOV) Characteristics - 5 sec.	UT	580 Vac withstand	335 Vac withstand	335 Vac withstand	180 Vac withstand
Temporary Over Voltage (TOV) Characteristics -120 mn	UT	770 Vac disconnection	440 Vac disconnection	440 Vac disconnection	230 Vac disconnection
Residual current *Leakage current at Uc*	Ipe	< 1 mA	< 1 mA	< 1 mA	< 1 mA
Follow current	If	None	None	None	None
Nominal discharge current *15 x 8/20 µs impulses*	In	5 kA	5 kA	5 kA	5 kA
Max. discharge current *max. withstand @ 8/20 µs by pole*	Imax	15 kA	15 kA	15 kA	15 kA
Withstand on combinaison waveform *Class test III*	Uoc	10 kV	10 kV	10 kV	10 kV
Protection level *@ In (8/20µs)*	Up	1.5 kV	1.2 kV	1 kV	0.6 kV
Admissible short-circuit current	Isccr	100 000 A	100 000 A	100 000 A	100 000 A
Associated disconnectors					
Thermal disconnector		internal			
Fuses		internal (equivalent AC rating : 25 A, gG Type)			
Existing upstream ground fault breaker (if any)		Type "S" or delayed			
Mechanical characteristics					
Dimensions		see diagram, 1 TE (DIN43880)			
Connection to Network		By screw terminals: 2.5-25 mm² (35mm² rigid)			
Failsafe mode		Disconnection from network			
Disconnection indicator		1 mechanical indicator Green/Red			
Max. voltage/current for remote signaling		250 V/0.5 A (AC) / 30 V/3 A (DC)			
Wiring for remote signaling		max. 1.5 mm²			
Mounting		Symmetrical rail 35 mm (EN60715)			
Operating temperature		-40/+85°C			
Protection rating		IP20			
Housing material		Thermoplastic UL94 V-0			
Spare unit		MDACF15-440	MDACF15-320	MDACF15-275	MDACF15-150
Standards					
Certification		EAC			
Compliance		IEC 61643-11 / NF EN 61643-11 / UL1449 ed.4			
Part number					
		821310421	821310321	821310221	821310121

***) SPDI :SPD including all its safety devices : thermal disconnector AND electrical fuse against short circuit currents.**

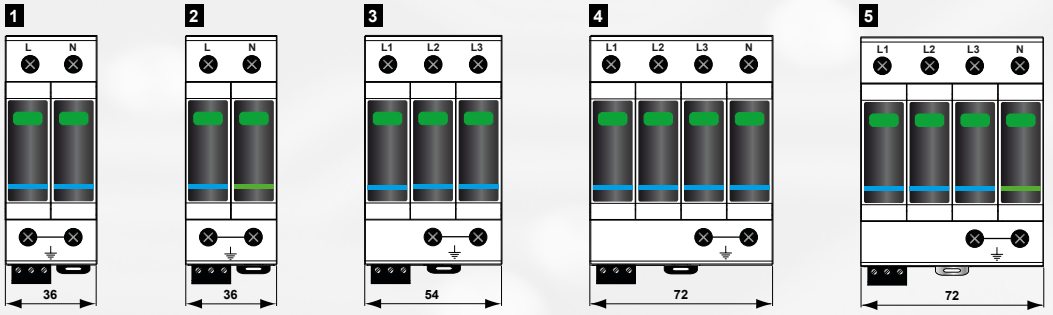
CITEL

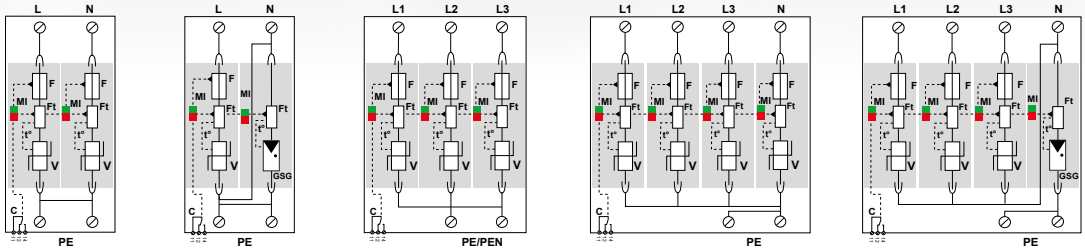
DACF15S SERIES

Type 2 AC Multipolar surge protectors with integrated fuse

DACF15S-xx-xxx

- Maximum operating voltage
- Configuration: 10 (1+0), 11 (1+1), 20 (2+0), 30 (3+0), 40 (4+0), 31 (3+1)
- «S» Remote signal
- «15» Imax: 15 kA
- «F» Integrated overcurrent protection (fuse)





Model	P/N	Network	AC system	Protection mode	Up L/PE	Up L/N	Up N/PE	Dimension DIN43880	Diagram
DACF15S-31-320	-	230/400 V 3-Phase+N	TT-TNS System (3+1)	L/N and N/PE	-	1.2 kV	1.5 kV	4 TE	
DACF15S-31-275	821310244	230/400 V 3-Phase+N	TT-TNS System (3+1)	L/N and N/PE	-	1 kV	1.5 kV	4 TE	5
DACF15S-31-150	-	120/208 V 3-Phase+N	TT-TNS System (3+1)	L/N and N/PE	-	0.6 kV	1.5 kV	4 TE	
DACF15S-40-440	821310424	230/400 V 3-Phase+N	IT System (4+0)	L/PE and N/PE	1.5 kV	-	1.5 kV	4 TE	
DACF1S5-40-320	-	230/400 V 3-Phase+N	TNS System (4+0)	L/PE and N/PE	1.2 kV	-	1.5 kV	4 TE	4
DACF15S-40-275	-	230/400 V 3-Phase+N	TNS System (4+0)	L/PE and N/PE	1 kV	-	1.5 kV	4 TE	
DACF15S-40-150	-	120/208 V 3-Phase+N	TNS System (4+0)	L/PE et N/PE	0.6 kV	-	1.5 kV	4 TE	
DACF15S-30-440	821310423	230/400 V 3-Phase	IT System (3+0)	L/PE	1.5 kV	-	-	3 TE	
DACF15S-30-320	-	230/400 V 3-Phase	TNC System (3+0)	L/PE	1.2 kV	-	-	3 TE	3
DACF15S-30-275	821310223	230/400 V 3-Phase	TNC System (3+0)	L/PE	1 kV	-	-	3 TE	
DACF15S-30-150	-	120/208 V 3-Phase	TNC System (3+0)	L/PE	0.6 kV	-	-	3 TE	
DACF15S-11-320	-	230 V Single Phase	TT-TN System (1+1)	L/N and N/PE	-	1.2 kV	1.5 kV	2 TE	
DACF15S-11-275	821310242	230 V Single Phase	TT-TN System (1+1)	L/N and N/PE	-	1 kV	1.5 kV	2 TE	2
DACF15S-11-150	-	120 V Single Phase	TT-TN System (1+1)	L/N and N/PE	-	0.6 kV	1.5 kV	2 TE	
DACF15S-20-440	-	230 V Single Phase	IT System (2+0)	L/PE and N/PE	1.5 kV	-	1.5 kV	2 TE	
DACF15S-20-320	-	230 V Single Phase	TN System (2+0)	L/PE and N/PE	1.2 kV	-	1.5 kV	2 TE	1
DACF15S-20-275	-	230 V Single Phase	TN System (2+0)	L/PE and N/PE	1 kV	-	1.5 kV	2 TE	
DACF15S-20-150	-	120 V Single Phase	TN System (2+0)	L/PE and N/PE	0.9 kV	-	0.9 kV	2 TE	

DAC15CS SERIES

Compact 1-phase Type 2 (or 3) Surge Protector

- **Common/Differential mode**
- **Pluggable module**
- **IEC 61643-11, EN 61643-11 certified**
- **UL1449 ed.4 compliance**

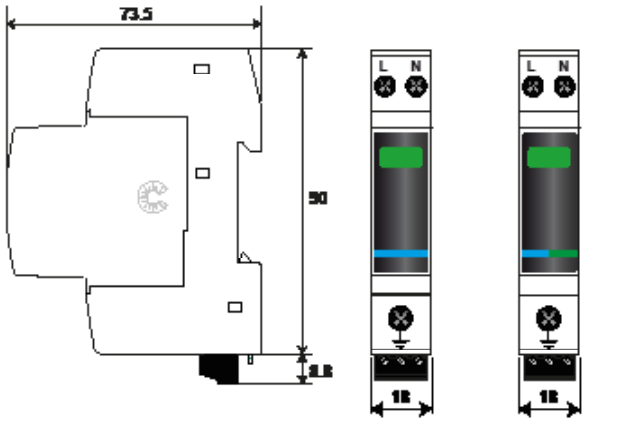
COMPACT VERSION

5-year WARRANTY

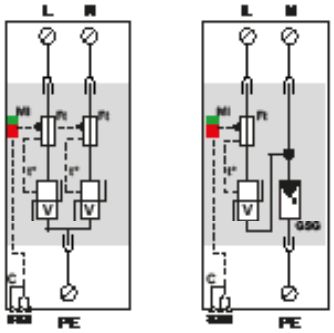
KEMA KEUR

DAC15CS-xx-xxx

- «15» Imax: 15 kA
- «S» Remote signal
- Configuration: 11 (1+1), 20 (2+0)
- Maximum operating voltage



DAC15CS-**20** DAC15CS-**11**



V : High energy varistor network
GSG : Specific Gas Tube
Ft : Thermal fuse
C : Remote signaling contact
t° : Thermal disconnection system
MI : Disconnection indicator

CITEL Model		DAC15CS-20-440	DAC15CS-11-275	DAC15CS-11-150
Description		Compact 1-phaseType 2 surge protector - Pluggable		
Network		230/400 V single-phase	230/400 V single-phase	120/208 V single-phase
Protection mode		L/PE and N/PE	L/N and N/PE	L/N and N/PE
AC system		IT	TT-TN	TT-TN
Max. AC operating voltage	Uc	440 Vac	275 Vac	150 Vac
Temporary Over Voltage (TOV) Charasteristic 5 sec.	UT	580 Vac withstand	335 Vac withstand	180 Vac withstand
Temporary Over Voltage (TOV) Charasteristic 120 mn	UT	770 Vac disconnection	440 Vac disconnection	230 Vac disconnection
Temporary Over Voltage N/PE (TOV HT)	UT	-	1200 V/300A/ 200 ms withstand	1200 V/300A/ 200 ms withstand
Residual current *Leakage current at Uc*	Ipe	< 1 mA	None	None
Follow current	If	None	None	None
Nominal discharge current *15 x 8/20 µs impulses*	In	5 kA	5 kA	5 kA
Max. discharge current *max. withstand @ 8/20 µs by pole*	Imax	15 kA	15 kA	15 kA
Total discharge current *@ 8/20µs*	Itotal	30 kA	30 kA	30 kA
Withstand on combinaison waveform *Class III test*	Uoc	10 kV	10 kV	10 kV
Protection level *@ In (8/20µs)*	Up L/N Up N/PE Up L/PE	- 1.5 kV 1.5 kV	1 kV 1.5 kV -	0.6 kV 1.5kV -
Admissible short-circuit current	Isccr	10000 A	10000 A	10000 A
Associated disconnectors				
Thermal disconnector		internal		
Fuses		20 A min - 125 A max. - Type gG		
Existing upstream ground fault breaker (if any)		Type "S" or delayed		
Mechanical characteristics				
Dimensions		see diagram, 1 TE (DIN43880)		
Connection to Network		by screw terminals: L/N = 1.5-10 mm² (16mm²) or PE = 2.5-25 mm² (35 mm² rigid)		
Failsafe mode		Disconnection from network		
Disconnection indicator		1 mechanical indicators, Green/Red		
Max. voltage/current for remote signaling		250 V/0.5 A (AC) / 30 V/3 A (DC)		
Wiring for remote signaling		Max. 1.5 mm²		
Mounting		Symmetrical rail 35 mm (EN60715)		
Operating temperature		-40/+85°C		
Protection rating		IP20		
Housing material		Thermoplastic UL94 V-0		
Spare unit		MDAC15C-20-440	MDAC15C-11-275	MDAC15C-11-150
Standards				
Certification		KEMA		
Compliance		IEC 61643-11 / NF EN 61643-11 / UL1449 ed.4		
Part number				
		821610421	821620221	821620121

CITEL

DAC15CS SERIES

Compact 3-phase Type 2 (or 3) Surge Protector

- **Common/Differential mode**
- **Pluggable module**
- **IEC 61643-11, EN 61643-11 certified**
- **UL1449 ed.4 compliance**

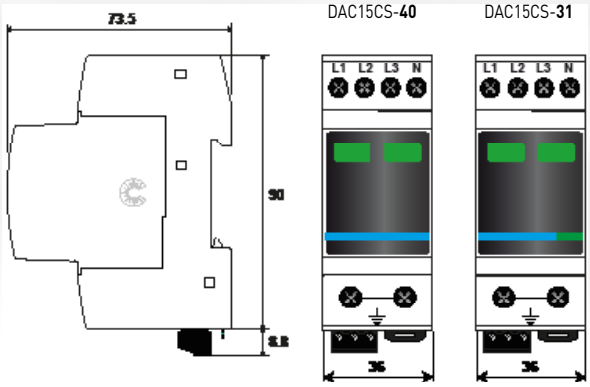
COMPACT VERSION

5-year WARRANTY

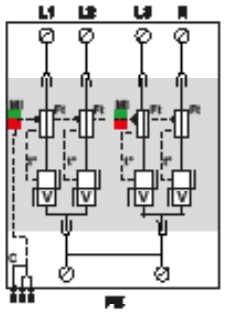
KEMA KEUR

DAC15CS-xx-xxx

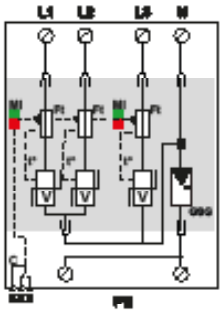
- «15» Imax: 15 kA
- «S» Remote signal
- Configuration: 40 (4+0), 31 (3+1)
- Maximum operating voltage



DAC15CS-**40**



DAC15CS-**31**



V : High energy varistor network
GSG : Specific Gas Tube
Ft : Thermal fuse
C : Remote signaling contact
t° : Thermal disconnection system
MI : Disconnection indicator

CITEL Model		DAC15CS-40-440	DAC15CS-31-275	DAC15CS-31-150
Description		Compact 3-phase+N Type 2 surge protector - Pluggable		
Network		230/400 V 3-phase	230/400 V 3-phase	120/208 V 3-phase
Protection mode		L/PE and N/PE	L/N and N/PE	L/N and N/PE
AC system		IT	TT-TN	TT-TN
Max. AC operating voltage	Uc	440 Vac	275 Vac	150 Vac
Temporary Over Voltage (TOV) Charasteristic *- 5 sec.*	UT	580 Vac withstand	335 Vac withstand	180 Vac withstand
Temporary Over Voltage (TOV) Charasteristic *-120 mn*	UT	770 Vac disconnection	440 Vac disconnection	230 Vac disconnection
Temporary Over Voltage N/PE (TOV HT)	UT	-	1200 V/300A/200 ms withstand	1200 V/300A/200 ms withstand
Residual current *Leakage current at Uc*	Ipe	< 1 mA	None	None
Follow current	If	None	None	None
Nominal discharge current *15 x 8/20 µs impulses*	In	5 kA	5 kA	5 kA
Max. discharge current *max. withstand @ 8/20 µs by pole*	Imax	15 kA	15 kA	15 kA
Total discharge current *- @ 8/20 µs*	Itotal	60 kA	40 kA	40 kA
Withstand on combinaison waveform *Class III test*	Uoc	10 kV	10 kV	10 kV
Protection level *@ In (8/20µs)*	Up L/N Up N/PE Up L/PE	- 1.5 kV 1.5 kV	0.9 kV 1.5 kV -	0.6 kV 1.5kV -
Admissible short-circuit current	Isccr	10000 A	10000 A	10000 A
Associated disconnectors				
Thermal disconnector		internal		
Fuses		20 A min. - 125 A max. - Type gG		
Existing upstream ground fault breaker (if any)		Type "S" or delayed		
Mechanical characteristics				
Dimensions		see diagram, 2 TE (DIN43880)		
Connection to Network		by screw terminals: L/N: 1.5-10mm² (16mm²) or PE: 2.5-25mm² (35mm² rigid)		
Failsafe mode		Disconnection from network		
Disconnection indicator		2 mechanical indicators, Green/Red		
Max. voltage/current for remote signaling		250 V/0.5 A (AC) / 30 V/3 A (DC)		
Wiring for remote signaling		Max. 1.5 mm²		
Mounting		Symmetrical rail 35 mm (EN60715)		
Operating temperature		-40/+85°C		
Protection rating		IP20		
Housing material		Thermoplastic UL94 V-0		
Spare unit		MDAC15C-40-440	MDAC15C-31-275	MDAC15C-31-150
Standards				
Certification		KEMA		
Compliance		IEC 61643-11 / NF EN 61643-11 / UL1449 ed.4		
Part number				
		821610422	821620222	821620122

DACN10S SERIES

1-phase Type 2 (or 3) AC surge protector

- **Cost effective Single phase Surge Protector**
- **Type 2 or Type 3, Monobloc**
- **2-port configuration (series mounting)**
- **In: 5 kA**
- **Imax: 10 kA**
- **Load current 25 A**
- **Remote signaling**
- **IEC 61643-11 compliance**

COMPACT VERSION

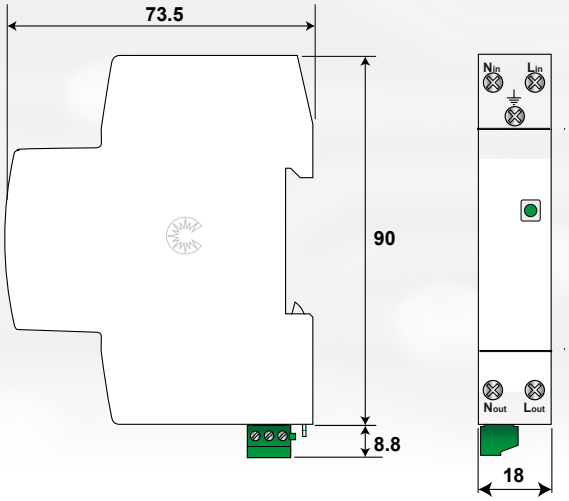
5-year WARRANTY

CITEL Model		DACN10S-11-150 DACN10S-L11-150	DACN10S-11-275 DACN10S-L11-275	DACN10S-21YG-275 DACN10S-L21YG-275	DACN10S-20-150	DACN10S-20-275	DACN10S-20-440
Description		Type 2 or Type 3, 2-port AC single phase surge protector					
Network		120 Vac	230 Vac	230 Vac	120 Vac	230 Vac	230 Vac
Protection mode		L/N and N/PE	L/N and N/PE	L/N and N/PE	L/PE and N/PE	L/PE and N/PE	L/PE and N/PE
AC system		TT-TN	TT-TN	TN	TN	TN	TN-IT
Max. AC operating voltage	Uc	150 Vac	275 Vac	275 Vac	150 Vac	275 Vac	440 Vac
Temporary Over Voltage (TOV) characteristics - *5 sec.*	UT	180 Vac withstand	335 Vac withstand	335 Vac withstand	180 Vac withstand	335 Vac withstand	580 Vac withstand
Temporary Over Voltage (TOV) characteristics - *120mn*	UT	230 Vac disconnection	440 Vac disconnection	440 Vac disconnection	230 Vac disconnection	230 Vac disconnection	770 Vac disconnection
Temporary Over Voltage N/PE (TOV HT)	UT	1200 V/300A/ 200 ms withstand	1200 V/300A/ 200 ms withstand	-	1200 V/300A/ 200 ms withstand	1200 V/300A/ 200 ms withstand	-
Residual current *Leakage current at Uc*	Ipe	none	none	none	< 1 mA	< 1 mA	< 1 mA
Max. Load current	IL	25 A 16 A	25 A 16 A	25 A 16 A	25 A	25 A	25 A
Follow current	If	none	none	none	none	none	none
Nominal discharge current *15 x 8/20 µs impulses*	In	5 kA	5 kA	5 kA	5 kA	5 kA	5 kA
Max. discharge current *max. withstand @ 8/20 µs by pole*	Imax	10 kA	10 kA	10 kA	10 kA	10 kA	10 kA
Withstand on Combination waveform - *Class III test*	Uoc	10 kV	10 kV	10 kV	10 kV	10 kV	10 kV
Protection level *@In (8/20µs)*	Up L/N Up N/PE Up L/PE	0,7 kV 1,5 kV -	1,1 kV 1,5 kV -	1,3 kV 1,6 kV 1,6 kV	- 0,7 kV 0,7 kV	- 1,1 kV 1,1 kV	- 1,6 kV 1,6 kV
Admissible short-circuit current	Isccr	10 000 A	10 000 A	10 000 A	10 000 A	10 000 A	10 000 A
Associated disconnectors							
Thermal disconnector		internal					
Fuses		Fuses type gG - 25 A					
Installation ground fault breaker (if any)		Type «S» or delayed					
Mechnical characteristics							
Dimensions		see diagram, 1TE (DIN43880)					
Connection to Network		by screw terminals: 1.5-10 mm²					
Failsafe behavior		Disconnection SPD (DACN10) - Disconnection SPD + AC line cut off (DACN10L)					
Disconnection indicator		Green LED off					
Max. voltage/current for remote signaling		250 V/0.5 A (AC) / 30 V/2 A (DC)					
Wiring for remote signaling		Max. 1.5 mm²					
Mounting		Symmetrical rail 35 mm (EN60715)					
Operating temperature		-40/+85°C					
Protection rating		IP20					
Housing material		Thermoplastic UL94 V-0					
Standards							
Compliance		IEC 61643-11 / EN 61643-11 / UL1449 ed.4					
Part number							
		70111012 70112012	70111022 70112022	70114022 -	70113012	70113022	70113032

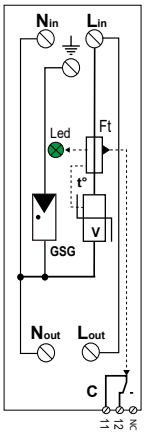
DACN10 SERIES

DACN10S-L xx-xxx

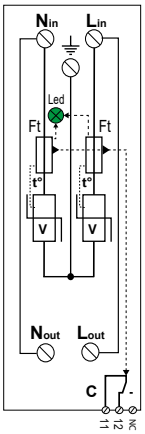
- Max operating voltage
- Configuration : **11** (1+1), **20** (2+0), or **21YG** (Y diagram)
- **« »** = parallel disconnection in case of failure
- «**L**» = In-line disconnection in case of failure
- «**S**» = Remote signal
- Imax : 10 kA
- Non pluggable



DACN10S-11-xxx



DACN10S-20-xxx



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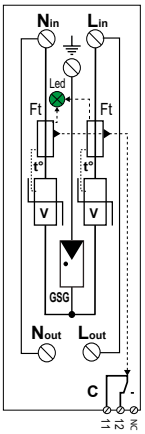
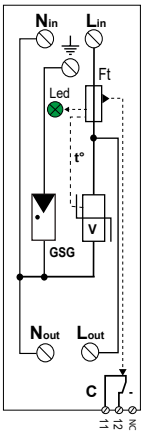
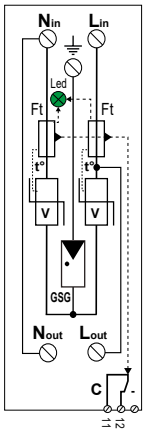


DACN10S-L11-xxx



DACN10S-L21YG-275



V: MOV
GSG: Specific GDT
F : Thermal fuse
t°: Thermal disconnection mechanism
LED: Disconnector indicator
C: Remote signaling contact

DC POWER SURGE PROTECTORS

Type 1 and Type 2
DDCxxS series

- Type 1+2 or Type 2 pluggable surge protectors designed for equipment connected to DC powerlines.
- One or Two-pole unit.
- Technology based on high energy varistor equipped with thermal disconnection mechanism.
- Remote disconnection signaling feature.
- prIEC61643-41 compliance (forthcoming standard for DC power SPD).

Type 2 compact
DDxxCS series

- Type 2 pluggable surge protectors designed for equipment connected to DC powerlines.
- Compact design to fit inside small cabinets.
- Remote disconnection signaling feature.
- prIEC61643-41 compliance (forthcoming standard for DC power SPD).
- Available for DC powerline from 12 to 350 Vdc.

DDC30S SERIES

Type 1 (or)2 DC power Surge Protectors

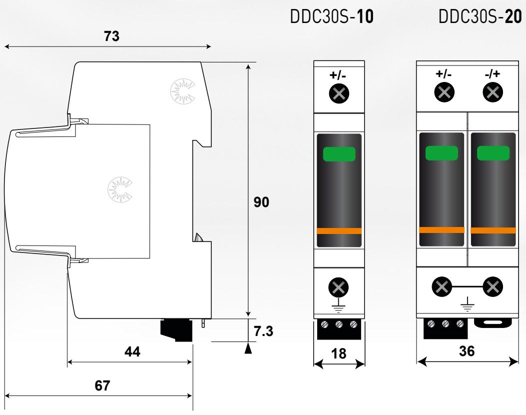
- **1-pole or 2-pole surge protector**
- **In: 15 kA / Imax: 30 kA**
- **Iimp: 4 kA**
- **Pluggable module**
- **Remote signaling**
- **prIEC 61643-41 compliance**

DC VERSION

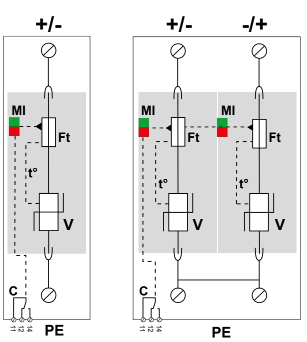
5-year WARRANTY

DDC30S-x0-xx

- Max. DC operating voltage
- Number of protected pole (1 or 2)
- «S» = Remote signal
- Imax : 30 kA



CITEL Model		DDC30S-10-65	DDC30S-10-85	DDC30S-20-65	DDC30S-20-85
Description		1-pole DC surge protector		2-pole DC surge protector	
Nominal DC voltage	Un	48 Vdc	75 Vdc	48 Vdc	75 Vdc
Connection mode		+/PE and -/PE	+/PE and -/PE	+/PE and -/PE	+/PE and -/PE
Max. DC operating voltage	Uc-DC	65 Vdc	85 Vdc	65 Vdc	85 Vdc
Max. AC operating voltage	Uc-AC	50 Vac	60 Vac	50 Vac	60 Vac
Residual current *Leakage current at Uc*	Ipe	< 0.1 mA	< 0.1 mA	< 0.1 mA	< 0.1 mA
Follow current	If	None	None	None	None
Nominal discharge current *15 x 8/20 µs impulses*	In	15 kA	15 kA	15 kA	15 kA
Max. discharge current *max. withstand @ 8/20 µs by pole*	Imax	30 kA	30 kA	30 kA	30 kA
Total discharge current *@ 8/20µs*	Imax total	60 kA	60 kA	60 kA	60 kA
Max. lightning current by pole *max. withstand @ 10/350µs*	Iimp	4 kA	4 kA	4 kA	4 kA
Protection level +/PE (/-PE) *@ In (8/20µs)*	Up	300 V	390 V	300 V	390 V
Protection Level +/- *@In (8/20µs)*	Up	-	-	600 V	780 V
Associated disconnectors					
Thermal disconnector		internal			
Fuses (if requested)		50 A min. - 125 A max. -Fuses type gG			
Mechanical characteristics					
Dimensions		see diagram - 1 TE (EN43880)		see diagram - 2 TE (EN43880)	
Connection to Network		Screw terminals: 2.5-25 mm² +/- : 1.5-10 mm²			
Failsafe mode		Disconnection from network			
Disconnection indicator		1 mechanical indicator Green/Red		2 mechancial indicators Green/Red	
Max. voltage/current for remote signaling		250 V/0.5 A (AC) / 30 V/3 A (DC)			
Wiring for remote signaling		Max. 1.5 mm²			
Mounting		Symmetrical rail 35 mm (EN60715)			
Operating temperature		-40/+85°C			
Protection rating		IP20			
Housing material		Thermoplastic UL94-V0			
Spare unit		MDDC30-65	MDDC30-85	MDDC30-65	MDDC30-85
Standards					
Compliance		prIEC 61643-41			
Part number					
		828110121	828110221	828110122	828110222



V : High energy varistor network
Ft : Thermal fuse
C : Remote signaling contact
t° : Thermal disconnection system
MI : Disconnection indicator

DDC50S-21Y SERIES

Type 2 DC power Surge Protectors

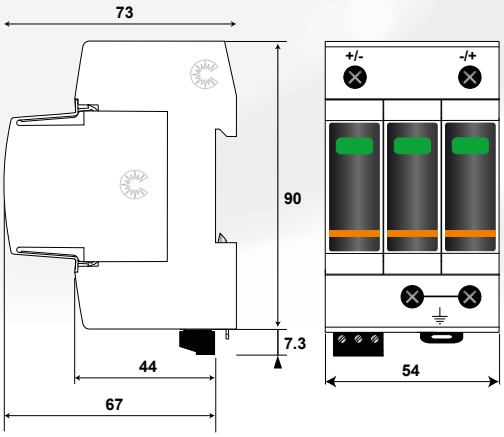
- **DC power Type 2 SPD**
- **for Energy Storage System/EV Charging**
- **up to 1200 V DC voltage**
- **In/Imax: 20/50 kA**
- **Pluggable modules**
- **Remote signaling**
- **prIEC 61643-41 compliance**

DC VERSION

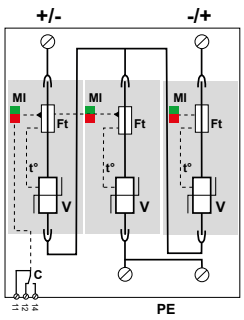
5-year WARRANTY

DDC50S-21Y-xxx

- Max. DC operating voltage
- Internal diagram
- «**S**» = Remote signal
- Imax : 50 kA



CITEL Model		DDC50S-21Y-500	DDC50S-21Y-800	DDC50S-21Y-1200	DDC50S-21Y-1500
Description		DC power surge protector			
Nominal DC voltage	Un	450 Vdc	650 Vdc	1000 Vdc	1200 Vdc
Max. DC operating voltage	Uc	500 Vdc	800 Vdc	1200 Vdc	1500 Vdc
Residual current *Leakage current at Uc*	Ipe	< 0.1 mA	< 0.1 mA	< 0.1 mA	< 0.1 mA
Nominal discharge current *15 x 8/20 µs impulses*	In	20 kA	20 kA	20 kA	20 kA
Max. discharge current *max. withstand ⍵ 8/20 µs by pole*	Imax	50 kA	50 kA	50 kA	50 kA
Max. lightning current by pole *max. withstand ⍵ 10/350µs*	Iimp	4 kA	4 kA	4 kA	4 kA
Protection level +/PE (-/PE) *⍵ In (8/20µs)*	Up	2.1 kV	2.7 kV	3.6 kV	5.1 kV
Protection level *⍵ In (8/20µs) +/-*	Up	2.1 kV	2.7 kV	3.6 kV	5.1 kV
Admissible Short circuit current	Isccr	100 000 A	100 000 A	100 000A	100 000 A
Associated disconnectors					
Thermal disconnector		internal			
Fuses		50 A min. (Isccr 100 kA)- 125 A max. (Isccr 50 kA) - High voltag DC Fuses			
Mechanical characteristics					
Dimensions		see diagram - 3 TE (EN43880)			
Connection to Network		Screw terminals: 2.5-25 mm²			
Failsafe mode		Disconnection from network			
Disconnection indicator		3 mechanical indicators Green/Red			
Max. voltage/current for remote signaling		250 V/0.5 A (AC) / 30 V/3 A (DC)			
Wiring for remote signaling		Max. 1.5 mm²			
Mounting		Symmetrical rail 35 mm (EN60715)			
Operating temperature		-40/+85°C			
Protection rating		IP20			
Housing material		Thermoplastic UL94-V0			
Spare unit		MDDC50-500	MDDC50-800	MDDC50-1200	MDDC50-1500
Standards					
Compliance		prIEC 61643-41			
Part number					
		828511263	828511363	828511563	828511663



V: High-energy varistor
Ft: Thermal fuse
C: Remote signaling contact
t°: Thermal disconnection system
Mi : Disconnection indicator

CITEL

DDCNxxS SERIES

Type 2 (or 3) DC power Surge Protectors

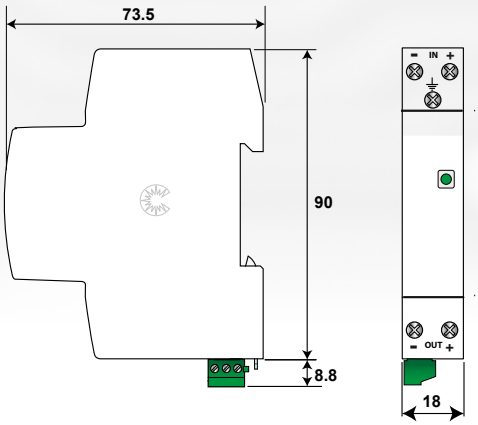
- **SPD for 24 or 48 V DC**
- **Series Connection (2-port)**
- **In : 15 kA / Imax : 30 kA**
- **Monobloc**
- **Remote signaling**
- **prIEC 61643-41 compliance**

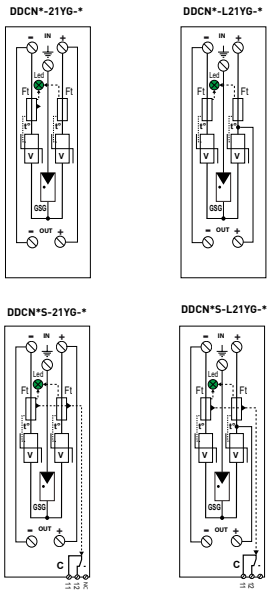
DC VERSION

5-year WARRANTY

DDCNxxS-x21YG-xx

- Max operating DC voltage.
- " " : parallel disconnection / "**L**" : series disconnection
- «**S**» = Remote signaling
- Imax





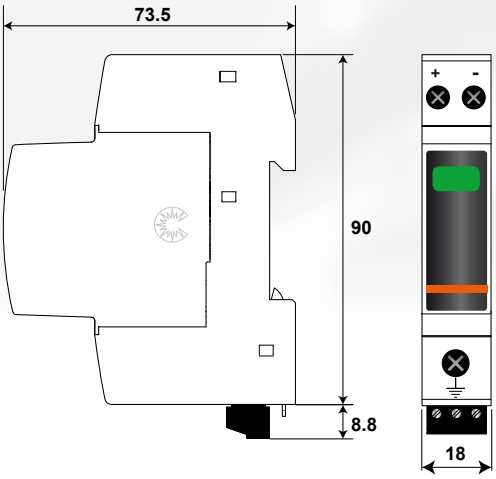
V: Varistor
GSG : Specific Gas Tube
Ft: Thermal fuse
t°: Thermal disconnection system
LED : Disconnection indicator
C : Remote signaling contact

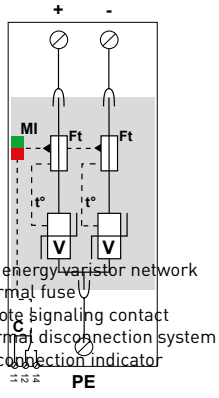
CITEL Model		DDCN03S-21YG-30	DDCN06S-21YG-65
Description		Type 2 (ou 3) , 2-port DC powr SPD	
Nominal DC voltage	Un	24 Vdc	48 Vdc
Connection mode		+/-/PE	+/-/PE
Maximal operating voltage.	Uc	30 Vdc	65 Vdc
Max load current	IL	25 A	25 A
Residual current *Leakage current @ Uc*	Ipe	none	none
Nominal discharge current *15 x 8/20 µs impulses*	In	1.5 kA	2 kA
Max. discharge current *max. withstand @ 8/20 µs by pole*	Imax	3 kA	6 kA
Whithstand in combination wave-form *- Classe III Test*	Uoc	3 kV	4 kV
Protection level +/- *@ In (8/20µs)*	Up	0.2 kV	0.5 kV
Protection level +/PE (or -/PE) *@ In (8/20µs)*	Up	0.8 kV	0.8 kV
Associated disconnectors			
Thermal disconnector		internal	
Fuses (if resqueted)		25 A type gG	
Mechnical characteristics			
Dimensions		see diagram , 1 TE (EN43880)	
Connection to Network		by screw 1.5-10 mm²	
Failure mode		Disconnection	
Operation indication		Green indicator ON	
Disconnection indication		Green indicator OFF	
Parallel Disconnection Mode		DDCN03-21YG-30	DDCN06-21YG-65
Mode de déconnexion série *Coupure du réseau AC*		DDCN03-L21YG-30	DDCN06-L21YG-65
avec Télésignalisation de défaut *sortie sur contact NC*		DDCN03S-21YG-30 DDCN03S-L21YG-30	DDCN06S-21YG-65 DDCN06S-L21YG-65
Max. Voltage/current for Remote signaling		250 V/0.5 A (AC) / 30 V/3 A (DC)	
Remote signaling wiring		max. 1.5 mm²	
Mounting		Symmetrical rail 35 mm (EN60715)	
Operating temperature		-40/+85°C	
Protection rating		IP20	
Housing material		Thermoplastic UL94-V0	
Standards			
Compliance		IEC 61643-11, prIEC 61643-41	
Part Number			
Standard Version		DDCN03-21YG-30 70124041	DDCN06-21YG-65 70134051
Series disconnection Version		DDCN03-L21YG-30 70125041	DDCN06-L21YG-65 70135051
Remote signaling Version		DDCN03S-21YG-30 70124042	DDCN06S-21YG-65 70134052
Remote signaling& Series disconnection Version		DDCN03S-L21YG-30 70125042	DDCN06S-L21YG-65 70135052

DDCxxCS SERIES

Type 2 Compact DC power Surge Protectors

- **Type 2 DC power surge protectors**
- **From 12 to 350 Vdc DC network**
- **Imax: 20, 30 and 40 kA**
- **Compact Design**
- **Pluggable module**
- **Remote signaling**
- **prIEC 61643-41 compliance**
- **IEC 61643-31 compliance**





V : High energy varistor network
Ft : Thermal fuse
C : Remote signaling contact
t° : Thermal disconnection system
MI : Disconnection indicator

CITEL Model		DDC20CS-20-24	DDC20CS-20-38	DDC30CS-20-65
Network		12Vdc	24Vdc	48 Vdc
Connection mode		+/-/PE	+/-/PE	+/-/PE
Max. DC operating voltage	Uc	24 Vdc	38 Vdc	65 Vdc
Max. AC operating voltage	Uc	20 Vac	30 Vac	50 Vac
Max. operating voltage PV-DC	Ucpv	24 Vdc	38 Vdc	65 Vdc
Permanent operating current *@ Ucpv*	Icpv	< 0.1 mA	< 0.1 mA	< 0.1 mA
Residual current *Leakage current at Uc*	Ipe	< 0.1 mA	< 0.1 mA	< 0.1 mA
Follow current	If	None	None	None
Nominal discharge current *15 x 8/20 µs impulses*	In	10 kA	10 kA	15 kA
Max. discharge current *max. withstand @ 8/20 µs by pole*	Imax	20 kA	20 kA	30 kA
Total discharge current *@ 8/20µs*	Imax-total	40 kA	40 kA	60 kA
Protection level +/PE (-/PE) *@ In (8/20µs)*	Up	250 V	250 V	300 V
Protection level +/- *@((8/20µs)*	Up	500 V	500 V	600 V
Admissible short circuit current	Isccr	10 000 A	10 000 A	10 000 A
Current withstand short circuit PV	Iscpv	1000 A	1000 A	1000 A
Associated disconnectors				
Thermal disconnector		internal		
Fuses (if required)		20 A min - 125 A max - Type gG		
Mechanical characteristics				
Dimensions		see diagram, 1 TE (EN43880)		
Connection to Network		by screw terminals: 1.5-10mm² (actives wires) and 2.5-25mm² (ground)		
Disconnection indicator		1 mechanical indicator, Green/Red		
Failure mode		Disconnection from network		
Max. voltage/current for remote signaling		250 V/0.5 A (AC) / 30 V/3 A (DC)		
Wiring for remote signaling		Max. 1.5 mm²		
Mounting		Symmetrical rail 35 mm (EN60715)		
Operating temperature		-40/+85°C		
Protection rating		IP20		
Housing material		Thermoplastic UL94-V0		
Spare unit		MDDC20C-20-24	MDDC20C-20-38	MDDC30C-20-65
Standards				
Compliance		prIEC61643-41/ UL1449 ed.4		
Part number				
		828210321	828210421	828310121

CITEL

DC VERSION

COMPACT VERSION

5-year WARRANTY

DDCxxCS-20-xx

- Maximum DC operating voltage
- Configuration: 20 (2+0)
- «S» Remote signal
- «C» Compact
- «30» Imax: 20kA, 30 kA or 40 kA

DDC40CS-20-100	DDC40CS-20-125	DDC40CS-20-150	DDC40CS-20-180	DDC40CS-20-275	DDC40CS-20-350	DDC40CS-20-460
75 Vdc	95 Vdc	110 Vdc	130 Vdc	220 Vdc	280 Vdc	350 Vdc
+/-/PE	+/-/PE	+/-/PE	+/-/PE	+/-/PE	+/-/PE	+/-/PE
100 Vdc	125 Vdc	150 Vdc	180 Vdc	275 Vdc	350 Vdc	460 Vdc
75 Vac	95 Vac	115 Vac	150 Vac	210 Vac	275 Vac	350 Vac
100 Vdc	125 Vdc	150 Vdc	180 Vdc	275 Vdc	350 Vdc	460 Vdc
< 0.1 mA	< 0.1 mA	< 0.1 mA	< 0.1 mA	< 0.1 mA	< 0.1 mA	< 0.1 mA
< 0.1 mA	< 0.1 mA	< 0.1 mA	< 0.1 mA	< 0.1 mA	< 0.1 mA	< 0.1 mA
None	None	None	None	None	None	None
20 kA	20 kA	20 kA	20 kA	20 kA	20 kA	20 kA
40 kA	40 kA	40 kA	40 kA	40 kA	40 kA	40 kA
80 kA	80 kA	80 kA	80 kA	80 kA	80 kA	80 kA
390 V	450 V	500 V	620 V	900 V	1200 V	1400 V
780 V	900 V	1000 V	1200 V	1800 V	2400 V	2800 V
10 000 A	10 000 A	10 000 A	10 000 A	10 000 A	10 000 A	10 000 A
1000 A	1000 A	1000 A	1000 A	1000 A	1000 A	1000 A
		50 A min. - 125 A max. - Type gG				
MDDC40C-20-100	MDDC40C-20-125	MDDC40C-20-150	MDDC40C-20-180	MDDC40C-20-275	MDDC40C-20-350	MDDC40C-20-460
828410521	828410621	828410721	828410821	828410921	828411021	828411121

SELECTION OF SPD

Selection of SPDs in relation

Following
IEC 60364-4-443 and
IEC 60364-5-534

Installation in the main distribution panel (3-Phase 230/400 Vac)

LPL I or II

LPL III or IV

OR

DS254VG-300/G

- 3-Phase + N
- TN or TT systems
- Type 1+2+3
- Iimp 25 kA/pole
- VG-Technology

DS253VG-400

- 3-Phase
- IT systems
- Type 1+2+3
- Iimp 25 kA/pole
- VG-Technology

DAC1-13VGS-31-275

- 3-Phase + N
- TN or TT systems
- Type 1+2+3
- Iimp 12.5 kA/pole
- VG-Technology
- Pluggable

DAC1-13S-30-440

- 3-Phase
- IT systems
- Type 1+2
- Iimp 12.5 kA/pole
- Pluggable

Reinforced

Standard

DAC80S-31-275

- 3-Phase + N
- TNS or TT systems
- Type 2
- Imax 80 kA
- Pluggable

DAC80S-30-440

- 3-Phase
- IT system
- Type 2
- Imax 80 kA
- Pluggable

DAC50VGS-31-275

- 3-Phase + N
- TN or TT systems
- Type 2+3
- Imax 50 kA
- VG-Technology
- Pluggable

DAC50S-30-440

- 3-Phase
- IT system
- Type 2
- Imax 50 kA
- Pluggable

CITEL

FOR AC POWERLINE

with their location and the international standard

Installation in AC Sub-Panel and/or close to the equipment

Sentitive equipment >10 m from the primary SPD

Standard

With integrated fuse

Compact

DAC50S-31-275

- 3-Phase + N
- TN/TNS systems
- Type 2
- Imax 50 kA
- Pluggable

or

DAC50S-11-275

- Single-phase
- TT/TN systems
- Type 2
- Imax 50 kA
- Pluggable

DACF25S-31-275

- 3-Phase + N
- TN/TNS systems
- Type 2
- Imax 50 kA
- Pluggable

or

DACF25S-11-275

- Single-phase
- TT/TN systems
- Type 2
- Imax 50 kA
- Pluggable

DAC40CS-31-275

- Compact SPD
- 3-Phase + N
- TN or TT systems
- Type 2
- Imax 40 kA
- Pluggable

or

DAC40CS-11-275

- Compact SPD
- 3-Phase + N
- TN or TT systems
- Type 2
- Imax 40 kA
- Pluggable

No additional SPD required

Sentitive equipment >10 m from the primary SPD

With integrated fuse

Compact

Monobloc / series mounting

DACF15S-11-275

- Integrated fuse
- 3-Phase + N
- TT/TN systems
- Type 2 (or 3)
- Imax 15 kA
- Pluggable

DAC15CS-11-275

- Compact SPD
- Single-phase
- TT/TN systems
- Type 2 (or 3)
- Imax 15 kA
- Pluggable

DACN10S-11-275

- Monobloc
- Single-phase
- TN or TT systems
- Type 2 (or 3)
- In 5 kA
- Imax 10kA

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