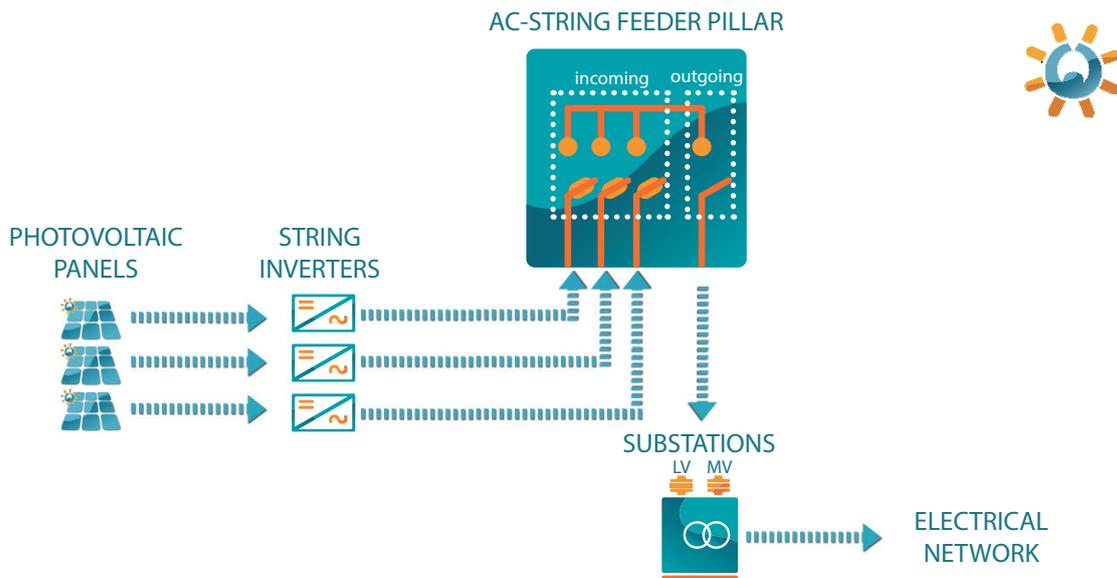


1 800 V AC Switchgear for Photovoltaic

New trend of photovoltaic installations and where our products are needed



Tested switching capacity at 800 V AC as per IEC60947-3

Design of more competitive photovoltaic plants

Less power losses

PV energy shouldn't be considered any more an alternative source of energy. As it is becoming more cost-competitive, it is now an increasing reality.

One of the main reason for this, is the reduction of installations and maintenance cost. New trend consist in designing photovoltaic distribution network in **800 V AC** instead of DC voltages with smaller string inverters close to the photovoltaic panels.

At the same time, the transmission of energy at higher voltages make possible to reduce power losses and the cost of the installation.

By using upper section cables, up to 300 mm² for NH 1 and NH 3, the voltage drop is reduced. In this way, the tendency in last inverters generation is to transmit at 800 V AC.

▶ GORLAN SWITCHGEAR RANGE | Pronutec and Telergon

- Pronutec | Incoming
- Telergon | Outgoing

INCOMING

pronutec
gorlan

TRIVER+ 800 LV Vertical Fuse
Switches of Pronutec for 800 V AC



OUTGOING

telergon
gorlan

Switch disconnectors high performances
range of Telergon for 800 V AC



pronutec
gorlan



▶ LV VERTICAL FUSE SWITCHES OF PRONUTEC FOR 800 V AC



TRIVER+ 800

Pronutec introduces the range TRIVER+ 800. A range of vertical fuse switches for photovoltaic application specifically designed for the protection and distribution of electric networks from the new string inverters with rated operational voltage levels of 800 V AC.

The AC distribution and the higher voltage, allow a more cost-competitive design of power networks in photovoltaic applications and less power losses. Another features are the safety of the range TRIVER+ 800 and the breaking capacity at these voltage levels.

Maintaining the well known advantages and features in Pronutec TRIVER+ family, this new range offers additional advantages:

Less power losses

- Tested switching capacity up to 800 V.
- Tested short circuit protection up to 120 kA.
- Reliable protection by a consolidated technology based in DIN standard.
- All operations can be made comfortably using the established protection equipment and insulated tools.
- Compatible with 185 mm and 100 mm distance busbars.
- Available in sizes NH00/1/3, allows any combination for a flexible configuration and adaptable to any project.
- Complete range of connections for copper and aluminum terminals for different cable sections.

▶ RANGE OF FUSE SWITCHES



NH 00 | 100 mm busbar distance

Reference	Type	Current	Fuse-link	Switching	Connections	Busbar spacing
453.61.10.XX.YY.E8	BTVC-DT	125 A	NH 00	Three pole	Top / Bottom reversible	100 mm

* For one pole switching options, please, consult.

Terminal options



XX Code	Type of terminal	Torque (Nm)	Cross section (mm ²)			
22	Prism terminal - 95	2,5	10-95	10-95	35-95	50-95
01	M8 screw Stainless Steel	12	Cable lugs DIN 46235 Max. 95 mm ²			
02	M8 screw Zn	12				
03*	M8-M5 screw Stainless Steel (15 mm)	12				
04**	M8-M5 screw Stainless Steel (18 mm)	12				

* Compatible with Prism terminal-70 and Bridge clamp.
** Compatible with Prism terminal-95.



NH 00 | 185 mm busbar distance

Reference	Type	Current	Fuse-link	Switching	Connections	Busbar spacing
443.72.10.XX.YY.E8	BTVC-DT / Depth 00	125 A	NH 00	Three pole	Top / Bottom reversible	185 mm
443.72.12.XX.YY.E8	BTVC-DT / Depth 2	125 A	NH 00	Three pole	Top / Bottom reversible	185 mm

* For one pole switching options, please, consult.

Terminal options



Reference	XX Code	Type of terminal	Torque (Nm)	Cross section (mm ²)			
101.01.122	28	Aluminum "V" Terminal	15	10-95	10-95	25-120	25-150
101.01.114	05	Steel "V" Terminal	15	10-70	10-70	25-95	20-120
-	01	M8 screw A2/M8	12	Cable lugs DIN 46235 Max. 120 mm ²			
-	02	M8 screw Zn / M8	12				
-	03*	M8 screw A2+M5 (15 mm)	12				
-	04**	M8 screw A2+M5/M8 (18 mm)	12				

* Compatible with Prism terminal-70 and Bridge clamp.
** Compatible with Prism terminal-95.

Adaptor plates

YY Code	Adaptor plates
16	Set of 3 adaptor plates to connect 185 mm ² cross section cables



Micro-switch available for all sizes





NH 1/3 | 185 mm busbar distance

Reference	Type	Current	Fuse-link	Switching	Connections	Busbar spacing
438.71.10.XX.YY.E8	BTVC-DT	315 A	NH 1	Three pole	Top / Bottom reversible	185 mm
438.73.10.XX.YY.E8	BTVC-DT	500 A	NH 3	Three pole	Top / Bottom reversible	185 mm

* For one pole switching options, please, consult.

Terminal options

Reference	XX Code	Type of terminal	Torque (Nm)	Cross section (mm ²)			
							
101.01.130	46	Aluminum Double "V" Terminal	25-30	50-240	70-300	70-240	95-300
101.01.129	42	Aluminum Double "V" Terminal	30	35-120	35-150	50-185	35-240
101.01.103	05	Aluminum "V" Terminal with reversible pressure pad	25	16-185	16-240	35-240	35-300
-	00	M10 Bolt	32	Cable lugs DIN 46235 2x25 - 300 mm ² (Max. width 43 mm)			
-	01	M10 Bolt Stainless Steel	32				
-	02	M12 Bolt	40				
-	03	M12 Bolt Stainless Steel	40				



46



42



05



00
01



02
03

Cross section up to 300 mm², the voltage drop is reduced

Micro-switch available for all sizes



Vertical Switch Disconnectors

Size	Current
NH 3	1000 A

Please, consult.

▶ OTHER PRODUCTS



One pole Fuse Bases - 800 V AC

Size	Current
NH 00	Contact our commercial department
NH 1	
NH 3	



1 pole LV Fuse Switches - 800 V AC

Size	Current
NH 00	Contact our commercial department
NH 1	



Horizontal design fuse switch disconnecter NH 00

Reference	Type	Current	Type of terminal	Connections	Fuse Link	Power Losses (W)*
432.12.01.01.00.E8	Panel mounting	125A	Bridge terminal	Bottom/Top connection	NH 00	12
432.12.01.02.00.E8	Panel mounting	125 A	Connection screw M8	Bottom/Top connection	NH 00	12
432.42.01.01.00.E8	Panel mounting	125 A	Bridge terminal	Long Contact Cover	NH 00	12
432.42.01.02.00.E8	Panel mounting	125 A	Connection screw M8	Long Contact Cover	NH 00	12

Fuse Supervision Control - FSC Modbus

Fuse monitoring unit for 3 phases, compatible with NH00, 1, 2 and 3 fuse switches. One LED per phase shows the status of each fuse with red /green light. FSC sends blown fuse alarms by RS485 modbus protocol to any third party RTU, so that it could be integrated into an Scada system.



Measuring instruments - Panel meters

Description	Rated operational voltage U_e
Current transformer + Panel meter PNT MASTER 3840	400/500/690 V
Current transformer + Panel meter for 800 V AC	800V

