

GIS plug-in cable termination (2# interface) TP-A 42 kV, 800 A

Application

GIS plug-in cable termination for XLPE insulated 1-core or 3-core cable with Cu conductor for 42 kV. Fit standard bushing of 3# inner cone GIS switch cabinet or transformer according to EN 50181.

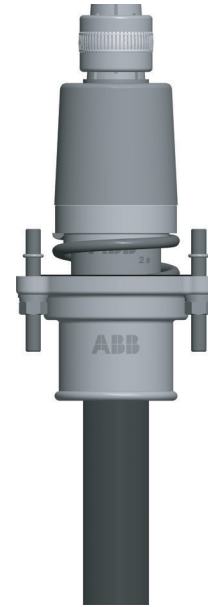
Standard

- IEC 60502.4
- GB/T 12706.4

Features

- The cable termination mainly consists of plug-in contactor, stress cone and tail pipe.
- Plug-in contactor
 - compression cone connection which is safe and reliable
 - Easier installation, rigid fixation and no special tools required
- Stress cone
 - Small and portable
 - 100% routine tests
 - Reliable for electricity and safety performance

Contact us for installation tool which is required



42 kV, 800 A GIS plug-in cable termination selection guide

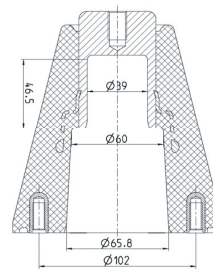
Designation		Insulation diameter (mm)	26/35(40.5) kV	
Cu conductor	Al conductor		Conductor cross section (mm ²)	
TP-A422-50	TP-A422-50AL	30.5-32.6	50	
TP-A422-70	TP-A422-70AL	30.7-33.6	70	
TP-A422-95	TP-A422-95AL	33.2-35.6	95	
TP-A422-120	TP-A422-120AL	34.2-37.2	120	
TP-A422-150	TP-A422-150AL	35.6-38.7	150	
TP-A422-185	TP-A422-185AL	37.8-41.5	185	

Always select products by insulation diameter.

Standard bushing



2# inner cone insulator



Dimension figure

Main technical specifications

	TP-A422-50	TP-A422-70	TP-A422-95	TP-A422-120	TP-A422-150	TP-A422-185
Voltage level	42 kV					
Rated current	800 A					
Cross section range	50	70	95	120	150	185
AC voltage withstand	117 kV, 5 min					
Partial discharge	45 kV, <5 pC					
Lightning impulse voltage	± 200 kV, 10 impulses					

GIS plug-in cable termination (3# interface) TP-A 42 kV, 1250 A

Application

GIS plug-in cable termination for XLPE insulated 1-core or 3-core cables with Cu conductor for 42 kV. Fit standard bushing of 3# inner cone GIS switch cabinet or transformer according to EN 50181.

Standard

- IEC 60502.4
- GB/T 12706.4

Features

- The cable termination mainly consists of plug-in contactor, stress cone and tail pipe.
- Plug-in contactor
 - Spring contact connection which is safe and reliable
 - Inclined bolt for easier installation, rigid fixation and no special tools required
- Stress cone
 - Small and portable
 - 100% routine tests
 - Reliable for electricity and safety performance



42 kV, 1250 A GIS plug-in cable termination selection guide

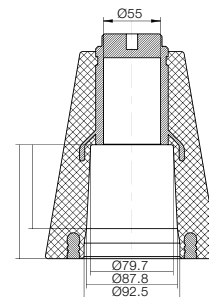
Type *	Type **	Conductor diameter (mm)	Insulation diameter (mm)	26/35kV Conductor section (mm ²)
TP-A423-35C1	TP-A423-35C3	6.2-7.7	30-33.5	35
TP-A423-50C1	TP-A423-50C3	7.5-9	30-33.5	50
TP-A423-70C1	TP-A423-70C3	9-10.5	30-33.5	70
TP-A423-95C1	TP-A423-95C3	10.7-12.2	32.5-36.5	95
TP-A423-120C1	TP-A423-120C3	12.1-13.6	32.5-36.5	120
TP-A423-150C1	TP-A423-150C3	13.7-15.2	36-40	150
TP-A423-185C1	TP-A423-185C3	15.2-16.7	36-40	185
TP-A423-240C1	TP-A423-240C3	17.5-19	40-46.5	240
TP-A423-300C1	TP-A423-300C3	19.7-21.2	40-46.5	300
TP-A423-400C1	TP-A423-400C3	22.7-24.2	40-46.5	400
TP-A423-500C1	TP-A423-500C3	26-27.5	46.0-52.5	500
TP-A423-630C1	TP-A423-630C3	29-31	52.5-55.5	630

Always select products by insulation diameter. □C1 apply for 1-core with amour, □□C3 apply for 3-ore with amour.

Standard bushing



3# inner cone insulator



Dimension figure

Brief technical specifications

		TP-A423
Voltage level		42 kV
Rated current		1250 A
AC voltage withstand		117 kV, 5 min
Partial discharge		45 kV, <5 pC
Lightning impulse voltage		±200 kV, 10 次
Heat cycling test	No breakdown during 60 cycles at the conductor temperature of 95 °C to 100 °C and 65 kV	

145kV Dry plug-in GIS/ transformer termination TP145

Application

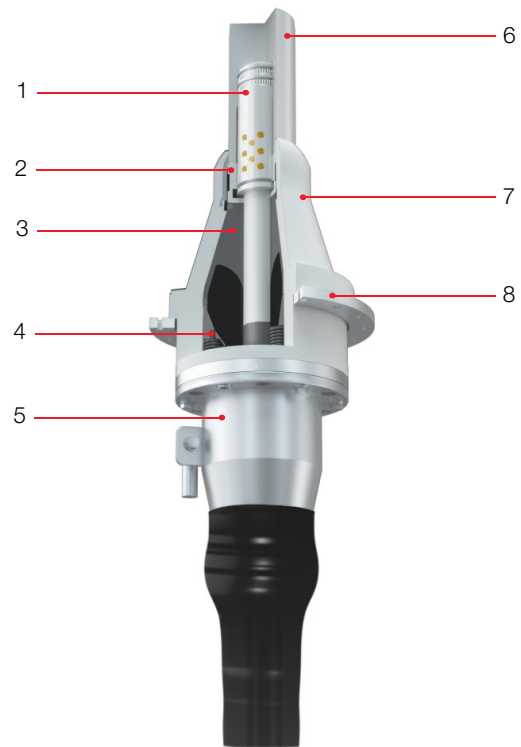
Suitable for 123 kV or 145 kV copper conductor XLPE insulated metal sheath cable and supporting GIS equipment or transformer equipment connection.

Standards

Designed to meet the requirements of international accepted standards, IEC 60840, IEC 62271-209, IEC 60859 and China standard GB/ T 11017.

Features

1. Connector
Bolted to achieve electrical connection through spring contacts.
2. Locking halves
Made of aluminum alloy and is used to lock the cable insulating layer.
3. Stress cone
The raw material liquid silicone rubber (LSR), enables a more compact structure. Different sizes are designed to fit cables with different cross-section area, to ensure optimal interface pressure between stress cone and cables, as well as the excellent electrical and insulation performance. All stress cone pass the routine test.
4. Spring assembly
High-quality spring steel to provide sufficient and durable interfacial pressure.
5. Cable gland
Provides a good seal and grounding for the termination.
6. Top connector
Made of silver-plated aluminum to ensure reliable connection to GIS or transformer equipment.
7. Epoxy insulator
Epoxy insulator adopts imported epoxy resin vacuum pouring molding, internal integrated shielding electrode.
8. Fixing flange
Connect epoxy insulator to GIS or transformer equipment.



TP145 Dry plug-in GIS/ transformer termination

Main electrical properties:

Standard, IEC 60840, GB/ T 11017	Type test kV	Routine test kV
Highest voltage for equipment, U_m	145	145
Rated voltage, U	132	132
Value of U_0 for determination of test voltage	76	76
Heating cycle voltage test, $2 U_0$	152/ 20cycles	/
Partial discharge test <5 pC, $1.5 U_0$	114	114
Switching impulse voltage test	+/-650	/
AC-voltage test, $2.5 U_0$	190, (15mins)	190, (30mins)
Visual inspection	Preformed	Preformed

☐

NOTE:

☐ Please contact ABB in case of aluminum conductor cable☐

☐☐ All stress cone pass the routine test.