

Hivoduct «pressurized air cables» are medium voltage and high-voltage cables for electrical energy transmission. Pressurized air cables are environmentally friendly, powerful, have reduced losses, are maintenance free, and non-flammable.

Pressurized air cable: F170, 3000 A

Parameter	Value	Information
Rated voltage	123 - 170 kV	
Rated current	3000 A	Other values on request.
Insulation media	Pressurized air	N2: 80%, O2: 20 %, dry
Inside pressure	<= 10 bar	Higher pressure for higher voltages
Conductor	Aluminum	High conductivity, > 28 m/Ω*mm ²
Cond. Cross section	<= 2950 mm²	
Enclosure	Aluminum	Anticorodal. Nonflammable.
Encl. Cross section	<= 5580 mm²	Return current / ground connection included
Bending radius	0 mm	Angle pieces 90° available
Short circuit current	50 kA, 1 s	
AC Test voltage	275 kV	Partial discharge level: < 10 pC
BIL Test voltage	+/- 650 kV	
Capacitance	52 pF/m	Per phase
Inductance	212 nH/m	1 phase. 3 Phases depend on arrangement
AC Resistance	12 μOhm/m	R _{AC} conductor + enclosure @ 50 Hz
Magnetic field	< 1 μT	At 2000 A in > 2 m distance
Enclosure temperature	< 50°C < 65°C	@ 1500 A for > 8 h without forced cooling. @ 3000 A for > 8 h without forced cooling.
Components	Straight tube	Length available: 0.2 - 5m
	Bushing	Creepage: 3930 mm. Flash-over: 1558 mm
	Angle 90°	Phase distance: 400 mm
	Length compens.	Max. 80 mm length compensation
Pressurized air	Festo ¼ inch	One-way valve, Filling, Manometer
Contact system	Spiral contacts	Contacts silver plated
Transport weight	< 350 kg	Per transport unit
Transport length	< 6 m	Per transport unit
Phase distance	>= 400 mm	
Width 3ph	>= 1200 mm	Trough width for 3 phases side-by-side
Height	>= 550 mm	Trough height for 3 phases side-by-side
Diameter 3ph	>= 800 mm	For 3ph in triangular arrangement in tube
Grounding	As needed	100 % return current in enclosure is ok
Life expectancy	> 40 years	Expected lifetime. Maintenance free.
Reusable	Yes	Disassembly on each flange possible.

Pressurized air cables are best suitable for critical installations where high power, best fire protection, quick assembly and disassembly and reduced outside magnetic fields are required.

Other ratings on request.