

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: F052 series

Parameter	Value	Information
Rated voltage	<b>12 kV - 52 kV</b>	
Rated current	<b>200 A - 3000 A</b>	
Insulation media	<b>Pressurized air</b>	N2: 80%, O2: 20 %, dry
Inside pressure	<b>&lt;= 10 bar</b>	BIL up to 125 kV
Conductor	<b>Aluminum</b>	High conductivity, > 28 m/Ω*mm <sup>2</sup>
Cond. Cross section	<b>2940 mm<sup>2</sup></b>	
Enclosure	<b>Aluminum</b>	Anticorodal. Nonflammable.
Encl. Cross section	<b>3570 mm<sup>2</sup></b>	Return current / ground connection included
Bending radius	<b>0 mm</b>	Angle pieces 1° - 60°; 90° available
Short circuit current	<b>50 kA, 1 s</b>	
AC Test voltage	<b>50 kV</b>	Partial discharge level: < 5 pC @45kV
BIL Test voltage	<b>+/- 125 kV</b>	
Capacitance	<b>140 pF/m</b>	Per phase
Inductance	<b>80 nH/m</b>	1 phase. 3 Phases depend on arrangement
AC Resistance	<b>11 μOhm/m</b>	R <sub>AC</sub> conductor + enclosure @ 50 Hz
Magnetic field	<b>&lt; 1 μT</b>	@ 2000 A in > 2 m distance
Enclosure temperature	<b>&lt; 40°C</b> <b>&lt; 50°C</b>	@ 1300 A for > 8 h without forced cooling. @ 2000 A for > 8 h without forced cooling.
Losses	<b>~15 W/m/Phase</b>	@ 1000 A continuous current, 50 Hz
Components	<b>Straight tube</b>	Length available: 0.2 - 5m
	<b>Bushing</b>	Creepage: 1593 mm. Flash-over: 528 mm
	<b>Angle 1°-60°, 90°</b>	Phase distance: >=180 mm
	<b>Length compens.</b>	Max. 80 mm length compensation
Pressurized air	<b>Festo ¼ inch</b>	One-way valve, Filling, Manometer
Contact system	<b>Spiral contacts</b>	Contacts silver plated
Transport weight	<b>&lt; 250 kg</b>	Per transport unit
Transport length	<b>&lt; 6 m</b>	Per transport unit
Phase distance	<b>&gt;= 180 mm</b>	
Width 3ph	<b>&gt;= 540 mm</b>	Trough width for 3 phases side-by-side
Height	<b>&gt;= 200 mm</b>	Trough height for 3 phases side-by-side
Diameter 3ph	<b>&gt;= 450 mm</b>	For 3ph in triangular arrangement in tube
Grounding	<b>As needed</b>	100 % return current in enclosure is ok
Life expectancy	<b>&gt; 40 years</b>	Expected lifetime. Maintenance free.
Reusable	<b>Yes</b>	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.