

# 630A Deadbreak Asymmetrical Elbow Connector

Up to 36kV



The Elastimold® ESA66 Elbow Connector is a fully-rated up to 36kV, 630A Class Deadbreak connector. It has a standard C1 interface for connecting up to 36kV, 630A Deadbreak bushing, junctions and other accessories. The ESA66 is equipped with an integral voltage test point.

### Features and benefits

- Up to 36kV, 630A Deadbreak Elbow
- Fully shielded, fully submersible molded rubber housing
- 100% peroxide-cured construction includes insulation and conductive EPDM materials
- Provision for ground wire connection
- Wide cable range with minimum number of sizes
- Torque limiting epoxy plug and contact stud

### Applications

Medium voltage deadbreak applications up to 36kV and 630A using EN50180 & EN50181 Interface C1.

### Materials

100% peroxide-cured EPDM.

### Ambient operating temperature range

- 40°C ~ 65°C

### Certified to

IEC 60502-4, CENELEC HD 629.1S3  
U<sub>0</sub>/U(Um)

**Interface C1:** EN50180 and EN50181

### **For 6.35/11(12)kV Voltage Class:**

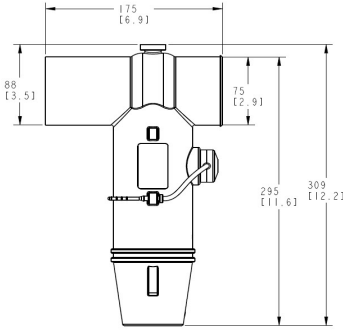
6.35kV Phase-to-Ground U<sub>0</sub> – Operating Voltage  
11kV Phase-to-Phase U  
95kV BIL – Impulse Withstand (1.2 x 50 microsecond wave)  
28.5kV AC – Five minute withstand  
Max 10pC at 12.5kV  
630A – Continuous

### **For 12.7/22(24)kV Voltage Class:**

12.7kV Phase-to-Ground U<sub>0</sub> – Operating Voltage  
22kV Phase-to-Phase U  
125kV BIL – Impulse Withstand (1.2 x 50 microsecond wave)  
57kV AC – Five minute withstand  
Max 10pC at 25kV  
630A – Continuous

### **For 19/33(36)kV Voltage Class:**

19kV Phase-to-Ground U<sub>0</sub> – Operating Voltage  
33kV Phase-to-Phase U  
194kV BIL – Impulse Withstand (1.2 x 50 microsecond wave)  
85.5kV AC – Five minute withstand  
Max 10pC at 38kV  
630A – Continuous



**Part number selection**

1. Select the type of separable connector (ESA66 = Asymmetrical)
2. Choose the relevant cable conductor code
3. Choose the correct code for the cable adapter being used

**Example:**

The part number for a 36kV Asymmetrical Connector, with a cable conductor with a cross section of 400 mm<sup>2</sup> and insulation diameter of 41 mm, will be ESA66NAN.

Note: Cable adapter selection is determined based on the insulation diameter of the cable.

**ESA66**



Cable Type  
A = Unarmoured

A



Cable Conductor	
Code	Cross section (mm <sup>2</sup> )
G	16-150
L	50-240
M	95-300
N	185-400

Cable Adapter	Cable Insulation Diameter mm		Cable Insulation Diameter Inches	
	MIN	MAX	MIN	MAX
E	13.46	17.27	0.530	0.680
F	16.26	20.32	0.640	0.800
G	19.30	22.61	0.760	0.890
H	21.59	26.67	0.850	1.050
I	25.65	30.99	1.010	1.220
L	29.97	35.81	1.180	1.410
M	34.80	39.67	1.370	1.562
N	38.66	43.00	1.522	1.693

**The 1 Phase standard kit contains the following**

1 Phase kit		
Quantity	Description	Part #
1	Asymmetrical Elbow housing	ESA6-MIB1
1	VD Cap	ESX1-MTC1
1	Cleaning Cloth	ECX1-CCL1
1	Earthing Wire Assembly	ESX1-GKA1
1	Stud	ESX6-CSS1
3	Compound Lube	82-08
1	Shear Bolt Connector 630A	ESX6-CSB*
1	Cable Adapter	ESX6-MAA**
2	Gloves	ECX1-GLO1
1	PVC Tape	ECX1-PTA1
1	Abrasive Paper	ECX1-APA1
1	Instruction Sheet 630A	ESX6-CUM2
1	Mastic Tape	ECX1-MTA1/2
1	Bleeder Line	ECX1-BLN1
1	Cap Epoxy Plug	ESX6-MEP1
1	Epoxy Plug	ESX6-EAP1
1	Cold Shrink Tube 1/2/3	ECX1-CST1/2/3
1	Screen Wire Lug 13mm Hole	ECX1-GWL1

\*: Connector should be sized accordingly as shown in "Cable Conductor Code" table above

\*\*Last letter in part number corresponds to cable adapter. Example of F size Cable Adapter: ESX6-MAAF

Asymmet- rical	Cable Conductor	Cross section	Cable Adapter	Cable Insulation Diameter		Part Number
	Code	(mm <sup>2</sup> )	Code	Min (mm)	Max (mm)	
ESA66	G	16 - 150	E	13.46	17.27	ESA66GAE
			F	16.26	20.32	ESA66GAF
			G	19.30	22.61	ESA66GAG
			H	21.59	26.67	ESA66GAH
			I	25.65	30.99	ESA66GAI
			L	29.97	35.81	ESA66GAL
	L	50 - 240	E	13.46	17.27	ESA66LAE
			F	16.26	20.32	ESA66LAF
			G	19.30	22.61	ESA66LAG
			H	21.59	26.67	ESA66LAH
			I	25.65	30.99	ESA66LAI
			L	29.97	35.81	ESA66LAL
	M	95 - 300	M	34.80	39.67	ESA66LAM
			F	16.26	20.32	ESA66MAF
			G	19.30	22.61	ESA66MAG
			H	21.59	26.67	ESA66MAH
			I	25.65	30.99	ESA66MAI
			L	29.97	35.81	ESA66MAL
	N	185 - 400	M	34.80	39.67	ESA66MAM
			G	19.30	22.61	ESA66NAG
			H	21.59	26.67	ESA66NAH
			I	25.65	30.99	ESA66NAI
			L	29.97	35.81	ESA66NAL
			M	34.80	39.67	ESA66NAM
			N	38.66	43.00	ESA66NAN

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