



# POWERMAX

INNOVACIÓN Y DESARROLLO



**PIONEERS IN COUPLERS INNOVATION**

# **DESIGNERS AND MANUFACTURERS OF HIGH VOLTAGE COUPLER**

8KV 800A MINING AND INDUSTRIAL CABLE COUPLER  
PM0880 SERIES



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## SECTION 1: 8KV 800A BOLTED SYSTEM

### COUPLER AND ACCESORIES HIGH VOLTAGE UP TO 8KV PORTABLE CABLE SYSTEMS COUPLERS

Couplers are utilized in industrial, oil and gas, surface and underground mining, strip, and pit operations. Couplers provide safe, convenient means for connecting fixed or portable cable rated up to 8,000 volt and up to 800 Amperes, copper or aluminum conductor to mining equipment, electric shovels, drag lines, loaders, barges, tunneling machines, portable substations, portable junction boxes, or for joining lengths of high voltage cables.

#### Electrical Type Test Results

- ▶ 1 minute dry withstand AC: 35 kV
- ▶ 5 minutes dry withstand AC: 21 kV
- ▶ 5 hours dry withstand AC: 16 kV
- ▶ 15 minutes dry withstand DC: 53 kV
- ▶ Basic impulse level (BIL) : 75 kV crest : 10 pos and 10 neg.
- ▶ Partial discharge (Corona) Voltage: 7kV (< 5pC)
- ▶ Thermal short-circuit test: 20kA @ 1seconds

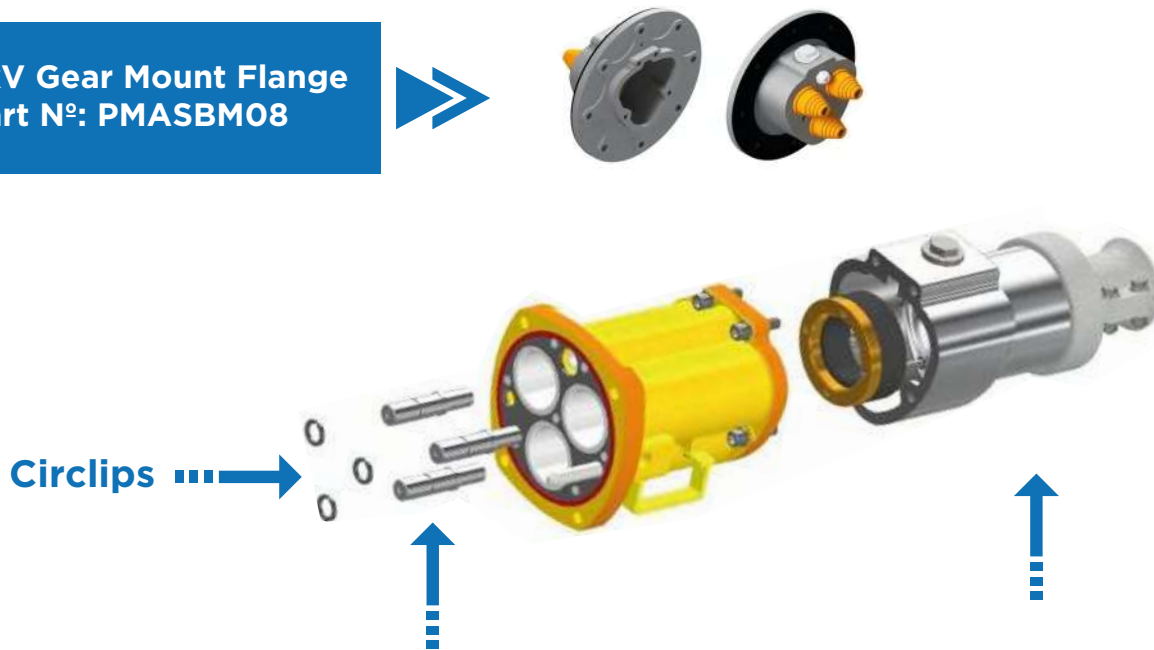
## MODEL N° SELECTION GUIDE



Description	Part Number
(A) 8kV Half Coupler Male	<b>PM0880-XY*</b> XY: Cable diameter max: 35, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90mm *Cable with armor add suffix "E" *Cable with control conductors add suffix "C"
(B) 8kV Adaptor Gear Mount	MA0880
(C) 8kV Cast Protection Cover	PMCP08
(D) 8kV Phase Connectors (3 required per join)	PM0880-2H
(E) (8kV Earth Pilot Connector (1 required per join)	PMCEP08
(F) 8kV Insulated End Cover	PMCIE08

## STOCK SELECTION GUIDE

**8kV Gear Mount Flange**  
**Part N°: PMASBM08**



8kV Crimp Contact Selection	
Size	Part N°
2 AWG	PMCC208
1 AWG	PMCC108
1/0 AWG	PMCC1008
2/0 AWG	PMCC2008
3/0 AWG	PMCC3008
4/0 AWG	PMCC4008
250 MCM	PMCC25008
300 MCM	PMCC30008
350 MCM	PMCC35008
400 MCM	PMCC40008
450 MCM	PMCC45008
500 MCM	PMCC50008
35mm <sup>2</sup>	PMCC3508
50mm <sup>2</sup>	PMCC5008
70mm <sup>2</sup>	PMCC7008
95mm <sup>2</sup>	PMCC9508
120mm <sup>2</sup>	PMCC12008
150mm <sup>2</sup>	PMCC15008
185mm <sup>2</sup>	PMCC18508
240mm <sup>2</sup>	PMCC24008
300mm <sup>2</sup>	PMCC300108

Size Cable Gland	
Cable OD	Part N°
35mm	PMGH358
40mm	PMGH408
45mm	PMGH458
50mm	PMGH508
55mm	PMGH558
60mm	PMGH608
65mm	PMGH658
70mm	PMGH708
75mm	PMGH758
80mm	PMGH808
85mm	PMGH858
90mm	PMGH908

## ACCESORIES



**8kV Insulated End Cover  
Part N°: PMCE08**

8kV Termination kit Large	
Part N° 2804K	
Cable insulation O.D Range:	
23.9mm to 46mm	
03 EA	ColdTerm Terminations
01 EA	Silicone Rubber Tape
01 EA	Semi-Conducting Shielding Tape
01 EA	PVC Premium Tape
03 EA	Mastic strips
03 EA	Ground Assemblies
03 EA	Solvent Packs

8kV Termination kit Small	
Part N° 2803	
Cable insulation O.D Range	
16.2mm to 28.4mm	
03 EA	ColdTerm Terminations
01 EA	Silicone Rubber Tape
01 EA	Semi-Conducting Shielding Tape
01 EA	PVC Premium Tape
03 EA	Mastic strips
03 EA	Ground Assemblies
03 EA	Solvent Packs

COMPOUND	
Size	Part N°
High Gel 521mL	8882-500C (7 per Coupler)
High Gel 1929mL	8882-1900C (2 per Coupler)
Two-part 8L	CGBUR2AH8002 (For 2 Coupler)

## TECHNICAL GUIDE



FEATURES	
Model N°	PM0880-XY
Description	8kV Half Coupler Male
Rating	8kV 800A
Material /Mass	Aluminium / 15kg
Lenght	560mm
Volume	2.5 Litres



FEATURES	
Model N°	MA-0880
Description	8kV Adaptor Gear Mount
Rating	8kV 800A
Material /Mass	Aluminium / 13kg
Lenght	390mm
Volume	2 Litres



FEATURES	
Model N°	PMCE08
Description	8kV Insulated End Cover
Rating	8kV 800A
Material /Mass	Aluminium / 5kg



FEATURES	
Model N°	PMCP08
Description	8kV Cast Cover Protection
Rating	8kV 800A
Material /Mass	Aluminium / 3kg

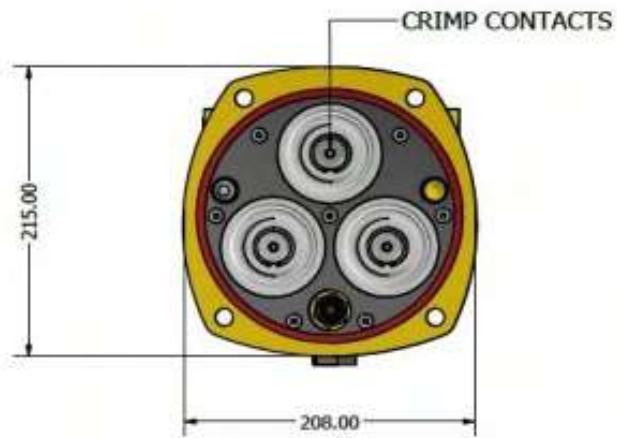


FEATURES	
Model N°	PM0880-2H & PMCEP08
Description	8kV Phase connectors & Earth Pilot Connector
Rating	8kV 800A

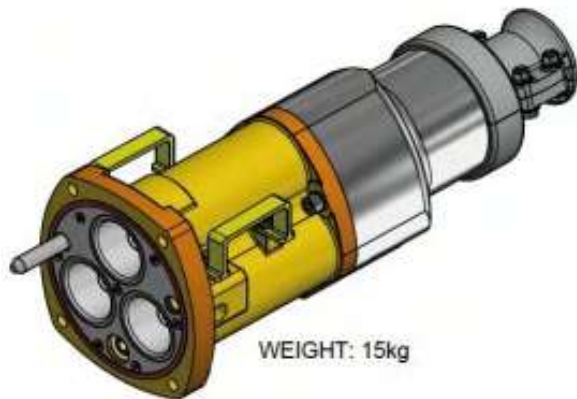
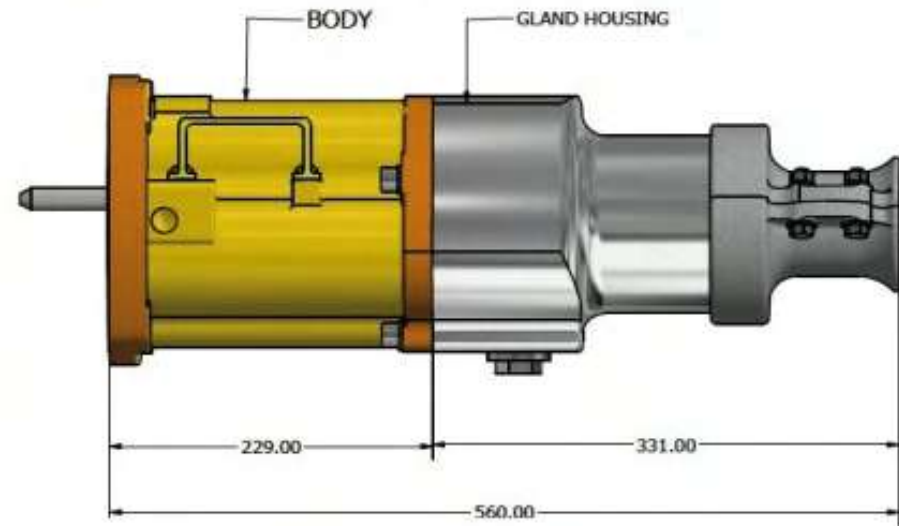


## DRAWINGS

**FRONT VIEW**

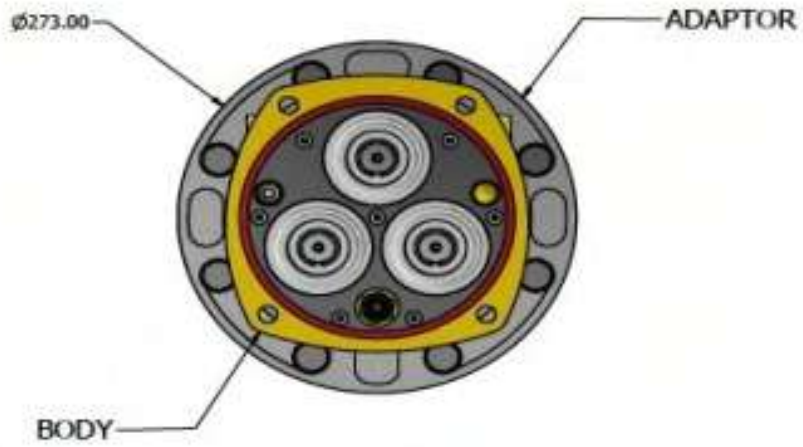


**SIDE VIEW**

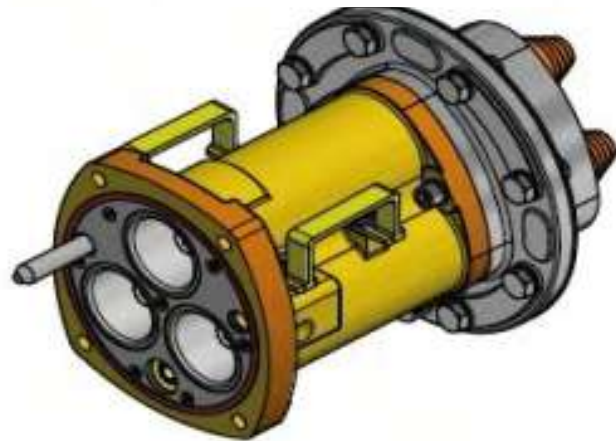
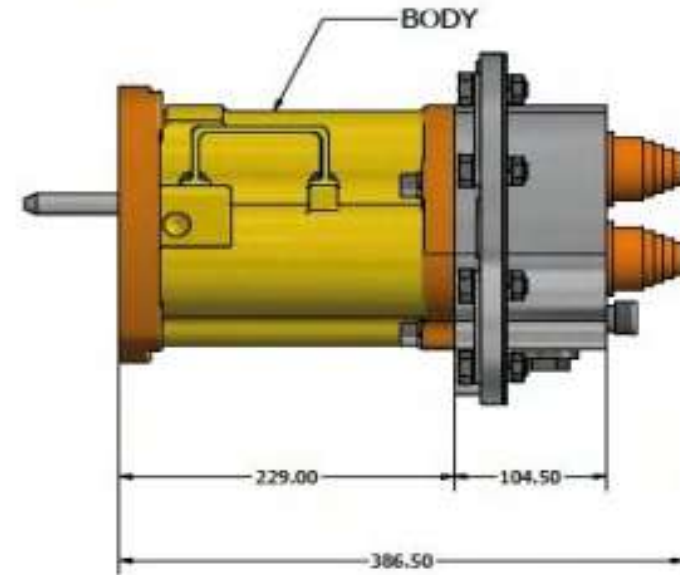


## DRAWINGS

FRONT VIEW

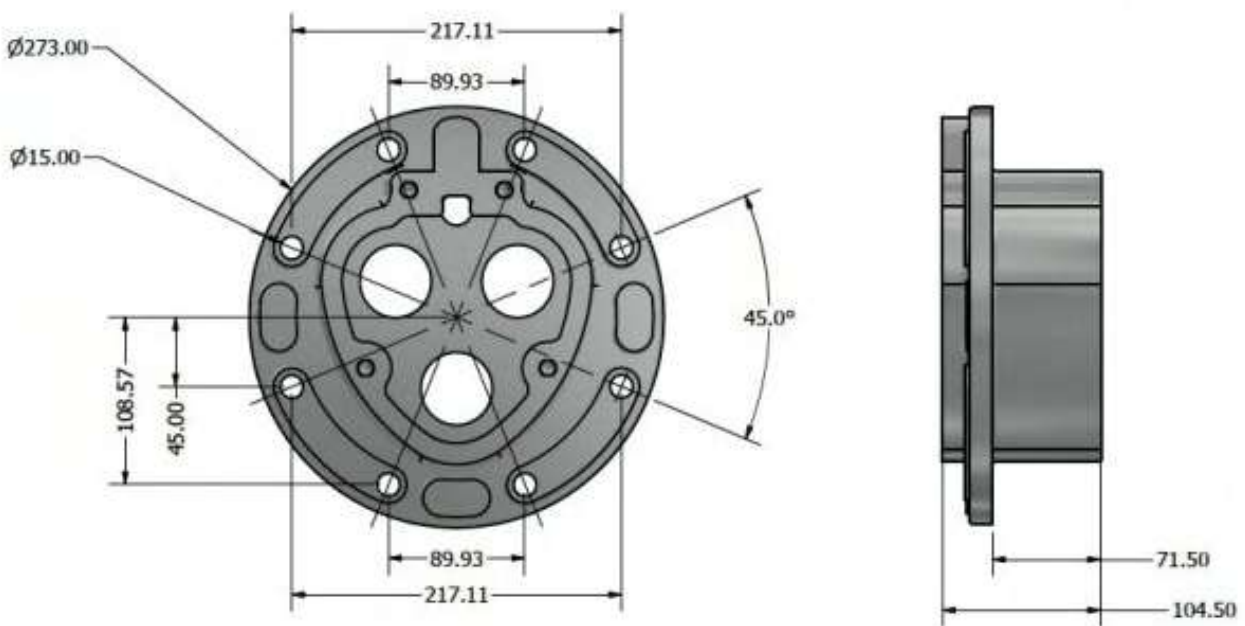
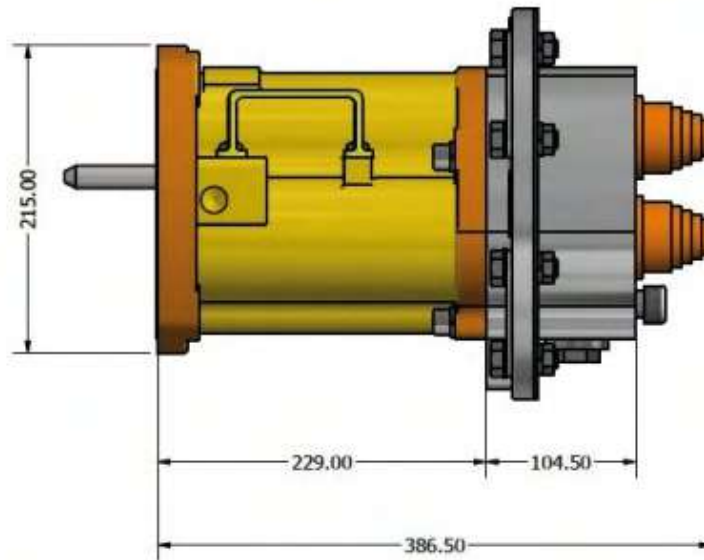


SIDE VIEW



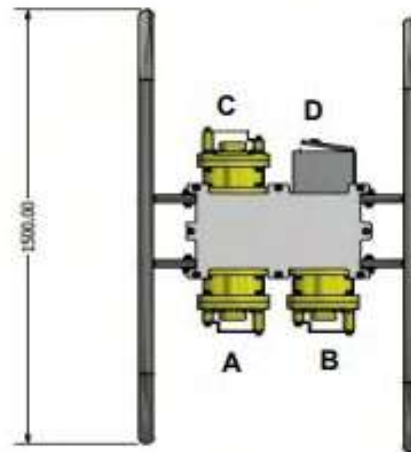
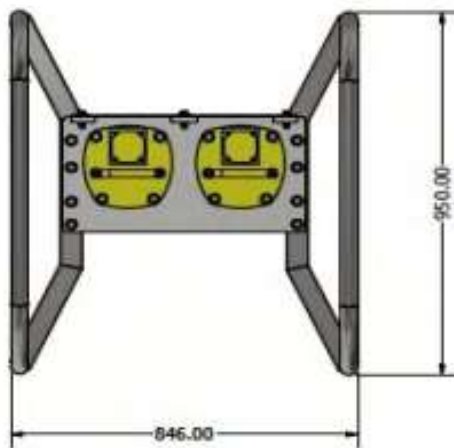
## SECTION 2 : 8KV 800A MOUNTING FLANGES AND SPLITTERS

### ADAPTOR GEAR MOUNT FLANGE ASSEMBLY



## SPLITTER BOX 3WAY

TECHNICAL DATA	
Model N°	PMSB3W08
Description	8kV SPLITTER BOX 3 WAY
Rating	8kV 800A
Material	Adapters: Aluminium Box and Skid: Corrosion Resistant steel galvanized
Mass	Box: 100 kg Total (Box with skid): 170 kg
Dimensions	980x846x1500mm

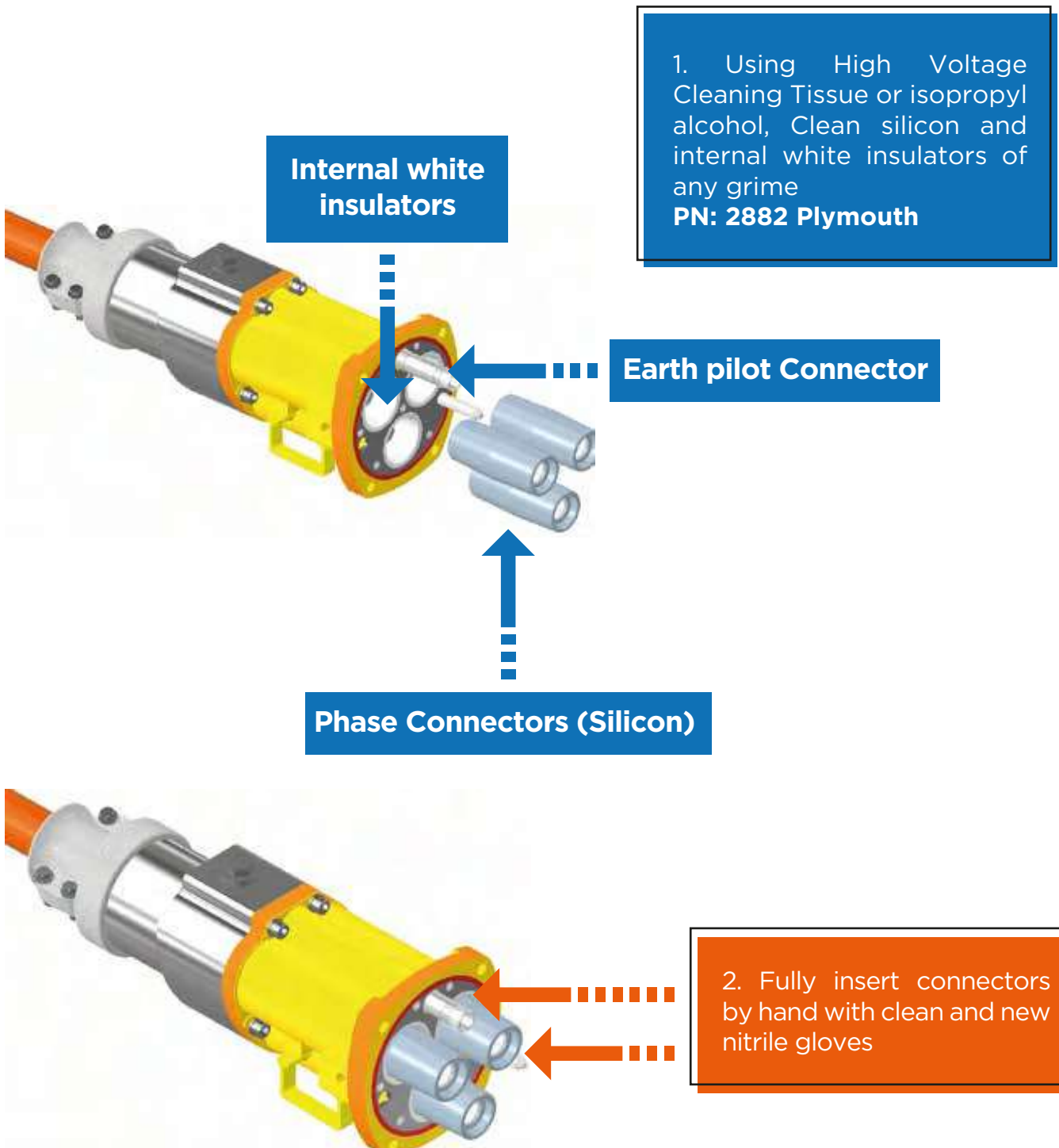


A, B and C: Adapters with 8kV Insulated cover end.  
 O1 input and O2 outputs  
 D: Stainless Steel Fuse Panel with O3 fuse holder

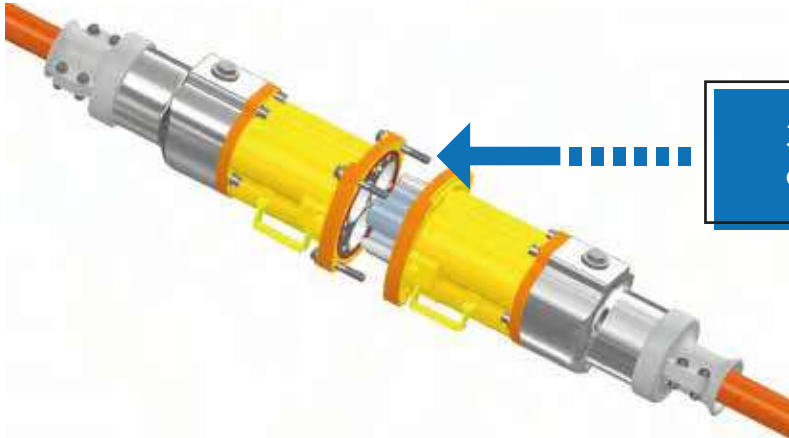
## SECTION 3 : OPERATIONAL AND MAINTENANCE INSTRUCTIONS

### INSERTING CONNECTORS AND COUPLING OPERATIONS

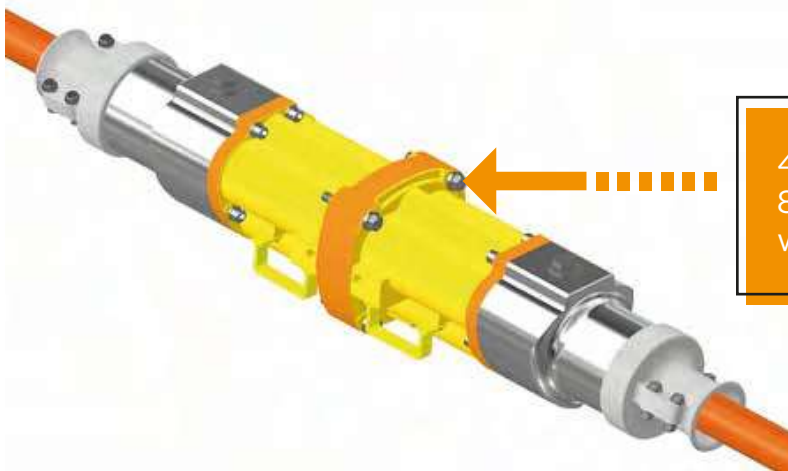
**Important:** The electrician must mandatory wear new and clean nitrile gloves.



## INSERTING CONNECTORS AND COUPLING OPERATIONS



3. Align and connect coupler by hand



4. Bolt Together M12 Grade 8.8 with 95N-m Use torque wrench

**Important: Mandatory use torque wrench**





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