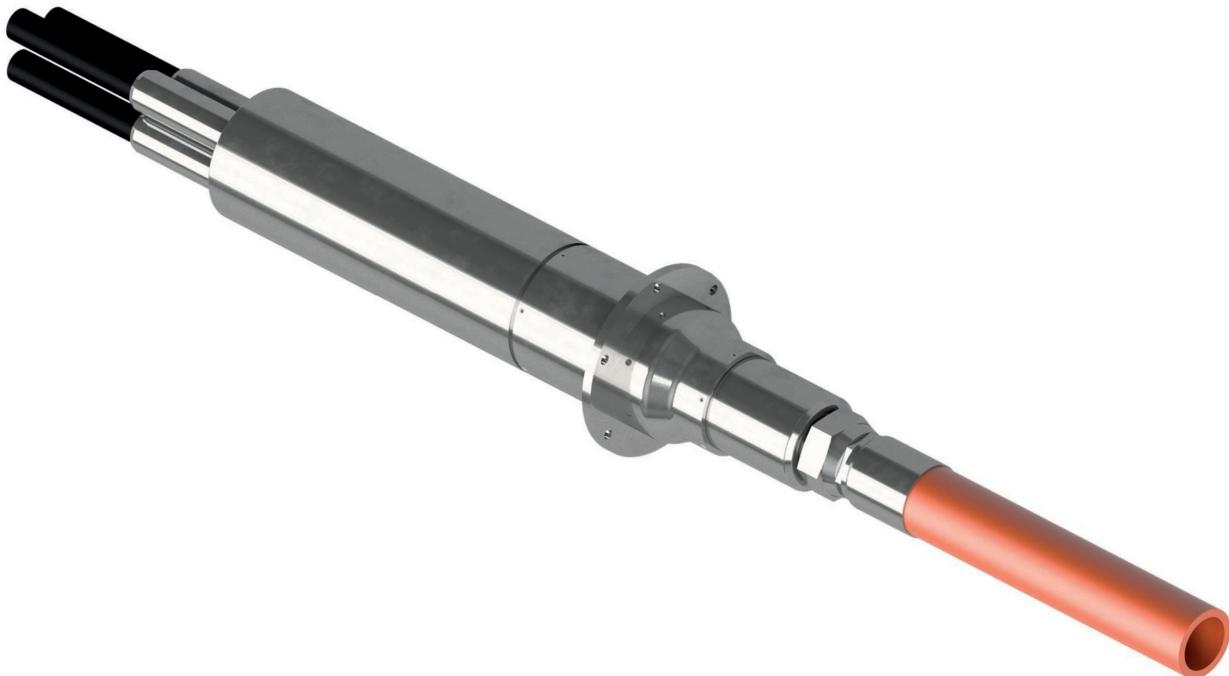


WellPower™

Subsea Umbilical Crossover

The 3-Phase Umbilical Cross over unit provides a reliable long-term electrical connection in the Subsea environment. The Cross over unit is the link between the umbilical cable and the oil-filled pressure compensated hose assembly and 3 phase Connector.



Operational Requirements

Design Life:	25 years
Water Depth:	1000m
Working Temperature Range:	0°C to 93°C (32°F to 200°F)
Storage Temperature Range:	-30°C to 40°C (-22°F to 104°F)

Mechanical Requirements

Total Length:	950mm
Bodywork OD:	125mm
Flange Diameter:	180mm
Hose Length:	To suit application

Electrical Specification (3 Individual Phase Connectors)

Rated Voltage:	2.89 / 5.0 kVAC (Uo/U)
Breakdown Voltage:	> 8Uo (23.1 kV)
Ampacity:	150 A
Frequency Range:	30 - 85 HZ

Material Specification

Body Housing:	316 Stainless Steel or Super Duplex
Lock Nuts:	HS Cupro Nickel Alloy
Contacts:	Gold Plated Beryllium Copper
Insulation:	PEEK 450G

Cable

Connector Side:	Contained within oil-filled pressure compensated hose
Umbilical Side:	Various Cable Options

Design Philosophy

Main Dielectric Filled Body:	Pressure Balanced
Sealing:	Dual Electrical and Mechanical Barriers
Electrical Insulation Primary:	Thermoplastic or Elastomer

Qualification Testing

Standard Electrical Integrity Tests
Pressure Test
Temperature Rise (current)
High Voltage
Vibration

Key Performance Features

Umbilical Cables are terminated to the X-Over Onshore/Offshore
Energised Seals
Metal to Metal Sealing
Gold-plated Contacts
Crimp Technology