

# OceanPower™

## HV Electrical Dry-Mate Connector

The HV Power 3-phase Dry-Mate Connector utilises technology proven in the marine environment providing long term reliability. The Dry-Mate connectors brings many benefits to tidal stream and wave energy devices, providing innovation to some of the industry's major challenges.

### Operational Requirements

Location within Completion:	Subsea Turbine, Hub & Umbilical
Design Life:	25 years
Rated Depth:	1,000+ Metres
Rated Pressure:	1,500 psi
Working Temperature Range:	-20°C to 60°C (-4°F to 140°F)
Storage Temperature Range:	-30°C to 40°C (-22°F to 104°F)

### Mechanical Requirements

Profile:	<90mm
Envelope Diameter:	As per Customer Specification

### Electrical Specification

Number of Contacts:	3
Contact Method:	Multi-contact
Working Voltage:	3.6/6(7.2) kV
Test Voltage (to Earth):	14.4 kVdc
Ampacity:	250 A (cable limiting factor)
Frequency Range:	47 - 52 HZ

### Material Specification

Housing:	SS 316 / High Strength CuproNickel
Insulation:	PEEK, EPDM

### Design Philosophy

IEC:	60502-2, 60502-4, 60228
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### Cable and Hose

Siwo-kul 35mm² Cable  
 Goodyear Gorilla Hose via Hose Fittings Connection  
 Oil-filled & Pressure Balanced  
 Other Cables & Hoses are available

### Qualification Testing

Shell Continuity  
 Proof Voltage  
 Insulation Resistance  
 Contact Resistance  
 Partial Discharge (PD)  
 Pressure Test  
 Thermal Short Circuit  
 Temperature Cycles

### Key Performance Features

Energised Seals  
 Elastomeric Back-up Sealing  
 Security Screw to prevent lock ring rotation and Demating  
 Gold-plated Contacts  
 Design suits a range of Cables

