

MECON DM-III

The penetrator/Dry Mateable connector (DM) is a vital part of the high voltage cable termination system. It is used to connect high voltage power cables to subsea electrical equipment. In addition it is sealed off so that seawater does not enter into the equipment. The penetrator takes up differential pressure difference between the seawater and equipment internals. MECON DM-III has the maximum rating of 145kV/700A, and its housing is pressure compensated.



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Design Features

- The pressure barrier for MECON DM-III is an epoxy moulding plug which is mounted as an insert into the penetrator housing
- MECON DM-III complies with all IEC standards for high voltage equipment, and is verified by SINTEF Energy Research
- Pressure and thermal shock tested



Two DM-IIIs with pigtail

Used in subsea electrical power systems to penetrate through high integrity barriers from a seawater environment to a clean, di-electric fluid filled enclosure; such as into:

- Subsea distribution transformers
- Subsea high power compartments
- Subsea switchgear

Technical Information

Voltage rating $U_0/U(U_m)$	[kV]	76/132(145)
Current rating @ 50 Hz and 20°C	[A]	700
Water depth rating/design	[m]	1100
Rated dif. pressure motor side	[bar]	10
Rated dif. pressure water side	[bar]	10
Maximum cable size	[mm ²]	240-800
Pd test <10pC	[kV]*	114
AC withstand 4 hours	[kV]*	190
Impulse voltage 1.2/50µs	[kV]	650
30 Thermal cycles	[A]*	400
Short circuit	[kA] rms	42
Weight per phase	[kg]	190
Diameter	[mm]	Ø370
Length per phase	[mm]	900

* DM-III is designed and verification tested. All test voltages are phase-ground values.



From PD-testing of MECON DM-III



GE imagination at work

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