

Medium Voltage Junction Box

Model 410 / Model 412

Description

The Model 410 MV junction box is designed to join two three phase circuits, up to 15 kV / 650 A, using single or multicore MV power cables. The Model 412 is a larger junction box, rated up to 36 kV / 400 A. There is sufficient space inside the enclosure to allow for MV cable termination and routing of cables. There are facilities for connection of cable ground conductors and ground straps from the stress control sleeves.

The junction box is certified as a flameproof (Ex d) enclosure. Ingress protection is IP66 / IP68-20 m.

For power cables that include optical fibers, a fiber breakout facility is available.

All 400 series products are intended for use on Floating Production Systems (FPS). They are well suited for any application requiring a product that can withstand harsh marine conditions or require long life with minimal maintenance intervals. Designed and manufactured in our ISO 9001 facility under our project management system, products have a two year warranty and are provided with a complete document package.

All products can be modified to meet specific requirements. Installation, commissioning and service is available. Contact the factory for details.



Features

- 316 stainless steel enclosure
- Hazardous area certified / marine classification
- Voltage up to 36 kV
- Current up to 650 A
- IP66 / IP68-20 m
- Temperature: -20 °C to +60 °C

Options

- Temperature sensor / Heater
- Cable termination accessories
- Higher current rating
- Optical fiber breakout
- Extended temperature range
- Current Transducers
- PD detection
- Model 490 data acquisition system
- Model 491 conduit assemblies
- Model 492 MV cable assemblies

MEDIUM VOLTAGE JUNCTION BOX



MODEL 410/412

Specifications

Electrical	
Terminals	3
Voltage	15 kV – Model 410 36 kV – Model 412
BIL	75 kV – Model 410 145 kV—Model 412
Current	650 A
Fault current	30 kA – 1 sec.
Terminals	Suitable for landing three cables M12 hardware supplied
Grounding/bonding	Grounding balls on terminals Internal ground bar for stress control sleeves External ground connection
Interface	
Mounting	Three support plates
Access	Domed cover, vertical lift 680 lbs [310 kg]
Cable entry	Cable glands
Certifications	
Marine ¹⁾	ABS, DNV GL, LRS, BV
Hazardous Area	Ex d IIB T4/T5 Gb DNV 10 ATEX 24289X (Model 410) DNV 13 ATEX 3153X (Model 412) IECEX DNV 12.0009X (Model 412) (AEx, CSA) ¹⁾
Environmental	
Temperature	-20 °C to +60 °C (operating) -20 °C to +85 °C (storage)
Ingress	IP66 / IP68 - 20 m
Vibration	1 g in any direction

1. Available on request.

Physical	
Height	Model 410 42" [1070 mm] Model 412 55" [1400 mm]
Diameter	Model 410 20" [500 mm] Model 412 30" [760 mm]
Weight	Model 410 500 lb [230 kg] Model 412 1300 lb [600 kg]
All dimensions depend on the configuration	
Material	316 / 316L stainless steel
Drawing	410-7002-00 412-7005-00
Options	
Heater	Self-regulating heater 120 V or 220 V, 100 W Other wattages available
Temperature sensor	PT100 typical with transmitter for 4-20 mA output
Optical	Fiber breakouts and bushing brackets or splice trays are available for cables having optical fibers
Current Transducers	Current transducers can be supplied for remote monitoring of current
PD Sensor	Partial discharge sensors can be supplied
Accessories	Supply of stress control sleeves, lugs, glands, reducers, plugs as required
Data Monitoring	Model 490 data acquisition system
Extended ratings	Current up to 1000 A -40 °C to +70 °C

All specifications and information are subject to change without notice. Please contact Focal for the latest updates.

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