

# CRE19738



Issue	Date	Approved	Note
1	28/10/19	PM	Initial release with references to standards

## DESCRIPTION

Power & data composite cable for use in Marine and Subsea applications designed with reference to ISO 13628-5

## Product Details (Insulated Cores)

Component Description	Qty	Conductor Stranding	Max DCR @ 20oC [Ω/Km]	Weight [Kgs/Km]	Nominal Diameter [mm]
0.24mm <sup>2</sup> Data Cores	8	19/0.127mm BC	76.8	2.9	1.25mm
0.38mm <sup>2</sup> Data Cores	4	19/0.16mm TC	57.0	4.7	1.80mm
1.0mm <sup>2</sup> Power Cores	8	32/0.2mm TC	19.5	12.5	2.40mm
16.0mm <sup>2</sup> Power Cores	2	126/0.4mm BC	1.21	172.9	7.60mm
6.0mm <sup>2</sup> Power Cores	1	84/0.3mm BC	3.3	65.4	4.70mm

## CONSTRUCTION

### 0.24mm<sup>2</sup> Encapsulated Data Pairs designed with reference to Gigabit Ethernet / ISO11801

Colours	White/Green, White/Orange, White/Blue, White/Brown
Insulation	Cellular polyolefin
Insulation Diameter	1.25mm Nominal
Component Bedding	Olefinic based hot melt encapsulate
Foil Screen	Aluminium / Polyester Laminate >100% Coverage
Component Diameter	2.90mm Nominal

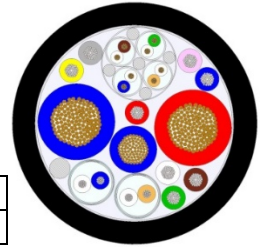
### Component Assembly

Cable Layer 1	4 x AWG24 Data Pairs with fillers as required
Drainwire	0.22mm <sup>2</sup> 7/0.2mm TC
Foil Screen	Aluminium Polyester Foil > 100% Coverage
Isolation	Bonded Polyester

### 0.38mm<sup>2</sup> Encapsulated Data Pairs designed with reference to TIA/EIA 485

Conductor	Tinned Copper as per IEC 60228
Colours x 2	White/Blue, White/Orange
Insulation	High Density Polyethylene
Insulation Diameter	1.80mm
Component Bedding	Olefinic based hot melt encapsulate
Braided Screen	0.1mm Tinned Copper
Optical Coverage	>90%
Foil Screen	Aluminium / Polyester Laminate >100% Coverage
Isolation	Bonded Polyester tape
Diameter	4.6mm nominal
Characteristic Impedance	120Ω nominal

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Power & data composite cable for use in Marine and Subsea applications designed with reference to ISO 13628-5

### **1.0mm<sup>2</sup> Power Cores designed with reference to IEC 60502**

Conductor	Tinned Copper as per IEC 60228
Colours	White, Brown, Green, Yellow, Grey, Pink, Blue, Red
Insulation	HDPE
Insulation Diameter	2.40mm Nominal

### **16.0mm<sup>2</sup> Power Cores designed with reference to IEC 60502**

Conductor	Tinned Copper as per IEC 60228
Colours	Blue, Red
Insulation	HDPE
Insulation Diameter	7.60mm Nominal

### **6.0mm<sup>2</sup> Power Cores designed with reference to IEC 60502**

Conductor	Tinned Copper as per IEC 60228
Colours	Blue
Insulation	HDPE
Insulation Diameter	4.70mm Nominal

### **Cable Assembly**

Cable Layer 1	4 x 0.24mm <sup>2</sup> Data Pair Component, 8 x 1.0mm <sup>2</sup> Cores, 2 x 16mm <sup>2</sup> Cores, 1 x 6.0mm <sup>2</sup> core and 2 x 0.38mm <sup>2</sup> Data Pairs cabled together with fillers as required to achieve a uniform and concentric profile.
Drainwire	0.38mm <sup>2</sup> 19/0.16mm TC
Foil Screen	Aluminium Polyester Foil > 100% Coverage
Bonded Outer Sheath	FRHF PU 85 Shore A Hardness to UL94 V2, Mud & Oil resistant to NEK606
Colour	Black
Radial Wall Thickness	2.70mm nominal
Diameter	25.0mm +/-0.5mm

## CABLE CHARACTERISTICS

Operating Temperature	-40°C to +80°C
Cable Weight in Air	876 Kgs/Km
Cable Weight in Water	386 Kgs/Km
Bend Radius Static	5X Diameter
Bend Radius Dynamic	10X Diameter