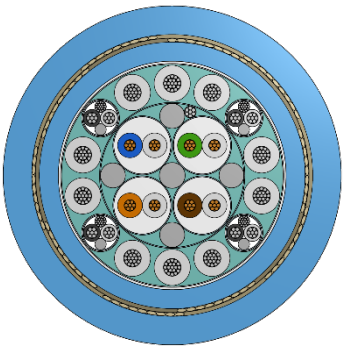
Power & Data cable
Type 9880KCC



Construction characteristics

1 x Data cable	24 AWG 0.22mm² (7/0.20mm) plain soft copper, HDPE insulated to 1.30 mm, 2 off twisted together differential lays of 10mm, 12mm, 14mm & 16mm with PVC encapsulation to 3.00mm Overall helical 12/23µm Ali/PET foil screen, min. overlap 50% - Foil out 4 off cabled together around a central filler with fillers and a Tinned Copper drain wire in the interstice. All voids filled with vulcanised silicone compound Overall helical 12/23µm Ali/PET foil screen, minimum overlap 50% Colour: BU/WH, OR/WH, GN/WH, BN/WH OD: 7.70 mm
4 x Screened twisted pairs	24AWG 0.22mm² (7/0.20mm), Tinned Copper Strand, Polyolefin insulated to 0.90mm, 2 off twisted together with 24AWG (19/0.127mm) Tinned Copper drain wire and filler in the interstices Overall helical 12/23µm Ali/PET foil screen, minimum overlap 50% Overall helical PET binding tape, minimum overlap 50% Numbered tapes 1 – 4 Colour: BK/WH OD: 2.00 mm
10 x Conductors	20AWG 0.50mm² (16/0.20mm), Tinned Copper, XLPE insulated, 0.50mm nom RTI, Printed numbers 1 - 10 at 50mm intervals in black Colour: WH OD: 1.90 mm
Lay up and overall screen	The screened twisted pairs, conductors, are arranged around the centre Data cable. All voids filled with vulcanised silicone compound. Overall helical PET binding tape, minimum overlap 30% Overall helical non-woven polyester tissue tape, minimum overlap 30% OD: 12.00 mm
Bedding	Polyether Polyurethane, 89 Shore A, Halogen free, 1.00mm nom RTI Colour: BU OD: 14.00 mm
Strength member	Vectran® fibre braid, 24/3/1679dTex, Nominal optical coverage 95% OD: 14.80 mm
Jacket	Hard Grade Polyether Polyurethane, 53 Shore D, Halogen Free 1.50mm nom RTI Colour: BU RAL5015 OD: 17.80 mm ± 0.50 mm

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Mechanical characteristics

Max. operating temp	
Static	+70°C
Dynamic	+60°C
Cold flex temp	-20°C
Depth rating	6,000 m
Min. break load	20.0 kN
Max. Safe work load	5.0 kN
Min. recommended bend radius	
Static	143 mm
Dynamic	267 mm
Nominal weight	
In air	365 kg/km
In seawater at SG 1.025	110 kg/km

Electrical characteristics

Data cable	
Maximum Conductor Resistance	91.70 Ω/km @ 20°C
Nominal Characteristic Impedance	104Ω
Nominal Capacitance	68 pF/m
Calculated Inductance	0.60 mH/km
0.5 mm² conductors	
Maximum Conductor Resistance	40.20 Ω/km @ 20°C
Voltage Rating Uo/U	600/1,000 Vrms
Maximum Current/Conductor	3 A
Insulation Resistance (Core - Core)	>10.0 GΩ/km @ 1.0kVdc
Maximum Volt Drop	88 mV/m/Amp load
0.22 mm² conductors	
Maximum Conductor Resistance	91.70 Ω/km@ 20°C
Voltage Rating	250 Vdc
Maximum Current/Conductor	2 A
Insulation Resistance (Core – Core)	>10.0 GΩ/km at 50Vdc
Maximum Volt Drop	200 mV/m/Amp load
Maximum continuous production length	1000 meter
Print details	Text: MacArtney Power & Data cable, type 9880KCC MM/YY <meter mark> repeated every 1000 mm Colour: BK
Order detail	Supplied terminated by MacArtney only. Unterminated cable is not available
In compliance with	CE, UK CA, UK NI, RoHS, LVD

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