CTIL

Coleman Wires & Cables

SUBMERSIBLE CABLE

Contents

submersible

SUBMERSIBLE

CABLE FOR SUBMERSIBLE OIL PUMP

1. Implemented Standard

Enterprise standard

2. Product Introduction

Cable for submersible oil pump is used as the power cable of the submersible oil pump unit which is fixed-laid in oil well of the land or platform on the sea. The product manufactured by us has the characteristics of advanced technology, reliable quality.

The main manufacturing equipment is included the ROYLE 90 plastic extruder, the rubber continuous vulcanizing process, the interlocked armoring machine made by CEECO, Canada, the continuous sintering process imported from GRILLER, Austria, the Nokia cross linked cable process, the advanced continuous annealing process and tinned process, etc. Now, the cable and coil end lead wire for submersible oil pump or pump unit can be produced, with different types and specifications, the cross-section of conductor is 42mm2 and below. The well temperature is from 50°C to 180°C, the max. continuous working temperature of conductor is 204°C. the insulation material that can be used is as below: PP, EPR, Polyimide F-46, fluoroplastics, XLPE, etc. the material of inner jacket includes NBR, compound of the neoprene and PVC, EPR, fluoroplastics, lea, etc. the outer sheath material is as the galvanized steel tape, stainless steel tape, etc. All kinds of cables for submersible oil pump can be developed according to the customer's requirements.

3. Conversion Data of the Conductor's Cross Section

Cross–section (Approximation.) mm^2	10	13	16	20	33	42
AWG#	7	6	5	4	2	1
Diameter mm	3.665	4.115	4.621	5.189	6.544	7.348
Cross-section (Actual.) mm^2	10.55	13.30	16.77	21.15	33.63	42.41

4. Main performance parameters

Conductor D.C. Resistant at 20℃ Unit: Ω/km

Cross – section mm^2		10	13	16	20	33	42
Flat cable	Tinned	1.83	1.386	1.15	0.84	0.54	0.43
	Bare	1.84	1.40	1.16	0.86	0.56	0.44
Round cable	Tinned	1.85	1.40	1.16	0.85	0.55	0.44
	Bare	1.86	1.41.	1.17	0.87	0.57	0.45

Test voltage of the finished product before leaving the factory

Rated Voltage kV	Test Voltage kV
1.8/3	DC 30 kV / 5min AC 10 kV / 1min DC 30/5min or AC 10 kV/1min, no –breakdown
3.6/6	DC 35 kV / 5min AC13 kV / 1min DC 35/5min or AC 13 kV/1min, no-breakdown

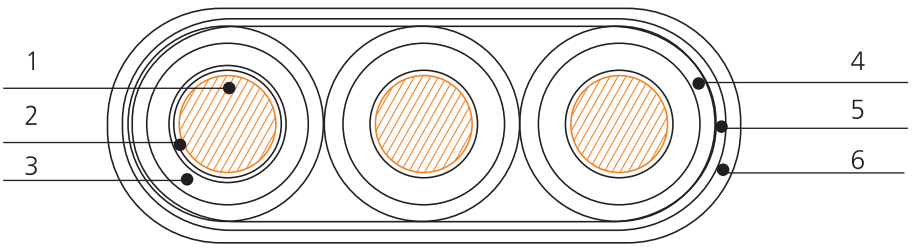
5. Type and name

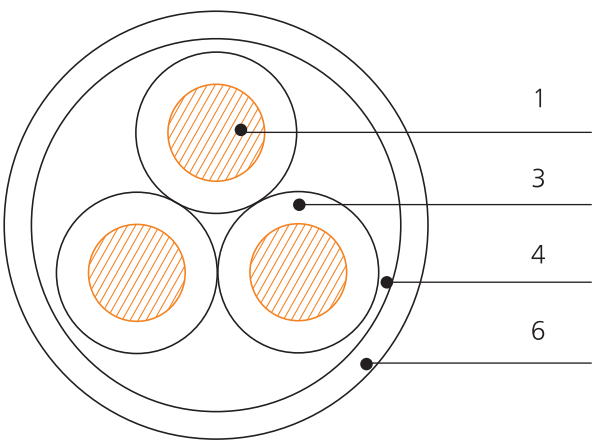
Name	Max. working temperature ^{0}C
PP insulated and NBR sheathed, galvanized steel tape interlocked armoring, cable for submersible oil pump 90	90
PP insulated and NBR sheathed, galvanized steel tape interlocked armoring, cable for submersible oil pump 100	100
PP insulated and NBR sheathed, galvanized steel tape interlocked armoring, cable for submersible oil pump 100	100
EPR insulated and NBR sheathed, galvanized steel tape interlocked armoring, cable for submersible oil pump 140	140
EPR insulated and NBR sheathed, galvanized steel tape interlocked armoring, cable for submersible oil pump 176	176
EPR insulated and lead sheathed, galvanized steel tape interlocked armoring, cable for submersible oil pump 200	200
Polyimide F-46 composite file and EPR insulated, lead sheathed, galvanized steel tape interlocked armoring, cable for submersible oil pump 200	200
PP insulated and NBR sheathed, galvanized steel tape interlocked armoring, round cable for submersible oil pump 100	100
EPR insulated and sheathed, galvanized steel tape interlocked armoring, cable submersible oil pump 200	200
EPR insulated and sheathed, galvanized steel tape interlocked armoring, cable submersible oil pump 200	200
Polyimide F-46 composite file and EPR insulated, EPR lead sheathed, galvanized steel tape interlocked armoring, cable for submersible oil pump 200	200
Polyimide F-46 composite file and EPR insulated, lead sheathed, galvanized steel tape interlocked armoring, cable for submersible oil pump 200	200
Polyimide F-46 composite file and EPR insulated, NBR sheathed, galvanized steel tape interlocked armoring, cable for submersible oil pump 140	140

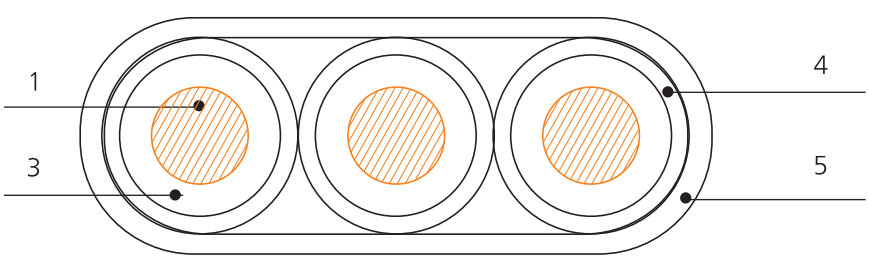
6. Structure size and technical Parameters

Cross-section mm ^{2}	Insulation resistance of finished product at 20^0C $\geq$ MΩ. km	Leakage current at 15^0C DC 15kV $\leq \mu$ A/km
10,13,16,20	3000	12
33, 42	2500	15
10 13, 16, 20	3000	12
33, 42	2500	15
10, 13, 16, 20	3000	12
33, 42	2500	15
10, 13, 16, 20	3000	12
33, 42	2500	15
10, 13, 16, 20	2000	12
33, 42	1500	15
10, 13, 16, 20	2000	12
33, 42	1500	15
10, 13, 16, 20	2000	12
33, 42	1500	15
10, 13, 16, 20	3000	12
33, 42	2500	15
10, 13, 16, 20	1500	12
33, 42	1000	15
10, 13, 16, 20	1500	12
33, 42	1000	15
10,13,16,20	1500	12
33, 42	1000	15
10, 13, 16, 20	1000	12
33	750	15
10, 13, 16, 20	1000	12

7. Structure diagram of submersible Oil Pump







1. Copper conductor 2. Reinforced insulation 3. Insulation

4. Sheath 5. Solation 6. Steel tape armour

Power Cable

PVC Sheathed Power Cable

Three core, XLPE Insulated Sheathed Power Cable

Three core, XLPE Insulated Steel tape armored Power Cable

Single cores, XLPE Insulated Power Cable

0.6/1kV, XLPE Insulated steel wire armoured, PVC Sheathed Power Cable

0.6/1kV, XLPE Insulated steel tape armoured, PVC Sheathed Power Cable

Three core, XLPE Insulated Sheathed Power Cable