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Evolucable Industria de Cabos Especiais
Av. Minasa, 25 - Galpão B1 - Condomínio Industrial
Business Park -Sumaré/SP - Cep 13.180-400
Sumaré/SP (Fábrica): +55 19 3090-3350
São Paulo/SP: +55 11 3090-6855
Rio de Janeiro/RJ: +55 21 2042-0087

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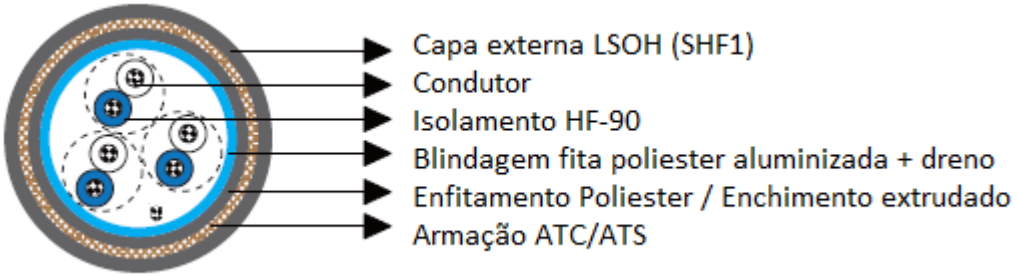
INNOVCABLE INNOVSHORE ARMED/PLUGGED ATC/ATS BF 0.6/1kV



1) Conductor formed by electrolytic bare copper wires or tinned, soft temper, class 5 stranding. IEC 60228. *1,7
2) Insulation in special halogen-free compound LSOH (HF-90). *4
3) Communication conductor with section 0,5mm², in LSOH (HF-90) compound, Identification through insulation in blue colour (only for cables with 2 or more pairs, suits or blocks) - (Optional). *4
4) Collective shielding in aluminum-polyester tape, with flexible drain conductor, formed by tinned electrolytic copper wires, soft temper.
5) Polyester tape / extruded filling.
6) Frame: bare copper wire braid (ATC) or tinned copper wire (ATS) with coverage >90% *8
7) LSOH halogen-free polyolefin compound (SHF1) cover, grey colour. *2,5

Identification

- External Engraving:
INNOVCABLE INNOVSHORE INSTRUMENTATION ATC/ATS BF __mm² 0.6/1kV 90°C OF: XXXX/YEAR.

Of the conductors - through the colours of the insulation, being:
black and white (cables in pairs)
black, white and red (cables in pairs).
black, white, red and green (cables in blocks).*3

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Identification through sequential numbering.

Applicable Specifications

Strings: IEC 60228

Electrical installations in ships - Power cables for 1 kV and 3 kV voltages - IEC 60092-353

Selection and installation of electrical cables: IEC 60092-352.

Meets the requirements for firing test - IEC 60332-1 and IEC 60332-3-22 , category "A".

Mobile and fixed offshore units - Electrical installations - Part 4: Cables - IEC 61892-4

Low Smoke emission: IEC 61034- 1/2

Certifications can be Batch Approval or Type Approval (depending on certification and certifier) - Please contact us for further details.

Shipborne energy cables - General construction and testing requirements: IEC 60092-350

Insulation materials and outer jacket for use on board offshore units, power, control, instrumentation and telecommunication cables: IEC 60092-360

Common test methods for insulation and outer jacket of materials of electric cables: IEC 60811

Halogen Free: IEC-60754-1/2

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Application: IEC 60092 series.

Applications

Built and designed for the demanding environment of offshore drilling and the marine industry. Armoured cable provides protection where required.
They are used in fixed installations, for conducting analog (4 - 20mA) and digital signals, point-to-point instrumentation, Hart ® protocol, connections of various sensors and meters, power supply to conventional and electronic relays, in industrial environments in general. INNOVSHORE INSTRUMENTATION ARMED/PLUGGED ATC/ATS BF 0,6/1kV Instrumentation Cables are recommended in cases where excellent levels of protection against external electromagnetic interference are required, as well as maximum immunity against the occurrence of "crosstalk" (crosstalk) between the various pairs/pairs, providing electrical discharge of the same. Excellent flexibility, resistance to chemical products, humidity and UV rays. Cable armed with galvanized steel wires. Non-halogen and anti-flame, not producing toxic and corrosive gases.

Maximum Conductor Temperature

CONTINUOUS DUTY: 90°C - IEC 60092-360
SHORT CIRCUIT: 250°C

Notes

* We manufacture with other configurations:
1) Tinned copper conductor can be manufactured in class 2.
2) External layer colours: Nomenclature to be added at the end of the code: VM - Red // VD - Green // BR - White // PT - Black // AZ - Blue // CZ - Gray.
We can manufacture other colours on request.
3) Different sections and amount of veins, maximum up to:
- 71 x 2 x 0,50mm² / 71 x 2 x 2,50mm²
- 71 x 3 x 0,50mm² / 71 x 3 x 2,50mm².
- 36 x 4 x 0,50mm² / 36 x 4 x 2,50mm².
4) Vein insulation material:
EPR - 90 ºC
HEPR - 90 ºC
XLPE - 90 ºC
5) Material of the intermediate layer and the cover:

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ST2
SE
SHF2
6) At Innovcable's discretion, separators and/or fillers of compatible material may be used.
7) Nomenclature to be added at the end of the code according to the conductor type:
Bare copper conductor - CN
Tinned copper conductor - SN
8) Types of armatures:
ATC - Bare copper wire braided frame
ATS - Tinned copper braid frame

**Innovcable reserves the right to change this catalogue without prior notice.

Dimensional mm²	Diametro (in)	Diametro mm	Diametro Interno(in)	Diametro Interno mm	Diametro Externo (in)	Diametro Externo mm	Peso lbs/kft	Peso kg/km
1 x 2 x 0.75	0.095	2.41	0.285	7.24	0.435	11.05	128	190
2 x 2 x 0.75	0.095	2.41	0.415	10.54	0.573	14.55	229	341
4 x 2 x 0.75	0.095	2.41	0.481	12.22	0.645	16.38	284	423
7 x 2 x 0.75	0.095	2.41	0.597	15.16	0.771	19.58	384	571
8 x 2 x 0.75	0.095	2.41	0.621	15.77	0.806	20.47	414	616
12 x 2 x 0.75	0.095	2.41	0.750	19.05	0.946	24.03	562	836
16 x 2 x 0.75	0.095	2.41	0.837	21.26	1.031	26.19	662	985
19 x 2 x 0.75	0.095	2.41	0.915	23.24	1.125	28.58	758	1128
24 x 2 x 0.75	0.095	2.41	1.044	26.52	1.280	32.51	897	1335
32 x 2 x 0.75	0.095	2.41	1.172	29.77	1.403	35.64	1150	1711
1 x 2 x 1.0	0.103	2.62	0.301	7.65	0.451	11.46	141	210
2 x 2 x 1.0	0.103	2.62	0.439	11.15	0.602	15.29	252	375
4 x 2 x 1.0	0.103	2.62	0.511	12.98	0.673	17.09	315	469
7 x 2 x 1.0	0.103	2.62	0.613	15.57	0.816	20.73	453	674
8 x 2 x 1.0	0.103	2.62	0.645	16.38	0.846	21.49	471	701
12 x 2 x 1.0	0.103	2.62	0.812	20.62	1.006	25.55	645	960
16 x 2 x 1.0	0.103	2.62	0.906	23.01	1.101	27.97	772	1149
19 x 2 x 1.0	0.103	2.62	0.958	24.33	1.187	30.15	872	1297
24 x 2 x 1.0	0.103	2.62	1.147	29.13	1.369	34.77	1061	1579
32 x 2 x 1.0	0.103	2.62	1.268	32.21	1.498	38.05	1384	2059

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1 x 2 x 1.5	0.125	3.18	0.342	8.69	0.495	12.57	241	359
2 x 2 x 1.5	0.125	3.18	0.507	12.88	0.675	17.15	350	521
4 x 2 x 1.5	0.125	3.18	0.598	15.19	0.774	19.66	401	597
7 x 2 x 1.5	0.125	3.18	0.760	19.30	0.945	24.00	563	838
8 x 2 x 1.5	0.125	3.18	0.780	19.81	0.971	24.66	617	918
12 x 2 x 1.5	0.125	3.18	0.958	24.33	1.160	29.46	870	1294
16 x 2 x 1.5	0.125	3.18	1.077	27.36	1.287	32.69	1032	1536
19 x 2 x 1.5	0.125	3.18	1.179	29.95	1.393	35.38	1167	1736
24 x 2 x 1.5	0.125	3.18	1.398	35.51	1.629	41.38	1465	2180
32 x 2 x 1.5	0.125	3.18	1.512	38.40	1.769	44.93	1883	2802
1 x 2 x 2.5	0.143	3.63	0.381	9.68	0.534	13.56	202	301
2 x 2 x 2.5	0.143	3.63	0.573	14.55	0.736	18.69	386	574
4 x 2 x 2.5	0.143	3.63	0.680	17.27	0.835	21.21	511	760
7 x 2 x 2.5	0.143	3.63	0.872	22.15	1.044	26.52	756	1125
8 x 2 x 2.5	0.143	3.63	0.910	23.11	1.080	27.43	807	1201
12 x 2 x 2.5	0.143	3.63	1.126	28.60	1.311	33.30	1143	1701
16 x 2 x 2.5	0.143	3.63	1.261	32.03	1.465	37.21	1467	2183
19 x 2 x 2.5	0.143	3.63	1.381	35.08	1.589	40.36	1663	2474
24 x 2 x 2.5	0.143	3.63	1.571	39.90	1.847	46.91	2043	3040
32 x 2 x 2.5	0.143	3.63	1.733	44.02	2.001	50.83	2607	3879
1 x 3 x 0.75	0.095	2.41	0.299	7.59	0.457	11.61	145	216
2 x 3 x 0.75	0.095	2.41	0.497	12.62	0.663	16.84	283	421
4 x 3 x 0.75	0.095	2.41	0.582	14.78	0.752	19.10	355	528
7 x 3 x 0.75	0.095	2.41	0.701	17.81	0.880	22.35	488	726
8 x 3 x 0.75	0.095	2.41	0.786	19.96	0.972	24.69	550	818
12 x 3 x 0.75	0.095	2.41	0.937	23.80	1.131	28.73	756	1125
16 x 3 x 0.75	0.095	2.41	1.049	26.64	1.251	31.78	898	1336
19 x 3 x 0.75	0.095	2.41	1.127	28.63	1.333	33.86	1023	1522
24 x 3 x 0.75	0.095	2.41	1.331	33.81	1.568	39.83	1235	1838
32 x 3 x 0.75	0.095	2.41	1.474	37.44	1.716	43.59	1626	2419
1 x 3 x 1.0	0.103	2.62	0.316	8.03	0.470	11.94	158	235
2 x 3 x 1.0	0.103	2.62	0.537	13.64	0.703	17.86	348	518
4 x 3 x 1.0	0.103	2.62	0.629	15.98	0.800	20.32	413	614
7 x 3 x 1.0	0.103	2.62	0.759	19.28	0.934	23.72	563	838
8 x 3 x 1.0	0.103	2.62	0.838	21.29	1.025	26.04	734	1152
12 x 3 x 1.0	0.103	2.62	1.014	25.76	1.206	30.63	859	1278
16 x 3 x 1.0	0.103	2.62	1.152	29.26	1.353	34.37	1077	1602
19 x 3 x 1.0	0.103	2.62	1.218	30.94	1.436	36.47	1253	1864
24 x 3 x 1.0	0.103	2.62	1.440	36.58	1.697	43.10	1498	2229
32 x 3 x 1.0	0.103	2.62	1.612	40.94	1.857	47.17	1957	2912
1 x 3 x 1.5	0.125	3.18	0.361	9.17	0.516	13.11	265	394
2 x 3 x 1.5	0.125	3.18	0.629	15.98	0.804	20.42	394	586
4 x 3 x 1.5	0.125	3.18	0.741	18.82	0.921	23.39	532	792
7 x 3 x 1.5	0.125	3.18	0.898	22.81	1.089	27.66	736	1095
8 x 3 x 1.5	0.125	3.18	0.983	24.97	1.183	30.05	832	1238
12 x 3 x 1.5	0.125	3.18	1.208	30.68	1.418	36.02	1152	1714
16 x 3 x 1.5	0.125	3.18	1.355	34.42	1.575	40.01	1428	2125
19 x 3 x 1.5	0.125	3.18	1.452	36.88	1.679	42.65	1632	2428
24 x 3 x 1.5	0.125	3.18	1.762	44.75	2.021	51.33	2112	3142
32 x 3 x 1.5	0.125	3.18	1.925	48.90	2.195	55.75	2669	3971
1 x 3 x 2.5	0.143	3.63	0.401	10.19	0.567	14.40	247	368
2 x 3 x 2.5	0.143	3.63	0.709	18.01	0.882	22.40	508	756
4 x 3 x 2.5	0.143	3.63	0.836	21.23	1.017	25.83	693	1031
7 x 3 x 2.5	0.143	3.63	1.016	25.81	1.208	30.68	1007	1498
8 x 3 x 2.5	0.143	3.63	1.126	28.60	1.312	33.32	1369	2037
12 x 3 x 2.5	0.143	3.63	1.355	34.42	1.582	40.18	1541	2293
16 x 3 x 2.5	0.143	3.63	1.572	39.93	1.802	45.77	2029	3019
19 x 3 x 2.5	0.143	3.63	1.664	42.27	1.901	48.29	2278	3389
24 x 3 x 2.5	0.143	3.63	1.988	50.50	2.295	58.29	2891	4301
32 x 3 x 2.5	0.143	3.63	2.204	55.98	2.473	62.81	3690	5490