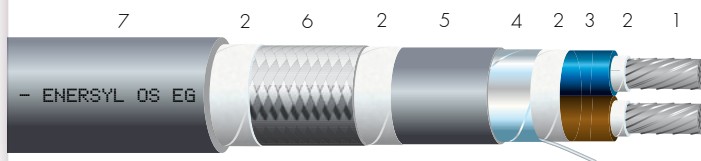


ENERSYL® OS SHF1 CONTROL

Control cables



- 1 • Stranded tin-plated copper core, class 2 as per IEC 60228.
- 2 • Optional separating tape.
- 3 • Insulation: cross-linked polyethylene, type XLPE + optional filler(s).
- 4 • (optional) Electrical screen: aluminium/PET tape + continuity wire (EG) / tin-plated copper braid (BE) / bare copper braid (BR).
- 5 • (optional) Internal sheath: HFFR, type SHF1.
- 6 • (optional) Armour: galvanized steel braid (BG) / double steel tape (FA).
- 7 • Outer sheath: HFFR, type SHF1.

Reference

- (example) ENERSYL® OS EG BG SHF1 CONTROL
19x1,5 mm²
OS: for offshore applications
EG, BE, BR: type of electrical screen
BG, FA: type of armour
SHF1: nature of sheath material
CONTROL: control cable
19: number of conductors
X, G: type of assembly without (X)
or with (G) an earth wire
1.5 mm²: cross-section in mm²

Approvals - standards

- IEC 60228 / IEC 60092-376.
• IEC 60092-360.
- IEC 60332-1 / IEC 60332-3.
- IEC 61034-2 / IEC 60754-1 / IEC 60754-2.

Markings

- OMERIN – ENERSYL < OS xx xx SHF1
CONTROL > < cross-section > – 450/750V –
< batch > – < year >

Standard products

- Sheath: grey.
- Colour identification of conductors:
< up to 5 conductors: as per HD 308 S2.
> more than 5 conductors: white numbered.

Technical characteristics

Thermal

- Continuous operating temperature: -30 °C to +80 °C.
- Maximum core temperature: +90 °C.

Electrical

- Rated voltage: 450/750 V.
- Test voltage: 2500 V.

Smoke - fire

- Flame retardant – cable alone: IEC 60332-1-2 / NF C 32-070 test C2.
- Flame retardant – bunched cable: IEC 60332-3-24 cat. C.
- Low smoke density: IEC 61034-2.
- Halogen-free: IEC 60754-1.
- Low corrosivity of gas emissions: IEC 60754-2.

Resistance of outer sheath to chemical attacks as per OMERIN test report NT140220-01:

- Good resistance to acid.
- Good resistance to base.
- Fairly good resistance to aliphatic hydrocarbons.
- Resistance to water: type AD7 as per IEC 60529 without immersion of ends.
- Resistance to UV ≥ 2000 hours as per EN 16472.

Options

- SHF2: cross-linked HFFR outer sheath, type SHF2.
 - Other colours: contact us.
 - ATEX as per EN 60079-14.
- Particularly suited for static facilities in potentially explosive environments with "i" intrinsic safety protection mode, requiring specific identification of cables.
Colour of the sheath: blue as per EN 60079-14 part 16.2.2.6.
> ENERSYL® OS EX SHF1 CONTROL: without electrical screen.
> ENERSYL® OS BE EX SHF1 CONTROL: with electrical screen.

For this product, please contact:

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LES CABLES DE L'EXTREME

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The information provided in this technical data sheet is indicative and may be modified without prior notice, laying, wiring and electrical conditions and the environment of the cable can not be fully considered in our studies. In no way the company OMERIN shall be held responsible for any incidents in the case of inappropriate uses, particularly in the case of wiring conditions that do not respect the good practice and the standards in force.
For an optimum use of the cables produced by our company, we recommend testing in real conditions. Our sales department is available for a possible provision of samples, and/or for the conditions of a complete study in our laboratories.
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Nominal cross-section (mm²)	Nominal stranding	Nominal thickness of insulation (mm)	Nominal diameter of conductors (mm)	NON-SHIELDED CABLES			ARMoured CABLES			Max. linear resistance at 20 °C (Ω/km)
				Nominal thickness of the sheath (mm)	Nominal outside diameter* (mm)	Approximate linear weight (kg/km)	Nominal thickness of the sheath (mm)	Nominal outside diameter* (mm)	Approximate linear weight (kg/km)	
2 x 0.5	7 / 0.30	0.6	2.1	1.0	6.6	46	0.8	9.6	131	36.7
3 x 0.5	7 / 0.30	0.6	2.1	1.0	6.9	55	0.8	9.9	143	36.7
4 x 0.5	7 / 0.30	0.6	2.1	1.0	7.5	65	0.8	10.5	160	36.7
5 x 0.5	7 / 0.30	0.6	2.1	1.0	8.1	75	0.8	11.1	176	36.7
7 x 0.5	7 / 0.30	0.6	2.1	1.1	9.0	98	0.9	12.1	213	36.7
12 x 0.5	7 / 0.30	0.6	2.1	1.2	11.6	154	0.9	14.8	303	36.7
19 x 0.5	7 / 0.30	0.6	2.1	1.2	13.4	214	1.0	16.8	392	36.7
24 x 0.5	7 / 0.30	0.6	2.1	1.3	15.8	274	1.0	19.4	502	36.7
27 x 0.5	7 / 0.30	0.6	2.1	1.3	16.1	298	1.0	19.7	530	36.7
37 x 0.5	7 / 0.30	0.6	2.1	1.4	18.1	390	1.1	21.9	659	36.7
2 x 0.75	7 / 0.37	0.6	2.2	1.0	6.8	53	0.8	9.8	140	24.8
3 x 0.75	7 / 0.37	0.6	2.2	1.0	7.2	64	0.8	10.2	155	24.8
4 x 0.75	7 / 0.37	0.6	2.2	1.0	7.7	77	0.8	10.7	174	24.8
5 x 0.75	7 / 0.37	0.6	2.2	1.1	8.6	95	0.8	11.6	203	24.8
7 x 0.75	7 / 0.37	0.6	2.2	1.1	9.3	118	0.9	12.4	236	24.8
12 x 0.75	7 / 0.37	0.6	2.2	1.2	12.1	186	0.9	15.3	340	24.8
19 x 0.75	7 / 0.37	0.6	2.2	1.3	14.1	270	1.0	17.5	456	24.8
24 x 0.75	7 / 0.37	0.6	2.2	1.3	16.4	336	1.0	20.0	572	24.8
27 x 0.75	7 / 0.37	0.6	2.2	1.4	16.9	374	1.1	20.6	623	24.8
37 x 0.75	7 / 0.37	0.6	2.2	1.4	18.8	482	1.1	22.6	762	24.8
2 x 1	7 / 0.43	0.6	2.4	1.0	7.2	63	0.8	10.2	154	18.2
3 x 1	7 / 0.43	0.6	2.4	1.0	7.6	77	0.8	10.6	173	18.2
4 x 1	7 / 0.43	0.6	2.4	1.0	8.3	94	0.8	11.3	199	18.2
5 x 1	7 / 0.43	0.6	2.4	1.1	9.2	114	0.8	12.2	228	18.2
7 x 1	7 / 0.43	0.6	2.4	1.1	9.9	143	0.9	13.0	268	18.2
12 x 1	7 / 0.43	0.6	2.4	1.2	12.9	226	0.9	16.1	390	18.2
19 x 1	7 / 0.43	0.6	2.4	1.3	15.1	331	1.0	18.7	549	18.2
24 x 1	7 / 0.43	0.6	2.4	1.3	17.6	412	1.0	21.4	675	18.2
27 x 1	7 / 0.43	0.6	2.4	1.3	18.0	451	1.0	21.7	719	18.2
37 x 1	7 / 0.43	0.6	2.4	1.4	20.2	596	1.1	24.0	895	18.2
2 x 1.5	7 / 0.52	0.6	2.85	1.0	8.2	80	0.8	11.2	183	12.2
3 x 1.5	7 / 0.52	0.6	2.85	1.1	8.9	104	0.8	11.9	215	12.2
4 x 1.5	7 / 0.52	0.6	2.85	1.1	9.6	126	0.9	12.7	248	12.2
5 x 1.5	7 / 0.52	0.6	2.85	1.1	10.4	148	0.9	13.5	280	12.2
7 x 1.5	7 / 0.52	0.6	2.85	1.1	11.3	188	0.9	14.5	333	12.2
12 x 1.5	7 / 0.52	0.6	2.85	1.3	15.0	310	1.0	18.4	507	12.2
19 x 1.5	7 / 0.52	0.6	2.85	1.4	17.7	461	1.1	21.4	724	12.2
24 x 1.5	7 / 0.52	0.6	2.85	1.5	20.7	580	1.1	24.5	886	12.2
27 x 1.5	7 / 0.52	0.6	2.85	1.5	21.1	636	1.1	24.9	948	12.2
37 x 1.5	7 / 0.52	0.6	2.85	1.6	23.8	842	1.2	27.7	1204	12.2
2 x 2.5	19 / 0.41	0.6	3.2	1.1	9.1	109	0.9	12.2	225	7.56
3 x 2.5	19 / 0.41	0.6	3.2	1.1	9.6	139	0.9	12.7	261	7.56
4 x 2.5	19 / 0.41	0.6	3.2	1.1	10.4	171	0.9	13.5	303	7.56
5 x 2.5	19 / 0.41	0.6	3.2	1.2	11.5	209	0.9	14.7	357	7.56
7 x 2.5	19 / 0.41	0.6	3.2	1.2	12.5	269	0.9	15.7	428	7.56
12 x 2.5	19 / 0.41	0.6	3.2	1.3	16.5	439	1.0	20.1	677	7.56
19 x 2.5	19 / 0.41	0.6	3.2	1.4	19.4	656	1.1	23.2	944	7.56
24 x 2.5	19 / 0.41	0.6	3.2	1.6	23.0	837	1.2	27.0	1187	7.56
27 x 2.5	19 / 0.41	0.6	3.2	1.6	23.5	922	1.2	27.4	1279	7.56
37 x 2.5	19 / 0.41	0.6	3.2	1.7	26.4	1227	1.3	30.6	1641	7.56

* The rated outer diameter of cables may vary by +/- 1.5% depending on the options selected.