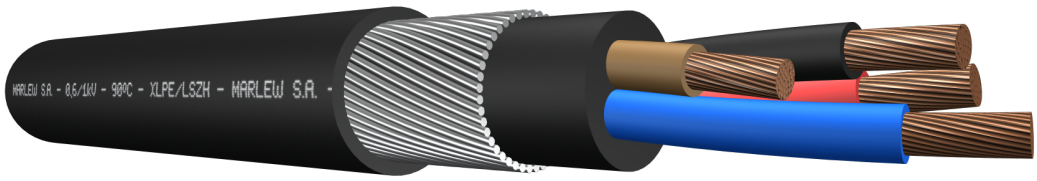
EcoSAFE CLAD series EF-H

Two-conductor to four-conductor Armour (SWA)



STEEL WIRE ARMOUR

0.6/1kV	***Flexible Cu 1 up to 300mm²***	***XLPE 90°C / LSZH***	***No PE conductor***

Fixed power distribution networks in closed environments with a high concentration of people (airports, hospitals, trains, cinemas, shopping malls, tunnels) and in control rooms with electronic equipment sensitive to exposure to corrosive gases. For Alternating Current (50/60Hz), for single-phase systems (220/110V), three-phase systems (380/190V) and systems with voltages up to 1kV. For Direct Current, used in systems with voltages up to 1.5kV Installed in aerial trays, gutters or conduits, under roof or ladder under roof, buried in ducts or directly buried. It has additional mechanical protection.

Fire-retardant

Halogen free

Low smoke

Flexible stranded conductors

Mineral oil resistant

UV resistant

FEATURES

Temperature rating: 90ºC (operating),130°C (overload) and 250°C (short circuit)
Voltage rating: 600/1000V AC, maximum 1200V AC / 1500V CC
Construction requirements: As per IRAM 62266 – IEC 60502-1
Conductor requirements: As per IRAM NM 280 – IEC 60228
Conductor: Annealed electrolytic copper - Flexible stranding class 5
Insulation: XLPE (crosslinked polyethylene)
Bedding: LSZH-HFFR (Low Smoke Zero Halogen - Halogen Free Flame Retardant)
Armour: Galvanized steel wire armour
Sheath: LSZH-HFFR (Low Smoke Zero Halogen - Halogen Free Flame Retardant) flame retardant, sunlight, and oil resistant
Fire requirements: As per IEC 60332-3-24
Standard for halogen absence and corrosive gases: As per IEC 60754-1/2
Smoke transparency requirements: IEC 61034-1/2
Toxicity standard: NES 713 – CEI 20.37
Oils requirements: As per ICEA S 73-532
Outdoors requirements: As per UL 2556 (UV rays)
Water behaviour requirements: Suitable AD7 (Occasional water submersion)

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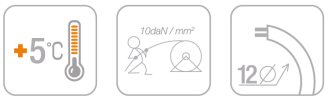
IDENTIFICATION

	Standard	
	Sheath	Conductors
2 Conductors	●	● ●
3 Conductors	●	● ● ●
4 Conductors	●	● ● ● ●

INSTALLATION



Installation temperature | *Over armour* | *Minimum bend radius*

BUILD VARIANTS

The information provided corresponds to the standard version, and different alternatives of insulation and / or covering materials can be used upon request.

ELECTRICAL CHARACTERISTICS

Resistances, reactance and intensity of admissible currents

Nominal cross-section sq (mm²)	Electrical resistance in D.C. at 20°C (Ohm/km)	Electrical resistance in C.C. at 90°C (Ohm/km)	Inductive reactance at 50Hz (Ohm/Km)		Current-carrying capacity of cables in free air at 40°C as per IEC 364-5-523. Cables displayed in Cable Ladder or perforated tray. (Ampere)		Current-carrying capacity of cables directly buried at 25°C soil temperature and soil thermal resistance of 1 km/W as per IEC 364-5-523. (Ampere)	
			Multiconductor (1)	3 Conductors (2)	2 Conductors	Multiconductor (3)	2 Conductors	Multiconductor (3)
			●	●	●	● ●	●	● ●
1	19.5	24.86	0.107	0.114	--	--	--	--
1.5	13.3	16.96	0.1	0.107	23	20	32	28
2.5	7.98	10.18	0.093	0.1	31	28	44	37
4	4.95	6.31	0.088	0.095	43	36	57	48
6	3.3	4.21	0.083	0.09	54	47	72	61
10	1.91	2.44	0.078	0.085	74	65	97	83
16	1.21	1.54	0.075	0.082	100	86	129	107
25	0.78	0.99	0.075	0.083	128	109	166	141
35	0.554	0.707	0.073	0.081	160	137	200	168
50	0.386	0.493	0.073	0.08	195	166	238	199
70	0.272	0.348	0.071	0.079	250	213	292	243
95	0.206	0.264	0.07	0.077	304	257	351	293
120	0.161	0.207	0.07	0.077	354	299	399	333
150	0.129	0.167	0.07	0.077	409	345	448	373
185	0.106	0.138	0.07	0.077	468	394	508	425
240	0.0801	0.106	0.069	0.077	554	465	592	493
300	0.0641	0.086	0.069	0.076	640	537	669	559

(1) Calculation of Inductive reactance valid for two-conductor and three-conductor cables.

(2) Calculation of Inductive reactance valid for four-conductor cables.

(3) The values of current-carrying capacity informed, correspond to three-conductor, four-conductor.

These specifications are provided for illustrative purposes, and may be modified without prior notice.

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DIMENSIONS & WEIGHT

Cable Formation N° Cond. x cross-section (mm²)	Diameter under armour mm	External diameter mm	Weight kg/km	Code
2x1	7.2	11.8	257	EF 0210 H
2x1.5	7.7	12.3	284	EF 0215 H
2x2.5	8.6	13.2	330	EF 0225 H
2x4	9.7	14.3	390	EF 0240 H
2x6	10.8	15.4	464	EF 0260 H
2x10	12.6	18.1	732	EF 2100 H
2x16	14.7	20.2	926	EF 2160 H
2x25	18.0	24.2	1396	EF 2250 H
2x35	20.3	26.5	1708	EF 2350 H
2x50	23.5	29.7	2173	EF 2500 H
2x70	27.2	33.8	2801	EF 2700 H
2x95	30.5	38.4	3723	EF 2950 H
2x120	34.8	42.9	4699	EF 21200 H
2x150	39.9	48.2	5731	EF 21500 H
2x185	44.7	54.4	7344	EF 21850 H
2x240	50.0	59.9	8992	EF 22400 H
2x300	57.1	67.2	10670	EF 23000 H
3x1	7.6	12.2	274	EF 0310 H
3x1.5	8.2	12.8	305	EF 0315 H
3x2.5	9.1	13.7	360	EF 0325 H
3x4	10.3	14.9	441	EF 0340 H
3x6	11.5	16.1	530	EF 0360 H
3x10	13.4	18.9	839	EF 3100 H
3x16	15.7	21.2	1091	EF 3160 H
3x25	19.2	25.4	1637	EF 3250 H
3x35	21.7	27.9	2045	EF 3350 H
3x50	25.2	31.6	2640	EF 3500 H
3x70	29.6	37.3	3761	EF 3700 H
3x95	32.7	40.8	4617	EF 3950 H
3x120	37.4	45.7	5791	EF 31200 H
3x150	43.3	53.0	7564	EF 31500 H
3x185	48.1	57.8	8940	EF 31850 H
3x240	54.2	64.3	11055	EF 32400 H
4x1	8.3	12.9	306	EF 0410 H
4x1.5	8.9	13.5	342	EF 0415 H
4x2.5	10.0	14.6	406	EF 0425 H
4x4	11.3	15.9	502	EF 0440 H
4x6	12.6	18.1	740	EF 0460 H
4x10	14.8	20.3	975	EF 4100 H
4x16	17.3	23.5	1417	EF 4160 H
3x25+1x16	20.3	26.5	1810	EF 2516 H
3x35+1x16	22.4	28.6	2185	EF 3516 H
3x50+1x25	26.3	32.7	2878	EF 5025 H
3x70+1x35	30.8	38.7	4111	EF 7035 H

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Cable Formation N° Cond. x cross-section (mm^2)	Diameter under armour mm	External diameter mm	Weight kg/km	Code
3x95+1x50	34.4	42.5	5105	EF 9550 H
3x120+1x70	39.4	47.9	6471	EF 12070 H
3x150+1x70	44.4	54.1	8121	EF 15070 H
3x185+1x95	49.3	59.2	9716	EF 18595 H
3x240+1x120	55.8	66.1	11993	EF 240120 H

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