

1 Application

For used in control systems for analogue or digital signal transmission, suitable for outdoor use at temperature range from -52°C to +80°C.

2 Standard & specification

Cable design comply with EN 50288-7, IEC 60228, GOST 22483-2012, IEC 60332-3-22, IEC 61034, IEC 60754-2

3 Design

3.1 Conductor

Plain annealed stranded circular copper conductor in accordance with IEC 60228 Class 2

3.2 Insulation

Extruded XLPE compound comply with EN 50288-7

Core identification*(Multi-):

Pair: White, Black

Triple: White, Black, Red

*each pair/triple is printed with number

Lay length for pair / triple:

≤70mm for 1mm²; ≤100mm for 1.5mm²; ≤150mm for 2.5mm²;

3.3 Individual screen

Aluminum-polyester tape shield with a binder tape applied on Each pair/triple, the metallic side down in electrical contact with a drain wire (0.5mm²)

3.4 Assembly and filler(optional)

The interstices between cores filled with non-hygroscopic polypropylene rope to form substantially circular shape with a suitable binder tape

3.5 Collective screen

Aluminum-polyester tape shield applied on assembly core, the metallic side down in electrical contact with a drain wire (0.5mm²)

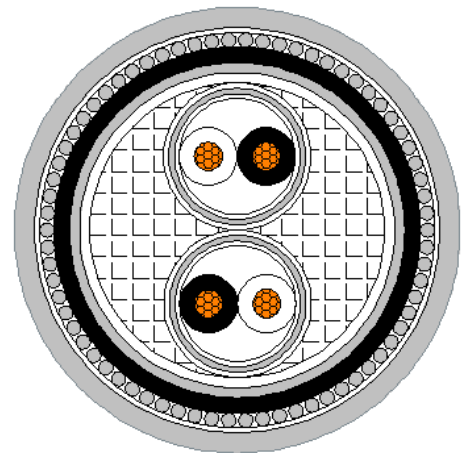
3.6 Inner sheath

Extruded LSZH compound comply with EN 50288-7

Color: Black

3.7 Metal amour

A layer of galvanize steel wires with suitable binder tape helically applied on the inner sheath



Cable Drawing for Reference



Conductor flexibility
 Class 2



Lead free



Rated Voltage
 U₀/U
 300/500V



Max. conductor temp.in service
 90°C



Flame retardant
 IEC 60332-3-22



Smoke density
 IEC 61034



Halogen free
 IEC 60754-2

3.8 Outer sheath

Extruded LSZH compound comply with EN 50288-7

- Color: Grey (Non-intrinsically safe)
- Light Blue (Intrinsically safe)
- Orange (Telecom)

4 Cable marking-Inkjet

For example:

EAC YANGER® IEC 60332-3-22 CU/XLPE/IS/OS/LSZH/SWA/LSZH 2Pair×1 SQMM 300/500V H Γ (A) - HF Project
Cable Code -52° C~+40° C YEAR ****M

Note: "****M" meter marking by inkjet with increased sequence with numbering
"H Γ (A) - HF" at least every 1 metre appear on the cable

5 Operation condition

Rated voltage, U ₀ /U, V	300/500
Rated, operating temperature range, °C	-52~+80
Min. installation temperature without preheating, °C	-30
Max. conductor temperature in service, °C	90
Max. permissible short-circuit temperature,5 sec, °C	250
Min. bending radius, D overall diameter of cable	15D
Flame retardant	IEC 60332-3-22
Halogen Gas Emission	IEC 60754-1, < 0.5%
Low Smoke Emission	IEC 61034-1/2
UV resistant	UL 1581
Oil resistant	IEC60811(IRM 902 - 4h at 70°C, variation ±40%)
Oxygen Index (Sheath)	ASTM D 2863
Cold bend	IEC 60811-1-4, -52°C
Cold impact	IEC 60811-1-4 & CSA C22.2 No.38-10, -52°C
Chemical resistance	Accidental



Conductor flexibility
Class 2



Lead free



Rated Voltage
U₀/U
300/500V



Max. conductor temp.in service
90°C



Flame retardant
IEC 60332-3-22



Smoke density
IEC 61034



Halogen free
IEC 60754-2

CABLE TYPE: 300/500V CU/XLPE/IS/OS/LSZH/SWA/LSZH

No.	Project Cable Code	no. of pairs or triples x cross section	Insulation		Inner Sheath	Under armour Dia. (+/- 10%)	Steel wire	Outer Sheath	Overall Dia. (+/- 10%)	Approx. Weight	DC Resistance at 20°C	AC Resistance at 90°C (50Hz)	Test Voltage	Screen isolation Voltage	Insulation resistance	Max. mutual capacitance	Max. Capacitance between conductor and shield	Max. L/R ratio	Current Rating		Max. allowable Pulling tension	Insulation Core Color	Outer Sheath Color
			Nom. Thick.	Min. Thick.															in air at 30°C	in ducts at 20°C			
			mm ²	mm	mm	mm	mm	mm	mm	mm	mm	kg/km	Ω/km	Ω/km	V	V	MΩ·100m	pF/m	pF/m	μH/Ω	A	A	KN
1	02IP-S10-BFHNW	2x2x1	0.6	0.44	1.0	11.5	0.9	1.4	16.7	470	18.1	23.2	2000	500	10000	150	300	25	14	12	0.3	White, Black	Grey
2	02IP-S15-BFHNW	2x2x1.5	0.6	0.44	1.1	12.6	0.9	1.5	18.0	542	12.1	15.5	2000	500	10000	150	300	40	21	18	0.4	White, Black	Grey
3	02IP-S25-BFHNW	2x2x2.5	0.7	0.53	1.2	15.1	0.9	1.5	20.5	680	7.41	9.48	2000	500	10000	150	300	60	34	29	0.7	White, Black	Grey
4	02IT-S10-BFHNW	2x3x1	0.6	0.44	1.1	12.9	0.9	1.5	18.3	563	18.1	23.2	2000	500	10000	150	300	25	14	12	0.4	White, Black, Red	Grey
5	02IT-S15-BFHNW	2x3x1.5	0.6	0.44	1.1	14.0	0.9	1.5	19.4	630	12.1	15.5	2000	500	10000	150	300	40	21	18	0.6	White, Black, Red	Grey
6	02IT-S25-BFHNW	2x3x2.5	0.7	0.53	1.2	16.8	1.25	1.6	23.1	937	7.41	9.48	2000	500	10000	150	300	60	34	29	1.0	White, Black, Red	Grey
7	03IP-S10-BFHNW	3x2x1	0.6	0.44	1.1	12.4	0.9	1.5	17.8	536	18.1	23.2	2000	500	10000	150	300	25	14	12	0.4	White, Black	Grey
8	03IP-S15-BFHNW	3x2x1.5	0.6	0.44	1.1	13.4	0.9	1.5	18.8	599	12.1	15.5	2000	500	10000	150	300	40	21	18	0.6	White, Black	Grey
9	03IP-S25-BFHNW	3x2x2.5	0.7	0.53	1.2	16.1	0.9	1.6	21.7	768	7.41	9.48	2000	500	10000	150	300	60	34	29	1.0	White, Black	Grey
10	03IT-S10-BFHNW	3x3x1	0.6	0.44	1.1	13.8	0.9	1.5	19.2	626	18.1	23.2	2000	500	10000	150	300	25	14	12	0.6	White, Black, Red	Grey
11	03IT-S15-BFHNW	3x3x1.5	0.6	0.44	1.2	15.1	0.9	1.5	20.5	726	12.1	15.5	2000	500	10000	150	300	40	21	18	0.9	White, Black, Red	Grey
12	03IT-S25-BFHNW	3x3x2.5	0.7	0.53	1.3	18.2	1.25	1.6	24.5	1078	7.41	9.48	2000	500	10000	150	300	60	34	29	1.5	White, Black, Red	Grey
13	04IP-S10-BFHNW	4x2x1	0.6	0.44	1.1	13.6	0.9	1.5	19.0	608	18.1	23.2	2000	500	10000	150	300	25	14	12	0.5	White, Black	Grey
14	04IP-S15-BFHNW	4x2x1.5	0.6	0.44	1.1	14.8	0.9	1.5	20.2	690	12.1	15.5	2000	500	10000	150	300	40	21	18	0.8	White, Black	Grey
15	04IP-S25-BFHNW	4x2x2.5	0.7	0.53	1.2	17.7	1.25	1.6	24.0	1015	7.41	9.48	2000	500	10000	150	300	60	34	29	1.4	White, Black	Grey
16	04IT-S10-BFHNW	4x3x1	0.6	0.44	1.1	15.1	0.9	1.5	20.5	719	18.1	23.2	2000	500	10000	150	300	25	14	12	0.8	White, Black, Red	Grey
17	04IT-S15-BFHNW	4x3x1.5	0.6	0.44	1.2	16.7	1.25	1.6	23.0	974	12.1	15.5	2000	500	10000	150	300	40	21	18	1.2	White, Black, Red	Grey
18	04IT-S25-BFHNW	4x3x2.5	0.7	0.53	1.3	20.0	1.25	1.7	26.5	1252	7.41	9.48	2000	500	10000	150	300	60	34	29	2.0	White, Black, Red	Grey
19	08IP-S10-BFHNW	8x2x1	0.6	0.44	1.3	18.8	1.25	1.6	25.1	1083	18.1	23.2	2000	500	10000	150	300	25	14	12	1.1	White, Black	Grey
20	08IP-S15-BFHNW	8x2x1.5	0.6	0.44	1.3	20.4	1.25	1.7	26.9	1235	12.1	15.5	2000	500	10000	150	300	40	21	18	1.6	White, Black	Grey



300/500V
CU/XLPE/IS/OS/LSZH/SWA/LSZH
Instrument Cable

CABLE TYPE: 300/500V CU/XLPE/IS/OS/LSZH/SWA/LSZH

21	08IP-S25-BFHNW	8x2x2.5	0.7	0.53	1.5	24.7	1.25	1.8	31.4	1623	7.41	9.48	2000	500	10000	150	300	60	34	29	2.7	White, Black	Grey
22	08IT-S10-BFHNW	8x3x1	0.6	0.44	1.3	21.0	1.25	1.7	27.5	1307	18.1	23.2	2000	500	10000	150	300	25	14	12	1.6	White, Black, Red	Grey
23	08IT-S15-BFHNW	8x3x1.5	0.6	0.44	1.4	23.0	1.25	1.7	29.5	1519	12.1	15.5	2000	500	10000	150	300	40	21	18	2.4	White, Black, Red	Grey
24	08IT-S25-BFHNW	8x3x2.5	0.7	0.53	1.6	27.9	1.25	1.9	34.8	2037	7.41	9.48	2000	500	10000	150	300	60	34	29	4.1	White, Black, Red	Grey