

1 Application

For used in power transmission and distribution system, suitable for outdoor use at temperature range from -52°C to +80°C.

2 Standard & specification

Cable design comply with IEC 60502-1, IEC 60228, GOST 31996-2012, GOST 22483-2012, IEC 60332-3-22, IEC 60331, IEC 61034, IEC 60754-2, GOST 31565-2012

3 Design

3.1 Conductor

Up to 2.5mm²: Tinned annealed stranded circular non-compacted copper conductor in accordance with IEC 60228 Class 2

4 to 25mm²: Plain annealed stranded circular non-compacted copper conductor in accordance with IEC 60228 Class 2

Above 25mm²: Plain annealed stranded circular compacted copper conductor in accordance with IEC 60228 Class 2

3.2 Fire proof layer

Mica Glass tape overlapped around the conductor

3.3 Insulation

Extruded XLPE compound comply with IEC 60502-1

Color:

2C: Brown, Blue

3C: Black, Brown, Grey

4C: Black, Brown, Grey, Blue

2C+E: Brown, Blue, Green/Yellow (Earth)

3C+E: Black, Brown, Grey, Green/Yellow (Earth)

4C+E: Black, Brown, Grey, Blue, Green/Yellow (Earth)

5 core and above: black core printed white numbers

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

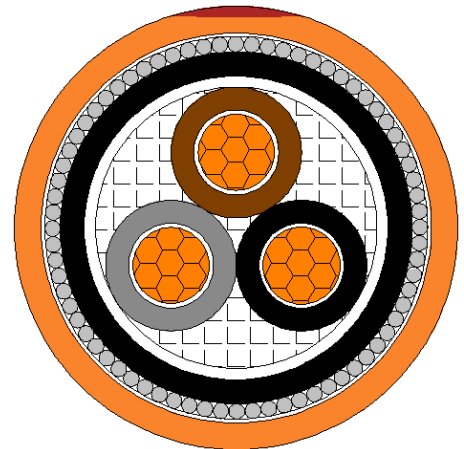
3.5 Inner sheath

Extruded LSZH ST8 compound comply with IEC 60502-1

Color: Black

3.6 Metal amour

A layer of galvanize steel wires with suitable binder tape helically



Cable Drawing for Reference



Conductor flexibility
Class 2



Lead free



Rated Voltage
U₀/U (U_m)
0.6/1 (1.2)



Max. conductor temp.in service
90°C



Flame retardant
IEC 60332-3 Cat.A



Smoke density
IEC 61034



Halogen free
IEC 60754-2

applied on the inner sheath

3.7 Outer sheath

Extruded LSZH ST8 compound comply with IEC 60502-1

Color: Orange with a red strip

4 Cable marking-Inkjet

For example:

EAC YANGER IEC 60331 CU/MGT/XLPE/LSZH/SWA/LSZH 2C×2.5+E 2.5 SQMM 0.6/1kV H Γ (A) - FRHF -52° C~+40° C YEAR ****M

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

5 Operation condition

Rated voltage, U ₀ /U(U _m), kV	0.6/1(1.2)
Rated, operating temperature range, °C	-52~+80
Min. installation temperature without preheating, °C	-20
Max. conductor temperature in service, °C	90
Max. permissible short-circuit temperature,5 sec, °C	250
Min. bending radius, D overall diameter of cable	12D
Flame retardant	IEC 60332-3-22
Fire resistant	IEC60331(2 h)
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, -35°C
Cold impact	IEC 60811-1-4 & CSA C22.2 No.38-10, -35°C
Chemical resistance	Accidental



Conductor flexibility
Class 2



Lead free



Rated Voltage
U₀/U (U_m)
0.6/1 (1.2)



Max. conductor temp.in service
90°C



Flame retardant
IEC 60332-3 Cat.A



Smoke density
IEC 61034



Halogen free
IEC 60754-2

CABLE TYPE:0.6/1kV CU/MGT/XLPE/LSZH/SWA/LSZH

No.	Cable Size	Nom. cross section (Phase)	Insulation		Nom. Cross-section (Earth)	Insulation		Inner Sheath	Under armour Dia. (+/- 10%)	Steel wire		Outer Sheath	Overall Dia(+/- 10%)	Approx. Weight	DC Resistance at 20°C		Reactance	Capacitance	Short-circuit withstand capacity(1s)	Voltage drop	Test Voltage	Max. allowable Pulling tension	Current Rating		Insulation Core Color	Outer Sheath Color	
			Nom. Thick.	Min. Thick.		Nom. Thick.	Min. Thick.			Nom. Dia.	Nom. Thick.				Phase / Earth	Ω/km							μF/km	5 mins			in air at 30°C
			mm ²	mm		mm	mm ²			mm	mm				mm	mm					mm		mm	mm			kg/km
1	2C2.5+E	2.5	0.7	0.53	2.5	0.7	0.53	1.0	11.5	0.8	1.8	17.3	499	7.56	0.3062	0.1935	0.41	0.347	3500	0.5	36	30	Brown, Blue, Green/Yellow	Orange with a red strip			
2	2C4+E	4	0.7	0.53	4	0.7	0.53	1.0	12.5	0.8	1.8	18.3	580	4.61	0.2969	0.2278	0.64	0.288	3500	0.8	49	39	Brown, Blue, Green/Yellow	Orange with a red strip			
3	2C6+E	6	0.7	0.53	6	0.7	0.53	1.0	13.6	0.8	1.8	19.4	674	3.08	0.2901	0.2617	0.94	0.248	3500	1.2	63	49	Brown, Blue, Green/Yellow	Orange with a red strip			
4	2C10+E	10	0.7	0.53	10	0.7	0.53	1.0	15.1	1.25	1.8	21.8	995	1.83	0.2822	0.3169	1.53	0.202	3500	2	86	65	Brown, Blue, Green/Yellow	Orange with a red strip			
5	2C16+E	16	0.7	0.53	16	0.7	0.53	1.0	17.5	1.25	1.8	24.2	1264	1.15	0.2754	0.3873	2.29	0.172	3500	3.3	115	84	Brown, Blue, Green/Yellow	Orange with a red strip			
6	3C2.5+E	2.5	0.7	0.53	2.5	0.7	0.53	1.0	12.5	0.8	1.8	18.3	564	7.56	0.3062	0.1935	0.41	0.309	3500	0.7	32	30	Black, Brown, Grey, Green/Yellow	Orange with a red strip			
7	3C4+E	4	0.7	0.53	4	0.7	0.53	1.0	13.7	0.8	1.8	19.5	666	4.61	0.2969	0.2278	0.64	0.247	3500	1.1	42	39	Black, Brown, Grey, Green/Yellow	Orange with a red strip			
8	3C6+E	6	0.7	0.53	6	0.7	0.53	1.0	14.9	1.25	1.8	21.6	932	3.08	0.2901	0.2617	0.94	0.213	3500	1.6	54	49	Black, Brown, Grey, Green/Yellow	Orange with a red strip			
9	3C10+E	10	0.7	0.53	10	0.7	0.53	1.0	16.6	1.25	1.8	23.3	1156	1.83	0.2822	0.3169	1.53	0.176	3500	2.7	75	65	Black, Brown, Grey, Green/Yellow	Orange with a red strip			
10	3C16+E	16	0.7	0.53	16	0.7	0.53	1.0	19.3	1.6	1.8	26.7	1660	1.15	0.2754	0.3873	2.29	0.149	3500	4.4	100	84	Black, Brown, Grey, Green/Yellow	Orange with a red strip			
11	4C2.5+E	2.5	0.7	0.53	2.5	0.7	0.53	1.0	13.7	0.8	1.8	19.5	637	7.56	0.3062	0.1935	0.41	0.309	3500	0.9	32	30	Black, Brown, Grey, Blue, Green/Yellow	Orange with a red strip			
12	4C4+E	4	0.7	0.53	4	0.7	0.53	1.0	15.0	1.25	1.8	21.7	908	4.61	0.2969	0.2278	0.64	0.247	3500	1.4	42	39	Black, Brown, Grey, Blue, Green/Yellow	Orange with a red strip			
13	4C6+E	6	0.7	0.53	6	0.7	0.53	1.0	16.4	1.25	1.8	23.1	1070	3.08	0.2901	0.2617	0.94	0.213	3500	2	54	49	Black, Brown, Grey, Blue, Green/Yellow	Orange with a red strip			
14	4C10+E	10	0.7	0.53	10	0.7	0.53	1.0	18.3	1.25	1.8	25.0	1336	1.83	0.2822	0.3169	1.53	0.176	3500	3.4	75	65	Black, Brown, Grey, Blue, Green/Yellow	Orange with a red strip			
15	4C16+E	16	0.7	0.53	16	0.7	0.53	1.0	21.2	1.6	1.8	28.6	1910	1.15	0.2754	0.3873	2.29	0.149	3500	5.4	100	84	Black, Brown, Grey, Blue, Green/Yellow	Orange with a red strip			
16	6C2.5+E	2.5	0.7	0.53	2.5	0.7	0.53	1.0	14.9	1.25	1.8	21.6	886	7.56	0.3062	0.1935	0.41	0.309	3500	1.2	32	30	black core printed white numbers+Y/G	Orange with a red strip			
17	2C1.5	1.5	0.7	0.53	/	/	/	1.0	9.8	0.8	1.8	15.6	395	12.2	0.116	0.166	0.26	15.48	3500	0.2	26	23	Brown, Blue	Orange with a red strip			
18	4C95+E	95	1.1	0.89	50	1.0	0.80	1.2	40.9	2.0	2.4	50.3	6726	0.193	0.078	0.506	13.59	0.449	3500	29.2	298	226	Black, Brown, Grey, Blue, Green/Yellow	Orange with a red strip			
19	4C120+E	120	1.2	0.98	70	1.1	0.89	1.4	46.0	2.5	2.5	57.2	8824	0.153	0.077	0.534	17.17	0.367	3500	37.4	346	257	Black, Brown, Grey, Blue, Green/Yellow	Orange with a red strip			