

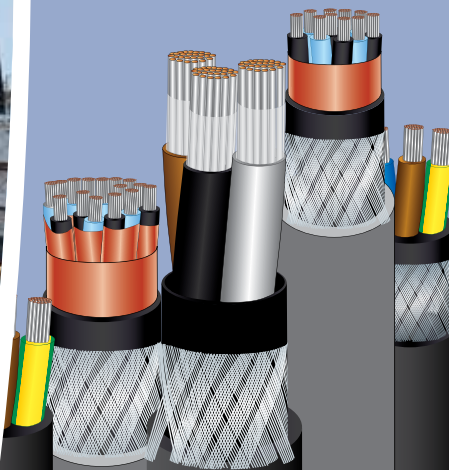
MARINE CABLES

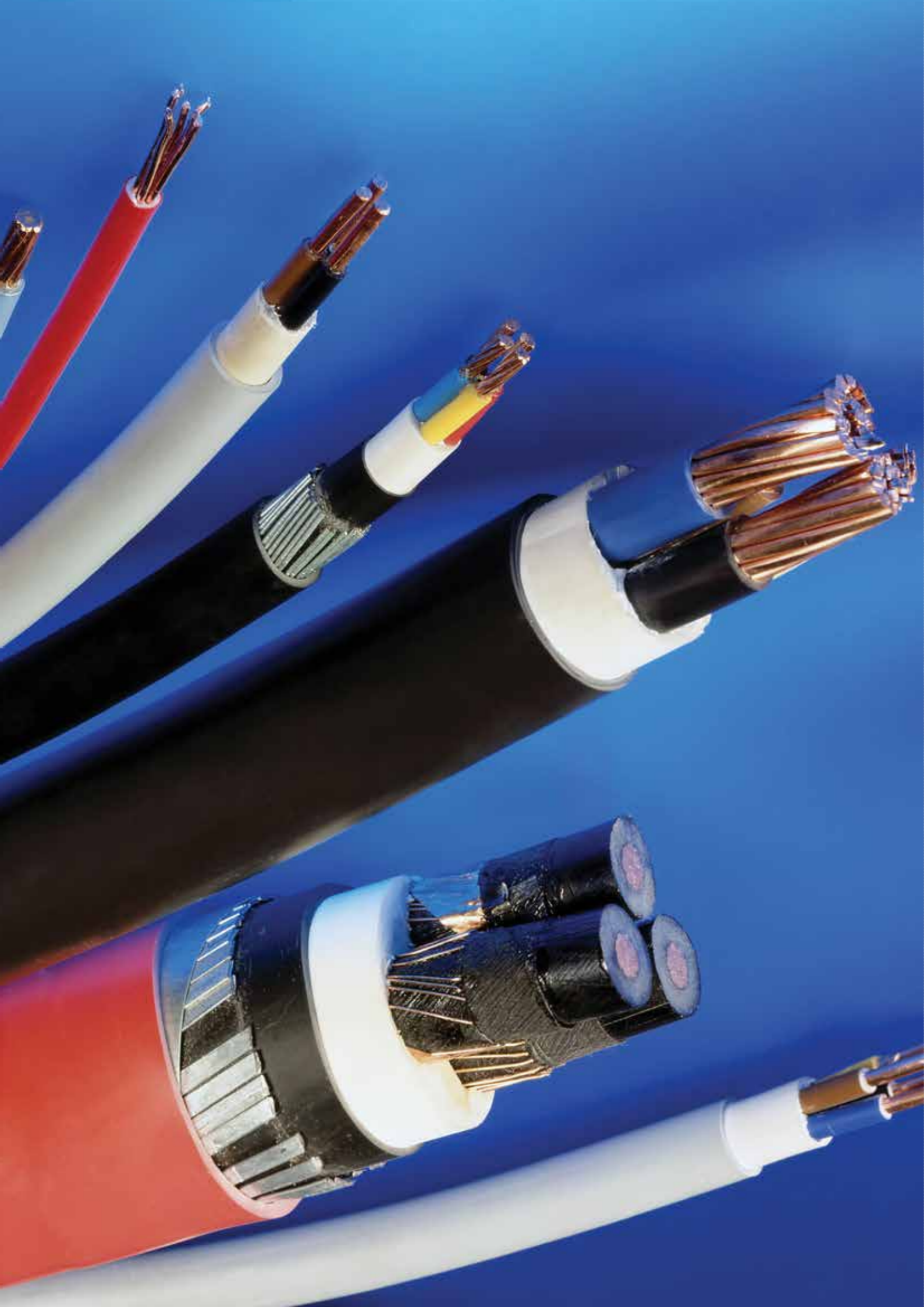


Your Power Partner on the Seas



NUHAS OMAN LLC





INTRODUCTION

We, a member of the Al-Bahja Group of Companies, are an **ISO:9001:2008 BASEC, UK** certified integrated quality producer of **LV and MV Cables, Wires & Conductors** and 8mm dia. Oxygen Free High Conductivity Continuous Cast Copper Rods based in the Sultanate of Oman.

Our diverse range of world-class Specialty Insulated Wires and Cables include:

- **LV Cables -**

- | | |
|------------------------|------------------------------|
| ▶ Shipboard | ▶ Onshore/Offshore (NEK 606) |
| ▶ Instrumentation | ▶ Fire Resistant |
| ▶ Railway & Signalling | ▶ Fire Alarm |
| ▶ Mining | ▶ LSOH/LSF |
| ▶ Power & Control | ▶ Specialty & Custom |

- **MV Cables** up to 33KV

Nuhas Oman Cables & Wires are type tested **by British Standard Institute, U.K., KEMA, Netherlands, ULand DNV, Norway** confirming to relevant **BS, IEC and other International Specifications.**

Nuhas is the **first and only producer** in the Middle East to have been **certified by DNV, Norway** capable of manufacturing power, control and instrumentation **cables for shipboard, high speed/light craft and off-shore/on-shore applications.**

Our Offshore and Marine Cables - **Your Power Partner On The Seas** - are capable of operating under the harshest climatic conditions at all times due to their unique characteristic features – flame retardance, oil and mud resistant, crush and impact resistant, enhanced flexibility and resistance to moisture, petrochemical fluids, abrasion, oil and sunlight.

The cables comply with the global cable industry standards, IEC 60092-352 for electric installations in ships and requirements of IEC 60092-350, IEC 60092-353, and IEC 60092-376 & NEK TS 606 for the marine and offshore/onshore applications and are type tested by DNV, Norway.

Our cables are ROHS compliant.

New Product Developments are a continuing feature at Nuhas Oman and the diverse product range includes cables for special and complex applications produced by adopting latest production technologies and special materials to cater to the everchanging customer requirements.

Quality assurance is the prime driving force behind the Company's operations. Our quality cycle encompasses raw material sourcing, in-process production controls and certification of finished goods.

We are committed to excellence in the management of health, safety, environment and labor practices and to promoting and protecting the welfare of our employees through "Safety First" work practices. Nuhas also ensures compliance with the laws and regulations of the land. It is our endeavor to be a responsible corporate citizen and contribute to the community through various Corporate Social Responsibility initiatives.

Our range of Cable products meet the requirements of a broad spectrum of applications including - Ship Building, Offshore Platforms, FPS, FPSO, Petrochemical, Oil & Gas, Aeronautical, Building & Construction, Instrumentation, Hospitals, Hotels, Industrial, Power & Distribution, Entertainment & Security etc.

Our global client base extending from Far East Asia, Indian sub-continent, the GCC, Africa to Europe is testimony to customer confidence and satisfaction.

The company is committed to meet the challenges of the Domestic & Global markets for supply of world class Cables & Wires, while maintaining the sanctity of our pristine environment.



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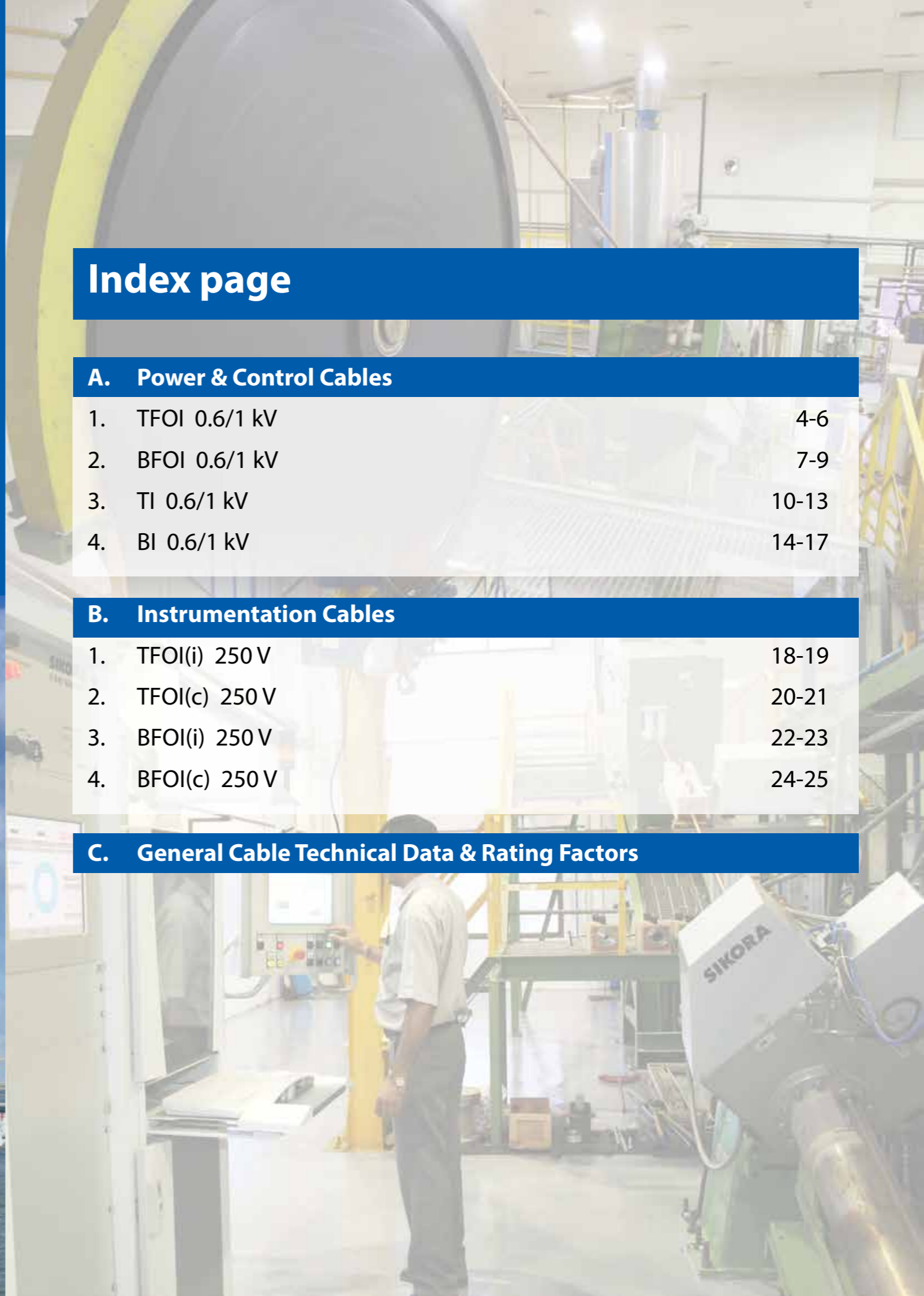
A. Power & Control Cables

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POWER & CONTROL CABLES

Flame retardant, Halogen-free, Low smoke Armoured Cable

TFOI 0.6/1 kV

Construction : CU/XLPE/CWB/SHF1

Voltage Grade : 0.6/1.0 (1.2) kV

Operating temperature : 90°C

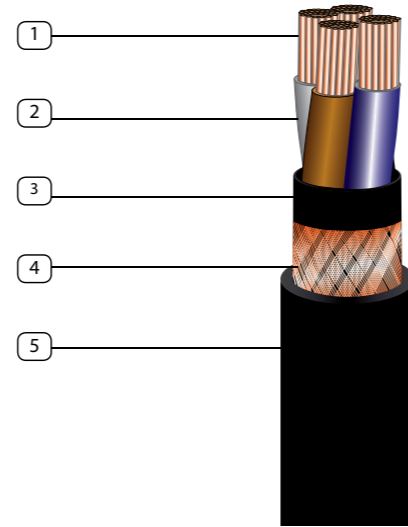
Applicable standards : IEC 60092-350, IEC 60092-353
IEC 60228 for Conductor
IEC 60092-360 for Insulation & Sheath

Special Properties:

Flame retardant : As per IEC 60332-1 & IEC 60332-3/Cat.A

Low smoke : As per IEC 61034-1 & -2

Halogen free : As per IEC 60754-1 & -2



Construction Details:

Classification	Code	Details
Conductor	①	Annealed Plain Copper, round shaped, class 2
Insulation	T ②	Cross-linked Polyethylene, XLPE
Lay up		Cores laid up in concentric layers Fillers may be applied to make cable circular Suitable tape(s) may be applied
Inner covering	F ③	Halogen free compound type SHF1
Armour	O ④	Copper wire braid armour
Outer sheath	I ⑤	Halogen free compound type SHF1
Outer sheath colour		Black

Core Identification:

No. of cores	Without earth core	With earth core
1C	Black	-
2C	Blue, Brown	-
3C	Brown, Black, Grey	Yellow-green, Blue, Brown
4C	Blue, Brown, Black, Grey	Yellow-green, Brown, Black, Grey
5C	Blue, Brown, Black, Grey, Black	Yellow-green, Blue, Brown, Black, Grey
6C & above	White with black colour number marking	

Note:

1. Tinned copper conductor can be supplied on request.
2. Tinned copper wire braid can be supplied on request.
3. Other colour of insulation & outer sheath can be provided as per customer requirement.

POWER & CONTROL CABLES

Flame retardant, Halogen-free, Low smoke Armoured Cable

TFOI 0.6/1 kV

No. of cores	Conductor Size	Insulation thickness	Inner covering thickness	Dia over inner covering, approx	Braid wire diameter	Outer sheath thickness, nominal	Overall diameter, approx	Weight of cable, approx
No.	mm ²	mm	mm	mm	mm	mm	mm	kg/km
1	16	0.7	1.0	8.2	0.2	1.1	11.5	300
	25	0.9	1.0	9.7	0.2	1.2	13.5	420
	35	0.9	1.0	10.7	0.2	1.2	14.5	530
	50	1.0	1.0	12.1	0.3	1.3	16.5	720
	70	1.1	1.0	13.9	0.3	1.4	18.5	960
	95	1.1	1.0	15.6	0.3	1.4	20.0	1240
	120	1.2	1.0	17.3	0.3	1.5	22.0	1510
	150	1.4	1.0	19.4	0.3	1.6	24.5	1830
	185	1.6	1.0	21.2	0.3	1.6	26.0	2200
	240	1.7	1.0	23.8	0.3	1.7	29.0	2790
300	1.8	1.0	26.2	0.3	1.8	31.5	3410	
2	1.5	0.7	1.0	8.0	0.2	1.1	11.5	190
	2.5	0.7	1.0	8.8	0.2	1.1	12.0	220
	4	0.7	1.0	9.8	0.2	1.2	13.5	270
	6	0.7	1.0	11.0	0.2	1.2	14.5	360
	10	0.7	1.0	13.0	0.3	1.3	17.5	530
	16	0.7	1.0	14.6	0.3	1.4	19.0	690
	25	0.9	1.0	17.6	0.3	1.5	22.5	960
	35	0.9	1.0	19.6	0.3	1.6	24.5	1220
	50	1.0	1.0	22.4	0.3	1.7	27.5	1550
	70	1.1	1.0	26.0	0.3	1.8	31.5	2080
	95	1.1	1.2	29.8	0.3	1.9	35.5	2730
	120	1.2	1.2	33.2	0.4	2.1	39.5	3480
3	1.5	0.7	1.0	8.5	0.2	1.1	12.0	220
	2.5	0.7	1.0	9.4	0.2	1.1	13.0	260
	4	0.7	1.0	10.5	0.2	1.2	14.0	320
	6	0.7	1.0	11.7	0.2	1.2	15.5	430
	10	0.7	1.0	13.9	0.3	1.3	18.0	640
	16	0.7	1.0	15.6	0.3	1.4	20.0	850
	25	0.9	1.0	18.8	0.3	1.5	23.5	1220
	35	0.9	1.0	21.0	0.3	1.6	26.0	1560
	50	1.0	1.0	24.0	0.3	1.8	29.5	2020
	70	1.1	1.2	28.3	0.3	1.9	34.0	2780
	95	1.1	1.2	32.0	0.3	2.0	37.5	3640
	120	1.2	1.2	35.6	0.4	2.2	42.0	4620
	150	1.4	1.4	40.6	0.4	2.3	47.5	5680
	185	1.6	1.4	44.5	0.4	2.5	51.5	6880
240	1.7	1.6	50.5	0.4	2.7	58.0	8830	
300	1.8	1.6	55.7	0.4	2.9	63.5	10830	

POWER & CONTROL CABLES

Fire Resistant, Flame retardant, Halogen-free, Low smoke Armoured Cable

BFOI 0.6/1 kV

No. of cores	Conductor Size	Insulation thickness	Inner covering thickness	Dia over inner covering, approx	Braid wire diameter	Outer sheath thickness, nominal	Overall diameter, approx	Weight of cable, approx
No.	mm ²	mm	mm	mm	mm	mm	mm	kg/km
4	1.5	0.7	1.0	9.2	0.2	1.1	12.5	250
	2.5	0.7	1.0	10.3	0.2	1.2	14.0	310
	4	0.7	1.0	11.5	0.2	1.2	15.0	380
	6	0.7	1.0	12.9	0.3	1.3	17.0	570
	10	0.7	1.0	15.3	0.3	1.4	20.0	780
	16	0.7	1.0	17.2	0.3	1.5	22.0	1050
	25	0.9	1.0	20.8	0.3	1.6	25.5	1520
	35	0.9	1.0	23.3	0.3	1.7	28.5	1960
	50	1.0	1.0	26.6	0.3	1.9	32.0	2550
	70	1.1	1.2	31.4	0.3	2.0	37.0	3530
	95	1.1	1.2	35.5	0.4	2.2	42.0	4790
	120	1.2	1.4	40.0	0.4	2.3	47.0	5940
	150	1.4	1.4	45.1	0.4	2.5	52.5	7260
	185	1.6	1.4	49.5	0.4	2.7	57.0	8820
240	1.7	1.6	56.2	0.4	3.0	64.5	11370	
300	1.8	1.6	62.0	0.4	3.2	70.5	13970	
5	1.5	0.7	1.0	10.1	0.2	1.2	13.5	290
	2.5	0.7	1.0	11.2	0.2	1.2	15.0	350
	4	0.7	1.0	12.6	0.3	1.3	17.0	500
	6	0.7	1.0	14.2	0.3	1.3	18.5	660
	10	0.7	1.0	16.9	0.3	1.4	21.5	920
	16	0.7	1.0	19.0	0.3	1.5	23.5	1250
	25	0.9	1.0	23.1	0.3	1.7	28.0	1840
	35	0.9	1.0	25.8	0.3	1.8	31.0	2380
	50	1.0	1.2	30.0	0.3	2.0	35.5	3140
	70	1.1	1.2	34.8	0.4	2.2	41.5	4450
	95	1.1	1.4	39.9	0.4	2.3	46.5	5900
7	1.5	0.7	1.0	11.2	0.2	1.2	15.0	350
	2.5	0.7	1.0	12.4	0.3	1.3	16.5	490
	4	0.7	1.0	14.6	0.3	1.4	19.0	570
12	1.5	0.7	1.0	14.6	0.3	1.4	19.0	570
	2.5	0.7	1.0	16.4	0.3	1.4	21.0	720
19	1.5	0.7	1.0	17.2	0.3	1.5	22.0	770
	2.5	0.7	1.0	19.3	0.3	1.5	24.0	1000
27	1.5	0.7	1.0	20.6	0.3	1.6	25.5	1010
	2.5	0.7	1.0	23.2	0.3	1.7	28.5	1340
37	1.5	0.7	1.0	23.1	0.3	1.7	28.0	1270
	2.5	0.7	1.0	26.1	0.3	1.8	31.5	1700

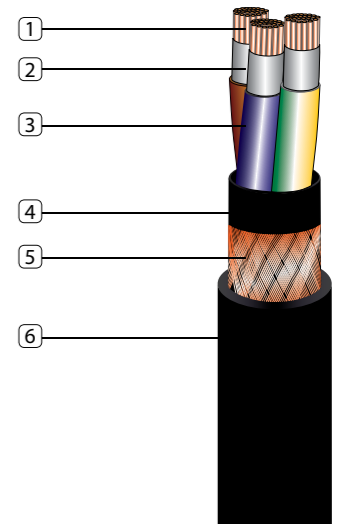
Construction : CU/MGT/XLPE/CWB/SHF1

Voltage Grade : 0.6/1.0 (1.2) kV

Operating temperature : 90°C

Applicable standards : IEC 60092-350, IEC 60092-353
IEC 60228 for Conductor
IEC 60092-360 for Insulation & Sheath

Special Properties:
Fire resistant : As per IEC 60331
Flame retardant : As per IEC 60332-1 & IEC 60332-3/Cat.A
Low smoke : As per IEC 61034-1 & -2
Halogen free : As per IEC 60754-1 & -2



Construction Details:

Classification	Code	Details
Conductor	①	Annealed Plain Copper, round shaped, class 2
Insulation	B ② ③	Mica glass tape + Cross-linked Polyethylene, XLPE
Lay up		Cores laid up in concentric layers Fillers may be applied to make cable circular Suitable tape(s) may be applied
Inner covering	F ④	Halogen free compound type SHF1
Armour	O ⑤	Copper wire braid armour
Outer sheath	I ⑥	Halogen free compound type SHF1
Outer sheath colour		Black

Core Identification:

No. of cores	Without earth core	With earth core
1C	Black	-
2C	Blue, Brown	-
3C	Brown, Black, Grey	Yellow-green, Blue, Brown
4C	Blue, Brown, Black, Grey	Yellow-green, Brown, Black, Grey
5C	Blue, Brown, Black, Grey, Black	Yellow-green, Blue, Brown, Black, Grey
6C & above	White with black colour number marking	-

Note:

1. Tinned copper conductor can be supplied on request.
2. Tinned copper wire braid can be supplied on request.
3. Other colour of insulation & outer sheath can be provided as per customer requirement.

POWER & CONTROL CABLES

Fire Resistant, Flame retardant, Halogen-free, Low smoke Armoured Cable

BFOI 0.6/1 kV

No. of cores	Conductor Size	Insulation thickness	Inner covering thickness	Dia over inner covering, approx	Braid wire diameter	Outer sheath thickness, nominal	Overall diameter, approx	Weight of cable, approx
No.	mm ²	mm	mm	mm	mm	mm	mm	kg/km
1	16	0.7	1.0	8.7	0.2	1.1	12.0	320
	25	0.9	1.0	10.2	0.2	1.2	14.0	440
	35	0.9	1.0	11.2	0.2	1.2	15.0	550
	50	1.0	1.0	12.6	0.3	1.3	17.0	740
	70	1.1	1.0	14.9	0.3	1.4	19.5	1010
	95	1.1	1.0	16.6	0.3	1.4	21.0	1290
	120	1.2	1.0	18.3	0.3	1.5	23.0	1560
	150	1.4	1.0	20.4	0.3	1.6	25.5	1890
	185	1.6	1.0	22.2	0.3	1.6	27.0	2260
	240	1.7	1.0	24.8	0.3	1.7	30.0	2850
300	1.8	1.0	27.2	0.3	1.8	32.5	3480	
2	1.5	0.7	1.0	8.8	0.2	1.1	12.0	210
	2.5	0.7	1.0	9.6	0.2	1.1	13.0	240
	4	0.7	1.0	10.6	0.2	1.2	14.0	290
	6	0.7	1.0	11.8	0.2	1.2	15.5	380
	10	0.7	1.0	13.8	0.3	1.3	18.0	560
	16	0.7	1.0	15.6	0.3	1.4	20.0	730
	25	0.9	1.0	18.6	0.3	1.5	23.5	1010
	35	0.9	1.0	20.6	0.3	1.6	25.5	1260
	50	1.0	1.0	23.4	0.3	1.7	28.5	1600
	70	1.1	1.0	27.9	0.3	1.8	33.0	2190
95	1.1	1.2	31.7	0.3	1.9	37.0	2860	
120	1.2	1.2	35.1	0.4	2.1	41.5	3630	
3	1.5	0.7	1.0	9.3	0.2	1.1	12.5	240
	2.5	0.7	1.0	10.2	0.2	1.1	13.5	280
	4	0.7	1.0	11.3	0.2	1.2	15.0	350
	6	0.7	1.0	12.6	0.2	1.2	16.0	460
	10	0.7	1.0	14.8	0.3	1.3	19.0	670
	16	0.7	1.0	16.6	0.3	1.4	21.0	900
	25	0.9	1.0	19.9	0.3	1.5	24.5	1270
	35	0.9	1.0	22.0	0.3	1.6	27.0	1610
	50	1.0	1.0	25.1	0.3	1.8	30.5	2090
	70	1.1	1.2	30.4	0.3	1.9	36.0	2920
95	1.1	1.2	34.0	0.3	2.0	39.5	3790	
120	1.2	1.2	37.7	0.4	2.2	44.5	4800	
150	1.4	1.4	42.7	0.4	2.3	49.5	5880	
185	1.6	1.4	46.5	0.4	2.5	53.5	7090	
240	1.7	1.6	52.6	0.4	2.7	60.0	9070	
300	1.8	1.6	57.7	0.4	2.9	65.5	11080	

POWER & CONTROL CABLES

Fire Resistant, Flame retardant, Halogen-free, Low smoke Armoured Cable

BFOI 0.6/1 kV

No. of cores	Conductor Size	Insulation thickness	Inner covering thickness	Dia over inner covering, approx	Braid wire diameter	Outer sheath thickness, nominal	Overall diameter, approx	Weight of cable, approx
No.	mm ²	mm	mm	mm	mm	mm	mm	kg/km
4	1.5	0.7	1.0	10.2	0.2	1.1	13.5	270
	2.5	0.7	1.0	11.2	0.2	1.2	15.0	330
	4	0.7	1.0	12.5	0.2	1.2	16.0	410
	6	0.7	1.0	13.9	0.3	1.3	18.0	610
	10	0.7	1.0	16.3	0.3	1.4	21.0	820
	16	0.7	1.0	18.4	0.3	1.5	23.0	1110
	25	0.9	1.0	22.0	0.3	1.6	27.0	1580
	35	0.9	1.0	24.4	0.3	1.7	29.5	2030
	50	1.0	1.0	27.8	0.3	1.9	33.5	2630
	70	1.1	1.2	33.7	0.3	2.0	39.5	3700
	95	1.1	1.2	37.8	0.4	2.2	44.5	4980
	120	1.2	1.4	42.3	0.4	2.3	49.0	6160
	150	1.4	1.4	47.4	0.4	2.5	54.5	7500
	185	1.6	1.4	51.8	0.4	2.7	59.5	9080
240	1.7	1.6	58.5	0.4	3.0	66.5	11660	
300	1.8	1.6	64.3	0.4	3.2	73.0	14280	
5	1.5	0.7	1.0	11.2	0.2	1.2	15.0	320
	2.5	0.7	1.0	12.3	0.2	1.2	16.0	380
	4	0.7	1.0	13.7	0.3	1.3	18.0	540
	6	0.7	1.0	15.3	0.3	1.3	19.5	710
	10	0.7	1.0	18.0	0.3	1.4	22.5	970
	16	0.7	1.0	20.3	0.3	1.5	25.0	1310
	25	0.9	1.0	24.4	0.3	1.7	29.5	1920
	35	0.9	1.0	27.1	0.3	1.8	32.5	2460
	50	1.0	1.2	31.3	0.3	2.0	37.0	3240
	70	1.1	1.2	37.5	0.4	2.2	44.0	4670
95	1.1	1.4	42.5	0.4	2.3	49.5	6140	
120	1.2	1.4	47.1	0.4	2.5	54.5	7560	
7	1.5	0.7	1.0	12.4	0.2	1.2	16.0	380
	2.5	0.7	1.0	13.6	0.3	1.3	18.0	530
12	1.5	0.7	1.0	16.3	0.3	1.4	21.0	640
	2.5	0.7	1.0	18.0	0.3	1.4	22.5	790
19	1.5	0.7	1.0	19.2	0.3	1.5	24.0	860
	2.5	0.7	1.0	21.3	0.3	1.5	26.0	1090
27	1.5	0.7	1.0	23.0	0.3	1.6	28.0	1130
	2.5	0.7	1.0	25.6	0.3	1.7	30.5	1460
37	1.5	0.7	1.0	25.9	0.3	1.7	31.0	1420
	2.5	0.7	1.0	28.9	0.3	1.8	34.0	1860

POWER & CONTROL CABLES

Flame retardant, Halogen-free, Low smoke Unarmoured Cable

TI 0.6/1 kV

Construction : CU/XLPE/SHF1

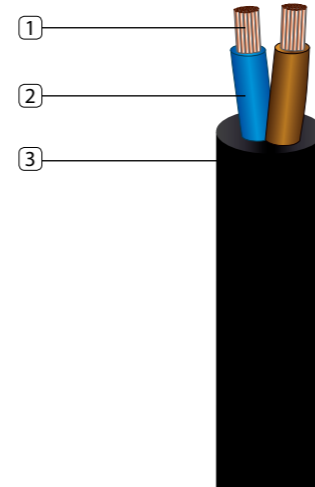
Voltage Grade : 0.6/1.0 (1.2) kV

Operating temperature : 90°C

Applicable standards : IEC 60092-350, IEC 60092-353
IEC 60228 for Conductor
IEC 60092-360 for Insulation & Sheath

Special Properties:

Flame retardant : As per IEC 60332-1 & IEC 60332-3/Cat.A
Low smoke : As per IEC 61034-1 & -2
Halogen free : As per IEC 60754-1 & -2



Construction Details:

Classification	Code	Details
Conductor	①	Annealed Plain Copper, round shaped, class 2
Insulation	T ②	Cross-linked Polyethylene, XLPE
Lay up		Cores laid up in concentric layers Fillers may be applied to make cable circular Suitable tape(s) may be applied
Outer sheath	I ③	Halogen free compound type SHF1
Outer sheath colour		Black

Core Identification:

No. of cores	Without earth core	With earth core
1C	Black	-
2C	Blue, Brown	-
3C	Brown, Black, Grey	Yellow-green, Blue, Brown
4C	Blue, Brown, Black, Grey	Yellow-green, Brown, Black, Grey
5C	Blue, Brown, Black, Grey, Black	Yellow-green, Blue, Brown, Black, Grey
6C & above	White with black colour number marking	-

Note:

1. Tinned copper conductor can be supplied on request.
2. Other colour of insulation & outer sheath can be provided as per customer requirement.

POWER & CONTROL CABLES

Flame retardant, Halogen-free, Low smoke Unarmoured Cable

TI 0.6/1 kV

No. of cores	Conductor Size	Insulation thickness	Outer sheath thickness, nominal	Overall diameter, approx	Weight of cable, approx
No.	mm ²	mm	mm	mm	kg/km
1	16	0.7	1.1	8.5	200
	25	0.9	1.1	10.0	290
	35	0.9	1.2	11.5	390
	50	1.0	1.2	12.5	510
	70	1.1	1.3	14.5	720
	95	1.1	1.4	16.5	980
	120	1.2	1.4	18.5	1220
	150	1.4	1.5	20.5	1510
	185	1.6	1.6	22.5	1850
	240	1.7	1.7	25.5	2400
2	300	1.8	1.8	28.0	2990
	1.5	0.7	1.1	8.5	100
	2.5	0.7	1.1	9.0	130
	4	0.7	1.1	10.0	170
	6	0.7	1.2	11.5	240
	10	0.7	1.2	13.5	340
	16	0.7	1.3	15.0	490
	25	0.9	1.4	18.5	810
	35	0.9	1.5	21.0	1070
	50	1.0	1.6	24.0	1420
	70	1.1	1.8	28.0	2000
	95	1.1	1.9	31.5	2670
120	1.2	2.0	35.0	3340	



POWER & CONTROL CABLES

Flame retardant, Halogen-free, Low smoke Unarmoured Cable

TI 0.6/1 kV

No. of cores	Conductor Size	Insulation thickness	Outer sheath thickness, nominal	Overall diameter, approx	Weight of cable, approx
No.	mm ²	mm	mm	mm	kg/km
3	1.5	0.7	1.1	9.0	120
	2.5	0.7	1.1	10.0	160
	4	0.7	1.2	11.0	220
	6	0.7	1.2	12.5	290
	10	0.7	1.3	14.5	440
	16	0.7	1.3	16.0	630
	25	0.9	1.5	20.0	1030
	35	0.9	1.6	22.5	1370
	50	1.0	1.7	25.5	1820
	70	1.1	1.8	29.5	2570
	95	1.1	2.0	34.0	3470
	120	1.2	2.1	37.5	4340
	150	1.4	2.3	42.5	5420
	185	1.6	2.4	46.5	6650
	240	1.7	2.7	53.0	8650
	300	1.8	2.8	58.5	10730
4	1.5	0.7	1.1	9.5	140
	2.5	0.7	1.1	10.5	200
	4	0.7	1.2	12.0	270
	6	0.7	1.2	13.5	360
	10	0.7	1.3	16.0	550
	16	0.7	1.4	18.0	810
	25	0.9	1.5	22.0	1300
	35	0.9	1.7	25.0	1760
	50	1.0	1.8	28.5	2330
	70	1.1	2.0	33.0	3310
	95	1.1	2.1	37.5	4450
	120	1.2	2.3	42.0	5600
	150	1.4	2.5	47.5	6970
	185	1.6	2.6	52.0	8560
	240	1.7	2.9	59.0	11150
	300	1.8	3.1	65.0	13860

POWER & CONTROL CABLES

Flame retardant, Halogen-free, Low smoke Unarmoured Cable

TI 0.6/1 kV

No. of cores	Conductor Size	Insulation thickness	Outer sheath thickness, nominal	Overall diameter, approx	Weight of cable, approx
No.	mm ²	mm	mm	mm	kg/km
5	1.5	0.7	1.1	10.5	170
	2.5	0.7	1.2	12.0	240
	4	0.7	1.2	13.0	330
	6	0.7	1.3	15.0	450
	10	0.7	1.4	17.5	690
	16	0.7	1.5	20.0	1000
	25	0.9	1.6	24.5	1620
	35	0.9	1.8	27.5	2180
	50	1.0	1.9	31.5	2900
	70	1.1	2.1	37.0	4110
	95	1.1	2.3	42.0	5570
	120	1.2	2.5	47.0	7000
7	1.5	0.7	1.2	12.0	220
	2.5	0.7	1.2	13.0	300
12	1.5	0.7	1.3	15.5	380
	2.5	0.7	1.4	17.5	530
19	1.5	0.7	1.4	18.0	550
	2.5	0.7	1.5	20.5	770
27	1.5	0.7	1.5	22.0	790
	2.5	0.7	1.6	24.5	1110
37	1.5	0.7	1.6	24.5	1010
	2.5	0.7	1.7	27.5	1440



POWER & CONTROL CABLES

Fire resistant, Flame retardant, Halogen-free, Low smoke Unarmoured Cable

BI 0.6/1 kV

Construction : CU/MGT/XLPE/SHF1

Voltage Grade : 0.6/1.0 (1.2) kV

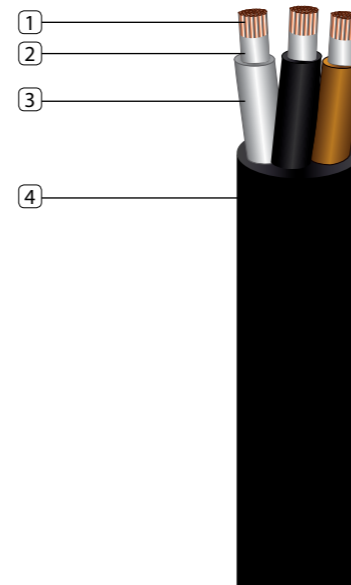
Operating temperature : 90°C

Applicable standards : IEC 60092-350, IEC 60092-353
IEC 60228 for Conductor
IEC 60092-360 for Insulation &

Sheath

Special Properties:

Fire resistant : As per IEC 60331
Flame retardant : As per IEC 60332-1 & IEC 60332-3/
Cat.A
Low smoke : As per IEC 61034-1 & -2
Halogen free : As per IEC 60754-1 & -2



Construction Details:

Classification	Code	Details
Conductor	①	Annealed Plain Copper, round shaped, class 2
Insulation	B ② ③	Mica glass tape + Cross-linked Polyethylene, XLPE
Lay up		Cores laid up in concentric layers Fillers may be applied to make cable circular Suitable tape(s) may be applied
Outer sheath	I ④	Halogen free compound type SHF1
Outer sheath colour		Black

Core Identification:

No. of cores	Without earth core	With earth core
1C	Black	-
2C	Blue, Brown	-
3C	Brown, Black, Grey	Yellow-green, Blue, Brown
4C	Blue, Brown, Black, Grey	Yellow-green, Brown, Black, Grey
5C	Blue, Brown, Black, Grey, Black	Yellow-green, Blue, Brown, Black, Grey
6C & above	White with black colour number marking	-

Note:

1. Tinned copper conductor can be supplied on request.
2. Other colour of insulation & outer sheath can be provided as per customer requirement.

POWER & CONTROL CABLES

Fire resistant, Flame retardant, Halogen-free, Low smoke Unarmoured Cable

BI 0.6/1 kV

No. of cores	Conductor Size	Insulation thickness	Outer sheath thickness, nominal	Overall diameter, approx	Weight of cable, approx
No.	mm ²	mm	mm	mm	kg/km
1	16	0.7	1.1	9.0	200
	25	0.9	1.1	10.5	300
	35	0.9	1.2	12.0	400
	50	1.0	1.2	13.0	530
	70	1.1	1.3	15.5	750
	95	1.1	1.4	17.5	1010
	120	1.2	1.4	19.5	1260
	150	1.4	1.5	21.5	1550
	185	1.6	1.6	23.5	1900
	240	1.7	1.7	26.5	2460
2	300	1.8	1.8	29.0	3050
	1.5	0.7	1.1	9.0	120
	2.5	0.7	1.1	10.0	150
	4	0.7	1.1	11.0	190
	6	0.7	1.2	12.5	260
	10	0.7	1.2	14.0	370
	16	0.7	1.3	16.0	520
	25	0.9	1.4	19.5	860
	35	0.9	1.5	22.0	1120
	50	1.0	1.6	25.0	1480
	70	1.1	1.8	29.5	2140
	95	1.1	1.9	33.5	2830
120	1.2	2.0	37.0	3520	



POWER & CONTROL CABLES

Fire resistant, Flame retardant, Halogen-free, Low smoke Unarmoured Cable

BI 0.6/1 kV

No. of cores	Conductor Size	Insulation thickness	Outer sheath thickness, nominal	Overall diameter, approx	Weight of cable, approx
No.	mm ²	mm	mm	mm	kg/km
3	1.5	0.7	1.1	9.5	140
	2.5	0.7	1.1	10.5	180
	4	0.7	1.2	12.0	240
	6	0.7	1.2	13.0	320
	10	0.7	1.3	15.5	470
	16	0.7	1.3	17.0	660
	25	0.9	1.5	21.0	1080
	35	0.9	1.6	23.5	1420
	50	1.0	1.7	26.5	1890
	70	1.1	1.8	32.0	2720
	95	1.1	2.0	36.0	3640
	120	1.2	2.1	39.5	4540
	150	1.4	2.3	44.5	5640
	185	1.6	2.4	48.5	6880
240	1.7	2.7	55.0	8930	
300	1.8	2.8	60.5	11020	
4	1.5	0.7	1.1	10.5	170
	2.5	0.7	1.1	11.5	220
	4	0.7	1.2	13.0	300
	6	0.7	1.2	14.5	390
	10	0.7	1.3	17.0	590
	16	0.7	1.4	19.0	850
	25	0.9	1.5	23.0	1370
	35	0.9	1.7	26.0	1820
	50	1.0	1.8	29.5	2410
	70	1.1	2.0	35.5	3500
	95	1.1	2.1	40.0	4660
	120	1.2	2.3	44.5	5840
	150	1.4	2.5	50.0	7240
	185	1.6	2.6	54.5	8860
240	1.7	2.9	61.5	11480	
300	1.8	3.1	67.5	14230	

POWER & CONTROL CABLES

Fire resistant, Flame retardant, Halogen-free, Low smoke Unarmoured Cable

BI 0.6/1 kV

No. of cores	Conductor Size	Insulation thickness	Outer sheath thickness, nominal	Overall diameter, approx	Weight of cable, approx
No.	mm ²	mm	mm	mm	kg/km
5	1.5	0.7	1.1	11.5	200
	2.5	0.7	1.2	13.0	270
	4	0.7	1.2	14.5	360
	6	0.7	1.3	16.0	490
	10	0.7	1.4	19.0	730
	16	0.7	1.5	21.5	1060
	25	0.9	1.6	26.0	1700
	35	0.9	1.8	29.0	2270
	50	1.0	1.9	33.0	3010
	70	1.1	2.1	39.5	4350
	95	1.1	2.3	44.5	5830
	120	1.2	2.5	49.5	7300
7	1.5	0.7	1.2	13.0	250
	2.5	0.7	1.2	14.0	330
12	1.5	0.7	1.3	17.0	440
	2.5	0.7	1.4	19.0	590
19	1.5	0.7	1.4	20.0	620
	2.5	0.7	1.5	22.5	860
27	1.5	0.7	1.5	24.0	890
	2.5	0.7	1.6	27.0	1230
37	1.5	0.7	1.6	27.5	1160
	2.5	0.7	1.7	30.5	1600



INSTRUMENTATION CABLES

Flame retardant, Halogen-free, Low smoke Individually Screened Armoured Cable

TFOI(i) 250 V

Construction : CU/XLPE/ISCR/CWB/SHF1

Voltage Grade : 150/250 (300) V

Operating temperature : 90°C

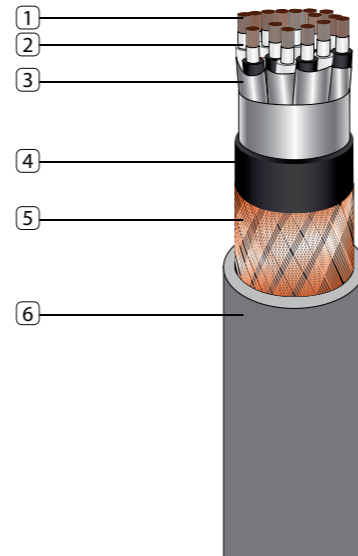
Applicable standards : IEC 60092-350, IEC 60092-376
IEC 60228 for Conductor, CR to Table 6 of IEC 60092-376
IEC 60092-360 for Insulation & Sheath

Special Properties:

Flame retardant : As per IEC 60332-1 & IEC 60332-3/
Cat.A

Low smoke : As per IEC 61034-1 & -2

Halogen free : As per IEC 60754-1 & -2



Construction Details:

Classification	Code	Details
Conductor	①	Annealed Plain Copper, round shaped, class 2
Insulation	T ②	Cross-linked Polyethylene, XLPE
Twisting		Two insulated cores twisted together to form a pair
Individual screening	(i) ③	Aluminium backed polyester tape screening with tinned copper drain wire
Lay up		Screened pairs laid up in concentric layers and wrapped in polyester tape.
Inner covering	F ④	Halogen free compound type SHF1
Armour	O ⑤	Copper wire braid armour
Outer sheath	I ⑥	Halogen free compound type SHF1
Outer sheath colour		Grey

Core Identification:

Pairs : Black, White

Note:

1. Tinned copper conductor can be supplied on request.
2. Tinned copper wire braid can be supplied on request.
3. Other colour of insulation & outer sheath can be provided as per customer requirement.

INSTRUMENTATION CABLES

Flame retardant, Halogen-free, Low smoke Individually Screened Armoured Cable

TFOI(i) 250 V

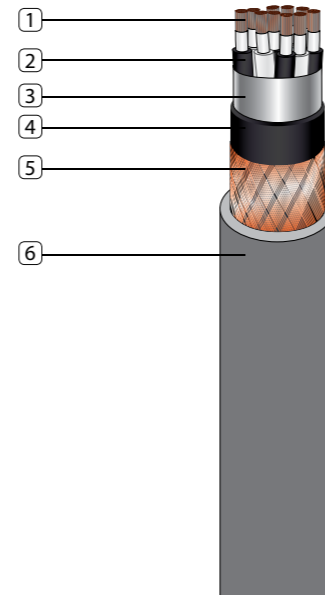
No. of cores	Conductor Size	Insulation thickness	Inner covering thickness	Dia over inner covering, approx	Braid wire diameter	Outer sheath thickness, nominal	Overall diameter, approx	Weight of cable, approx
No.	mm ²	mm	mm	mm	mm	mm	mm	kg/km
1P	0.75	0.5	1.0	6.5	0.2	1.0	9.5	160
2P	0.75	0.5	1.0	10.1	0.2	1.1	13.5	260
4P	0.75	0.5	1.0	11.8	0.2	1.2	15.5	350
7P	0.75	0.5	1.0	14.1	0.3	1.3	18.5	540
10P	0.75	0.5	1.0	18.1	0.3	1.4	22.5	720
12P	0.75	0.5	1.0	18.8	0.3	1.5	23.5	800
19P	0.75	0.5	1.0	22.2	0.3	1.6	27.0	1080
27P	0.75	0.5	1.0	26.8	0.3	1.7	32.0	1420
32P	0.75	0.5	1.0	29.0	0.3	1.8	34.5	1630
1P	1.0	0.5	1.0	6.8	0.2	1.0	10.0	170
2P	1.0	0.5	1.0	10.7	0.2	1.2	14.5	290
4P	1.0	0.5	1.0	12.6	0.2	1.2	16.0	390
7P	1.0	0.5	1.0	15.1	0.3	1.3	19.5	610
10P	1.0	0.5	1.0	19.4	0.3	1.5	24.0	840
12P	1.0	0.5	1.0	20.1	0.3	1.5	25.0	920
19P	1.0	0.5	1.0	23.8	0.3	1.6	28.5	1260
27P	1.0	0.5	1.0	28.8	0.3	1.8	34.0	1690
32P	1.0	0.5	1.2	31.5	0.3	1.9	37.0	1970
1P	1.5	0.6	1.0	7.8	0.2	1.1	11.5	210
2P	1.5	0.6	1.0	12.5	0.3	1.3	17.0	420
4P	1.5	0.6	1.0	14.7	0.3	1.3	19.0	560
7P	1.5	0.6	1.0	17.7	0.3	1.4	22.5	780
10P	1.5	0.6	1.0	23.0	0.3	1.6	28.0	1070
12P	1.5	0.6	1.0	23.8	0.3	1.7	29.0	1200
19P	1.5	0.6	1.0	28.2	0.3	1.8	33.5	1650
27P	1.5	0.6	1.2	34.6	0.3	2.0	40.5	2270
32P	1.5	0.6	1.2	37.5	0.4	2.2	44.0	2790
1P	2.5	0.6	1.0	8.7	0.2	1.1	12.0	240
2P	2.5	0.6	1.0	14.0	0.3	1.3	18.5	490
4P	2.5	0.6	1.0	16.5	0.3	1.4	21.0	700
7P	2.5	0.6	1.0	20.0	0.3	1.5	24.5	1000
10P	2.5	0.6	1.0	26.0	0.3	1.7	31.0	1380
12P	2.5	0.6	1.0	26.9	0.3	1.8	32.5	1560
19P	2.5	0.6	1.2	32.4	0.3	2.0	38.0	2240
27P	2.5	0.6	1.2	39.2	0.4	2.2	46.0	3200
32P	2.5	0.6	1.4	42.9	0.4	2.3	50.0	3730

INSTRUMENTATION CABLES

Flame retardant, Halogen-free, Low smoke Collectively Screened Armoured Cable

TFOI(c) 250 V

- Construction** : CU/XLPE/OSCR/CWB/SHF1
- Voltage Grade** : 150/250 (300) V
- Operating temperature** : 90°C
- Applicable standards** : IEC 60092-350, IEC 60092-376
IEC 60228 for Conductor,
CR to Table 6 of IEC 60092-376
IEC 60092-360 for Insulation & Sheath
- Special Properties:**
Flame retardant : As per IEC 60332-1 & IEC 60332-3/
Cat.A
Low smoke : As per IEC 61034-1 & -2
Halogen free : As per IEC 60754-1 & -2



Construction Details:

Classification	Code	Details
Conductor	①	Annealed Plain Copper, round shaped, class 2
Insulation	T ②	Cross-linked Polyethylene, XLPE
Twisting		Two insulated cores twisted together to form a pair
Lay up		Twisted pairs laid up in concentric layers
Collective screening	(c) ③	Aluminium backed polyester tape screening with tinned copper drain wire"
Inner covering	F ④	Halogen free compound type SHF1
Armour	O ⑤	Copper wire braid armour
Outer sheath	I ⑥	Halogen free compound type SHF1
Outer sheath colour		Grey

Core Identification:

Pairs : Black, White

Note:

1. Tinned copper conductor can be supplied on request.
2. Tinned copper wire braid can be supplied on request.
3. Other colour of insulation & outer sheath can be provided as per customer requirement.

INSTRUMENTATION CABLES

Flame retardant, Halogen-free, Low smoke Collectively Screened Armoured Cable

TFOI(c) 250 V

No. of cores	Conductor Size	Insulation thickness	Inner covering thickness	Dia over inner covering, approx	Braid wire diameter	Outer sheath thickness, nominal	Overall diameter, approx	Weight of cable, approx
No.	mm ²	mm	mm	mm	mm	mm	mm	kg/km
2P	0.75	0.5	1.0	9.2	0.2	1.1	12.5	230
4P	0.75	0.5	1.0	10.6	0.2	1.2	14.5	300
7P	0.75	0.5	1.0	12.6	0.3	1.3	17.0	470
10P	0.75	0.5	1.0	16.1	0.3	1.4	20.5	620
12P	0.75	0.5	1.0	16.6	0.3	1.4	21.0	670
19P	0.75	0.5	1.0	19.6	0.3	1.5	24.5	890
27P	0.75	0.5	1.0	23.5	0.3	1.7	28.5	1170
32P	0.75	0.5	1.0	25.4	0.3	1.7	30.5	1320
2P	1.0	0.5	1.0	9.8	0.2	1.1	13.0	260
4P	1.0	0.5	1.0	11.3	0.2	1.2	15.0	340
7P	1.0	0.5	1.0	13.5	0.3	1.3	18.0	520
10P	1.0	0.5	1.0	17.3	0.3	1.4	22.0	700
12P	1.0	0.5	1.0	17.9	0.3	1.5	22.5	770
19P	1.0	0.5	1.0	21.0	0.3	1.6	26.0	1030
27P	1.0	0.5	1.0	25.3	0.3	1.7	30.5	1350
32P	1.0	0.5	1.0	27.4	0.3	1.8	33.0	1540
2P	1.5	0.6	1.0	11.4	0.2	1.2	15.0	320
4P	1.5	0.6	1.0	13.3	0.3	1.3	17.5	500
7P	1.5	0.6	1.0	16.0	0.3	1.4	20.5	680
10P	1.5	0.6	1.0	20.6	0.3	1.6	25.5	930
12P	1.5	0.6	1.0	21.3	0.3	1.6	26.0	1020
19P	1.5	0.6	1.0	25.1	0.3	1.7	30.5	1390
27P	1.5	0.6	1.2	30.8	0.3	1.9	36.5	1900
32P	1.5	0.6	1.2	33.3	0.3	2.0	39.0	2170
2P	2.5	0.6	1.0	12.8	0.3	1.3	17.0	450
4P	2.5	0.6	1.0	15.0	0.3	1.4	19.5	620
7P	2.5	0.6	1.0	18.0	0.3	1.5	23.0	880
10P	2.5	0.6	1.0	23.3	0.3	1.7	28.5	1200
12P	2.5	0.6	1.0	24.1	0.3	1.7	29.5	1340
19P	2.5	0.6	1.0	28.6	0.3	1.9	34.0	1870
27P	2.5	0.6	1.2	35.0	0.4	2.1	41.5	2730
32P	2.5	0.6	1.2	37.9	0.4	2.2	44.5	3130

INSTRUMENTATION CABLES

Fire resistant, Flame retardant, Halogen-free, Low smoke Individually Screened Armoured Cable

BFOI(i) 250 V

Construction : CU/MGT/XLPE/ISCR/CWB/SHF1

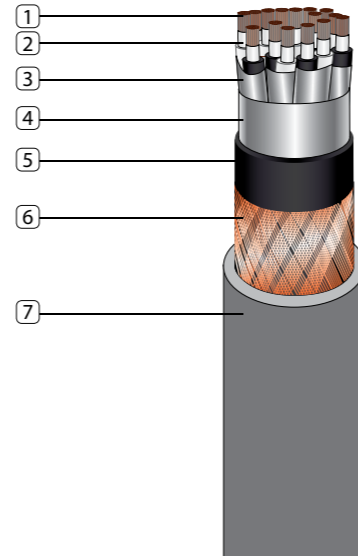
Voltage Grade : 150/250 (300) V

Operating temperature : 90°C

Applicable standards : IEC 60092-350, IEC 60092-376
IEC 60228 for Conductor, CR to Table 6 of IEC 60092-376
IEC 60092-360 for Insulation & Sheath

Special Properties:

Fire resistant : As per IEC 60331
Flame retardant : As per IEC 60332-1 & IEC 60332-3/Cat.A
Low smoke : As per IEC 61034-1 & -2
Halogen free : As per IEC 60754-1 & -2



Construction Details:

Classification	Code	Details
Conductor	①	Annealed Plain Copper, round shaped, class 2
Insulation	B ② ③	Mica glass tape + Cross-linked Polyethylene, XLPE
Twisting		Two insulated cores twisted together to form a pair
Individual screening	(i) ④	Aluminium backed polyester tape screening with tinned copper drain wire
Lay up		Screened pairs laid up in concentric layers and wrapped in polyester tape.
Inner covering	F ⑤	Halogen free compound type SHF1
Armour	O ⑥	Copper wire braid armour
Outer sheath	I ⑦	Halogen free compound type SHF1
Outer sheath colour		Grey

Core Identification:

Pairs : Black, White

Note:

1. Tinned copper conductor can be supplied on request.
2. Tinned copper wire braid can be supplied on request.
3. Other colour of insulation & outer sheath can be provided as per customer requirement.

INSTRUMENTATION CABLES

Fire resistant, Flame retardant, Halogen-free, Low smoke Individually Screened Armoured Cable

BFOI(i) 250 V

No. of cores	Conductor Size	Insulation thickness	Inner covering thickness	Dia over inner covering, approx	Braid wire diameter	Outer sheath thickness, nominal	Overall diameter, approx	Weight of cable, approx
No.	mm ²	mm	mm	mm	mm	mm	mm	kg/km
1P	0.75	0.5	1.0	7.3	0.2	1.0	10.5	180
2P	0.75	0.5	1.0	11.5	0.2	1.1	15.0	290
4P	0.75	0.5	1.0	13.5	0.2	1.2	17.0	400
7P	0.75	0.5	1.0	16.3	0.3	1.3	20.5	620
10P	0.75	0.5	1.0	21.0	0.3	1.4	25.5	840
12P	0.75	0.5	1.0	21.7	0.3	1.5	26.5	930
19P	0.75	0.5	1.0	25.7	0.3	1.6	30.5	1250
27P	0.75	0.5	1.0	31.2	0.3	1.7	36.5	1650
32P	0.75	0.5	1.0	33.8	0.3	1.8	39.0	1890
1P	1.0	0.5	1.0	7.6	0.2	1.0	11.0	190
2P	1.0	0.5	1.0	12.2	0.2	1.2	16.0	330
4P	1.0	0.5	1.0	14.3	0.2	1.2	18.0	440
7P	1.0	0.5	1.0	17.2	0.3	1.3	21.5	700
10P	1.0	0.5	1.0	22.3	0.3	1.5	27.0	960
12P	1.0	0.5	1.0	23.1	0.3	1.5	28.0	1050
19P	1.0	0.5	1.0	27.3	0.3	1.6	32.5	1440
27P	1.0	0.5	1.0	33.1	0.3	1.8	38.5	1930
32P	1.0	0.5	1.2	36.3	0.3	1.9	42.0	2260
1P	1.5	0.6	1.0	8.6	0.2	1.1	12.0	230
2P	1.5	0.6	1.0	13.9	0.3	1.3	18.5	460
4P	1.5	0.6	1.0	16.4	0.3	1.3	21.0	620
7P	1.5	0.6	1.0	19.9	0.3	1.4	24.5	870
10P	1.5	0.6	1.0	25.8	0.3	1.6	31.0	1200
12P	1.5	0.6	1.0	26.8	0.3	1.7	32.0	1340
19P	1.5	0.6	1.0	31.8	0.3	1.8	37.0	1850
27P	1.5	0.6	1.2	39.0	0.3	2.0	45.0	2540
32P	1.5	0.6	1.2	42.3	0.4	2.2	49.0	3120
1P	2.5	0.6	1.0	9.5	0.2	1.1	13.0	270
2P	2.5	0.6	1.0	15.4	0.3	1.3	20.0	540
4P	2.5	0.6	1.0	18.2	0.3	1.4	23.0	760
7P	2.5	0.6	1.0	22.1	0.3	1.5	27.0	1090
10P	2.5	0.6	1.0	28.8	0.3	1.7	34.0	1510
12P	2.5	0.6	1.0	29.9	0.3	1.8	35.0	1710
19P	2.5	0.6	1.2	35.9	0.3	2.0	41.5	2460
27P	2.5	0.6	1.2	43.6	0.4	2.2	50.5	3520
32P	2.5	0.6	1.4	47.7	0.4	2.3	54.5	4100

INSTRUMENTATION CABLES

Fire resistant, Flame retardant, Halogen-free, Low smoke Collectively Screened Armoured Cable

BFOI(c) 250 V

Construction : CU/MGT/XLPE/OSCR/CWB/SHF1

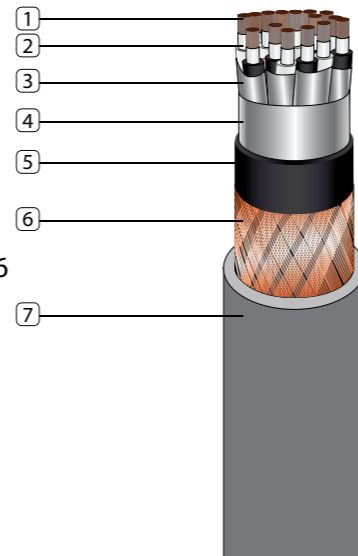
Voltage Grade : 150/250 (300) V

Operating temperature : 90°C

Applicable standards : IEC 60092-350, IEC 60092-376
IEC 60228 for Conductor, CR to Table 6 of IEC 60092-376
IEC 60092-360 for Insulation & Sheath

Special Properties:

Fire resistant : As per IEC 60331
Flame retardant : As per IEC 60332-1 & IEC 60332-3/Cat.A
Low smoke : As per IEC 61034-1 & -2
Halogen free : As per IEC 60754-1 & -2



Construction Details:

Classification	Code	Details
Conductor	①	Annealed Plain Copper, round shaped, class 2
Insulation	B ② ③	Mica glass tape + Cross-linked Polyethylene, XLPE
Twisting		Two insulated cores twisted together to form a pair
Lay up	④	Twisted pairs laid up in concentric layers
Collective screening	(c)	Aluminium backed polyester tape screening with tinned copper drain wire
Inner covering	F ⑤	Halogen free compound type SHF1
Armour	O ⑥	Copper wire braid armour
Outer sheath	I ⑦	Halogen free compound type SHF1
Outer sheath colour		Grey

Core Identification:

Pairs : Black, White

Note:

1. Tinned copper conductor can be supplied on request.
2. Tinned copper wire braid can be supplied on request.
3. Other colour of insulation & outer sheath can be provided as per customer requirement.

INSTRUMENTATION CABLES

Fire resistant, Flame retardant, Halogen-free, Low smoke Collectively Screened Armoured Cable

BFOI(c) 250 V

No. of cores	Conductor Size	Insulation thickness	Inner covering thickness	Dia over inner covering, approx	Braid wire diameter	Outer sheath thickness, nominal	Overall diameter, approx	Weight of cable, approx
No.	mm ²	mm	mm	mm	mm	mm	mm	kg/km
2P	0.75	0.5	1.0	10.5	0.2	1.1	14.0	270
4P	0.75	0.5	1.0	12.2	0.2	1.2	16.0	350
7P	0.75	0.5	1.0	14.6	0.3	1.3	19.0	540
10P	0.75	0.5	1.0	18.7	0.3	1.4	23.5	720
12P	0.75	0.5	1.0	19.4	0.3	1.4	24.0	790
19P	0.75	0.5	1.0	22.8	0.3	1.5	27.5	1040
27P	0.75	0.5	1.0	27.6	0.3	1.7	32.5	1380
32P	0.75	0.5	1.0	29.8	0.3	1.7	35.0	1560
2P	1.0	0.5	1.0	11.1	0.2	1.1	14.5	290
4P	1.0	0.5	1.0	12.9	0.2	1.2	16.5	390
7P	1.0	0.5	1.0	15.5	0.3	1.3	20.0	600
10P	1.0	0.5	1.0	19.9	0.3	1.4	24.5	800
12P	1.0	0.5	1.0	20.6	0.3	1.5	25.5	890
19P	1.0	0.5	1.0	24.3	0.3	1.6	29.5	1200
27P	1.0	0.5	1.0	29.4	0.3	1.7	34.5	1570
32P	1.0	0.5	1.0	31.8	0.3	1.8	37.0	1800
2P	1.5	0.6	1.0	12.7	0.2	1.2	16.5	360
4P	1.5	0.6	1.0	14.9	0.3	1.3	19.5	560
7P	1.5	0.6	1.0	17.9	0.3	1.4	22.5	760
10P	1.5	0.6	1.0	23.2	0.3	1.6	28.0	1040
12P	1.5	0.6	1.0	24.0	0.3	1.6	29.0	1150
19P	1.5	0.6	1.0	28.4	0.3	1.7	33.5	1570
27P	1.5	0.6	1.2	34.8	0.3	1.9	40.5	2150
32P	1.5	0.6	1.2	37.7	0.3	2.0	43.5	2460
2P	2.5	0.6	1.0	14.1	0.3	1.3	18.5	500
4P	2.5	0.6	1.0	16.6	0.3	1.4	21.0	690
7P	2.5	0.6	1.0	20.0	0.3	1.5	25.0	970
10P	2.5	0.6	1.0	25.9	0.3	1.7	31.0	1330
12P	2.5	0.6	1.0	26.9	0.3	1.7	32.0	1480
19P	2.5	0.6	1.0	31.9	0.3	1.9	37.5	2070
27P	2.5	0.6	1.2	39.1	0.4	2.1	45.5	3020
32P	2.5	0.6	1.2	42.3	0.4	2.2	49.0	3460

GENERAL CABLE TECHNICAL DATA & RATING FACTORS



TECHNICAL DATA

Power Cables

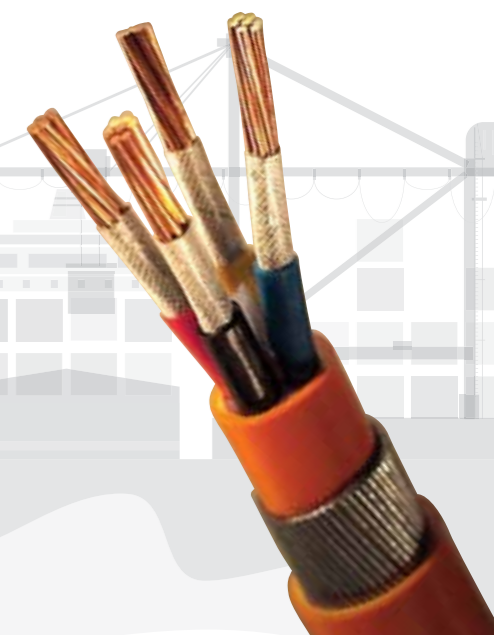
Continuous Current Ratings

Installation Conditions
 Ambient air temperature : 45°C
 Conductor temperature : 90°C

Conductor size mm ²	Single core A	Two core A	Three, Four & Five core A
1.5	23	20	16
2.5	30	26	21
4	40	34	28
6	52	44	36
10	72	61	50
16	96	82	67
25	127	108	89
35	157	133	110
50	196	167	137
70	242	206	169
95	293	249	205
120	339	288	237
150	389	331	273
185	444	377	311
240	522	444	366
300	601	511	420

Correction factors for various ambient air temperatures

Ambient air temperatures	Correction factors
25°C	1.20
30°C	1.16
35°C	1.11
40°C	1.06
45°C	1.00
50°C	0.94
55°C	0.88



TECHNICAL DATA

Electrical Characteristics of Power & Control Cables

TFOI 0.6/1 kV

Conductor Size mm ²	Max DC rest. of conductor at 20°C Ω/km	AC rest. of conductor at 90°C, approx Ω/km	Capacitance per core, approx μF/km	Reactance at 50 Hz, approx		Short circuit rating for 1 sec kA
				Single core in trefoil Ω/km	Multi core Ω/km	
1.5	12.1	15.4	0.202	-	0.103	0.21
2.5	7.41	9.45	0.242	-	0.097	0.36
4	4.61	5.88	0.289	-	0.091	0.57
6	3.08	3.93	0.344	-	0.087	0.86
10	1.83	2.33	0.428	-	0.083	1.43
16	1.15	1.47	0.499	0.118	0.080	2.29
25	0.727	0.927	0.480	0.114	0.080	3.58
35	0.524	0.668	0.551	0.109	0.078	5.01
50	0.387	0.494	0.579	0.107	0.078	7.15
70	0.268	0.342	0.625	0.101	0.074	10.0
95	0.193	0.246	0.724	0.096	0.072	13.6
120	0.153	0.195	0.749	0.094	0.072	17.2
150	0.124	0.158	0.728	0.092	0.072	21.5
185	0.0991	0.1264	0.701	0.090	0.072	26.5
240	0.0754	0.0961	0.754	0.088	0.071	34.3
300	0.0601	0.0766	0.793	0.086	0.070	42.9

BFOI 0.6/1 kV

Conductor Size mm ²	Max DC rest. of conductor at 20°C Ω/km	AC rest. of conductor at 90°C, approx Ω/km	Capacitance per core, approx μF/km	Reactance at 50 Hz, approx		Short circuit rating for 1 sec kA
				Single core in trefoil Ω/km	Multi core Ω/km	
1.5	12.1	15.4	0.169	-	0.111	0.21
2.5	7.41	9.45	0.200	-	0.104	0.36
4	4.61	5.88	0.237	-	0.098	0.57
6	3.08	3.93	0.280	-	0.092	0.86
10	1.83	2.33	0.345	-	0.087	1.43
16	1.15	1.47	0.387	0.121	0.085	2.29
25	0.727	0.927	0.391	0.116	0.084	3.58
35	0.524	0.668	0.448	0.111	0.082	5.01
50	0.387	0.494	0.478	0.109	0.080	7.15
70	0.268	0.342	0.453	0.104	0.079	10.0
95	0.193	0.246	0.522	0.099	0.076	13.6
120	0.153	0.195	0.552	0.097	0.075	17.2
150	0.124	0.158	0.558	0.095	0.075	21.5
185	0.0991	0.1264	0.553	0.093	0.075	26.5
240	0.0754	0.0961	0.601	0.090	0.074	34.3
300	0.0601	0.0766	0.639	0.088	0.072	42.9

TECHNICAL DATA

Electrical Characteristics of Power & Control Cables

TI 0.6/1 kV

Conductor Size mm ²	Max DC rest. of conductor at 20°C Ω/km	AC rest. of conductor at 90°C, approx Ω/km	Capacitance per core, approx μF/km	Reactance at 50 Hz, approx		Short circuit rating for 1 sec kA
				Single core in trefoil Ω/km	Multi core Ω/km	
1.5	12.1	15.4	0.202	-	0.103	0.21
2.5	7.41	9.45	0.242	-	0.097	0.36
4	4.61	5.88	0.289	-	0.091	0.57
6	3.08	3.93	0.344	-	0.087	0.86
10	1.83	2.33	0.428	-	0.083	1.43
16	1.15	1.47	0.499	0.099	0.080	2.29
25	0.727	0.927	0.480	0.096	0.080	3.58
35	0.524	0.668	0.551	0.094	0.078	5.01
50	0.387	0.494	0.579	0.091	0.078	7.15
70	0.268	0.342	0.625	0.086	0.074	10.0
95	0.193	0.246	0.724	0.084	0.072	13.6
120	0.153	0.195	0.749	0.082	0.072	17.2
150	0.124	0.158	0.728	0.082	0.072	21.5
185	0.0991	0.1264	0.701	0.081	0.072	26.5
240	0.0754	0.0961	0.754	0.080	0.071	34.3
300	0.0601	0.0766	0.793	0.079	0.070	42.9

BI 0.6/1 kV

Conductor Size mm ²	Max DC rest. of conductor at 20°C Ω/km	AC rest. of conductor at 90°C, approx Ω/km	Capacitance per core, approx μF/km	Reactance at 50 Hz, approx		Short circuit rating for 1 sec kA
				Single core in trefoil Ω/km	Multi core Ω/km	
1.5	12.1	15.4	0.169	-	0.111	0.21
2.5	7.41	9.45	0.200	-	0.104	0.36
4	4.61	5.88	0.237	-	0.098	0.57
6	3.08	3.93	0.280	-	0.092	0.86
10	1.83	2.33	0.345	-	0.087	1.43
16	1.15	1.47	0.387	0.102	0.085	2.29
25	0.727	0.927	0.391	0.099	0.084	3.58
35	0.524	0.668	0.448	0.096	0.082	5.01
50	0.387	0.494	0.478	0.093	0.080	7.15
70	0.268	0.342	0.453	0.090	0.079	10.0
95	0.193	0.246	0.522	0.088	0.076	13.6
120	0.153	0.195	0.552	0.086	0.075	17.2
150	0.124	0.158	0.558	0.085	0.075	21.5
185	0.0991	0.1264	0.553	0.084	0.075	26.5
240	0.0754	0.0961	0.601	0.082	0.074	34.3
300	0.0601	0.0766	0.639	0.081	0.072	42.9

TECHNICAL DATA

Electrical Characteristics of Instrumentation Cables

Conductor size	Max DC resistance of conductor at 20°C	Max mutual capacitance	Max L/R ratio
mm ²	Ω/km	nF/km	μH/Ω
0.75	26.0	150	25
1.0	19.2	150	25
1.5	12.8	150	40

Installation Guide

Minimum bending radius

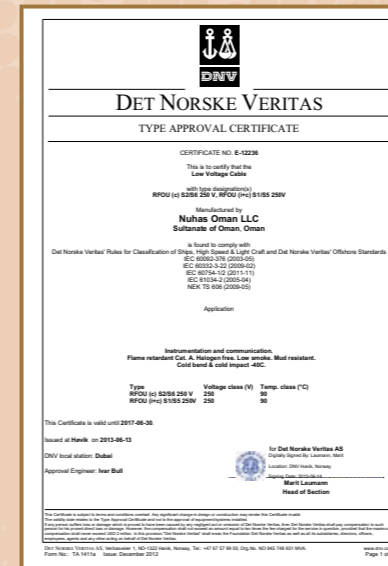
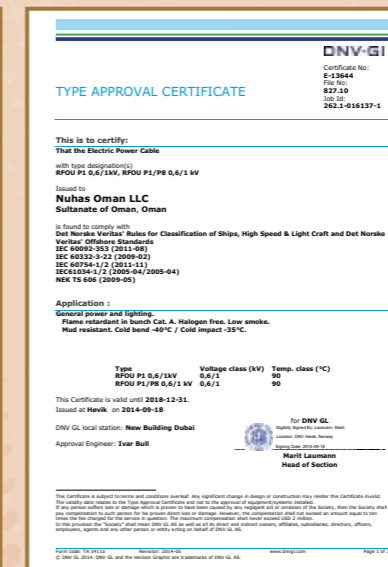
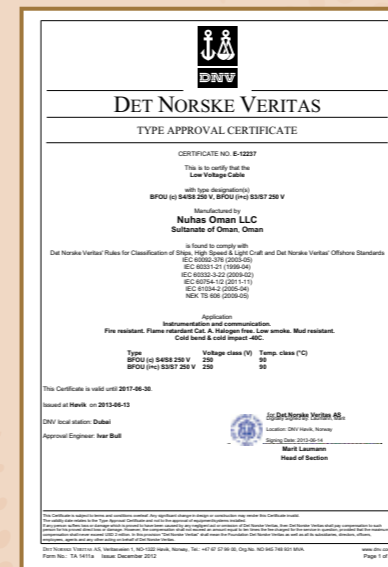
During Installation	For fixed installation
8 x O.D.	6 x O.D.

Pulling tension (pulling eye on conductor)

70 N/mm ²

Minimum temperature of installation

-20°C



Achieving Milestones



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