

NX400 ALSECURE® PLUS

BS 7846-F2

(Formerly LYONOTOX 331 SWA)

Type Approved Certificates

BASEC British Approval Service
for Cables
LPCB Loss prevention
Certification Board

Application

Fire safety circuits for control
Systems and large power
transmission (water pump,
Hydrant, air fans) with
enhanced mechanical
protection

0.6/1 kV

Max core temperature: 90 °C

Design

1. Conductor

Bare copper stranded class 2
BS 6360/IEC 60228

2. Mica tape(s)

3. Insulation

XLPE

4. Bedding / Inner sheath

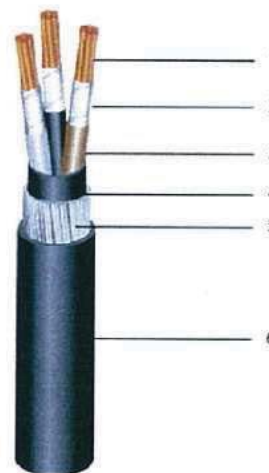
Halogen free extruded bedding
up to 35 sqmm,
inner sheath ≥ 50 sqmm

5. Armour

Single layer of galvanized
steel wires

6. Outer sheath

Halogen free flame retardant
sheathing compound
Colour : Black



Core identification

2 Cores blue - brown

3 Cores brown - black - grey

4 Cores blue - brown - black - grey

Standards

BS 7846: 2009 Category F2

BS 6387: 2013 Category CWZ

EN 61034-2: 2005

EN 50267-2-1: 1999.



Flame retardant

IEC 60332 part 3 & 1
EN 50265 1& 2.1
BS 4066 part 3 & 1



Fire resistant

IEC 60331
BS 7846 -F2
BS 6387 Cat CWZ



Low smoke

IEC 61034
EN 50268
BS 7622
NF C 32073



Halogen free

IEC 60754
EN 50267
BS 6425
NF C 32074



Low toxicity

IEC 60754
EN 50267
BS 6425
NF C 03274



Low corrosivity

IEC 60754
EN 50267
BS 6425
NF C 03274



-20 / + 60 °C

Cables (mm ²)	Diameter (Approx.)		Current rating (A)	Voltage drop (V/Axkm)		Weight approx. (kg/km)
	Under armour (mm)	Outer Max. (mm)		AC/DC	AC	
				2 cores loaded	3 cores loaded	
2x1,5	9,4	14,8	29	31		350
2x2,5	10,2	15,6	39	19		400
2x4	11,3	16,8	52	12		460
2x6	12,9	18,5	66	7,9		560
2x10	14,3	20,0	90	4,7		700
2x16	15,6	22,1	115	2,9		950
2x25	18,7	25,5	152	1,9		1290
2x35	20,7	28,6	188	1,35		1700
2x50	18,7	26,6	228	1,00		1760
2x70	21,5	29,9	291	0,69		2330
2x95	23,8	33,4	354	0,52		3200
3x1,5	10,0	15,4	25		27	400
3x2,5	10,9	16,4	33		16	460
3x4	12,5	18,1	44		10	550
3x6	13,8	19,5	56		6,8	650
3x10	15,3	21,8	78		4,0	900
3x16	16,7	23,3	99		2,5	1160
3x25	20,1	27,9	131		1,65	1700
3x35	22,3	30,5	162		1,15	2100
3x50	22,3	30,5	197		0,87	2400
3x70	25,8	34,5	251		0,60	3150
3x95	28,7	38,8	304		0,45	4300
3x120	32,9	43,5	353		0,37	5300
3x150	36,0	48,2	406		0,30	6750
3x185	39,8	52,4	463		0,26	8200
3x240	44,7	57,9	546		0,21	10200
3x300	49,6	63,3	628		0,185	12400
3x400	57,1	71,8	728		0,17	15500

Current rating general conditions

The data are indicated for continuous duty operation and apply to

- Maximum conductor temperature = 90 °C
- Nominal frequencies =50 or 60 Hz
- One cable in free air (on perforated trays)
- Ambient temperature = 30 °C
- Data refer to BS 7671

1,5 to 35 sqmm circular stranded conductors (class 2)
50 ≥ Shaped stranded conductors (class 2)



=6x outer diam. max for circular conductors
= 8x outer diam. max for shaped conductors

to be doubled during laying operation

Voltage drop

The data are based on cos φ=1

And refer to BS 7671

For other laying conditions refer to the above standard

 Nexans

Cables (mm ²)	Diameter (Approx.)		Current rating (A)	Voltage drop (V/Axkm)		Weight apporx. (kg/km)
	Under armour (mm)	Outer Max. (mm)		AC/DC	AC	
				2 cores loaded	3 cores loaded	
4x1,5	11,0	16,5	25		27	430
4x2,5	12,5	18,1	33		16	540
4x4	13,8	19,5	44		10	640
4x6	15,3	21,8	56		6,8	860
4x10	16,9	23,5	78		4,0	1100
4x16	18,5	25,3	99		2,5	1400
4x25	22,3	30,3	131		1,65	2100
4x35	24,7	33,1	162		1,15	2630
4x50	25,7	34,3	197		0,87	3150
4x70	29,0	39,2	251		0,60	4400
4x95	33,4	44,1	304		0,45	5650
4x120	37,2	49,4	353		0,37	7300
4x150	41,4	54,1	406		0,30	8700
4x185	46,6	59,9	463		0,26	10400
4x240	51,6	65,5	546		0,21	13150
4x300	57,6	72,3	628		0,185	16200
4x400	66,6	85,1	728		0,17	21300

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