TCC Thomas Cable

N2XH Enhanced Flex Cable

Eland Product Group: A7X

APPLICATION

These power cables are used for electricity supply in low voltage installation system. They are well adapted to underground use in industrial applications with an additional mechanical protection. These cables can be fixed on cable trays, within conduits or fixed to walls and are suitable for duct installation.

CHARACTERISTICS

Voltage Rating (Uo/U)
0.6/1kV

Test Voltage
3.5kV

Temperature Rating
Fixed: -15°C to +90°C

Minimum Bending Radius
Fixed: 6 x overall diameter

CONSTRUCTION

Conductor
Class 5, Fine Stranded Copper Conductor

Insulation
XLPE (Cross-Linked Polyethylene)

Bedding
LSZH-FRNC (Low Smoke Zero Halogen - Flame Retardant Non-Corrosive)

Sheath
LSZH-FRNC (Low Smoke Zero Halogen - Flame Retardant Non-Corrosive)

Core Identification
1 core: ● Black
2 core: ● Blue ● Brown
3 core including earth: ● Blue ● Brown ◪ Green/Yellow
4 core including earth: ● Brown ● Black ● Grey ◪ Green/Yellow
5 core including earth core: ● Brown ● Black ● Grey ◪ Green/Yellow ● Blue

Sheath Colour
● Black

CABLE THIRD-PARTY ACCREDITATION

KEMA Cables are tested and approved by KEMA Laboratories in The Netherlands to KEMA K42C-1-5

STANDARDS

VDE0274 Part 604, VDE0276 Part 604, HD 604 S1, IEC 60364, BS EN 60228, BS EN 62230, DIN VDE 0100, CEI 20-60, NEN 1010, NF C15-100, IEC 61034-2, IEC 60754-1/2, EN 50396, EN 60229-4.1

Flame retardant according to IEC 60332-3-24, IEC 60332-1-2

IEC bsi.

ISO/IEC 17025 LABORATORY TESTED

This product is subject to the Quality Assurance protocols of The Cable Lab®, an ISO/IEC 17025 accredited cable testing laboratory. Testing includes vertical flame, conductor resistance, tensile & elongation, and dimensional consistency, verified to published standards and approved product drawings.

UKAS ISO/IEC 17025 Accredited Testing Laboratory 0570 · bsi. ISO 9001 Quality Management FS 672069 · ISO 14001 Environmental Management EMS 672067 · OHSAS 18001 Occupational Health and Safety Management OHS 672066

REGULATORY COMPLIANCE

This cable meets the requirements of the Low Voltage Directive 2014/35/EU and the RoHS Directive 2011/65/EU. RoHS compliance has been tested and confirmed by The Cable Lab® as meeting the requirements of the BSI RoHS Trusted Kitemark™.

bsi. RoHS Trusted KITEMARK™ · RoHS · CE · CPR COMPLIANT

(주)토마스케이블

DIMENSIONS

ELAND PART NO.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm²	NOMINAL DIAMETER OF CONDUCTOR mm	NOMINAL THICKNESS OF INSULATION mm	MINIMUM THICKNESS OF SHEATH mm	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT mm
A7XD1035	1	35	7.60	0.90	0.92	13	383
A7XD1050	1	50	9.05	1.00	0.92	14	525
A7XD1070	1	70	10.95	1.10	0.92	16	716
A7XD1095	1	95	12.35	1.10	1.00	18	938
A7XD1120	1	120	14.00	1.20	1.00	20	1172
A7XD1150	1	150	15.80	1.40	1.08	22	1454
A7XD1185	1	185	18.50	1.60	1.12	25	1795
A7XD1240	1	240	20.60	1.70	1.16	27	2312
A7XD1300	1	300	23.10	1.80	1.24	30	2847
A7XD2035	2	35	7.60	0.90	1.24	24	1095
A7XD2050	2	50	9.05	1.00	1.24	27	1486
A7XD2070	2	70	10.95	1.10	1.24	32	2012
A7XD2095	2	95	12.35	1.10	1.40	35	2615
A7XD2120	2	120	14.00	1.20	1.48	40	3285
A7XD2150	2	150	15.80	1.40	1.56	45	4134
A7XD2185	2	185	18.50	1.60	1.64	51	5214
A7XD3035	3	35	7.60	0.90	1.24	26	1390
A7XD3050	3	50	9.05	1.00	1.24	30	1901
A7XD3070	3	70	10.95	1.10	1.32	34	2603
A7XD3095	3	95	12.35	1.10	1.40	38	3386
A7XD3120	3	120	14.00	1.20	1.48	42	4260
A7XD3150	3	150	15.80	1.40	1.64	48	5368
A7XD3185	3	185	18.50	1.60	1.72	55	6724
A7XD4035	4	35	7.60	0.90	1.24	28	1751
A7XD4050	4	50	9.05	1.00	1.32	33	2422
A7XD4070	4	70	10.95	1.10	1.40	38	3323
A7XD4095	4	95	12.35	1.10	1.48	42	4331
A7XD4120	4	120	14.00	1.20	1.64	47	5475
A7XD4150	4	150	15.80	1.40	1.76	54	6870
A7XD4185	4	185	18.50	1.60	1.88	61	8607
A7XD5035	5	35	7.60	0.90	1.24	31	2154
A7XD5050	5	50	9.05	1.00	1.40	36	3002
A7XD5070	5	70	10.95	1.10	1.48	42	4121
A7XD5095	5	95	12.35	1.10	1.64	46	5390
A7XD5120	5	120	14.00	1.20	1.72	52	6782
A7XD5150	5	150	15.80	1.40	1.88	59	8515
A7XD5185	5	185	18.50	1.60	2.04	68	10679

ELECTRICAL CHARACTERISTICS

Single Core

NOMINAL CROSS SECTIONAL AREA mm²	CURRENT CARRYING CAPACITY A				MAXIMUM CONDUCTOR RESISTANCE AT 20°C Ω/km
	IN CONDUIT		IN AIR		
35	207	173	206	165	0.524
50	243	205	250	202	0.386
70	298	251	318	257	0.272
95	355	301	392	319	0.206
120	404	341	457	370	0.161
150	451	384	525	425	0.129
185	510	436	607	492	0.106
240	592	505	727	588	0.0801
300	668	569	838	676	0.0641

Multi Core

NOMINAL CROSS SECTIONAL AREA mm²	CURRENT CARRYING CAPACITY A		MAXIMUM CONDUCTOR RESISTANCE AT 20°C Ω/km
	IN CONDUIT	IN AIR	
35	168	155	0.554
50	199	189	0.386
70	244	240	0.272
95	294	296	0.206
120	336	344	0.161
150	378	395	0.129
185	428	455	0.106

RATING FACTORS

Rating factors for one circuit or one multicore cable or for a group of circuits, or a group of multicore cables

ARRANGEMENT (CABLES TOUCHING)	NUMBER OF CIRCUITS OR MULTICORE CABLES											
	1	2	3	4	5	6	7	8	9	12	16	20
Bunched in air, on a surface, embedded or enclosed	1.00	0.80	0.70	0.65	0.60	0.57	0.54	0.52	0.50	0.45	0.41	0.38
Single layer on wall or floor	1.00	0.85	0.79	0.75	0.73	0.72	0.72	0.71	0.70	0.70	0.70	0.70
Single layer multicore on a perforated horizontal or vertical cable tray system	1.00	0.88	0.82	0.77	0.75	0.73	0.73	0.72	0.72	0.72	0.72	0.72
Single layer multicore on cable ladder system or cleats etc.	1.00	0.87	0.82	0.80	0.80	0.79	0.79	0.78	0.78	0.78	0.78	0.78

Rating factors for more than one circuit, single cables in ducts buried in the ground

NUMBER OF DUCTS	DUCT-TO-DUCT CLEARANCE (a)			
	Nil (ducts touching)	0.25m	0.5m	1.0m
2	0.85	0.90	0.95	0.95
3	0.75	0.85	0.90	0.95
4	0.70	0.80	0.85	0.90
5	0.65	0.80	0.85	0.90
6	0.60	0.80	0.80	0.90