Nexans - 6941AB Power Cable - BS6724, XLPE, AWA, LSZH - 50mm² to 1000mm²

Description

Designed for use in AC circuits, the aluminium armour prevents magnetic build up. Nexans cables are suitable for power networks and direct burial where fire and emissions of smoke and toxic fumes create a serious potential threat.

Key Features

Voltage Rating
600/1000 Volts

Minimum Bending Radius
Fixed: 8 x overall diameter

Flame Retardancy
BS EN/IEC 60332-1-2
BS EN/IEC 60332-3-24

Temperature Limits
Temperature Range:-20°C to +90°C

Core Colours

Brown

Standards

- BS EN/IEC 60332-3-24 (cat C)
- BS6724
- BS EN/IEC 60332-1-2
- IEC/EN 60754-1/2
- BS EN/IEC 61034-2
- BS EN/IEC 60228

Construction

- **Conductor**: Class 2 stranded copper conductor
- **Insulation**: Cross Linked polyethylene (XLPE)
- **Bedding**: Low Smoke Zero Halogen (LSZH)
- **Armour**: Aluminium Wire Armour (AWA)
- **Outer Sheath**: Low Smoke Zero Halogen (LSZH)
- **Sheath Colour**: Black

Training & Testing Lab

AN ISO/IEC 17025 ACCREDITED FACILITY

Cleveland Cable Test & Training Lab
Our state-of-the-art cable testing facility ensures that every cable meets the highest standards of quality and compliance through continuous, rigorous testing.

ISO/IEC 17025 Accredited Testing Laboratory
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CPR
Cleveland Cable Company is committed to compliance with the Construction Products Regulation (CPR). Where applicable, all cables manufactured after 1st July 2017 have been assessed in accordance with CPR requirements, with full supporting documentation available.

Our Sustainability Commitment

We are committed to the journey to Net Zero as a business partner, an employer and a community member.

By thinking and acting sustainably, we deliver excellent customer service while reducing carbon emissions in collaboration with our customers and suppliers.

CLEVELAND CABLE COMPANY

ecovadis
Cleveland Cable Company has been independently assessed by EcoVadis, a globally recognised provider of business sustainability ratings. Our score places us among the top 35% of companies evaluated worldwide, reflecting our strong commitment to environmental, social, and ethical performance

ecovadis

Nexans - 6941AB Power Cable - BS6724, XLPE, AWA, LSZH - 50mm² to 1000mm² - Dimensions

Reference	Short circuit conductor 1s [kA]	Perm. Current buried / direct 20°C [A]	Perm current rating in air 30°C [A]	Max. DC Resist. Cond. 20°C [Ohm/km]	Conductor Size (mm2)	No Of Cores	Overall Diameter(mm)	Weight(Kg/Km)
6941AB50	7.2	153	275	0.387	50	1	16.0	600
6941AB70	10.0	188	353	0.268	70	1	19.0	900
6941AB95	13.6	226	430	0.193	95	1	20.0	1200
6941AB120	17.2	257	500	0.153	120	1	22.0	1400
6941AB150	21.4	287	577	0.124	150	1	25.0	1800
6941AB185	26.5	324	661	0.0991	185	1	27.0	2250
6941AB240	34.3	375	781	0.0754	240	1	29.7	2690
6941AB300	42.9	419	902	0.0601	300	1	32.0	3500
6941AB400	572	464	1085	0.047	400	1	36.0	4250
6941AB500	71.5	524	1253	0.0366	500	1	40.0	5500
6941AB630	90.1	595	1454	0.0283	630	1	45.0	6750
6941AB800	114.4	625	1581	0.0221	800	1	53.0	9000
6941AB1000	143	658	1775	0.0176	1000	1	58.0	11000

TABLE 4E3A

CURRENT-CARRYING CAPACITY (Amps)

Ambient temperature: 30°C
Conductor operating temperature:90°C

Conductor cross sectional area	Reference Method C (clipped direct)		Reference Method F (in free air or on a perforated cable tray, horizontal or vertical)								
	Touching		Touching			Spaced by one cable diameter					
	2 cables, single phase AC or DC flat	3 or 4 cables, three phase AC flat	2 cables, single phase AC or DC flat	3 cables, three phase AC flat	4 cables, three phase AC Trefoil	2 cables, DC		2 cables, single- phase AC		3 or 4 cables, three- phase AC	
						Horizontal	Vertical	Horizontal	Vertical	Horizontal	Vertical
(mm^2)	(A)	(A)	(A)	(A)	(A)	(A)	(A)	(A)	(A)	(A)	(A)
50	237	220	253	232	222	284	270	282	266	288	266
70	303	277	322	293	285	356	349	357	337	358	331
95	367	333	389	352	346	446	426	436	412	425	393
120	425	383	449	405	402	519	497	504	477	485	449
150	488	437	516	462	463	600	575	566	539	549	510
185	557	496	587	524	529	688	660	643	614	618	574
240	656	579	689	612	625	815	782	749	714	715	666
300	755	662	792	700	720	943	906	842	805	810	755
400	853	717	899	767	815	1137	1094	929	889	848	797
500	962	791	1016	851	918	1314	1266	1032	989	923	871
630	1082	861	1146	935	1027	1528	1474	1139	1092	992	940
800	1170	904	1246	987	1119	1809	1744	1204	1155	1042	978
1000	1261	961	1345	1055	1214	2100	2026	1289	1238	1110	1041

* with or without a protective conductor

1.Where it is intended to connect the cables in this table to equipment or accessories designed to operate at a temperature lower than the maximum operating temperature of the cable, the cables should be rated at the maximum operating temperature of the equipment or accessory (see Regulation 512.1.5).

2.Where it is intended to group a cable in this table with other cables, the cable should be rated at the lowest of the maximum operating temperatures of any of the cables in the group (see Regulation 512.1.5).

Single-core armoured 90°C thermosetting insulated cables (non-magnetic armour) (COPPER CONDUCTORS) Reproduced from BS7671:2018 Wiring Regulations

TABLE 4E3B

VOLTAGE DROP (per ampere per metre)

Conductor operating temperature:90°C

Conductor cross-sectional area	2 cables, DC	Reference Methods C & F (clipped direct, on tray or in free air)														
		2 cables, single-phase AC						3 or 4 cables, three-phase AC								
		touching			spaced*			trefoil and touching			flat and touching			flat and spaced*		
(mm^2)	(mV/ Alm)	(mV/A/m)			(mV/A/m)			(mV/A/m)			(mV/A/m)			(mV/A/m)		
		r	x	z	r	x	z	r	x	z	r	x	z	r	x	z
50	0.98	0.99	0.21	1.00	0.98	0.29	1.00	0.86	0.180	0.87	0.84	0.25	0.88	0.84	0.33	0.90
70	0.67	0.68	0.200	0.71	0.69	0.29	0.75	0.59	0.170	0.62	0.60	0.25	0.65	0.62	0.32	0.70
95	0.49	0.51	0.195	0.55	0.53	0.28	0.60	0.44	0.170	0.47	0.46	0.24	0.52	0.49	0.31	0.58
120	0.39	0.41	0.190	0.45	0.43	0.27	0.51	0.35	0.165	0.39	0.38	0.24	0.44	0.41	0.30	0.51
150	0.31	0.33	0.185	0.38	0.36	0.27	0.45	0.29	0.160	0.33	0.31	0.23	0.39	0.34	0.29	0.45
185	0.25	0.27	0.185	0.33	0.30	0.26	0.40	0.23	0.160	0.28	0.26	0.23	0.34	0.29	0.29	0.41
240	0.195	0.21	0.180	0.28	0.24	0.26	0.35	0.180	0.155	0.24	0.21	0.22	0.30	0.24	0.28	0.37
300	0.155	0.170	0.175	0.25	0.195	0.25	0.32	0.145	0.150	0.21	0.170	0.22	0.28	0.20	0.27	0.34
400	0.115	0.145	0.170	0.22	0.180	0.24	0.30	0.125	0.150	0.195	0.160	0.21	0.27	0.20	0.27	0.33
500	0.093	0.125	0.170	0.21	0.165	0.24	0.29	0.105	0.145	0.180	0.145	0.20	0.25	0.190	0.24	0.31
630	0.073	0.105	0.165	0.195	0.150	0.23	0.27	0.092	0.145	0.170	0.135	0.195	0.24	0.175	0.23	0.29
800	0.056	0.090	0.160	0.190	0.145	0.23	0.27	0.086	0.140	0.165	0.130	0.180	0.23	0.175	0.195	0.26
1000	0.045	0.092	0.155	0.180	0.140	0.21	0.25	0.080	0.135	0.155	0.125	0.170	0.21	0.165	0.180	0.24

*NOTE: * Spacings larger than one cable diameter will result in a larger voltage drop.*

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