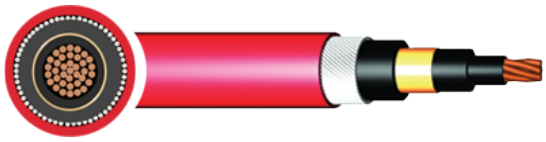
Nexans - BS7835 Single Core Armoured Power Cable 11kV - XLPE, AWA, LSZH - 50mm² to 630mm²



Description

BS7835 cables from Nexans are armoured power cables designed for medium voltage fixed installations, such as power networks and industrial installations, including power supply stations, and substations. Can be installed indoors, outdoors, underground, and in cable ducts. These single core cables have copper conductors with cross-linked polyethylene (XLPE) insulation, various screen options, water blocking options, aluminium wire armour and LSZH bedding and outer sheath.

The UV resistant LSZH outer sheath means this cable is suitable for internal use in buildings, power stations, or switchboards and are often run in cable tray for industrial applications. They can also be used externally in cable duct and due to the armour can be buried directly in free draining soil.

Key Features

Voltage Rating
6.35kV / 11kV (12kV)
Tested To Voltage And Duration of BS7835

Minimum Bending Radius
15 x Overall Diameter

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

Temperature Limits
Maximum operating temp: 90°C
Initial temperature at S.C.C for screen: 80°C
Maximum temp during short circuit: 250°C

Core Colours

Outer Sheath: Red or Black

Standards

- BS 7835
- IEC 61034-1
- BS EN/IEC 60228
- BS EN/IEC 60754-1
- BS EN/IEC 60332-1-2 & BS EN/IEC 60332-3-24

Construction

- **Conductor**: Class 2 stranded copper conductor
- **Insulation**: Cross Linked polyethylene (XLPE)
- **Insulation Screen**: Semi-Conductive XLPE
- **Bedding**: LSZH (Low smoke Zero Halogen)
- **Metallic Screen**: Individual copper tape screen
- **Armour**: Aluminium Wire Armour (AWA)
- **Outer Sheath**: Low Smoke Zero Halogen (LSZH)

QA Lab

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. Where applicable, cables are independently tested and certified by BASEC to ensure full compliance.

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.

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

Nexans - BS7835 Single Core Armoured Power Cable 11kV - XLPE, AWA, LSZH - 50mm² to 630mm² - Dimensions

Reference	Conductor Size (mm2)	No Of Cores	Stranding(mm)	Overall Diameter(mm)	Weight(Kg/Km)	Trefoil Cleat	Nylon Cleat Size
10050	50	1	19/1.78	28.7	1200	TASB04	12
10051	70	1	19/2.14	30.5	1461	TASB05	14
10052	95	1	19/2.52	32.2	1761	TASB06	14
10053	120	1	37/2.03	33.8	2049	TASB07	14
10054	150	1	37/2.25	36.2	2451	TASB08	16
10055	185	1	37/2.52	37.9	2848	TASB09	16
10056	240	1	61/2.25	40.4	3470	TASB11	16
10057	300	1	61/2.52	42.6	4103	TASB12	18
10058	400	1	61/2.85	46.1	4995	TASB15	18
10059	500	1	61/3.20	50	6320	TASB17	20
10060	630	1	127/2.52	54	7840	TASB19	TC9
10061	800	1	127/2.85	56.6	9510	TASB20	TC10

11KV SINGLE CORE ELECTRICAL CHARACTERISTICS

CONDUCTOR SIZE	MAX. DC RESISTANCE AT 20°C	CONDUCTOR AC RESISTANCE AT MAX OPERATING TEMPERATURE AND 50hz	CAPACITANCE	CHARGING CURRENT	DIELECTRIC LOSSES	RESISTANCE AT 50HZ	CONDUCTOR S.C.C FOR 1 SEC	SCREEN S.C.C FOR 1 SEC	CURRENT RATING		
									LAID IN GROUND	LAID IN DUCT	LAID IN FREE AIR
MM^2	(Ω/km)	(Ω/km)	mf/km	(A/Km)	(W/Km)	(Ω/km)	(KA)	(KA)	AMPS	AMPS	AMPS
70	0.268	0.342	0.303	0.605	15.35	0.127	10.01	0.3	277	227	313
95	0.193	0.247	0.332	0.662	16.81	0.122	13.585	0.3	329	277	376
120	0.153	0.196	0.362	0.723	18.37	0.119	17.16	0.3	370	308	430
150	0.124	0.159	0.397	0.793	20.15	0.115	21.45	0.4	412	345	484
185	0.0991	0.128	0.43	0.859	21.81	0.111	26.455	0.4	460	390	546
240	0.0754	0.098	0.483	0.964	24.47	0.107	34.32	0.4	520	451	629
300	0.0601	0.078	0.535	1.068	27.13	0.103	42.9	0.5	571	507	708
400	0.047	0.062	0.592	1.181	30	0.101	57.2	0.5	609	564	777
500	0.0366	0.049	0.666	33.76	33.76	0.097	71.5	0.6	661	631	863
630	0.0283	0.039	0.76	1.516	38.51	0.095	90.09	0.6	707	698	945
800	0.0221	0.032	0.849	1.694	43.03	0.092	114.4	0.7	750	764	1032

Electrical Data:

Maximum conductor operating temperature: 90°C
Maximum screen operating temperature: 80°C
Maximum conductor temperature during S.C: 250°C

Laying conditions at trefoil formation are as below:

Soil thermal resistivity: 120°C. Cm/Watt
Burial depth: 0.5m
Ground temperature: 15°C
Air temperature: 25°C
Frequency: 50Hz

THE INFORMATION CONTAINED WITHIN THIS DATASHEET IS FOR GUIDANCE ONLY AND IS SUBJECT TO CHANGE WITHOUT NOTICE OR LIABILITY. WE BELIEVE THE INFORMATION IS CORRECT AT THE TIME OF PUBLICATION. PLEASE NOTE WHEN SELECTING CABLE ACCESSORIES THAT ACTUAL CABLE DIMENSIONS MAY VARY DUE TO MANUFACTURING TOLERANCES.