6181X Mains Cable - BS7889-12, XLPE, PVC - 50mm² to 1000mm²



Description

6181X is a PVC single core cable, double insulated with a voltage rating of 600/1000V. General surface wire cable for fixed installation, domestic and light industrial use. Brown core with black outer. Available in sizes from 50mm^2 –1000mm^2 .

Key Features

Voltage Rating
50mm^2 to 630mm^2: 600/1000 Volts

Core Colours

Brown (Inner) - Black (Outer)

Standards

- BS7889-12, Flame propagation to BS EN 50265 (IEC 60332)

Construction

- **Insulation**: Cross Linked polyethylene (XLPE)
- **Sheath**: PVC (Polyvinyl Chloride)

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

6181X Mains Cable - BS7889-12, XLPE, PVC - 50mm² to 1000mm² - Dimensions

Reference	Conductor Size (mm2)	No Of Cores	Stranding(mm)	Overall Diameter(mm)	Weight(Kg/Km)	Trefoil Cleat	Nylon Cleat Size	Nylon A2	Brass A2
6181X50	50	1	19/1.78	13.5	520	NONE	0.6	25	25
6181X70	70	1	19/2.14	15.5	720	NONE	0.7	25	25
6181X95	95	1	19/2.52	17.5	985	NONE	0.7	25	25
6181X120	120	1	37/2.03	19	1215	NONE	0.8	32	32
6181X150	150	1	37/2.25	21.5	1515	NONE	0.9	32	32
6181X185	185	1	37/2.52	23.5	1865	NONE	1	32	32
6181X240	240	1	61/2.25	26.5	2415	NONE	1.1	40	40
6181X300	300	1	61/2.52	29	3005	376AC04	1.2	40	40
6181X400	400	1	61/2.85	32.5	3810	376AC06	1.4	50	50S
6181X500	500	1	61/3.20	37	4890	376AC09	1.6	50	50S
6181X630	630	1	127/2.52	42	6355	376AC12	1.8	63	50
6181X800	800	1	127/2.85	46	8075	376AC15	2	0	63S
6181X1000	1000	1	127/3.20	53	9860	376AC19	TC9	NONE	63

Single-core armoured 70°C thermoplastic insulated cables (non-magnetic armour) Reproduced from *BS7671:2018 Wiring Regulations*

TABLE 4D3A

CURRENT-CARRYING CAPACITY (amperes):

Ambient temperature: 30 °C
Conductor operating temperature: 70 °C

	Reference Method C (clipped direct)		Reference Method F (in free air or on a perforated cable tray, horizontal or vertical)								
Conductor cross-sectional area	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	3 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
1	2	3	4	5	6	7	8	9	10	11	12
(mm2)	(A)	(A)	(A)	(A)	(A)	(A)	(A)	(A)	(A)	(A)	(A)
50	193	179	205	189	181	229	216	229	217	230	212
70	245	225	259	238	231	294	279	287	272	286	263
95	296	269	313	285	280	357	340	349	332	338	313
120	342	309	360	327	324	415	396	401	383	385	357
150	393	352	413	373	373	479	458	449	429	436	405
185	447	399	469	422	425	548	525	511	489	490	456
240	525	465	550	492	501	648	622	593	568	566	528
300	594	515	624	547	567	748	719	668	640	616	578
400	687	575	723	618	657	885	851	737	707	674	632
500	763	622	805	673	731	1035	997	810	777	721	676
630	843	669	891	728	809	1218	1174	893	856	771	723
800	919	710	976	777	886	1441	1390	943	905	824	772
1000	975	737	1041	808	945	1685	1627	1008	967	872	816

Single-core armoured 70°C thermoplastic insulated cables (non-magnetic armour) Reproduced from *BS7671:2018 Wiring Regulations TABLE 4D3A*

VOLTAGE DROP (per ampere per metre):

Conductor operating temperature: 70 °C

Conductor cross-sectional area	2 cables, DC	Reference Methods C & F (clipped direct, on tray or 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*		
1	2	3			4			5			6			7		
(mm2)	(mV/A/m)	(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	0.93	0.93	0.22	0.95	0.92	0.30	0.97	0.80	0.190	0.82	0.79	0.26	0.84	0.79	0.34	0.86
70	0.63	0.64	0.21	0.68	0.66	0.29	0.72	0.56	0.180	0.58	0.57	0.25	0.62	0.59	0.32	0.68
95	0.46	0.48	0.20	0.52	0.51	0.28	0.58	0.42	0.175	0.45	0.44	0.25	0.50	0.47	0.31	0.57
120	0.36	0.39	0.195	0.43	0.42	0.28	0.50	0.33	0.170	0.37	0.36	0.24	0.43	0.40	0.30	0.50
150	0.29	0.31	0.190	0.37	0.34	0.27	0.44	0.27	0.165	0.32	0.30	0.24	0.38	0.34	0.30	0.45
185	0.23	0.26	0.190	0.32	0.29	0.27	0.39	0.22	0.160	0.27	0.25	0.23	0.34	0.29	0.29	0.41
240	0.180	0.20	0.180	0.27	0.23	0.26	0.35	0.175	0.160	0.23	0.20	0.23	0.30	0.24	0.28	0.37
300	0.145	0.160	0.180	0.24	0.190	0.26	0.32	0.140	0.155	0.21	0.165	0.22	0.28	0.20	0.28	0.34
400	0.105	0.140	0.175	0.22	0.180	0.24	0.30	0.120	0.130	0.195	0.160	0.21	0.26	0.21	0.25	0.32
500	0.086	0.120	0.170	0.21	0.165	0.23	0.29	0.105	0.145	0.180	0.145	0.20	0.25	0.190	0.24	0.30
630	0.068	0.105	0.165	0.195	0.150	0.22	0.27	0.091	0.145	0.170	0.135	0.195	0.23	0.175	0.22	0.28
800	0.053	0.095	0.160	0.185	0.145	0.21	0.25	0.082	0.140	0.160	0.125	0.180	0.22	0.170	0.195	0.26
1000	0.042	0.091	0.155	0.180	0.140	0.190	0.24	0.079	0.135	0.155	0.125	0.165	0.21	0.165	0.170	0.24

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