

Type	Name
YFD-VV	Copper conductor PVC insulated and sheathed prefabricated branch cable
YFD-W22	Copper conductor PVC insulated steel tape PVC sheathed to prefabricate branch cable
YFD-YJV	Copper conductor XLPE insulated PVC sheathed prefabricated branch cable
YFD-YJV22	Copper conductor XLPE insulated steel tape PVC sheathed to prefabricate branch cable

Conductor cross-sectional area of main cable (mm ²)	Conductor cross-sectional area of branch cable (mm ²)													
	6	10	16	25	35	50	70	95	120	150	185	240	300	400
10	6	10												
16	6	10	16											
25	6	10	16	25										
35	6	10	16	25	35									
50	6	10	16	25	35	50								
70	6	10	16	25	35	50	70							
95	6	10	16	25	35	50	70	95						
120	6	10	16	25	35	50	70	95	120					
150	6	10	16	25	35	50	70	95	120	150				
185	6	10	16	25	35	50	70	95	120	150	185			
240	6	10	16	25	35	50	70	95	120	150	185	240		
300	6	10	16	25	35	50	70	95	120	150	185	240	300	
400	6	10	16	25	35	50	70	95	120	150	185	240	300	400
500	6	10	16	25	35	50	70	95	120	150	185	240	300	400
630	6	10	16	25	35	50	70	95	120	150	185	240	300	400

Both standard main cable and line cable are insulated and sheathed. Usually the main cable is made with single-core multi-core or stranded multi-core (2-core to 5-core) branch cable is adopted single-core. The features of cable structure as follows:

Joint Structure of Branch Cable

The joint of prefabricated branch cable is made of special PVC or synthetic material, the right-sided drawing shows the joint of branch cable.

Main Cable (mm ²)	Branch Cable (mm ²)	Reference Size mm			Tap diagram
		d 1	d 2	L	
10	~ 10	54	35	95	
16	~ 16				
25	~ 25				
35	~ 35				
50	~ 50	57	38	95	
70	~ 70				
96	~ 95				
120	~ 120	78	52	145	
150	~ 150				
185	~ 185				
240	~ 240	96	7	160	
300	~ 300				
400	~ 400				
500	~ 400	106	80	170	
630	~ 400				

Structure Parameter&Electrical Property of 0.6/1kV Single-Core XLPE insulated Prefabricated Branch Cable
(also suiting for branch cable of flame-retardant and fire-resisting type)

Conductor			Nominal Thickness of insulation mm	Nominal Thickness of Sheath mm	Approx overall diameter mm	Calculated Weight of Cable kg/km	A.C. Voltage Test kV/5min	Max.D.C. Resitance of Conductor 20°C) Ω /km	Reference current carrying (40°C)(A)	Voltage Drop V/A · m
Nominal Cross sectional area mm ²	Form	Diameter (Reference Value) mm								
10	Circular non compact and stranded	3.7	0.7	1.4	9.0	150	3.5	1.83	93	0.002
16		4.7	0.7	1.4	9.5	210	3.5	1.15	120	0.0013
25		5.9	0.9	1.4	11.0	310	3.5	0.727	155	0.0084
35		7.0	0.9	1.4	12.0	410	3.5	0.524	196	0.0063
50	Circular compact and stranded	8.5	1.0	1.4	14.0	555	3.5	0.387	235	0.00049
70		10.1	1.1	1.4	15.0	760	3.5	0.268	295	0.00036
95		11.7	1.1	1.4	17.0	1020	3.5	0.193	370	0.00029
120		13.2	1.2	1.6	19.0	1260	3.5	0.153	430	0.00024
150		14.7	1.4	1.6	21.0	1570	3.5	0.124	495	0.00021
185		16.4	1.6	1.6	23.0	1920	3.5	0.0991	570	0.00019
240		18.6	1.7	1.7	26.0	2470	3.5	0.0754	680	0.00016
300		20.8	1.8	1.8	29.0	3090	3.5	0.0601	790	0.00015
400		24.1	2.0	1.9	32.0	4080	3.5	0.0470	920	0.000131
500		26.9	2.2	2.1	36.0	5080	3.5	0.0636	1080	0.00012
630	30.2	2.4	2.2	40.0	6390	3.5	0.0283	1260	0.000111	

Note: The central interval for cable's flat laying is 2-fold of cable's diameter.

Structure Parameter&Electrical Property of 0.6/1kV Single-Core PVC insulated Prefabricated Branch Cable
(also suiting for branch cable of flame-retardant and fire-resisting type)

Conductor			Nominal Thickness of insulation mm	Nominal Thickness of Sheath mm	Approx overall diameter mm	Calculated Weight of Cable kg/km	A.C Voltage Test kV/5min	Max.D.C Resistance of Conductor 20°C) Ω /km	Reference current carrying (40°C)(A)	Voltage Drop V/A·m
Nominal Cross sectional area mm ²	Form	Diameter (Reference Value) mm								
10	Circular non compact and stranded	3.7	1.0	1.4	9.0	150	3.5	1.83	70	0.002
16		4.7	1.0	1.4	10.0	215	3.5	1.15	97	0.0013
25		5.9	1.2	1.4	11.3	310	3.5	0.727	120	0.0084
35		7.0	1.2	1.4	12.3	410	3.5	0.524	150	0.0063
50	Circular compact and stranded	8.5	1.4	1.4	14.0	570	3.5	0.387	180	0.00049
70		10.1	1.4	1.4	15.7	770	3.5	0.268	230	0.00036
95		11.7	1.6	1.7	18.4	1030	3.5	0.193	280	0.00029
120		13.2	1.6	1.7	19.8	1280	3.5	0.153	325	0.00024
150		14.7	1.8	1.8	22.8	1590	3.5	0.124	375	0.00021
185		16.4	2.0	1.8	25.1	1950	3.5	0.0991	430	0.00019
240		18.6	2.2	1.8	28.5	2490	3.5	0.0754	515	0.00016
300		20.8	2.4	2.1	32.0	3140	3.5	0.0601	595	0.00015
400		24.1	2.6	2.2	35.4	4140	3.5	0.0470	700	0.000131
500		26.9	2.8	2.3	40.0	5140	3.5	0.0636	810	0.00012
630	30.2	2.8	2.4	46.0	6440	3.5	0.0283	950	0.000111	

Note: The central interval for cable's flat laying is 2-fold of cable's diameter.

Structure Parameter & Electrical Property of 0.6/1kV Four-Core Standed Type XLPE insulated Prefabricated Branch C
(also suiting for the prefabricated branch cable of flame-redarding, fire-resistand, low-halogen, low-fume, non-halogen and low-fume)

Conductor			Nominal Thickness of insulation mm	Nominal Thickness of Sheath mm	Approx overall diameter mm	Calculated Weight of Cable kg/km	A.C. Voltage Test kV/5min	Max.D.C. Hesitance ol Conductor 20°C) Ω /km	Reference current carrying (40°C)(A)	Voltage Drop VIA·m
Nominal Cross sectional area mm ²	Form	Diameter (Reference Value)mm								
10	Circular non compact and stranded	3.7	0.7	1.4	20.5	620	3.5	1.83	65	0.002
16		4.7	0.7	1.4	23.0	860	3.5	1.15	84	0.0013
25		5.9	0.9	1.4	26.5	1270	3.5	0.727	110	0.00084
35		7.0	0.9	1.4	29.0	1680	3.5	0.524	135	0.00063
50	Circular compact and stranded	8.5	1.0	1.4	33.0	2270	3.5	0.387	170	0.00049
70		10.1	1.1	1.4	36.5	3110	3.5	0.268	215	0.00036
95		11.7	1.1	1.4	41.0	4170	3.5	0.193	265	0.0002g
120		13.2	1.2	1.6	46.0	5150	3.5	0.153	310	0.00024
150		14.7	1.4	1.6	51.0	6410	3.5	0.124	350	0.00021
185		16.4	1.6	1.6	55.5	7840	3.5	0.0991	405	0.00019
240		18.6	1.7	1.7	63.0	10080	3.5	0.0754	480	0.00016
300		20.8	1.8	1.8	70.0	12610	3.5	0.0601	555	0.00015

No.	Items	Property Requirements		
1	Insulation Voltage resisting	Voltage 3.5kV,5min,no breakdown		
2	Insulation resistance	$\geq 200 \text{ M}\Omega$		
3	Resistance ratio of branch joint	Resistance ratio of branch joint $k_j \leq 1.2$		
4	Short-circuit test	Change ratio of D.C.Resistance after short circuit $y_j \leq 0.2$		
5	Heat circulation test	Measured value of no.25 period $\leq 75^\circ\text{C}$		
		Measured value of no.26 -125 period , smaller than measured value $+8^\circ\text{C}$ of temperature rise of no.25 period		
6	Flame-retardant	Automatic firing blanked off : within 15 seconds		
7	Metal lifting tool	Tensile force	24h,double weight no tracking out	
		Insulating voltage	Voltage 3.5kV, 5min, no breakdown	
		Insulating resistance	$\geq 200 \text{ M}\Omega$	
8	Molding plastic	Original property	Tensile strength	$\geq 10\text{MPa}$
			Extensibility	$\geq 120\%$
		Property of air-box when ageing	Tensile strength	$\geq 8.5\text{MPa}$
			Extensibility	$\geq 95\%$
		Property after tes for temperature resisting	Tensile strength	$\geq 8.5\text{MPa}$
			Extensibility	$\geq 95\%$
		Cold-proof	Non-fracture	
		Deform when heating	Extenuation ratio of thickness not over 50%	