

# VFD Cable



## 1. VFD Cable (Al-ATC Shield)

### Standard

IEC 60332-1, IEC 60811-2, BS EN 60228

### Design

<b>Conductor</b>	Fine bare copper strands As per VDE – 0295 Class – 5 IEC 60228 CI – 5
<b>Insulation</b>	XLPE
<b>Color Code - As per VDE 093 308</b>	Grey - Brown - Black - Green/Yellow (4 Core) Grey - Brown - Black (3 Core)
<b>Color Code - As per IS 1554 (Optional)</b>	Red - Yellow - Blue - Black (4 Core) Red - Yellow - Blue (3 Core)
<b>Screening</b>	AL-Foil (Aluminium Foil) 100% coverage + 20% overlap
<b>Braid</b>	Tinned Copper Wire Braid 85% coverage
<b>Outer Sheath</b>	PVC (LSZH also available)
<b>Outer Sheath Color</b>	Black (Other colors available on request)

\* Cable also available in FRLS & ZHLS sheathing. Add S or H respectively at the end of the item code

# VFD Cable



## Characteristics

<b>Voltage Rating</b>	600/ 1000V
<b>Test Voltage</b>	4KV
<b>Temperature Rating</b>	Fixed: -30°C to +70°C Flexing: -5°C to +70°C
<b>Min. Bending Radius</b>	Fixed: 12 X OD Flexing: 20 X OD
<b>Flame Retardant</b>	IEC 60332-1 (Optional)
<b>Insulation Resistance</b>	20 MΩ X km

## Application

The cables have been designed for connecting VFD motors to power supply. VFD cables provide proper shielding required to reduce EMI/RFI noise and to provide a low-impedance path for the signal/current.

By using VFD cables life of the cable increases, reduces electricity cost and improves the efficiency of the operation since it protects the system from standing wave, corona discharge & harmonic distortion.

# VFD Cable



Udey Pyro Part No	No of Cores	Nominal Cross Section Area (sq.mm)		Nominal Overall Diameter (mm)
		Power Conductor	Earth Conductor	
<b>3 Power Conductors + 3 Earth Conductors</b>				
UP110303B	3 + 3 earth	1.5	0.25	10.2
UP110304B	3 + 3 earth	2.5	0.5	11.4
UP110305B	3 + 3 earth	4	0.75	13.4
UP110306B	3 + 3 earth	6	1.0	14.9
UP110307B	3 + 3 earth	10	1.5	18.4
UP110308B	3 + 3 earth	16	2.5	21.6
UP110309B	3 + 3 earth	25	4.0	25.3
UP110310B	3 + 3 earth	35	6.0	27.8
UP110311B	3 + 3 earth	50	8.36	32.6
UP110312B	3 + 3 earth	70	10	38.9
UP110313B	3 + 3 earth	95	16	44.3
UP110314B	3 + 3 earth	120	16	46.8
UP110315B	3 + 3 earth	150	25	53.5
UP110316B	3 + 3 earth	185	35	59.5
UP110317B	3 + 3 earth	240	42.5	62.0
<b>3 Power Conductors + 1 Ground Conductor</b>				
UP110403B	4	1.5	--	10.4
UP110404B	4	2.5	--	12.3
UP110405B	4	4	--	14.5
UP110406B	4	6	--	16.8
UP110407B	4	10	--	19.7
UP110408B	4	16	--	22.0
UP110409B	4	25	--	27.0
UP110410B	4	35	--	30.3
UP110411B	4	50	--	35.0
UP110412B	4	70	--	39.4
UP110413B	4	95	--	46.0
UP110414B	4	120	--	51.4
UP110415B	4	150	--	58.8
UP110416B	4	185	--	61.1
UP110417B	4	240	--	70.0

# VFD Cable



## Conductor & Electrical Details

Nominal Cross Sectional Area (sq.mm)	Max. diameter of strand before stranding (mm)	Max. Resistance of conductor at 20 °C (Ω/ Km)	Current Carrying Capacity in Air (Amps)
1.5	0.26	13.3	18
2.5	0.26	7.98	26
4	0.31	4.95	34
6	0.31	3.3	44
10	0.41	1.91	61
16	0.41	7.98	82
25	0.41	4.95	108
35	0.41	0.554	135
50	0.41	0.386	168
70	0.51	0.272	207
95	0.51	0.206	250
120	0.51	0.161	292
150	0.51	0.129	335
185	0.51	0.106	382
240	0.51	0.0801	453
300	0.51	0.0641	523

# VFD Cable



## 2. VFD Cable (Copper Tape Shield)

### Standard

IEC 60332-1, IEC 60811-2, BS EN 60228

### Design

<b>Conductor</b>	Fine bare copper strands As per VDE – 0295 Class – 5 IEC 60228 CI – 5
<b>Insulation</b>	XLPE
<b>Color Code - As per ICEA Method 4</b>	Black with number printing on each core
<b>Color Code - As per IS 1554 (Optional)</b>	Red - Yellow - Blue - Black (4 Core) Red - Yellow - Blue (3 Core)
<b>Screening</b>	Copper Tape 100% coverage + 50% overlap
<b>Ground</b>	3 symmetrical bare copper conductor
<b>Outer Sheath</b>	PVC (LSZH also available)
<b>Outer Sheath Color</b>	Black (Other colors available on request)

\* Cable also available in FRLS & ZHLS sheathing. Add S or H respectively at the end of the item code

# VFD Cable



## Characteristics

<b>Voltage Rating</b>	2000V
<b>Test Voltage</b>	7.5KV
<b>Temperature Rating</b>	Fixed: -30°C to +70°C Flexing: -5°C to +70°C
<b>Min. Bending Radius</b>	Fixed: 15 X OD Flexing: 20 X OD
<b>Flame Retardant</b>	IEC 60332-1 (Optional)
<b>Insulation Resistance</b>	20 MΩ X km

Udey Pyro Part No	No of Cores	Nominal Cross Section Area (sq.mm)		Nominal Overall Diameter (mm)
		Power Conductor (AWG/ kcmil)	Earth Conductor (AWG/ kcmil)	
<b>3 Power Conductors + 3 Earth Conductors</b>				
UP1103A1C	3 + 3 earth	1 (42.4 sq.mm.)	8	33.5
UP1103A0C	3 + 3 earth	1/0 (53.7 sq.mm.)	6	35.5
UP1103A00C	3 + 3 earth	2/0 (67.5 sq.mm.)	6	38.0
UP1103A000C	3 + 3 earth	3/0 (85.1 sq.mm.)	5	41.0
UP1103A0000C	3 + 3 earth	4/0 (107.2 sq.mm.)	4	45.5
UP1103A250C	3 + 3 earth	250 (126.71 sq.mm.)	2	50.5
UP1103A350C	3 + 3 earth	350 (177.60 sq.mm.)	2	56.5
UP1103A500C	3 + 3 earth	500 (253.70 sq.mm.)	1	62.5



## 3. VFD Cable generally conforming to Indian Standard (Al Conductor - Armoured)

### Standard

IS 7098-1, IS 8130, IEC 60332-1

### Design

<b>Conductor</b>	Aluminium H2-H4 grade As per IS 8130 Class – 2 Stranded shaped conductor
<b>Insulation</b>	XLPE
<b>Color Code</b>	Red - Yellow - Blue (3 Core)
<b>Screening</b>	Aluminum Wire
<b>Inner Sheath</b>	PVC (LSZH also available)
<b>Armour</b>	Steel Wire Armour / Strip
<b>Outer Sheath</b>	PVC (LSZH also available)
<b>Outer Sheath Color</b>	Black (Other colors available on request)

\* Cable also available in FRLS & ZHLS sheathing. Add S or H respectively at the end of the item code

\* Cable also available in unarmoured configuration

### Application

These cables are specially designed for the Indian market where Aluminum armoured cables is a preferred choice.

The cables have been designed for connecting VFD motors to power supply. VFD cables provide proper shielding required to reduce EMI/RFI noise and to provide a low-impedance path for the signal/current.

By using VFD cables life of the cable increases, reduces electricity cost and improves the efficiency of the operation since it protects the system from standing wave, corona discharge & harmonic distortion.

# VFD Cable



## Characteristics

<b>Voltage Rating</b>	600/ 1000V
<b>Test Voltage</b>	4KV
<b>Temperature Rating</b>	Fixed: -30°C to +70°C Flexing: -5°C to +70°C
<b>Min. Bending Radius</b>	Fixed: 12 X OD Flexing: 20 X OD
<b>Flame Retardant</b>	IEC 60332-1 (Optional)
<b>Insulation Resistance</b>	20 MΩ X km

Udey Pyro Part No	No of Cores	Nominal Cross Section Area (sq.mm)		Nominal Overall Diameter (mm)
		Power Conductor (sq.mm)	Earth Conductor (sq.mm)	
UP110311AF	3	50	25	28.5
UP110312AF	3	70	35	33.5
UP110313AF	3	95	42.5	35.5
UP110314AF	3	120	60	38.5
UP110315AF	3	150	75	42.5
UP110316AF	3	185	92.5	47.0
UP110317AF	3	240	120	53.0
UP110318AF	3	300	150	58.0
UP110319AF	3	400	200	64.0
UP110326AF	3	500	250	70.5

\* The information mentioned in this document is for guidance only and is subjected to change without notice or liability. When selecting cable accessories, please note that actual cable dimensions may vary due to manufacturing tolerances.