



## ● Introduction

Marine Variable Frequency Drive (VFD) Cables are specialized cables designed to connect variable frequency drives (VFDs) to motors and other equipment in marine environments. These cables are engineered to handle the unique electrical and environmental challenges associated with VFD applications, such as high voltage spikes, EMI/RFI interference, and harsh marine conditions. VFDs are used to control the speed and torque of motors by varying the frequency and voltage supplied to the electric motor.

## ● Application

Suitable for all kinds of warships, river and sea ships, offshore oil platforms and other water buildings to transmit electricity, mainly used in the connection between variable frequency power supply and variable frequency motor.

## ● Construction

-LV Marine VFD Power Cables

1. Conductor: copper wire or tinned copper wire
2. Insulation: XLPE or EPR  
XLPE provides high-temperature resistance, good electrical properties, and mechanical strength.  
EPR offers excellent flexibility, good electrical insulation properties, and resistance to moisture and chemicals.
3. Filler
4. Binder tape
5. Shielding: copper wire sparse winding shielding, or copper wire braid shielding, or copper wire and tape composite shielding
6. Outer sheath: PVC, or PE, or XLPO, or chloroprene rubber
7. Earth wire core

-MV Marine VFD Power Cables

1. Conductor: copper wire or tinned copper wire
2. Conductor screen: semi-conducting layer
3. Insulation: XLPE
4. Insulation screen: semi-conducting layer
5. Metallic screen: copper tape or copper wire
6. Filler
7. Binder tape (for 3-core cable only)
8. Inner sheath (optional): PVC, or PE, or XLPO
9. Shielding: copper wire sparse winding shielding, or copper wire braid shielding, or copper wire and tape composite shielding
10. Outer sheath: PVC, or PE, or XLPO
11. Bare copper earth wire core

## ● Specification

-IEC 60092-350, IEC 60092-353, IEC50092-360, IEC60228  
Flame Retardant: According to IEC 60332-1 & IEC 60332-3-24 or IEC 60332-3-22  
Fire Resistant: According to IEC 60331  
Low Smoke Emission: According to IEC 61034-1 and -2  
Halogen Free: According to IEC60754-1 and -2

## ● Eastful Cable Lab



We have CNAS Accredited Facility to assure conformity assessment services with a focus on quality, expertise, and customer satisfaction.

CNAS has international mutual recognition among IAF, ILAC, APLAC and PAC.

## ● Accreditation

We meet the requirements of ISO9001, ISO14001, ISO45001 and ISO50001 and our cables have certificate of CCC, RoHS, CASC, UL, cUL, TÜV Rheinland and CCS.



## ● National Green Factory



Our facility has been awarded of National Green Factory by Ministry of Industry and Information Technology of China. We are committed to the development of high-end, intelligent and green manufacturing industry.

\*The overall energy consumption level of green factories is better than the energy efficiency benchmark level.

## ● Technical Parameters

Nominal Cross Section Area of Conductor	No. of Cores	Insulation Thickness						
		0.6/1kV		1.8/3kV		3.6/6kV	6/10kV	8.7/15kV
		XLPE	EPR	XLPE	EPR	XLPE	XLPE	XLPE
mm <sup>2</sup>	-	mm	mm	mm			mm	mm
1		0.7	1.0	2.0	2.2	-	-	-
1.5		0.7	1.0	2.0	2.2	-	-	-
2.5		0.7	1.0	2.0	2.2	-	-	-
4		0.7	1.0	2.0	2.2	-	-	-
6		0.7	1.0	2.0	2.2	-	-	-
10		0.7	1.0	2.0	2.2	2.5	-	-
16		0.7	1.0	2.0	2.2	2.5	3.4	
25		0.9	1.2	2.0	2.2	2.5	3.4	4.5
35		0.9	1.2	2.0	2.2	2.5	3.4	4.5
50	3 cores or 3+3 cores	1.0	1.4	2.0	2.2	2.5	3.4	4.5
70		1.1	1.4	2.0	2.2	2.5	3.4	4.5
95		1.1	1.6	2.0	2.4	2.5	3.4	4.5
120		1.2	1.6	2.0	2.4	2.5	3.4	4.5
150		1.4	1.8	2.0	2.4	2.5	3.4	4.5
185		1.6	2.0	2.0	2.4	2.5	3.4	4.5
240		1.7	2.2	2.0	2.4	2.6	3.4	4.5
300		1.8	2.4	2.0	2.4	2.8	3.4	4.5
400		-	-	-	-	3.0	3.4	4.5
500		-	-	-	-	3.2	3.4	4.5