

POLYCAB MARINE IEC 60092-353 1.8/3.0 kV VFD

Screened & Armoured VFD Cable, 1.8/3.0 (3.6) kV AC



Images not to scale. Follow table for dimensions

APPLICATION

POLYCAB MARINE Single and Multicore core Screened & Armoured VFD cable is suitable to use in sea vessels and offshore platforms where transient voltage occurs in motors during operation i.e. for Variable Frequency drive applications.

CHARACTERISTICS

Voltage Rating

1.8/3.0 (3.6) kV AC

Operation Temperature

-30°C to +90°C

Short Circuit Temp. 250°C

Bending Radius

Min. 6D; (8D for sector shaped conductors);

D is cable diameter

Test Voltage

6500V AC at (20±5)°C

CONSTRUCTION

- Annealed plain stranded flexible copper conductor as per IEC 60228, Class-5 (tinned on request),
- Extruded XLPE Insulation, (Extruded HEPR Insulation available on demand)
- Insulated Cores assembled along with 3 Earth cores together, (Inner covering / fillers optional)
- Copper/Polyester tape Screened,
- Annealed plain Copper Braid Armour,
- Extruded Polyolefin HF-SHF1 Outer Sheath (HF-SHF2 on request),
- 3 core: brown, black, grey;
- Earth core: green/yellow;

Core Identification

OUTSTANDING FEATURES

- Halogen Free
- Reduced Flame Propagation
- Flame Retardant
- Low Smoke Emission

STANDARD FOLLOWS

IEC 60228:2005

IEC 60092-350:2020

IEC 60092-352:2005

IEC 60092-353:2016

IEC 60092-360:2014

COMPLIANCE

Fire Retardant	IEC 60332-3-22 (cat.A)
Flame Retardant	IEC 60332-1-2
Halogen free	IEC 60754-1 / IEC 60684-2
Corrosivity of Gases	IEC 60754-2
Smoke Density	IEC 61034-1 and 2

OUR ACCREDITATIONS



APPROVAL



NOTES

Colour: Black. (others colour on request).

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DIMENSIONS AND WEIGHTS:

Product Code	No. of Cores	Cross Sectional Area (mm ²)	Nom. Insulation Thickness (mm)	Nom. Braid Wire Dia. (mm)	Nom. Cable Overall Dia. (mm)	Cable Weight Approx. (kg / km)
BCIE44CXCBEV03C016SSAXXXP	3	16	2.0	0.30	26.5	1080
BCIE44CXCBEV03C025SSAXXXP	3	25	2.0	0.30	29.4	1415
BCIE44CXCBEV03C035SSAXXXP	3	35	2.0	0.30	32.2	1785
BCIE44CXCBEV03C050SSAXXXP	3	50	2.0	0.30	36.0	2675
BCIE44CXCBEV03C070SSAXXXP	3	70	2.0	0.40	40.2	3545
BCIE44CXCBEV03C095SSAXXXP	3	95	2.0	0.40	44.5	4440
BCIE44CXCBEV03C120SSAXXXP	3	120	2.0	0.40	48.3	5385
BCIE44CXCBEV03C150SSAXXXP	3	150	2.0	0.40	51.8	6375
BCIE44CXCBEV03C095SSAXXXP	3	95 + 25	2.0	0.40	44.5	4535
BCIE44CXCBEV03C120SSAXXXP	3	120 + 25	2.0	0.40	48.3	5650
BCIE44CXCBEV03C150SSAXXXP	3	150 + 25	2.0	0.40	51.8	6545

ELECTRICAL CHARACTERISTICS:

Conductor cross-sectional area mm ²	Max. Conductor Resistance		Current Rating for continuous service Conductor temperature max. +90°C, Ambient temperature max. +45°C Amps
	at 20°C DC Ohm/km	at 90°C AC	
16	1.21	1.55	67
25	0.780	0.998	89
35	0.554	0.709	110
50	0.386	0.494	137
70	0.272	0.325	169
95	0.206	0.263	205
120	0.161	0.206	237
150	0.129	0.165	272

Current Ratings are in accordance with IEC 60029-352 Table B.4.

Ambient temperature de-rating factors, according to IEC 60092-352 Table-3

Temperature (°C)	35	40	45	50	55	60	65	70	75
De-rating factor	1.10	1.05	1.00	0.94	0.88	0.82	0.74	0.67	0.58