Certificate No: LR26224832TA
Issue Date: 19/04/2026
Expiry Date: 18/04/2031

Type Approval Certificate

This is to certify that the undernoted product(s) has/have been tested with satisfactory results in accordance with the relevant requirements of the Lloyd's Register Type Approval System.

Manufacturer	**Suzhou Draka Cable Co., Ltd**
Address	No.88 Kangyuan Road, Xiangcheng Economic Development District, Suzhou City, 215131, China
Place of Production	Suzhou Draka Cable Co., Ltd No.88 Kangyuan Road, Xiangcheng Economic Development District, Suzhou City, 215131, China
Type	Power Cables
Description	HFX-U FRSW, FHFX-U FRSW: XLPE Insulated, Low Smoke Halogen Free Flame retardant and Enhanced Fire resistance for fixed installation Marine and Offshore Power Cables HFX-A FRSW, FHFX-A FRSW: XLPE Insulated, Low Smoke Halogen Free Flame retardant and Enhanced Fire resistance for fixed installation Marine and Offshore Power Cables HFX -- Halogen free cable Cross-linked insulated stranded conductor class 2 FHFX -- Halogen free cable Cross-linked insulated flexible conductor class 5 U – Unarmoured A-- Copper(plain or tinned) wire braid armored FRSW -- Fire resistant + Shock + Water (test to IEC 60331-1 or -2, with Water spray and/or Water jet)
Trade Name	HFX-U FRSW, FHFX-U FRSW, HFX-A FRSW, FHFX-A FRSW

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CHETAN WAGH

Senior Specialist Electrical & Control to Lloyd's Register Marine and Offshore India LLP

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Application

Fixed wiring for marine and offshore installations

Specified Standard

IEC 60092-353:2024;
IEC 60092-350:2020;
IEC 60092-360:2021;
IEC 60332-3-22 Cat.A:2018
IEC 60332-1-2:2025;
IEC 60754-1:2011+AMD1:2019 CSV;
IEC 60754-2:2011+AMD1:2019 CSV
IEC 61034-1:2005/AMD2:2019;
IEC 61034-2:2005/AMD2:2019;
IEC 60331-1/-2:2018;
EN 50200:2015 Annex E;
BS 8491:2008(R2015)

Ratings

Rated voltage: 0.6/1 kV

No. of Cores:	Cross-Section of Conductor(mm2)
1 core:	1-300 mm2
2 cores:	1-185 mm2
3 cores:	1-300 mm2
4 cores:	1-240 mm2
5 cores:	1-95 mm2
6-37 cores:	1, 1.5, 2.5 mm2

Cross-section is selected from:
1, 1.5, 2.5, 4, 6, 10, 16, 25, 35, 50, 70, 95, 120, 150, 185, 240, 300 mm2
No. of Core is selected from: 6, 7, 8, 10, 12, 14, 16, 19, 24, 27, 30, 37
Max. conductor temperature: 90^{O}C

Additional Tests

1. Flame temperature at least 830℃
2. Flame application time: 180min or 360min
3. Water jet(Cable OD＞20mm, IEC 60331-1 and additional water jet as per BS 8491:2008(R2015) par. 5.5 and 5.6 as far as applicable during the last 5 minutes of the test (5 water bursts each of 5 seconds and a time distance of 60 seconds).

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4. Water spray(Cable OD＜=20mm, IEC 60331-2 integrated by water spray protocol as per EN 50200:2015 Annex E during the last 15 minutes of the test)
5. Shock application intervals: 5min

Other Conditions

Type Approval does not eliminate the need (as required by LR Rules) the requirements for further review or for the product to be further inspected and/ or surveyed to be installed in ships classed or intended to be classed with LR.

If the specified standards are amended during the validity of this certificate,the product is to be reapproved prior to it being supplied to vessels to which the amended standards apply.

This certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register Marine and Offshore India LLP of any modification or changes to the equipment in order to obtain a valid Certificate.

Previous Version: LR21176804TA

The Design Appraisal Document TSO/25-052340-E-01 and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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