Certificate No: LR22161435TA
Issue Date: 31/08/2022
Expiry Date: 07/02/2027

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	**Tratos Cavi Spa**
Address	Via Stadio 2, Pieve S. Stefano Ar, 52036, Italy
Type	Power Cables
Description	Low smoke, halogen free, flame retardant, fire resistant, EPR insulated, armoured, low voltage (0.6/1 kV) power cable with mica tape fire barrier and elastomeric compound sheath.
Trade Name	TRATOS-A-FR-SHF2
Application	Fixed wiring on Marine and Off-shore installations.

Specified Standard

IEC 60092-350:2014	IEC 60092-353:2016
IEC 60092-360:2014	IEC 61034-2:2013
IEC 60754-1:2011	IEC 60332-1-2:2015
IEC 60332-3-22:2009 Cat.A	IEC 60331-21:1999
IEC 61892-4:2007	

Ratings

Conductor:	Tinned copper
Insulation:	Compound type EPR
Fire barrier:	Mica
Inner sheath:	Elastomeric compound type LSZH
Single core cable armour:	Tinned phosphore bronze wire braid
Multi core cable armour:	Galvanized steel wire braid
Outher sheath:	Mud resistant, elastomeric compound SHF2

Downloaded Copy

Maurizio Crucil
TTSO Senior Specialist to Lloyd's Register EMEA
A member of the Lloyd's Register group

71 Fenchurch Street, London, EC3M 4BS, United Kingdom

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.

Certificate No: LR22161435TA
Issue Date: 31/08/2022
Expiry Date: 07/02/2027

Type Approval Certificate

	Single core:	TCU2/EPR/M/LSF/PBWB/LSZH - SHF2
	Rated voltage Uo/U:	0.6/1 kV
	Cross sectional area [mm^2]:	240, 300
	Multi core:	TCU2/EPR/M/LSF/PBWB/LSZH - SHF2
	Rated voltage Uo/U:	0.6/1 kV
	Cross sectional area [mm^2]:	2.5, 4, 6, 10, 16, 25, 35, 50, 70, 95, 120, 150, 185, 240
Additional Tests	Fire performance:	IEC 61892-4:2007 C.1.4.14 IEC 60331-21:1999 IEC 60332-1-2:2015 IEC 60332-3-22: 2009 Cat.A
	Mud resistance:	IEC 61892-4:2007 - Annex D
Other Conditions	Maximum conductor temperature: 90°C	

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 EMEA of any modification or changes to the equipment in order to obtain a valid Certificate.

Previous Version: 12/00003(E1)

The Design Appraisal Document LR22161435DA and its supplementary Type Approval Terms and Conditions form part of this Certificate.

Downloaded Copy

71 Fenchurch Street, London, EC3M 4BS, United Kingdom

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.