Certificate No: LR21478242TA
Issue Date: 25/11/2021
Expiry Date: 24/11/2026

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	**WALSIN LIHWA CORPORATION - HSIN CHUNG**
Address	25F, No. 1, Songzhi Rd, Taipei 11047, Taiwan
Place of Production	WALSIN LIHWA CORPORATION - HSIN CHUNG PLANT, NO. 397, HSIN SHU RD., HSIN CHUNG DIST., New Taipei City, 24262, Taiwan
Type	Cables Control, Telecommunication And Instrumentation
Description	150/250V Shipboard Control and Instrumentation Cables
Trade Name	(FA-) TTY, (FA-) TTYC, (FA-) TTYCY, (FA-) TTYCSLA, (FA-) TTYCYSLA, FA-) TTYC-SLA, (FA-) TTYCY-SLA
Application	Fixed wiring on ships installations
Specified Standard	JIS 3410: 2018
Ratings	Multicore nonflame/flame retardant cables (FA-)MPY: EP rubber insulated, PVC sheathed(flame retardant) cable (FA-)MPYC: EP rubber insulated, PVC sheathed and galvanized steel wire braided(flame retardant) cable (FA-)MPYCY: EP rubber insulated, PVC sheathed and galvanized steel wire braided(flame retardant) cable with PVC protective covering (FA-)MPYC-S: EP rubber insulated, PVC sheathed and galvanized steel wire

Downloaded Copy

Ke Lin Zhang
Lead Specialist to Lloyd's Register
Classification Society (China) Co Ltd
A member of the Lloyd's Register group

19th Floor, 550 Yan An dong Road, Shanghai,
Huangpu District, China

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.

Type Approval Certificate

braided(flame retardant) cable with individual shield
(FA-)MPYCY-S: EP rubber insulated, PVC sheathed and galvanized steel wire braided and PVC protective covered(flame retardant) cable with individual shield
(FA-)MPYCSLA: EP rubber insulated, PVC sheathed and galvanized steel wire braided (flame retardant) cable with common shield
(FA-)MPYCYSLA: EP rubber insulated,PVC sheathed and galvanized steel wire braided and PVC protective covered(flame retardant) cable with common shield
Multicore fire resistant/flame retardant and fire resistant cables
FR-(FA-) MPY: EP rubber insulated and PVC sheathed(flame retardant) fire resistant cable
FR-(FA-) MPYC: EP rubber insulated,PVC sheathed and galvanized steel wire braided (flame retardant) cable fire resistant cable
FR- (FA-) MPYCY : EP rubber insulated,PVC sheathed and galvanized steel wire braided (flame retardant) fire resistant cable with PVC protective covering
Non flame/flame retardant cables telephone cables
(FA-) TTY: PVC insulated and PVC sheathed(flame retardant) telephone cable
(FA-) TTYC: PVC insulated and PVC sheathed and galvanized steel wire braided (flame retardant) telephone cable
(FA-) TTYCY: PVC insulated and PVC sheathed and galvanized steel wire braided (flame retardant) telephone cable with PVC protective covering
(FA-) TTYCSLA: PVC insulated and PVC sheathed and galvanized steel wire braided (flame retardant) telephone cable with common shield
(FA-) TTYCYSLA: PVC insulated and PVC sheathed and galvanized steel wire braided and PVC protective covered (flame retardant) telephone cable with common shield
(FA-) TTYC-SLA: PVC insulated and PVC sheathed and galvanized steel wire braided (flame retardant) telephone cable with individual shield
(FA-) TTYCY-SLA: PVC insulated and PVC sheathed and galvanized steel wire braided and PVC protective covered (flame retardant) telephone cable with individual shield
Abbreviation:
FA: Flame retardant
FR: Fire resistant
EP: Ethylene-propylene rubber

Downloaded Copy

19th Floor, 550 Yan An dong Road, Shanghai,
Huangpu District, China

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.

Type Approval Certificate

PVC: Polyvinylchloride
SLA: Common shield with Aluminium foil-Mylar tape and drain wire
-SLA: Individual pair shield with Aluminium foil-Mylar tape and drain wire
-S: Individual core shield with braid
Rated Voltage(V): 150/250
Types: (FA-) MPY, (FA-) MPYC, (FA-) MPYCY
No. of Cores/Pairs: 2~77
Conductor Cross- Section(mm^2):1
Types: (FA-) MPYC-S, (FA-) MPYCY-S, (FA-) MPYCSLA, (FA-) MPYCYSLA, FR-(FA-) MPY,
FR-(FA-) MPYC, FR-(FA-) MPYCY
No. of Cores/Pairs: 2~44
Conductor Cross- Section(mm^2):1
Max. Temp.(°C): 90
Types: FA-) TTY, (FA-) TTYC, (FA-) TTYCY, (FA-) TTYCSLA, (FA-) TTYCYSLA
No. of Cores/Pairs: 1~48
Conductor Cross- Section(mm^2):0.75
Types: (FA-) TTYC-SLA, (FA-) TTYCY-SLA
No. of Cores/Pairs: 4~48
Conductor Cross- Section(mm^2):0.75
Max. Temp.(°C): 70
Note: For multicore cable, “No. of Cores” is selected from the following series of core number: 2, 4, 7, 12, 19, 27, 44, 77
Fore telephone cables, “No. of Paris” is selected from the following series of pair number: 1, 1T, 1Q, 4, 7, 10, 14, 19, 24, 30, 37, 48

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 Classification Society (China) Co Ltd of any modification or changes to the equipment in order to obtain a valid Certificate.

The Design Appraisal Document LR21478242TA and its supplementary Type Approval Terms and Conditions form part of this Certificate.

Downloaded Copy

19th Floor, 550 Yan An dong Road, Shanghai,
Huangpu District, China

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.