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BRE Global Test Report

Fire Testing of KTS Cables 'Fire proof FTE29OHM16' cables

Prepared for: KTS Cables

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BREGROUP.COM



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Contents

1. Introduction..... 4

2. Cable Details..... 5

2.1 Cable 1 5

2.2 Cable 2 6

3. Test results 7

3.1 EN 50200:2015 PH120 – Method of test for resistance to fire of unprotected small
cables for use in emergency circuits..... 7

4. Validity 8

5. References..... 9

1.Introduction

BRE Global was not involved in the sample selection process and therefore cannot comment upon the relationship between samples supplied for test and the product supplied to market. Results apply to the sample as received.

The requirement of the work was to determine the performance of cables when tested to EN 50200: 2015 PH120. The work was undertaken in accordance with BRE Global Ltd quote ref P130188-1000.

All test activities were performed at BRE Global Ltd in Watford.

2. Cable Details

2.1 Cable 1

Manufacturer: KTS Cables

Sample Description: FTH2R - 2x1.50mm²

BRE Sample Reference Number: F3502

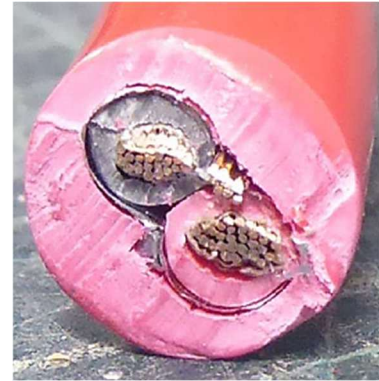
Sample Received Date: 07/10/2025

End Sealing/Capping: N/A

Cable Marking: Printed

Marking string(s):

1. KTS s.r.l. CAVO FTE29OHM16 FTH2R 2x1,50 CEI 20-105 V2 PH 120 EN 50200 C4 UNEL
36762 U/o 400V CLASSE CPR Cca s1b-d1-a1



Batch information: N/A

Sample description – (verified by BRE)	Supplied by test sponsor*
Average Diameter Ø: 8.1mm	Average Diameter Ø: 8.2mm
Plain copper stranded conductors Ø: 1.3mm	Stranded copper conductors
Mica tape	Mica tape
Insulation – Black, Red	XLPE insulation
Plastic tape – Clear	Polyester tape
Plain copper stranded drain wire	Flexible drain wire
Foil tape – Silver	Aluminium tape
Cord	No information given
Outer sheath – Red	LSZH sheath – Red

*Information supplied by the test sponsor, and this was not independently verified by BRE beyond what is stated above. The validity of the results is conditional on the accuracy of the data supplied.

2.2 Cable 2

Manufacturer: KTS Cables

Sample Description: FTH2C - 2x1.00mm²

BRE Sample Reference Number: F3503

Sample Received Date: 07/10/2025

End Sealing/Capping: N/A

Cable Marking: Printed

Marking string(s):

1. KTS s.r.l. CAVO FTE29OHM16 FTH2C 2x1,00 CI 20-105 V2 PH 120 EN 50200 C4 UNEL 36762
U/o 400V CLASSE CPR Cca s1b-d1-a1 D/01412 37/2025 mt.4026 CE MADE IN ITALY

Batch information: N/A



Sample description – (verified by BRE)	Supplied by test sponsor*
Average Diameter Ø: 7.1mm	Average Diameter Ø: 7.1mm
Plain copper stranded conductors Ø: 1.1mm	Stranded copper conductors
Mica tape	Mica tape
Insulation – Red, Black	XLPE insulation
Plastic tape – Clear	Polyester tape
Plain copper stranded drain wire	Flexible drain wire
Foil tape – Silver	Aluminium tape
Cord	No information given
Outer sheath – Red	LSZH sheath – Red

*Information supplied by the test sponsor, and this was not independently verified by BRE beyond what is stated above. The validity of the results is conditional on the accuracy of the data supplied.

3. Test results

3.1 EN 50200:2015 PH120 – Method of test for resistance to fire of unprotected small cables for use in emergency circuits

EN 50200:2015 PH120 requires resistance to fire and mechanical shock for 120 minutes in two tests.

Cable type	2x1.5mm ²	
BRE sample reference	F3502	
Test date	23/10/2025	24/10/2025
Bend radius	81mm	81mm
Clip size	RC32	RC32
Test voltage (U ₀ /U)	101/173V	101/173V
Observation	No fuse failures. No lamps extinguished.	No fuse failures. No lamps extinguished.
Result	Pass	Pass

Cable type	2x1.0mm ²	
BRE sample reference	F3503	
Test date	24/10/2025	24/10/2025
Bend radius	71mm	71mm
Clip size	RC28	RC28
Test voltage (U ₀ /U)	101/173V	101/173V
Observation	No fuse failures. No lamps extinguished.	No fuse failures. No lamps extinguished.
Result	Pass	Pass

- Dual Thermocouples and TC Reader were used as the method for temperature monitoring during the verification procedure.
- The cable was secured to the board using copper P Clips using the layout described in EN 50200:2015, figure 8.
- Continuity checking of the cable was achieved using incandescent bulbs and met the requirements of clause 5.3 of EN 50200:2015.
- The fuses used in the test procedure complied with the requirements of clause 5.7 of EN 50200:2015.

4. Validity

For tests resulting in a reporting of pass or fail, the decision rule is applied as required in ISO 17025. A simple acceptance criterion with guard bands of 1 measurement uncertainty (this is a factor based on equipment calibration and other parameters which are controlled within the requirements in the standard) has been used to establish a less than 2.5% risk of false acceptance or rejection of results.

Pass – acceptance of test results leading to a pass is based on the measurement result being within the acceptance limit of the standard minus the guard band of the expanded uncertainty of measurement, providing a probability of false acceptance of less than 2.5%.

Fail – rejection of test results leading to a failure is based on the measurement result being outside of the acceptance limit of the standard minus the guard band of the expanded uncertainty of measurement, providing a probability of false rejection of less than 2.5%.

Inconclusive – test results leading to inconclusive are based on the measurement result being within the acceptance limit of the standard, but within the guard bands of measurement uncertainty, meaning a pass cannot be reported with the required level of confidence of 97.5%.

5. References

- 1 EN 50200:2015 Method of test for resistance to fire of unprotected small cables for use in emergency circuits.

Report Ends