

وزارة الإسكان والمرافق والمجمعات العمرانية
المركز القومي لبحوث الإسكان والبناء
معهد بحوث الأعمال الكهروميكانيكية في المباني

Test Results of Fire Alarm Cables

Tested Cables:

Cable	No. of Tested Samples
2 x 1.5 mm ²	1
Code	T/103/285/2026

Tests are carried According to:

- IEC 60228 (Conductors of insulated cables).
- BS 60332-3 (Tests on electric and optical fibre cables under fire conditions).

Tests for 1 x 1.5 mm² Cable

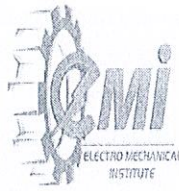
Printed TradeMark on the Tested Cable:

Ecab

- Cable Description:

Rated Voltage	300/500 V
Conductor	Plain Annealed flexible Copper Conductor
Core Insulation	PVC
Cable Sheath	PVC
Core Coding	Red - Black
Cable Assembly	Twisted Pair to form Round Cable
Shielding	Al. Mylar Tape





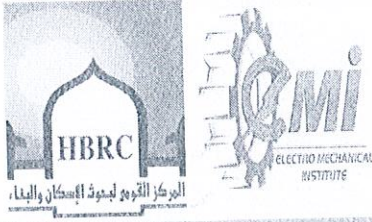
وزارة الإسكان والمرافق والمجمعات العمرانية
المركز القومي لبحوث الإسكان والبناء
معهد بحوث الأعمال الكهروميكانيكية في المباني

- Test Results:

No	Test	Result	Specifications	Verdict
1	DC Resistance (Ω/km) at 20°C	7.00 Ω/km (Red), 7.50 Ω/km (Black)	7.98 Ω/km	Pass
2	Insulation Thickness (mm)	0.83 mm 0.81 mm	Minimum value (0.44 mm)	Pass
3	Sheath Thickness (mm)	1.38 mm	Minimum Value (1.3 mm)	Pass
4	Insulation Resistance of Individual Conductors at 20°C ($M\Omega/\text{km}$)	30.0 $M\Omega/\text{km}$ 29.8 $M\Omega/\text{km}$	>10 $M\Omega/\text{km}$	Pass
5	Breakdown Voltage with 2 kV 50 Hz for 1 minute	No Damage Occurred during the Test	No Damage Occurs during the Test	Pass
6	Flammability Test according to IEC 60332-3, Cat. B.	Circuit Integrity was Maintained	Circuit Integrity must be Maintained during the test period	Pass

Eng/Abdelkhalik Hesham





وزارة الإسكان والمرافق والمجمعات العمرانية
المركز القومي لبحوث الإسكان والبناء
معهد بحوث الأعمال الكهروميكانيكية في المباني

- Recommendations:

- The test specimen passes the aforementioned tests in the above table according to IEC 60228 and IEC 60332-3 standards.
- The tested object was tested in the institute labs, and the institute is not responsible for any other object that will be supplied to projects.
- Some of tests included in this report were carried out by HBRC team at the laboratories of Delta technological university.
- This report shall not be reproduced, without permission from head of institute. In this case, the report is to be reproduced in full.

Tested by

Eng/ Abdel Fattah Hesham
Abdel Fattah Hesham

Revised by

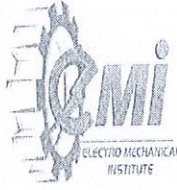
Assoc.Prof / Mohamed Osama

Head of Institute

Authorized by

Assoc.Prof. Ghada Mohamed Fawzy





وزارة الإسكان والمرافق والمجتمعات العمرانية
المركز القومي لبحوث الإسكان والبناء
معهد بحوث الأعمال الكهروميكانيكية في المباني

Test Results of Fire Alarm Cables

Tested Cables:

Cable	No. of Tested Samples
2 x 2.5 mm ²	1
Code	T/103/286/2026

Tests are carried According to:

- IEC 60228 (Conductors of insulated cables).
- BS 60332-3 (Tests on electric and optical fibre cables under fire conditions).

Tests for 2 x 2.5 mm² Cable

Printed TradeMark on the Tested Cable:

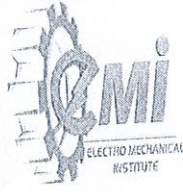
Ecab

- Cable Description:

Rated Voltage	300/500 V
Conductor	Plain Annealed flexible Copper Conductor
Core Insulation	PVC
Cable Sheath	PVC
Core Coding	Red - Black
Cable Assembly	Twisted Pair to form Round Cable
Shielding	Al. Mylar Tape

Eng/ Abdelkhalik Hashem





وزارة الإسكان والمرافق والمجتمعات العمرانية
المركز القومي لبحوث الإسكان والبناء
معهد بحوث الأعمال الكهروميكانيكية في المباني

- Test Results:

No	Test	Result	Specifications	Verdict
1	DC Resistance (Ω/km) at 20°C	7.86 Ω/km (Red), 7.91 Ω/km (Black)	7.98 Ω/km	Pass
2	Insulation Thickness (mm)	0.83 mm 0.81 mm	Minimum value (0.44 mm)	Pass
3	Sheath Thickness (mm)	1.38 mm	Minimum Value (1.3 mm)	Pass
4	Insulation Resistance of Individual Conductors at 20°C ($M\Omega/\text{km}$)	32.8 $M\Omega/\text{km}$ 31.3 $M\Omega/\text{km}$	>10 $M\Omega/\text{km}$	Pass
5	Breakdown Voltage with 2 kV 50 Hz for 1 minute	No Damage Occurred during the Test	No Damage Occurs during the Test	Pass
6	Flammability Test according to IEC 60332-3, Cat. B.	Circuit Integrity was Maintained	Circuit Integrity must be Maintained during the test period	Pass



Eg/Abdelgattah Hesham



وزارة الإسكان والمرافق والمجتمعات العمرانية
المركز القومي لبحوث الإسكان والبناء
معهد بحوث الأعمال الكهروميكانيكية في المباني

- Recommendations:

- The test specimen passes the aforementioned tests in the above table according to IEC 60228 and IEC 60332-3 standards.
- The tested object was tested in the institute labs, and the institute is not responsible for any other object that will be supplied to projects.
- Some of tests included in this report were carried out by HBRC team at the laboratories of Delta technological university.
- This report shall not be reproduced, without permission from head of institute. In this case, the report is to be reproduced in full.

Tested by

Eng/ Abd El Fattah Hesham

Abdelfattah Hesham

Revised by

Assoc.Prof / Mohamed Osama

M. Osama

Head of Institute

Authorized by

Gh. M. Osama

Assoc.Prof. Ghada Mohamed Fawzy

