



# breglobal

**Test report for a KEI  
Industries Limited  
4x70mm<sup>2</sup> LSZH FR cable  
to BS 6387:1994  
Clause 11**

Prepared for:  
KEI Industries Ltd.  
SP-919, 920, 922 RIICO  
Industrial Area  
Bhiwadi  
Alwar  
India

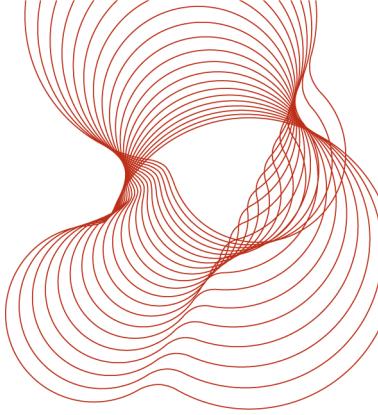
24 April 2013

Test report number 285277



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**Prepared on behalf of BRE Global by**

Name Ewan MacDonald

Position Consultant

Signature

**Approved on behalf of BRE Global by**

Name Dave Hoare

Position Senior Consultant

Date 24 April 2013

Signature

BRE Global  
Bucknalls Lane  
Watford  
Herts  
WD25 9XX  
T + 44 (0) 1923 664100  
F + 44 (0) 1923 664994  
E [enquiries@breglobal.com](mailto:enquiries@breglobal.com)  
www.breglobal.com

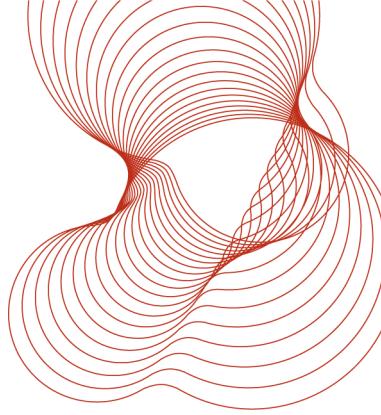
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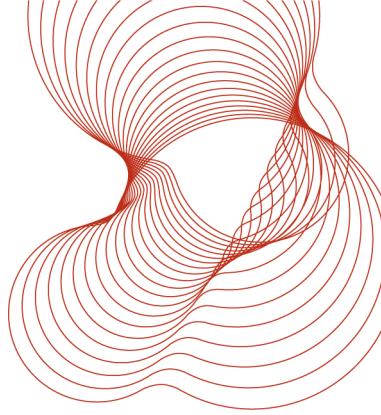
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## 1 Introduction

The requirement of the work was to determine the performance of a cable when it is subjected to BS 6387:1994 Clause 11 - Resistance to fire characteristics [1].

The client for this work was, KEI Industries Limited, Bhiwadi, Alwar, India. The client's work request is given in BRE Global Quotation 285277 dated 18 February 2013.



## 2 Details of sample received and tests carried out

The sample tested was a 43.7mm diameter, 4 core cable comprising 4 off 70mm<sup>2</sup> insulated, stranded copper conductor with mica glass tape, filler rods, glass binder tape, bedding, steel wire armour and a black over sheath. The over sheath had the following printed marking;

'KEI 4Cx70 SQMM 600/1000V LSZH FR CABLE IEC 60502-1 BS 6387 CAT : CWZ 2013'

The test specimen was supplied by the client and received on 26 February 2013. 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.

The client requested that the following clauses of BS 6387:1994 were undertaken:

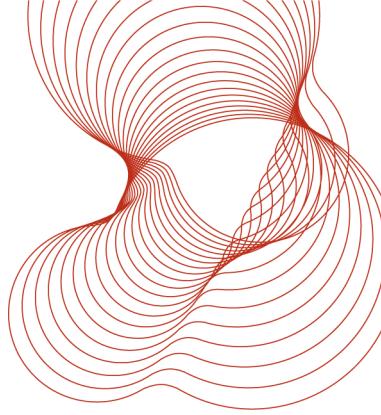
Clause 11.1 - Fire alone (Category C)

Clause 11.2 - Fire with water (Category W)

Clause 11.3 - Fire with mechanical shock (Category Z)

and this report should be read in conjunction with it.

The tests were conducted between 13 March 2013 and 26 March 2013. Prior to the tests being carried out, the sample was conditioned as required by the test standard.



### 3 Test results

#### 3.1 BS 6387:1994 Clause 11.1 Annex D.1 & D.2 - Resistance to fire alone

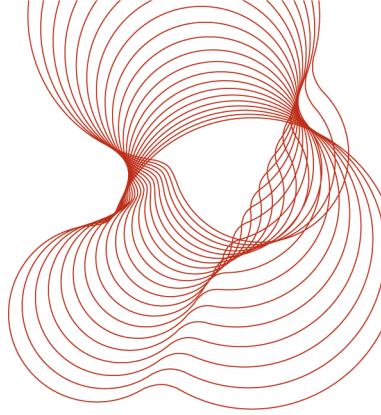
Cable type	Test category	Burner Temp (°C)	Test duration	Test Voltage	Comment	Result
4x70mm <sup>2</sup>	C	962	180min	600/1000V	No fuses ruptured or lamps extinguished	Pass

#### 3.2 BS 6387:1994 Clause 11.2 Annex D.1 & D.3 - Resistance to fire with water

Cable type	Test category	Burner Temp (°C)	Test duration	Test Voltage	Comment	Result
4x70mm <sup>2</sup>	W	670	30min	600/1000V	No fuses ruptured or lamps extinguished	Pass

#### 3.3 BS 6387:1994 Clause 11.3 Annex D.1 & D.4 - Resistance to fire with mechanical shock

Cable type	Test category	Burner Temp (°C)	Test duration	Test Voltage	Comment	Result
4x70mm <sup>2</sup>	Z	961	15min	600/1000V	No fuses ruptured or lamps extinguished	Pass



## 4 Conclusion

The BS 6387:1994 Clauses 11.1 to 11.3 has the following acceptance criteria:

'When a cable sample is tested:

no fuse shall be ruptured,

nor any lamp extinguished during the period of the test'.

The KEI Industries Limited 4x70mm<sup>2</sup> LSZH FR cable described in Section 2 of this report met the requirements of BS 6387:1994 Clause 11.1 (Category C), Clause 11.2 (Category W) and Clause 11.3 (Category Z).

## 5 Reference

1. BS 6387:1994, 'Performance requirements for cables to maintain circuit integrity under fire conditions', British Standards Institution, London 1994.

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=====REPORT ENDS=====