

# Certificate © SEV

Confirmation of testing to provide evidence to legal requirements

CERTIFEL

Certificate ref.no. CH-TMP-03-IK-0233.ZA1.A  
page 1 of 2

Product	Single and Multi Core Power Cables,	
Applicant	Studer Cable and Wire Manufacturer Ltd., CH - 4658 Däniken, Switzerland	
Manufacturer	Studer Cable and Wire Manufacturer Ltd., CH - 4658 Däniken, Switzerland	
Manufactured at/Factory	Studer Cable and Wire Manufacturer Ltd., CH - 4658 Däniken, Switzerland	
Trade-mark	BETAflam	
Type/Model	(N)HXH FE180 E30...E90 (N)HXCH FE180 E30...E90	(see also page 2)
Ratings, characteristics	0.6/1kV, 90°C, 2...12 x 1.5...16mm <sup>2</sup> , 1 x 16...95mm <sup>2</sup>	(see also page 2)
Additional information	Test Procedure, Scope of test, Type list, Cable description	(see page 2)
Standards safety	---	
Standards EMC	---	
Other standards	Fire standard EN 50200:2000 (Classification PH90)	

The product has been tested according to aforementioned normative documents assumed to be sufficient to provide evidence to legal requirements for authorities in Switzerland (NEV/VEMV) and EU/EWR (directives)

Results of testing are shown in report number:  
03-IK-0233.01

## Swiss Electrotechnical Association



Hans Roschmann  
Product Certification



SCES 035  
(EN 45011)

Fehraltorf, 2003-11-13

Schweizerischer Elektrotechnischer Verein

Luppenstrasse 1, CH-8320 Fehraltorf, Tel. +41 (0)1 956 11 11, Fax +41 (0)1 956 11 22, E-Mail: sev@sev.ch

Association Suisse des Electriciens

Ch. de Momex 3, CH-1003 Lausanne, Tel. +41 (0)21 312 66 96, Fax +41 (0)21 320 00 96, E-Mail: ase.romandie@sev.ch

SEV (Hong Kong) Ltd.

Unit 1242, Hiitec, 1 Trademart Drive, Kowloon Bay, Kowloon, Hong Kong, Tel. +852 2191 2038, Fax +852 2191 3616, E-Mail: sev.hkg@compuserve.com

### Appendix to certificate

CERTIFEL

Certificate ref. no. CH-TMP-03-IK-0233.ZA1.A  
page 2 of 2

**Test Procedure :** Type Approval over the range and constructions as per page 1

**Scope of Test :** EN 50200 describes a method of test for resistance to fire of unprotected small cables for use in emergency circuits.

**Functional requirement PH :**

The ability of electrical cables to maintain a reliable form of power supply or signal from the power source to the safety installation(s) when exposed to fire.

The performance criterion is continuity of power supply. The PH classification refers to a constant temperature attack of a notional 842°C

4 Classifications are defined : PH 15, 30, 60, 90  
Two results in which the measured duration of survival exceeds the stated classification (15, 30, 60 or 90 minutes) are needed to obtain classification.

**Type list :**

BETAflam (N)HXH FE180 E30...E90 (without concentric conductor)  
BETAflam (N)HXCH FE180 E30...E90 (with concentric conductor), VDE 0266

**Cable description :**

- Outer Sheath : Halogen free compound HM4
- Screen : Concentric conductor if applicable
- Insulation : Crosslinked halogen free compound HX11
- Flame-Barrier : Mica tape
- Conductor : Copper, bare (class 1 or 2 according to IEC 60228)
- Cross-section : 1.5...95mm<sup>2</sup> (IEC 60228)

Hans Roschmann  
Product Certification



Fehraltorf, 2003-11-13