



# Type Approval Certificate

Germanischer Lloyd

This is to certify that the undernoted product(s) has/have been tested in accordance with the relevant requirements of the GL Type Approval System.

Certificate No. **47 415 - 03 HH**  
Company **Draka Kabel B.V.**  
**Hamerstraat 2-4**  
**NL-1021 JV Amsterdam**

Product Description **Fire resistant, halogen free, low smoke XLPE insulated and SHF1 sheathed shipboard power and control cable with or without armour.**

Type **SHIPLINE PLUS Marine Cable HUSK-FR BFXI**  
**SHIPLINE PLUS Marine Cable HUSO-FR BIOI**

Environmental Category **None**

Technical Data / Range of Application  
Rated voltage: **0,6/1 kV**  
Max. operating conductor temperature: **85° C**  
Conductor: **Stranded plain annealed copper conductor (class2)**  
Insulation: **Mica tape + XLPE**  
Inner sheath: **SHF1 (for HUSO-FR BIOI type)**  
Armour/screen: **Tinned copper wire braiding (for HUSO-FR BIOI type)**  
Outer sheath: **SHF1 (halogen free polyolefin copolymer)**

Application categories: **1 for HUSO-FR BIOI and cat. 2 for HUSK-FR BFXI**

Number of cores:	Cross-sectional areas:
1	1,5mm <sup>2</sup> to 300mm <sup>2</sup>
2	1,5mm <sup>2</sup> to 35mm <sup>2</sup>
3	1,5mm <sup>2</sup> to 240mm <sup>2</sup>
4	1,5mm <sup>2</sup> to 25mm <sup>2</sup>
5 to 7	1,5mm <sup>2</sup> and 2,5mm <sup>2</sup>
10 to 19	1,5mm <sup>2</sup>

Test Standard **IEC 60092-350; 60092-351; 60092-353; 60092-359; 60331 Part11; 60332-1 Part 1; IEC 60332-3 Part 3-22 cat. A; IEC 60754-1 & 2; IEC 61034-1 & 2**

Documents Test report : **DRAK Netherland dated of 02.07.2003**  
**DRAKA Netherland Rep. no. 021/03-127**  
**DRAKA Netherland Raport 021/03-112,dated of 23.06.2003**

Remarks **None**

Valid until **2008-07-23**

Page **1 of 1**

Type Approval Symbol



File No. **I.N.01**

Hamburg, **2003-07-24**

**Germanischer Lloyd**

*J. Wittburg*  
J. Wittburg

*R. Fenster*  
R. Fenster