

# TYPE APPROVAL CERTIFICATE

## This is to certify:

**That the Cable Lugs and Termination**

with type designation(s)  
**Series KRF/KSF and KRT/KST**

Issued to

**Elpress AB**  
**KRAMFORS, Sweden**

is found to comply with  
**DNV GL rules for classification – Ships, offshore units, and high speed and light craft**

## Application :

**Products approved by this certificate are accepted for installation on all vessels classed by DNV GL.**

Issued at **Høvik** on **2018-04-26**

for **DNV GL**

This Certificate is valid until **2022-12-31**.  
DNV GL local station: **Stockholm**

Approval Engineer: **Marta Alonso Pontes**

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**Andreas Kristoffersen**  
**Head of Section**

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.



## Product description

Cable lugs of Cu-pipe with inspection hole. For installation inside switchboards / enclosures onboard ships and mobile offshore units with the following variants:

### Serie KRF Tube terminal

Rated cross sections [mm<sup>2</sup>]: 16, 25, 35, 50, 70, 95, 120, 150, 185, 240, 300, 400.

### Serie KRF Tube terminal with 2 whole

Rated cross sections [mm<sup>2</sup>]: 70, 95, 120, 150, 185, 240, 300, 400.

### KRF Serie with 45 degree angle

Rated cross sections [mm<sup>2</sup>]: 16, 25, 35, 70, 95, 120, 150.

### KRF Serie with 90 degree angle

Rated cross sections [mm<sup>2</sup>]: 16, 25, 35, 50, 70, 95, 120, 150

### Tube terminal Serie KRT

Rated cross sections [mm<sup>2</sup>]: 10, 16, 25, 35, 50, 70, 95, 120, 150, 185, 240, 300, 400.

### KRT Serie with 45 degree angle

Rated cross sections [mm<sup>2</sup>]: 10, 16, 25, 35, 50, 70, 95, 120.

### KRF Serie with 90 degree angle

Rated cross sections [mm<sup>2</sup>]: 10, 16, 25, 35, 50, 70, 95, 120.

### Through connectors series KST

Rated cross sections [mm<sup>2</sup>]: 10, 16, 25, 35, 50, 70, 95, 120, 150, 185, 240, 300, 400.

### Through connectors series KSF

Rated cross sections [mm<sup>2</sup>]: 15, 21-29, 41, 57, 72-88, 111, 120, 150, 185, 240, 300, 400.

For detailed dimensions information please refer to manufacturer's documentation.

## Application/Limitation

To be used with tools as stated in the Elpress catalogue only. Manufacturer instructions to be followed.

## Type Approval documentation

Parts of Elpress Product catalogue Issued 2006.

Test reports EPM no. 5184 to 5195 dated 1988-02-15, UL Inc. File No: E205350. SINTEF LR F2354 dated 2003-05-09, Elpress Lab. No. 522, 523, 529, 530, 531, 1464, 1466, 1479, 1547. Siemens I&S OLM/022574 dated 2002-03-02, Celius BTC 00-0251 dated 2000-03-24.

## Tests carried out

Testing in accordance with VDE 0220 Teil 2/11 & Teil 2a/4.78, UL 486A, IEC publication 61238-1 and SS EN 50155, DIN 40046 Teil37 and SEN 24 50 10

## Marking of product

Elpress logo -Product identification.

## Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the Type approval are complied with and that no alterations are made to the product design or choice of materials.



Job Id: **262.1-028638-1**  
Certificate No: **TAE00002U2**

The main elements of the assessment are:

- Inspection on factory samples, selected at random from the production line (where practicable)
- Results from Routine Tests (RT) checked (if not available tests according to RT to be carried out)
- Review of type approval documentation
- Review of possible change in design, materials and performance
- Ensuring traceability between manufacturer's product type marking and Type Approval Certificate.

Periodical assessment is to be performed after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

END OF CERTIFICATE