

PRODUCT CERTIFICATE

Manufacturer	ELPRESS AB P O Box 186 SE-872 24 Kramfors, Sweden
Trademark	ELPRESS
Product description	A system of copper connectors and tools for crimping of flexible power cables
Product type	KRF/KRFS/KSF copper terminals and through connectors together with DUAL crimping tool system
Working range	For use of 10mm ² up to 400mm ² flexible copper conductors according to IEC 60228 class 5 and 6 (Can also be used for stranded class 2 conductors)
Product tests	Tested and approved according to standard IEC 61238-1, Heat cycling and short circuit test SEN 245010, Tensile strength test DIN V 40046 Teil 37, Corrosion resistance test EN 50155, Vibration and shock test
Marking	Terminals are marked with Elpress logotype and ID-no. for dies, nominal conductor area, bolt size Tools are marked with Elpress logotype and ID-no. for dies
Quality and environment	Products are manufactured in accordance with ISO 9001 and ISO 14001 by BSI.
Date	2018-01-16
Issued by	Johannes Bålhammar, technical manager

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Summary of most relevant product test of crimped connections made with ELPRESS KRF/KSF copper terminals and through connectors together with ELPRESS Dual tool system.

Electrical properties.

Test procedures according to IEC61238-1 “*Compression and mechanical connectors for power cables for rated voltages up to 30 kV(U_m=36 kV) Test methods and requirements.*”

Test ID No 1464 dated 20010508, flexible copper conductor class 5, nominal size 50 mm², KSF50, DV1300

Test ID No 1466 dated 20010516, flexible copper conductor class 5, nominal size 120 mm², KSF120, DV1300.

Test ID No 1479 dated 20010910, flexible copper conductor class 5, nominal size 35 mm², KSF35, DV1300.

Test ID No 1480 dated 20011011, flexible copper conductor class 5, nominal size 95 mm², KSF95, DV1300.

Test ID No 1547 dated 20030120, flexible copper conductor class 5, nominal size 25 mm², KSF25, DV1300.

Test ID No 1570 dated 20030509, flexible copper conductor class 5, nominal size 240 mm², KSF240, DV1300.

Test ID No 1779 dated 20080530, flexible copper conductor class 5, nominal size 10 mm², KS10, DV1300.

Mechanical properties.

Test procedures, tensile strength part, according to SEN 245010 “*Crimped joints*”

Test ID No 1515 dated 20020523, flexible copper conductor class 5, nominal sizes 10mm² up to 300mm², KR10, KRF16, KRF25, KRF35, KRF50, KRF70, KRF95, KRF120, KRF150, KRF185, KRF240, KRF300, DV1300.

Chemical environment properties.

Test procedures according to DIN V 40046 Teil 37 “*Basic environmental testing procedures, test with Hydrogen Sulphide H₂S for electrical contacts and connections*”

Test ID No 1500 dated 20020302, flexible copper conductor class 5, nominal sizes 35mm² and 120 mm² KRF35, KRF120, DV1300

Vibration environment properties.

Test procedures, shock and vibration, according to EN 50155 (IEC61373:1999)
“*Shock and vibration requirements for rolling stock equipment*”

Test ID No 1385 dated 20000324, flexible copper conductor class 5, nominal sizes 16mm², 50mm² and 70mm² KRF16, KRF50, KRF70 and DV1300