

**100%
MADE IN
GERMANY**

KH SERIES

PROPERTIES

- Resistance to:** Ultraviolet rays, ozone, mineral oils, fuels, salts, alkalis, alcohol, hydrocarbons, ketones, ether, fermites and radioactive rays*
- Flame resistance:** UL94 5VA (IEC 60695-11-20) UL94 V-0 (IEC 60695-11-10) IEC 61914 following IEC 60695-11-5 Classification following DIN 5510, part 2 Flammability class: S3
- Thermal expansion:** 0.01% per 10°C temperature increase
- Tensile strength:** 120 N/mm²
- Flexural strength:** 210 N/mm²

TEMPERATURE RANGE

- Ambient temperature:** down to -60°C*
- Continuous operation:** up to 120°C
- Permitted short-term heating:** up to 220°C
- Operation life:** more than 40 years of maintenance- and failure-free operation

MATERIAL

High-grade polyamide, fibreglass-reinforced, coloured black, with special UV protection, fully recyclable, self-extinguishing, low-smoke, zero halogen (LSZH), non-toxic, non-corrosive, non-metallic, non-magnetic

Applications:
Fastening of single-core cables in trefoil formation for high short circuit forces. Unrestricted application indoors and outdoors between -60°C and +120°C.

Outer diameter of cables:
59 mm to 165 mm

Dynamic resistance to short circuits:
30.000 N

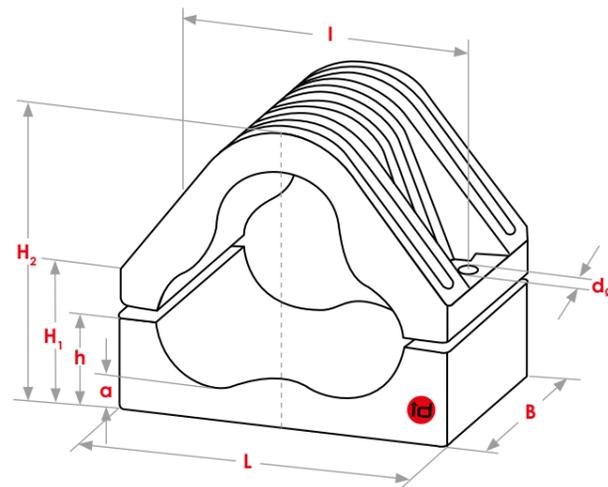
Tightening Torque for fixing material:
Upper part: 8 Nm** / Lower part: 15 Nm

Dimensions [in mm]

Type	D _o	D _o +++	L	B	I	H ₁	H ₂	h	a	d _o	Screw thread
KH 62/75	62-75	59-72	225	90	185	114-142	172-200	80	30	18	M16
KH 73/86	73-86	70-83	250	100	210	119-147	192-220	85	30	18	M16
KH 84/97	84-97	81-94	270	100	230	128-156	214-242	95	30	18	M16
KH 95/107	95-107	92-104	290	100	250	136-164	244-262	103	30	18	M16
KH 105/117	105-117	102-114	310	100	270	144-178	248-282	108	30	18	M16
KH 115/140	115-140	112-137	365	120	320	182-242	270-330	145	35	18	M16
KH 138/165	138-165	135-162	500	140	420	215-310	295-390	165	40	20	M18

D_o: Outer cable diameter
D_o+++ ~ with three Elastic Inlays

* For more information contact id-Technik, please.
** Contact id-Technik for trailing cables (EPDM, rubber, etc.), please.



Standard IEC 61914 id-Technik Cable Clamps have been type-tested by accredited test institutes to the international standard IEC 61914.



Legal compliance

- Directive 2002/95/EC (RoHS)
- Regulation (EC) No. 1907/2006 (REACH regulation)

Constructional features

- Particularly high dynamic and mechanical strength and heat resistance due to special fibreglass-reinforced polyamide
- Safe restraint of dynamic forces of high short circuit currents, without damage to the cables, also for multiple short circuits
- Type-tested to IEC 61914 – cable cleats for electrical installations - reports from accredited institutes regarding dynamic short circuit currents, the fire-resistance of the material, and mechanical properties of the Cable Clamps are available
- Very low surface pressure on cables due to Cable Clamps' large contact area
- Unrestricted application both indoor and outdoor in extreme climates such as deserts, tropics, high altitudes, arctic climate, coastal salt fogs, flooding and ozone due to special resistance to ageing, ultraviolet rays and ozone
- Easy to mount without special instruments and maintenance-free
- Fastening of Cable Clamps adaptable to all local conditions

Type-Tests to IEC 61914 on Series KH Cable Clamps approved results in highest classification

Classification	Test conditions	Approved results	Paragraph
Material: non-metallic	high-grade polyamide		6.1.2
Operating temperature	-60°C / +120°C	passed	6.2
Resistance to impact	-60°C, 5 kg at 400 mm height	very heavy	6.3.5
Lateral load test [N] – in x-direction – in y-direction	+120°C	35.000 N 35.000 N	6.4.1
Axial load test [N] – with three Elastic Inlays	+120°C	1.500 N	6.4.2
Dynamic resistance to short circuits [N] suited to withstand multiple short circuits	Peak short circuit current: 149 kA Cable Clamp spacing: 0,90 m	30.000 N	6.4.4
UV-resistance	high	passed	6.5.1
Flame propagation	1 x 30s, needle flame method	passed	10.1 (IEC 60695-11-5)
	2 x 10s, 50 W test flame method	V-0	UL 94 V (IEC 60695-11-10)
	5 x 5s, 500 W test flame method	5VA	UL 94 5V (IEC 60695-11-20)
	3 min	S3	DIN 5510

Use of Elastic Inlays:

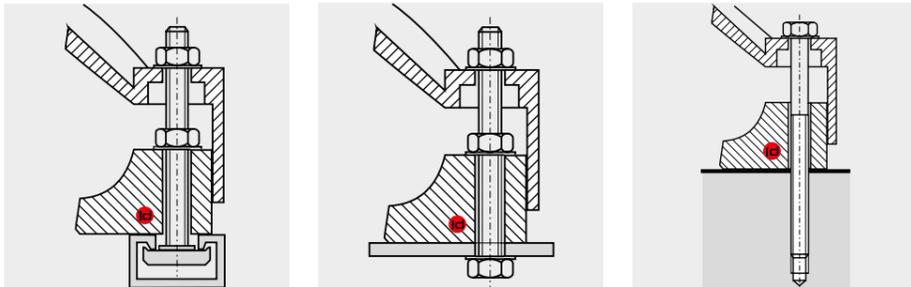
- As a cushion for elastic adjustment of cable diameter changes due to operational load changes and/or changes in the ambient temperature
- Precise cable fixation and absorption of weight forces, primarily on cables installed along inclines or attached to vertical surfaces where restraint of axial movement is essential
- Compensation of vibrations, e.g. in wind turbines, without reducing retention forces
- Expansion of the Clamp's clamping area, for cables with a smaller outer diameter
- Elastic Inlay 100 mm x 100 mm for KH 62/75, KH 73/86, KH 84/97, KH 95/107, KH 105/117
- Elastic Inlay 150 mm x 140 mm for KH 115/140, KH 138/165



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EXAMPLES OF MOUNTING METHODS



1

UNIVERSAL MOUNTING OPTIONS

adaptable to local conditions

EASY TO MOUNT

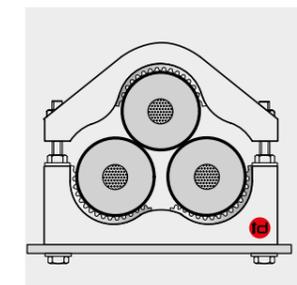
respecting the tightening torques of the fastening material

2

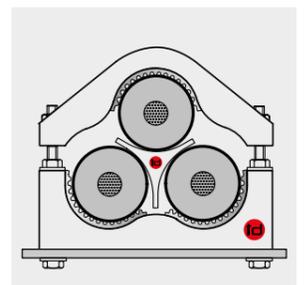
3

MAINTENANCE-FREE

more than 40 years of maintenance- and failure-free operation



▲ Use with three Elastic Inlays



▲ Additional fixation of cables for high- and extra high-voltage in trefoil formation, especially with impregnated paper insulation and at vertical installations. See page 66

The Elastic Inlays must ONLY be inserted into the id-Technik Clamps, not fixed, with the ribs running parallel to the cable lengthways. To avoid negative impact on the retention, the Elastic Inlays should NOT be fixed. The guarantee expires immediately if Elastic Inlays are fixed on site.

Torque for tightening the fastening material:
Upper part: 8 Nm*
Lower part: 15 Nm