exothermic welding CC4

Four-way cross joint of two bare copper conductors

Complies with IEEE 837 and UL 467

Conductor-to-conductor exothermic welding



Code	CC4
Connection type	Four-way cross joint of two bare copper conductors
Group	Conductor to conductor
Conductor cross-section	16 to 240 mm²
Branch conductor	16 to 185 mm²
Weld powder	KWD 045 to 2 × KWD 200
Matching handle clamp	HC 01
Standard	As per IEEE 837 and UL 467
Mould body material	High-grade graphite
Mould lid material	Stainless steel
Mould life	50 to 60 welds with correct use

exothermic welding CC4 Used for joining two bare copper conductors in a four-way cross in earthing, bonding and lightning protection networks. After welding, the joint fuses with the conductors and has no nuts or bolts to work loose over time.

Mould and powder selection table

Main conductor (mm²)	Branch conductor (mm²)	Weld powder	Mould code
16	16	KWD 045	CC4-016-016
25	25	KWD 045	CC4-025-025
35	25	KWD 065	CC4-035-025
35	35	KWD 065	CC4-035-035
50	25	KWD 090	CC4-050-025
50	35	KWD 090	CC4-050-035
50	50	KWD 090	CC4-050-050
70	25	KWD 115	CC4-070-025
70	35	KWD 115	CC4-070-035
70	50	KWD 115	CC4-070-050
70	70	KWD 115	CC4-070-070

Main conductor (mm²)	Branch conductor (mm²)	Weld powder	Mould code
120	70	KWD 150	CC4-120-070
120	95	KWD 200	CC4-120-095
120	120	KWD 200	CC4-120-120
150	50	KWD 150	CC4-150-050
150	70	KWD 150	CC4-150-070
150	95	KWD 200	CC4-150-095
150	120	KWD 250	CC4-150-120
150	150	KWD 250	CC4-150-150
185	70	KWD 200	CC4-185-070
185	95	KWD 200	CC4-185-095

Main conductor (mm²)	Branch conductor (mm²)	Weld powder	Mould code
95	35	KWD 115	CC4-095-035
95	50	KWD 115	CC4-095-050
95	70	KWD 150	CC4-095-070
95	95	KWD 150	CC4-095-095
120	35	KWD 115	CC4-120-035
120	50	KWD 150	CC4-120-050

Main conductor (mm²)	Branch conductor (mm²)	Weld powder	Mould code
185	120	KWD 250	CC4-185-120
185	150	KWD 250	CC4-185-150
185	185	KWD 250	CC4-185-185
240	95	2 × KWD 150	CC4-240-095
240	120	2 × KWD 150	CC4-240-120
240	150	2 × KWD 200	CC4-240-150

The mould code and powder size are also marked on the lid of each mould. Do not substitute powder from another mould or another size. For other sizes, contact our specialists.

Preparation and welding

Cut the conductor end straight with wire cutters so the strands do not open and splay, brush up to about 5 cm of the end to a shine with a wire brush, and hold any conductor under tension or bent steady with a clamp.

1. Check the mould and powder against the table.
2. Preheat a cold mould before the first weld.
3. Clean the conductors to bright metal and dry them fully.
4. Close the handle clamp, place the conductors in the centre of the chamber and lock the mould.
5. Place the steel disc concave side up and pour in the powder.
6. Add the starting powder, close the lid and ignite it with a flint igniter.
7. Wait at least one minute, then open the mould.
8. Clean the mould with a soft brush and a scraper; never use a wire brush.

Welds KALWELD Complies with IEEE 837 and UL 467 , welds KALWELD have passed freeze testing (10 cycles), thermal cycling (25 cycles) and a 20 kA short-circuit test at the Power and Water University of Technology (Shahid Abbaspour) (reports 95/4221 and 95/4220, 1395/12/24).

Result **Approved by**

Full illustrated guide, safety notes and troubleshooting: exothermic welding instructions KALWELD at www.kalot.ir

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