exothermic welding CC7

Two parallel through-run bare copper conductors, one on top of the other

Complies with IEEE 837 and UL 467

Conductor-to-conductor exothermic welding



Code	CC7
Connection type	Two parallel through-run bare copper conductors, one on top of the other
Group	Conductor to conductor
Conductor cross-section	16 to 300 mm²
Branch conductor	16 to 300 mm²
Weld powder	KWD 065 to 2 × KWD 250
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 CC7 Used to join two parallel through-run bare copper conductors, one on top of the other, in earthing networks, bonding and lightning protection. After welding, the joint becomes one with the conductors and has no nuts and bolts to work loose over time.

Mould and powder selection table

Main conductor (mm²)	Branch conductor (mm²)	Weld powder	Mould code
16	16	KWD 065	CC7-016-016
25	25	KWD 045	CC7-025-025
35	25	KWD 065	CC7-035-025
35	35	KWD 065	CC7-035-035
50	25	KWD 065	CC7-050-025
50	35	KWD 090	CC7-050-035
50	50	KWD 090	CC7-050-050
70	25	KWD 090	CC7-070-025
70	35	KWD 090	CC7-070-035

Main conductor (mm²)	Branch conductor (mm²)	Weld powder	Mould code
150	50	KWD 150	CC7-150-050
150	70	KWD 150	CC7-150-070
150	95	KWD 200	CC7-150-095
150	120	KWD 250	CC7-150-120
150	150	2 × KWD 150	CC7-150-150
185	70	KWD 150	CC7-185-070
185	95	KWD 200	CC7-185-095
185	120	KWD 250	CC7-185-120
185	150	2 × KWD 150	CC7-185-150

Main conductor (mm²)	Branch conductor (mm²)	Weld powder	Mould code
70	50	KWD 115	CC7-070-050
70	70	KWD 115	CC7-070-070
95	35	KWD 115	CC7-095-035
95	50	KWD 115	CC7-095-050
95	70	KWD 150	CC7-095-070
95	95	KWD 150	CC7-095-095
120	35	KWD 150	CC7-120-035
120	50	KWD 150	CC7-120-050
120	70	KWD 150	CC7-120-070
120	95	KWD 200	CC7-120-095
120	120	KWD 250	CC7-120-120
185	185	2 × KWD 150	CC7-185-185
240	95	KWD 250	CC7-240-095
240	120	KWD 250	CC7-240-120
240	150	2 × KWD 150	CC7-240-150
240	185	2 × KWD 150	CC7-240-185
240	240	2 × KWD 200	CC7-240-240
300	120	2 × KWD 150	CC7-300-120
300	150	2 × KWD 150	CC7-300-150
300	185	2 × KWD 200	CC7-300-185
300	240	2 × KWD 250	CC7-300-240
300	300	2 × KWD 250	CC7-300-300

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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