

PRODUCT DATA SHEET

LIGHTNING PROTECTION AND EARTHING SYSTEM COMPONENTS

Type: LHH-AA-120/120
ed.09/2024
Description: Exothermic welding 120 mm² Cu / 120 mm² Cu in line connection

Application

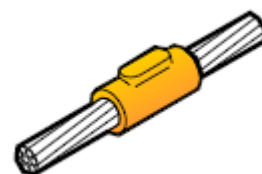
Connection of copper conductors through exothermic welding. The welding takes place in a graphite mould-crucible, into which has been introduced welding powder and the pieces to be welded. The powder is ignited by the starting powder using a flint igniter. Molten metal from the exothermic reaction flows over the pieces, causing them to be melted and fused into a solid homogeneous mass.

Classification as per IEEE 837 & IPTO TD-112

- Electromagnetic force (EMF) withstand:
Asymmetrical current 130 kA first peak, 55 kArms @ 150ms
- Fault current withstand: 9 kA @ 10s
- Corrosion withstand: 500h of continuous salt spray

Classification as per IEC EN 62561

- Heavy duty (H – 100 kA)
- General use
- Intended to withstand a static mechanical load
- Permanent connection



Connection type

Needed equipment

Code	Description
10 16 603	Graphite mould of average last of 70-100 connections under normal conditions of use.
18 20 115	Exothermic powder
19 30 160	Handle clamp, allowing to open and close the mould safely
19 00 007	Mould cleaner, to remove the slag and to check tap hole clearance after making every weld
19 10 032	Flint igniter
19 80 313	Soft brush for safely cleaning the inner part of the mould after every weld
19 50 000	Wire brush used for cleaning the conductors before making the weld
19 20 315	Mould seal to prevent leakage of the molten weldmetal.

Installation data

Conductor's dimensions	120 mm ² stranded / 120 mm ² stranded
Conductor's material	Copper / Copper
Connection arrangement	In line (B3)
Installation	Outdoor, buried in ground, embedded in concrete
Note	For the welding procedure please refer to general instructions O.E.2.1-15, accompanying the mould.

Testing

The above exothermic powder has successfully passed the testing requirements of standards:

- IEC EN 62561-1 "Lightning protection system components (LPSC) – Part 1 : Requirements for connection components". Test report No **30819B** by accredited laboratory as per ISO 17025
- IEEE 837 "Permanent connections used in substation grounding". Test report No **32184***
* EMF test performed according to requirements of IPTO (Greek Independent Power Transmission Operator) Technical Description TD-112 "Exothermic welding system for use in substation earthing."

Manufacturing Quality Control

Manufacturing quality control according standard ISO 9001

Country of Origin

Greece

We reserve the right to introduce changes in the component due to technical evolution.