

COPPERHEAD CONDUCTOR SYSTEMS INSTALLATION INFORMATION FOR CATALOG 1a/E

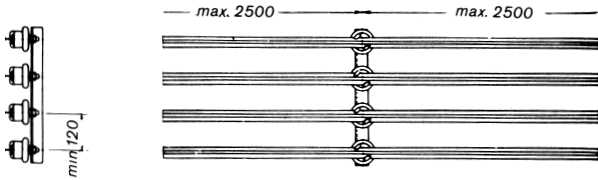
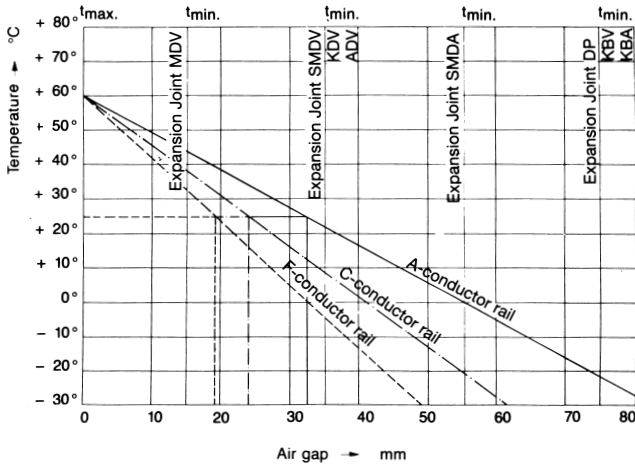


Fig. A

1. Install brackets to I beam or girder, weld or bolt on 2 m (6' - 6'') centers for L 20, A 20, C 20 Rails; 2.5 m (8' - 3'') centers for all other rails.
Spacing between VAHLE Rails is 150 mm std. (6''), min. 100 mm (4'') for L 20, A 20, C 20 Rails; 150 mm std. (6''), min. 120 mm (5'') for all other Types.
For high voltage installations: approx. 250 mm (10'')
Check alignment.



Expansion diagram

The chart shows orientation lines for the different conductor rails, considering 42 m expansion joint intervals.

For gap setting move the orientation line in parallel up to the point presenting the anticipated max. ambient temperature. Then connect point of actual ambient temperature during installation to the right until intersecting with the orientation line. Follow the vertical axis downward to read the air gap dimension in mm.

Example:

Ambient temperature 25° C
Air gap F-Rail = 19 mm
Air gap C-Rail = 24 mm
Air gap A-Rail = 33 mm

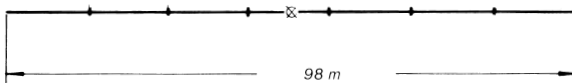


Fig. B



Fig. C

Symbols:

- I Rigid Joint
- II Expansion Joint
- O Insulator
- ⊗ Insulator with Locating Clamps

2. Secure insulators/rail supports to brackets leaving bolts **hand tight**.
For general Arrangement see Fig. A.
When placing the conductors into the insulators, make sure that the **bayonet clamp** (incorporated in most VAHLE insulators) supports the rail **sliding tight** to allow for expansion and contraction.
Do not change the position (don't turn rail holders) when tightening support bolts against steel brackets.
3. Connect the VAHLE Rails by rigid- or expansion joints using the holes provided at the ends of the 7 m (23') or 14 m (46') sections. For systems up to 100 m (330') no expansion joints required. With longer runs use an expansion joint after every 6 standard lengths of 7 m (23') or 3 lengths of 14 m (46') = 42 m (138') intervals. For special heat environment and strong temperature fluctuations reduce these intervals to 28 m (92'). For gap setting see adjacent diagram and example.
Provide an extra insulator/rail support close to each expansion joint - approx. 250 mm.
4. Anchor VAHLE Rails for **controlled sliding** in both directions, by fitting two locating clamps close to the center insulator of the run or in the center between two expansion joints (see Fig. B + C).
5. Install feeder clamps at feed points. Bolt to web of rail and braise to copper-head.
6. Prepare Collector Bracket to suite normal working height and fixing studs of Current Collectors and install Collectors securely.



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