

Inspection Certificate

TÜV®

No. 1436.GR.20200402.172041_IC V1.0

TÜV NORD Systems GmbH & Co. KG hereby certifies to

Hägele GmbH

Am Niederfeld 13
73614 Schorndorf
Germany

that the

reversible fan C/H 162, C/H 222 und C/H 252 in 13 variants und its 7 control variants

meet the requirements listed in the below mentioned standard:

EN 45545-2:2013+A1:2015

- Location: exterior
- Hazard Level: HL2

During installation in rolling stocks by using the grouping rules (EN45545-2:2013+A1:2015, chapter. 4.3) the respective combustible mass (max. 359 g) acc. annex (variant list) has to be considered.

**Base of this inspection certificate is the inspection report
No.1436.GR.20200402.172041 (V1.0) from 2020-12-02.**

Inspection Body SEELAB
Grosse Bahnstrasse 31, 22525 Hamburg, Germany

Hamburg, 2021-02-03

Inspector:

Dipl.-Ing.
Bernd Kuhlmann



Variant list

1. Reversible fans (Variants consisting of wing axle and wing blade):

| Reversible fan (Wing hub) | C/H 162 | C/H 222 or C/H 252 | | |
|-----------------------------------|------------|-----------------------|-------------------------|-----------------------|
| Wing axle | „162“ | „222-252“ | „X60 X50 slide bearing“ | „X85 slide bearing“ |
| Wing blade | No. 207907 | No. 207793 | No. 207831 | No. 207830 |
| „Z15“ No. 214943 | 8-Blades | - | - | - |
| „Z18“ No. 214944 | 8-Blades | - | - | - |
| „Z20“ No. 214945 | 8-Blades | - | - | - |
| „Z50“ No. 213456 | - | 9-Blades 12-Blades | - | - |
| „X50“ No. 214946 | - | - | 9-Blades 12-Blades | - |
| „Z60“ No. 213455 | - | 9-Blades 12-Blades | - | - |
| „X60“ No. 214947 | - | - | 9-Blades 12-Blades | - |
| „X85“ No. 213852 | - | - | - | 9-Blades 12-Blades |
| Combustible mass to be considered | 0 g | 0 g | 34,8 g | 34,8 g |

Table 1: Possible combinations of blade axles and blades per fan hub, with respective combustible mass to be considered.

2. Accessories (Variants for pneumatic or hydraulic control in 12/24 V):

| Variant | Designation | Article number | Combustible mass to be considered |
|---------|----------------------------|----------------------------|-----------------------------------|
| a) | Valve pneumatic | 12V: 214524 24V: 214525 | 59 g |
| b) | Valve with timer pneumatic | 12V: 214526 24V: 214527 | 190 g |
| c) | Valve hydraulic | 12V: 214528 24V: 214529 | 154 g |
| d) | Valve with timer hydraulic | 12V: 214530 24V: 214531 | 283 g |
| e) | Compressor unit | 12V: 214532 24V: 214533 | 260 g |
| f) | PT Valve block | 12V: 214534 24V: 214535 | 359 g |
| | PT/HT Hall sensor | 211190 212202 212203 | |
| g) | HT Valve block | 12V: 206371 24V: 206373 | 333 g |
| | PT/HT Hall sensor | 211190 212202 212203 | |

Table 2: Accessory variants, with respective combustible mass to be considered.