

# Technical specification



Project ref: Alfa Laval  
 Line ref:  
 Model: AC-30EQ-24H-F  
 Item Id: 3288153699  
 No of units: 1

Page: 1(2)  
 Date: 2019-07-12

|  |      | Hot side<br>S1 -> S2 | Cold Side<br>S3 -> S4 |
|--|------|----------------------|-----------------------|
| <b>Process data</b>                      |      |                      |                       |
| Capacity:                                | kW   | 7,0                  |                       |
| Fluid:                                   |      | Water                | R134a                 |
| Mass flow rate:                          | kg/h | 1 199                | 168                   |
| Inlet temperature:                       | °C   | 12,0                 | 2,4                   |
| Outlet temperature:                      | °C   | 7,0                  | 7,0                   |
| Evaporating temperature (dew):           |      |                      | 2,0                   |
| Evaporating pressure:                    | bara |                      | 3,1                   |
| Super heating:                           |      |                      | 5                     |
| Inlet quality:                           |      |                      | 0,2350                |
| Total pressure drop calculated (allowed) | kPa  | 34,2 (80,00)         | 227,9 (300,00)        |
| Connection velocity in/out:              | m/s  | 0,80/0,80            | 7,70/9,82             |
| Margin calculated (specified):           | %    | 26(0)                |                       |

| <b>Heat exchanger specification</b>        |                 |                                    |     |
|--|-----------------|------------------------------------|-----|
| Relative directions of fluids:             |                 | Countercurrent                     |     |
| Number of plates:                          |                 | 24                                 |     |
| Channel volume:                            | dm <sup>3</sup> | 0,3                                | 0,3 |
| Number of circuits:                        |                 | 1                                  | 1   |
| Design pressure at -196 °C                 | bar             | 35                                 | 35  |
| Design pressure at 225 °C                  | bar             | 30                                 | 30  |
| Design temperature (min/max):              | °C              | -196 / 225                         |     |
| Pressure vessel code:                      |                 | PED                                |     |
| Material Channel plates / Sealing:         |                 | ALLOY 316 / Cu                     |     |
| Connection S1 (Hot-In):                    |                 | Threaded (External) 1" ISO 228/1-G |     |
| Connection S2 (Hot-Out):                   |                 | Threaded (External) 1" ISO 228/1-G |     |
| Connection S3 (Cold-In):                   |                 | Soldering 1/2"                     |     |
| Connection S4 (Cold-Out):                  |                 | Soldering 22.3(7/8")               |     |
| Unit dimensions (length x width x height): | mm              | 69 x 95 x 325                      |     |
| Net weight, empty / operating:             | kg              | 3,2 / 3,59                         |     |
| Packed length x width x height:            | mm              | 160,0 x 110 x 343,0                |     |
| Packed weight:                             | kg              | 3,48                               |     |

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