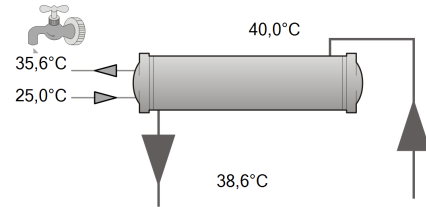




## Selection: Water-cooled Condensers

### Input Values

|                           |                             |
|---------------------------|-----------------------------|
| Condenser type            | K813H                       |
| Passes no.                | 2                           |
| Series                    | Standard                    |
| Refrigerant               | R404A                       |
| Cooling agent             | Water                       |
| Condensing temperature    | 40,0 °C                     |
| Water inlet temp.         | 25,0 °C                     |
| Volume flow               | 10,00 m <sup>3</sup> /h     |
| Liq. subc. (in condenser) | 1,00 K                      |
| Fouling factor            | 0,000040 m <sup>2</sup> K/W |



K813H (100%)

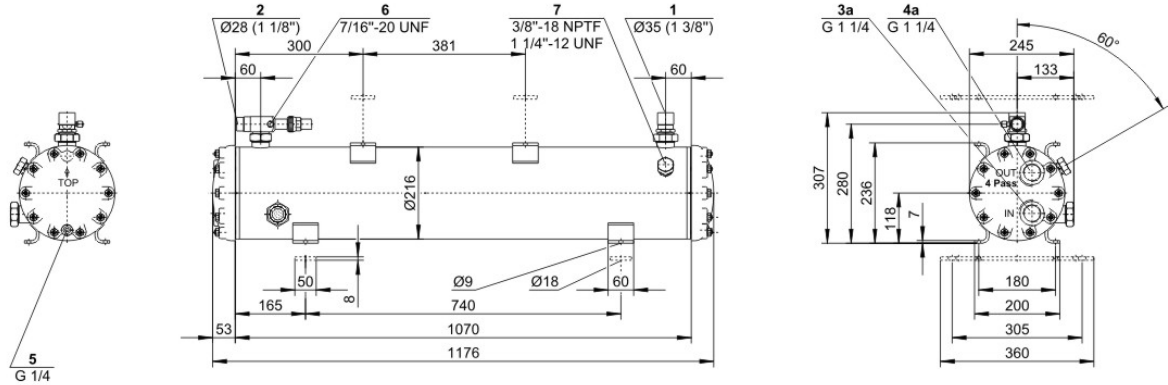
### Result

|                       |                         |
|-----------------------|-------------------------|
| Condenser type        | <b>K813H</b>            |
| Passes no.            | 2                       |
| Condenser capacity    | 122,7 kW                |
| Allowed max. capacity | 157,1 kW                |
| Condensing SDT        | 40,0 °C                 |
| Water outlet temp.    | 35,6 °C                 |
| Volume flow           | 10,00 m <sup>3</sup> /h |
| Vol.flow min.         | 4,54 m <sup>3</sup> /h  |
| Vol.flow max.         | 22,7 m <sup>3</sup> /h  |
| Fluid velocity        | 1,10 m/s                |
| Pressure drop         | 0,08 bar                |



## Technical Data: K813H

### Dimensions and Connections



### Technical Data

#### Technical Data

|  |                      |
|--|----------------------|
| Weight                                     | 65 kg                |
| Total width                                | 1176 mm              |
| Total height                               | 307 mm               |
| Jacket tube diameter                       | 216 mm               |
| Refrigerant inlet                          | 35 mm - 1 3/8"       |
| Refrigerant outlet                         | 28 mm - 1 1/8"       |
| Coolant inlet (2 passes)                   | 2"                   |
| Coolant outlet (2 passes)                  | 2"                   |
| Coolant inlet (4 passes)                   | 1 1/4"               |
| Coolant outlet (4 passes)                  | 1 1/4"               |
| Receiver volume refrigerant                | 27,7 dm <sup>3</sup> |
| Max. refrigerant charge 90% at 20°C / 68°F |                      |
| R22  | 30,2 kg              |
| R134a                                      | 30,6 kg              |
| R407C                                      | 28,9 kg              |
| R404A/R507A                                | 26,6 kg              |
| R1234yf                                    | 27,8 kg              |
| R1234ze                                    | 29,5 kg              |
| R410A                                      | 27,1 kg              |
| R32  | 24,5 kg              |
| R454B                                      | 25 kg                |
| R452B                                      | 25,1 kg              |
| Max. pressure                              | 33 bar               |
| Max. Operating Temperature                 | 120°C                |
| Max pressure coolant side                  | 10 bar               |
| Larger outlet connection                   | 35 mm - 1 3/8"       |

#### Available Options

|                                   |        |
|-----------------------------------|--------|
| Adapter for pressure relief valve | Option |
| 2 fixing rails (above)            | Option |
| 2 fixing rails (below)            | Option |



## Water-cooled Condensers

### Legend of connection positions according to "Dimensions":

- 1 Refrigerant or oil inlet
  - 2 Refrigerant or oil outlet
  - 2a Alternative refrigerant outlet (only for sea water version)
  - 3 Coolant inlet
  - 3a 4 or 6 pass
  - 3b 2 or 3 pass
  - 4 Coolant outlet
  - 4a 4 or 6 pass
  - 4b 2 or 3 pass
  - 5 Coolant drain
  - 6 Connection for pressure gauge
  - 7 Connection for pressure relief valve Internal thread 3/8-18 NPTF, external thread 1 1/4-12 UNF
  - 8 Sight glass
  - 9 Oil drain
  - 10 Vent plug
  - 11 Fixing rail, bottom
  - 12 Fixing rail, top
- Dimensions (if specified) may have tolerances according to EN ISO 13920-B.

The legend applies to all BITZER shell and tube condensers, discharge gas desuperheaters and oil coolers and includes connection positions that do not exist in every series.