



Alfa Laval AC230DQ / ACH230DQ

Brazed plate heat exchanger for air conditioning and refrigeration

Alfa Laval AC brazed plate heat exchangers provide efficient heat transfer with a small footprint. They are specifically designed to work in air conditioning and refrigeration applications as evaporators and condensers in chillers and heat pumps.

Applications

- Evaporator
- Condenser

Benefits

- Compact
- Easy to install
- Self-cleaning
- Low level of service and maintenance is required
- All units are pressure and leak tested
- Gasket free

Design

The brazing material seals and holds the plates together at the contact points ensuring optimal heat transfer efficiency and pressure resistance. Using advanced design technologies and extensive verification guarantees the highest performance and longest possible service life.

Different pressure ratings are available for different needs.

The True dual-circuit design provides a higher freezing resistance compared to back-to-back solutions.

The integrated distribution system ensures an even distribution of the refrigerant throughout the plate package.

Based on standard components and a modular concept, each unit is custom-built to meet the specific requirements of each individual installation.

Suitable with most HFC, HFO and natural refrigerants.



Technical Data

Standard materials

Cover plates	Stainless steel
Connections	Stainless steel
Plates	Stainless steel
Brazing filler	Copper

Dimensions and weight¹

A measure (mm)	13 + (2.14 * n)
A measure (inches)	0.51 + (0.08 * n)
Weight (kg) ²	6 + (0.4 * n)
Weight (lb) ²	13.23 + (0.88 * n)

- n = number of plates
- Excluding connections

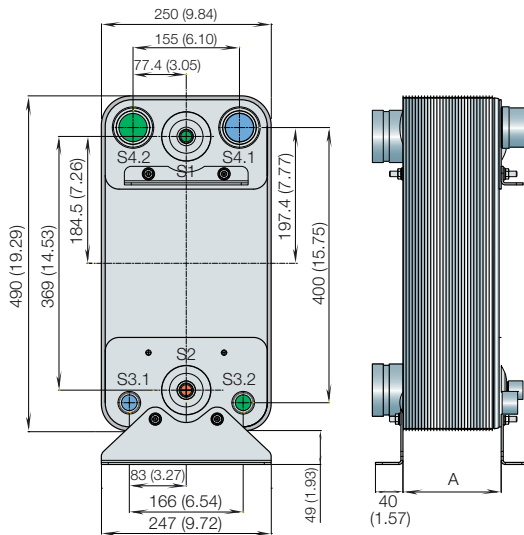
Standard data

Volume per channel, litres (gal)	(S1-S2): 0.16 (0.040) (S3-S4): 0.20 (0.052)
Max. particle size, mm (inch)	0.9 (0.035)
Max. flowrate ¹ m ³ /h (gpm)	60 (264)
Flow direction	Diagonal
Min. number of plates	10
Max. number of plates	250

- Water at 7 m/s (16.4 ft/s) (connection velocity)

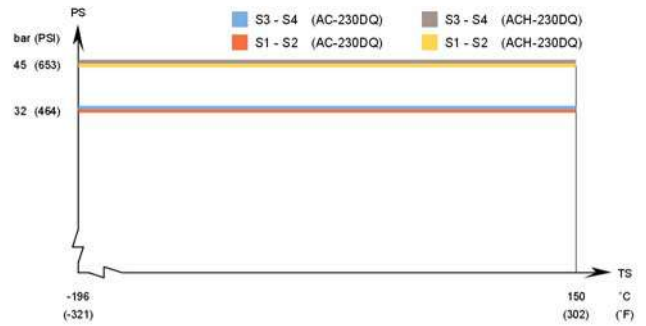
Dimensional drawing

Measurements in mm (inches)

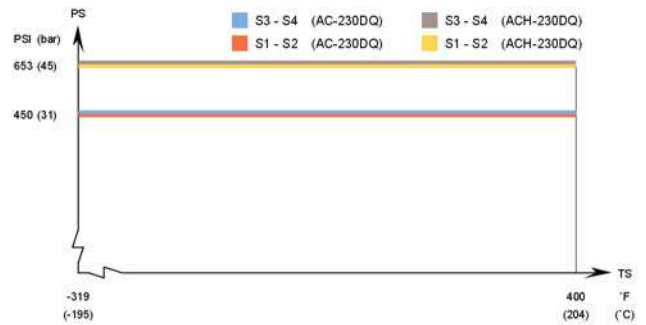


Design pressure and temperature

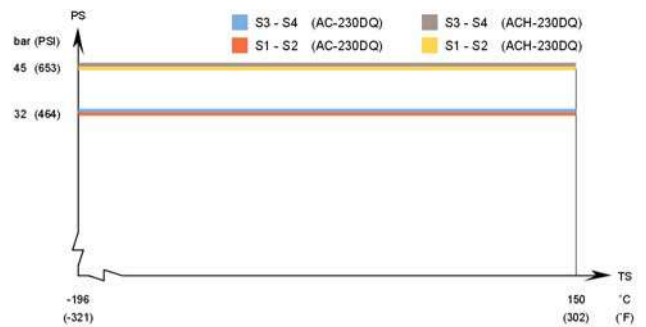
AC230DQ/ACH230EQ – PED approval pressure/temperature graph



AC230DQ/ACH230DQ – UL approval pressure/temperature graph



AC230DQ/ACH230EQ – PED approval pressure/temperature graph



Designed for full vacuum.

Alfa Laval plate heat exchangers are available with a wide range of pressure vessel approvals. Please contact your Alfa Laval representative for more information.

NOTE: Values above are to be used as an indication. For exact values, please use the drawing generated by the Alfa Laval configurator or contact your local Alfa Laval representative.

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Alfa Laval reserves the right to change specifications without prior notification.

How to contact Alfa Laval

Contact details for all countries are continually updated on our website. Please visit www.alfalaval.com to access the information direct.

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AC30EQ / ACH30EQ

Brazed Plate Heat Exchanger

General information

Alfa Laval introduced its first brazed plate heat exchanger in 1977 and has since continuously developed and optimized its performance and reliability.

Brazing the stainless steel plates together eliminates the need for gaskets and thick frame plates, which makes the heat exchanger compact and saves material. The brazing material seals and holds the plates together at the contact points ensuring optimal heat transfer efficiency and pressure resistance. Using advanced design technologies and extensive verification guarantees the highest performance and longest possible service lifetime.

The AlfaChill (AC) brazed plate heat exchangers are specifically designed for heat transfer in air conditioning, refrigeration and heat pump applications.

Innovative features for this single circuit heat exchanger include a patented distributor integrated in the plate design.

Typical applications

- Evaporator and condenser in chillers and heat pumps
- Total heat recover in chillers
- Liquid cooler in direct system

The standard design supports a wide variety of HFC refrigerants such as R407C, R404A, R507, R134a. The high-pressure version is suitable for R410A and natural refrigerants (CO₂ - propane).

Capacity range

AC30EQ / ACH30EQ cover capacities from 3 up to 30 kW for chillers. Based on standard components and a modular concept, each unit is custom-designed for each specific installation.

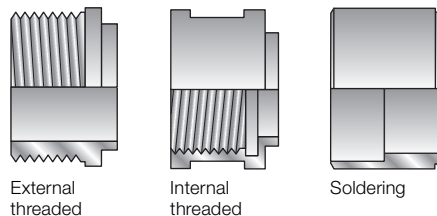
Request for quotation

To receive a quotation for brazed plate heat exchangers that meet your requirements, please provide Alfa Laval representatives with:

- Required flow rates or heat load
- Temperature program (inlet and outlet)
- Brine and refrigerant type
- Desired working pressure
- Maximum permitted water/brine pressure drop
- Connection types

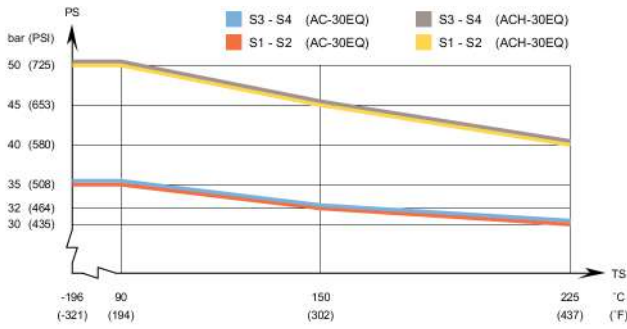


Examples of connections*

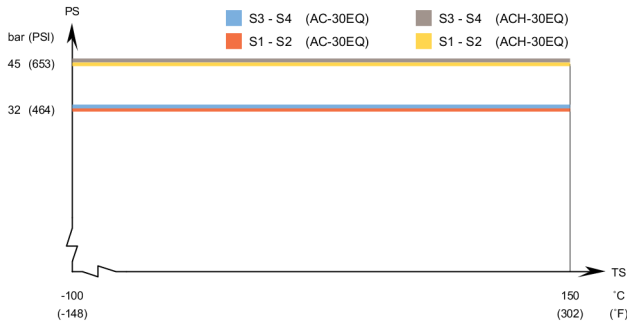


* More connections are available on request.

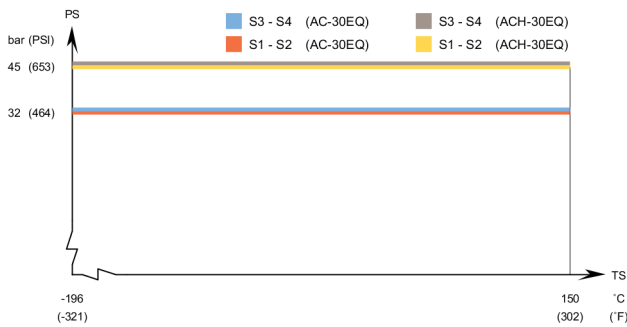
AC30EQ / ACH30EQ - PED approval pressure/temperature graph



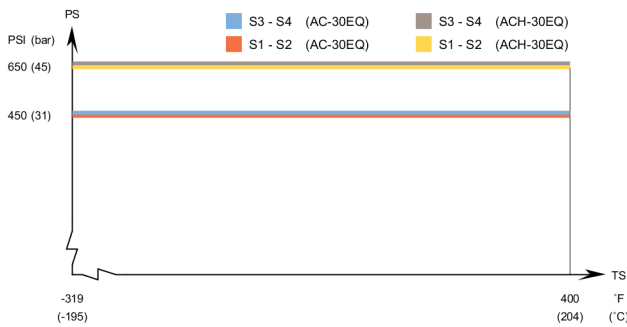
AC30EQ / ACH30EQ - KHK and KRA approval pressure/temperature graph



AC30EQ / ACH30EQ - CRN approval pressure/temperature graph



AC30EQ / ACH30EQ - UL approval pressure/temperature graph



Standard dimensions and weight*

A measure mm = $9 + (1.52 * n) \pm 3 \%$
 A measure inch = $0.35 + (0.06 * n) \pm 0.12 \%$
 Weight** kg = $1 + (0.09 * n)$
 Weight** lb = $2.2 + (0.2 * n)$

(n = number of plates)
 * Excluding connections

Standard data

Min. working temperature	see graph
Max. working temperature	see graph
Min. working pressure	vacuum
Max. working pressure	see graph
Volume per channel, litres (ga)	0.028 (0.0072)
Max. flowrate* m ³ /h (gpm)	8.8 (39)
Min. nbr of plates	4
Max. nbr of plates	120

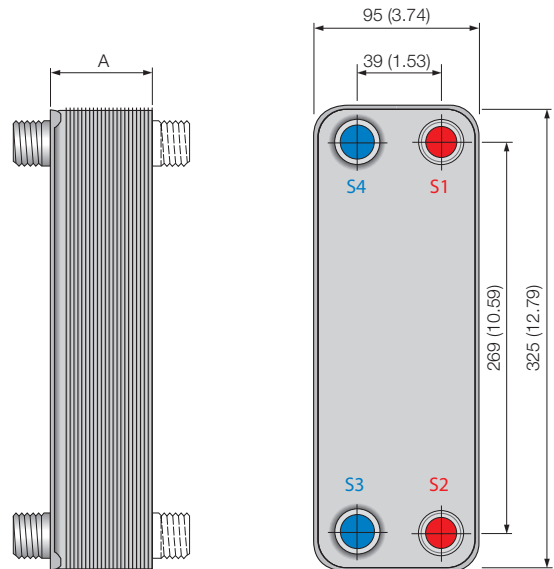
* Water at 5 m/s (16.4 ft/s) (connection velocity)

Standard materials

Cover plates	Stainless steel
Connections	Stainless steel
Plates	Stainless steel
Brazing filler	Copper

Standard dimensions

mm (inch)



For exact values please contact your local Alfa Laval representative

How to contact Alfa Laval

Up-to-date AlfaLaval contact details for all countries are always available on our website on www.alfalaval.com