

Installation guide

Colibri® Electric Expansion Valves

Type ETS 12C, ETS 24C, ETS 25C, ETS 50C, ETS 100C



English

Refrigerants: R410A, R404A, R507, R134a, R407A, R407B, R407C, R407F, R32, R290, R1234ze, R1234yf, R449A, R449B, R452A, R1270, R600, R600a, R1290, R22, R23, R227, R417A, R444B, R447A, R448A, R454B, R422A, R422D, R427A, R502, R513A, R413A, R438A, R450A, HDR110, DR3, DR7, DR55, L40

Allowable ambient temperature:
Min. -40 °C / -40 °F
Max. 70 °C / 158 °F

Fluid temperature:
Min. -40 °C / -40 °F
Max. 70 °C / 158 °F

Max. working pressure:
50 bar / 725 psig

Stepper motor type:
Bipolar

Phase current:
800 mA peak /
600 mA RMS

Coil resistance:
10 Ω (20 °C / 68 °F)

Total steps:
600 full steps

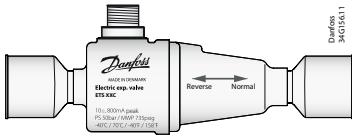


**Do not connect directly to AC/DC power source.
Connect valve to appropriate controller/driver only.**



ETS Colibri® valves are delivered in open position, ready for brazing.
An AST –g service driver is available for manual operation / service of ETS C valve.

Flow direction

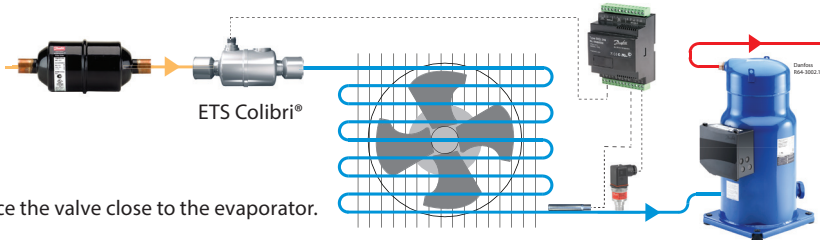


Bi-flow

Reverse flow ← → Normal flow

(Using sight glass for flash gas detection - ETS 25C to ETS 100C)

Application



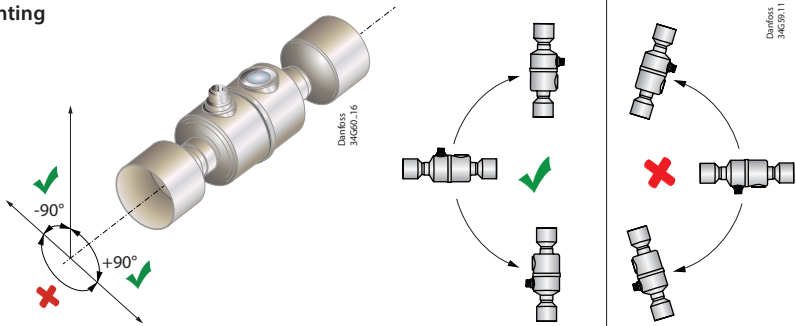
Place the valve close to the evaporator.

It is recommended to use Danfoss filter drier before the expansion valve or a strainer for particles of 150 micron or smaller.

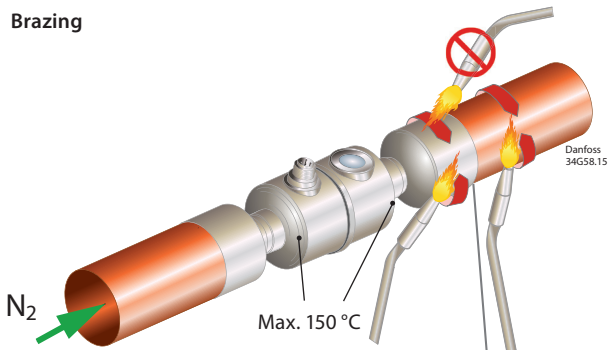
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Mounting



Brazing



Recommendation

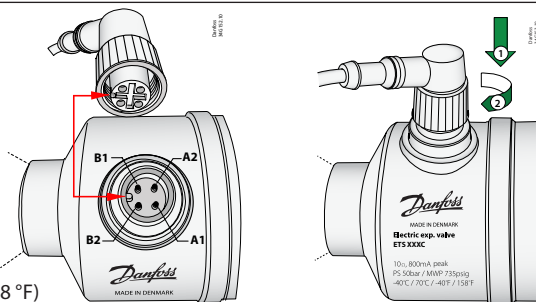
ETS 12C - ETS 24C
Solder nozzle 2 - 4 mm
($1/15$ in. - $1/8$ in.)

ETS 25C - ETS 50C - ETS 100C
Solder nozzle 6 - 9 mm
($1/4$ in. - $3/8$ in.)

N₂ gas from opposite site of soldering point.

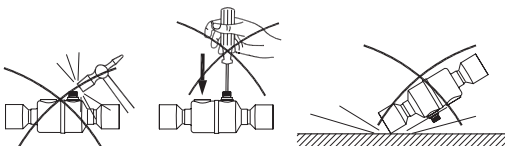


M12 Connection



Motor coil resistance check.

Coil A = Coil B = 10 Ω (20 °C / 68 °F)



Installation video

