

ENGINEERING
TOMORROW

Danfoss

Revolutionary **ETS Colibri®** valves Engineered to give you maximum **flexibility** and **dependability**

ETS Colibri® brings to the market one of a kind, uniquely designed electric expansion valve.



Innovative Design

Compact, hermetic
and in-line valve
design driven by
stepper motor
technology.

colibri.danfoss.com

3x Faster

ETS Colibri® can be driven fully closed in less than 4 seconds

4x Lighter

Thanks to its unique compact design.

Re-engineered for the next level

ETS Colibri® is the most innovative and uniquely designed electric expansion valve in the market.

Danfoss has a proud heritage of over 30 years in designing and producing electric expansion valves. During this time, we've dedicated all our experience to perfecting our products – giving you the most reliable and innovative valves in the market.

Today, ETS Colibri® is a result of our dedication and passion for engineering, built around uncompromised quality and performance. Its focus on energy efficiency ensues from placing great attention to our customers' needs.



ETS 12C – ETS 24C



ETS 25C – ETS 50C – ETS 100C

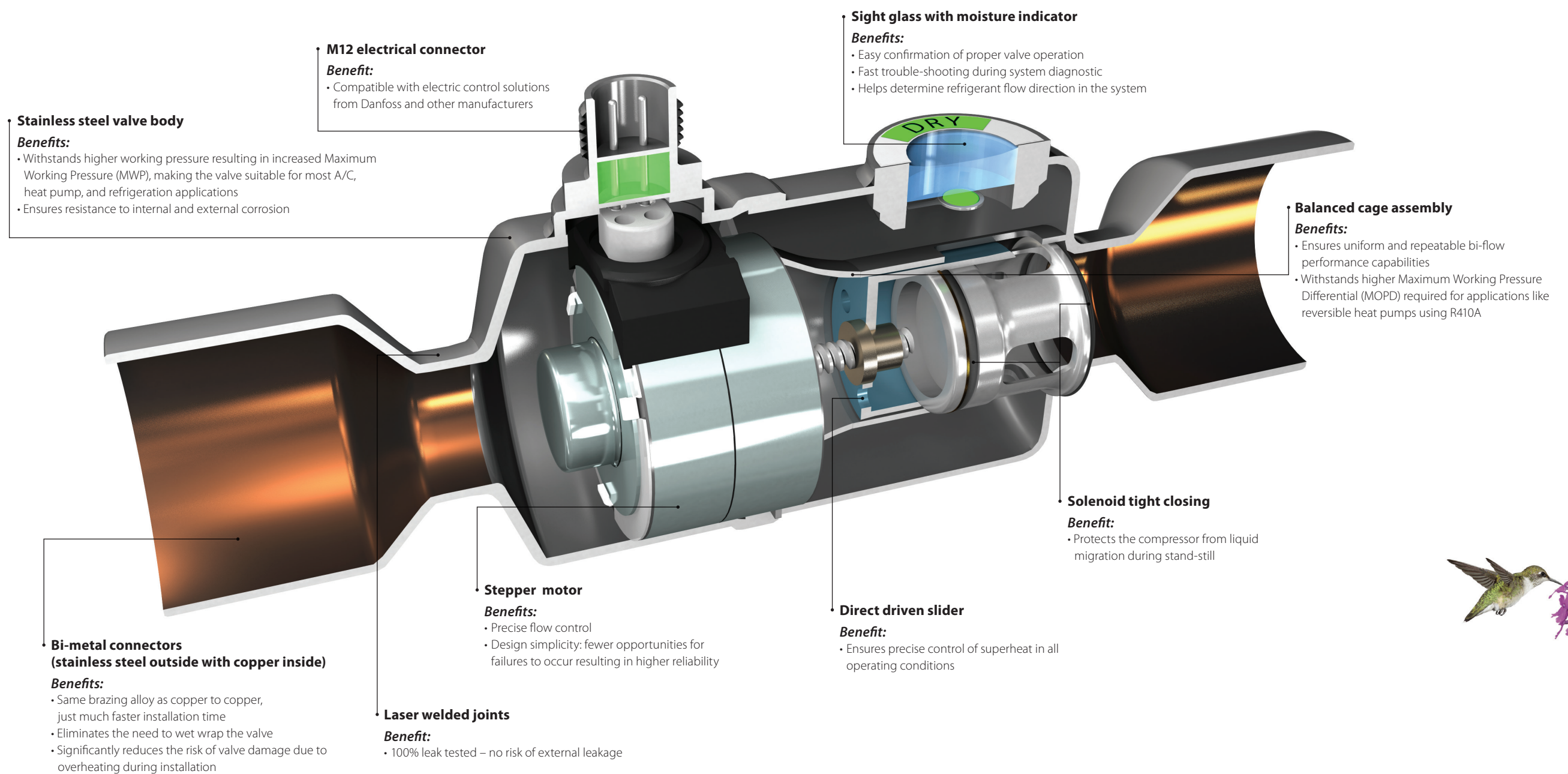
Compact, hermetic and in-line design

Compact design: Easily fits anywhere in the system

Lightweight body: No extra support necessary in your system to avoid tubing cracks caused by vibration

In-line design: Flexibility to install the valve in almost any plane

Hermetic: Uncompromised integrity of internal components and fewer leak points in the system result in reduced refrigerant loss potential and fewer service calls



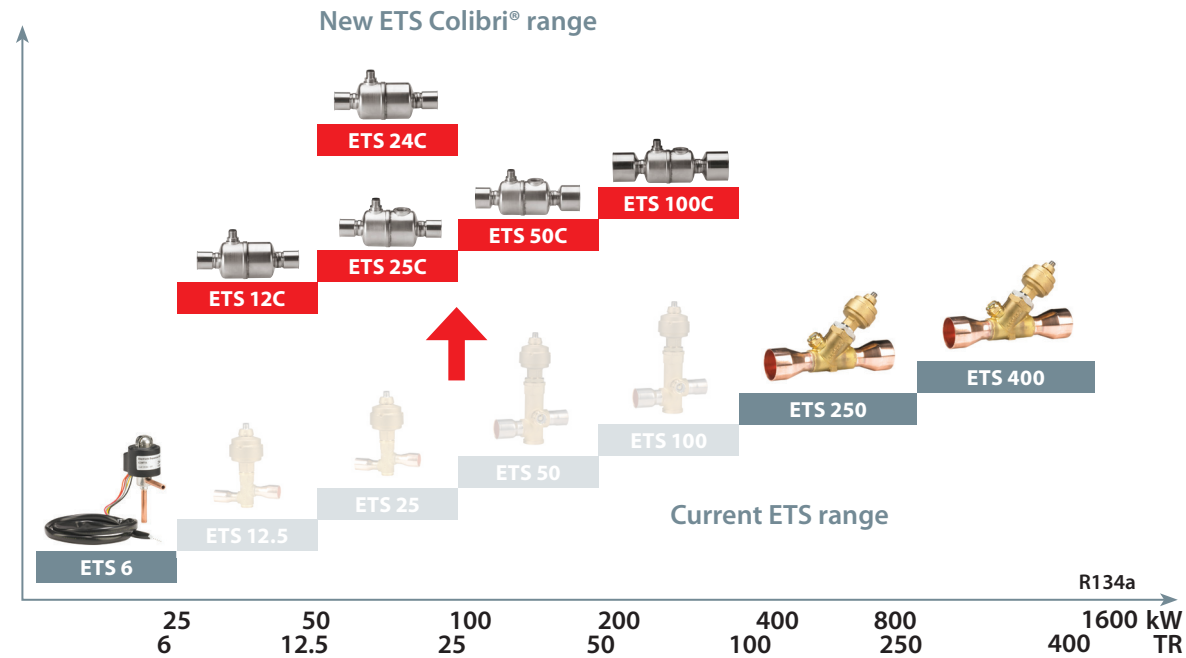
ETS Colibri® has been designed for precise liquid injection into evaporators for air-conditioning, heat pump and refrigeration applications. In addition, Colibri® valves are approved for oil-free operation, e.g. in systems with Danfoss Turbocor® oil-free compressors.

Thanks to its unique design, the Colibri® range can also be used as suction modulating valves in applications such as transportation and food retail.

The benefits of its linear opening and closing characteristics:

- Simpler control scheme allows for faster software development
- Faster reaction time at start-up leads to a low chance of starving the compressor

Electric expansion valves range



Technical data

Compatible refrigerants	R410A, R407C, R404A, R507, R134a, R290 (for other refrigerants, contact your Danfoss representative)
Refrigerant temperature range	−40 °C to 70 °C (−40 °F to 158 °F)
MOPD	40 bar (588 psi)
Max. working pressure (PS/MWP)	50 bar (735 psig)
Stepper motor type	Bi-polar - permanent magnet
Step mode	2 phase full step, micro-stepping (recommended)
Max. total power	7.2 W
Step rate	160 steps/sec. recommended (current control)
Total steps	600
Full travel time	3.75 sec. at recommended step rate

50^{bar}

working pressure
ensures compatibility
with all of the
most widely used
refrigerants.

ETS Colibri®.
Innovative electric expansion
valves for **best in class**
air-conditioning, heat pump,
and refrigeration systems.

Increased energy efficiency with uncompromised quality.

