

# EV EXV (Electric Vehicle Electronic Expansion Valve)

For use in EV Heat Pump Systems



## EXVs

To date Schrader Pacific has prototyped EXVs for testing and evaluation by tier 1s. Note two different flow characteristics are available (right).

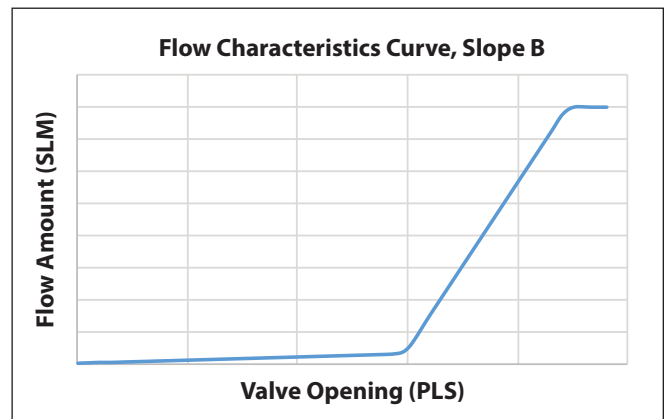
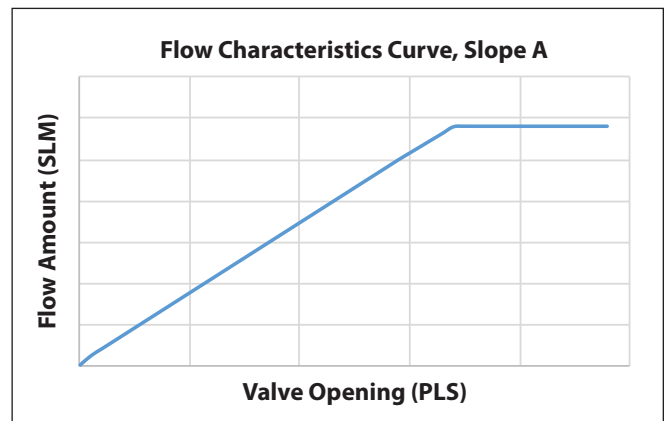
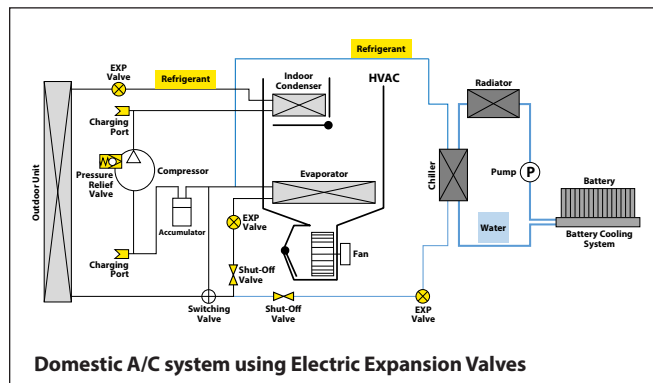
Schrader Pacific will partner with component and/or module supplier of EXVs to tier 1's under confidentiality agreement. Please contact a sales representative to pursue.

## Check Valves

Schrader Pacific engineers/manufactures check valves for many applications. Contract with us to develop/manufacture check valves for heat pump circuits in electric vehicles.

## Shut-off Valves

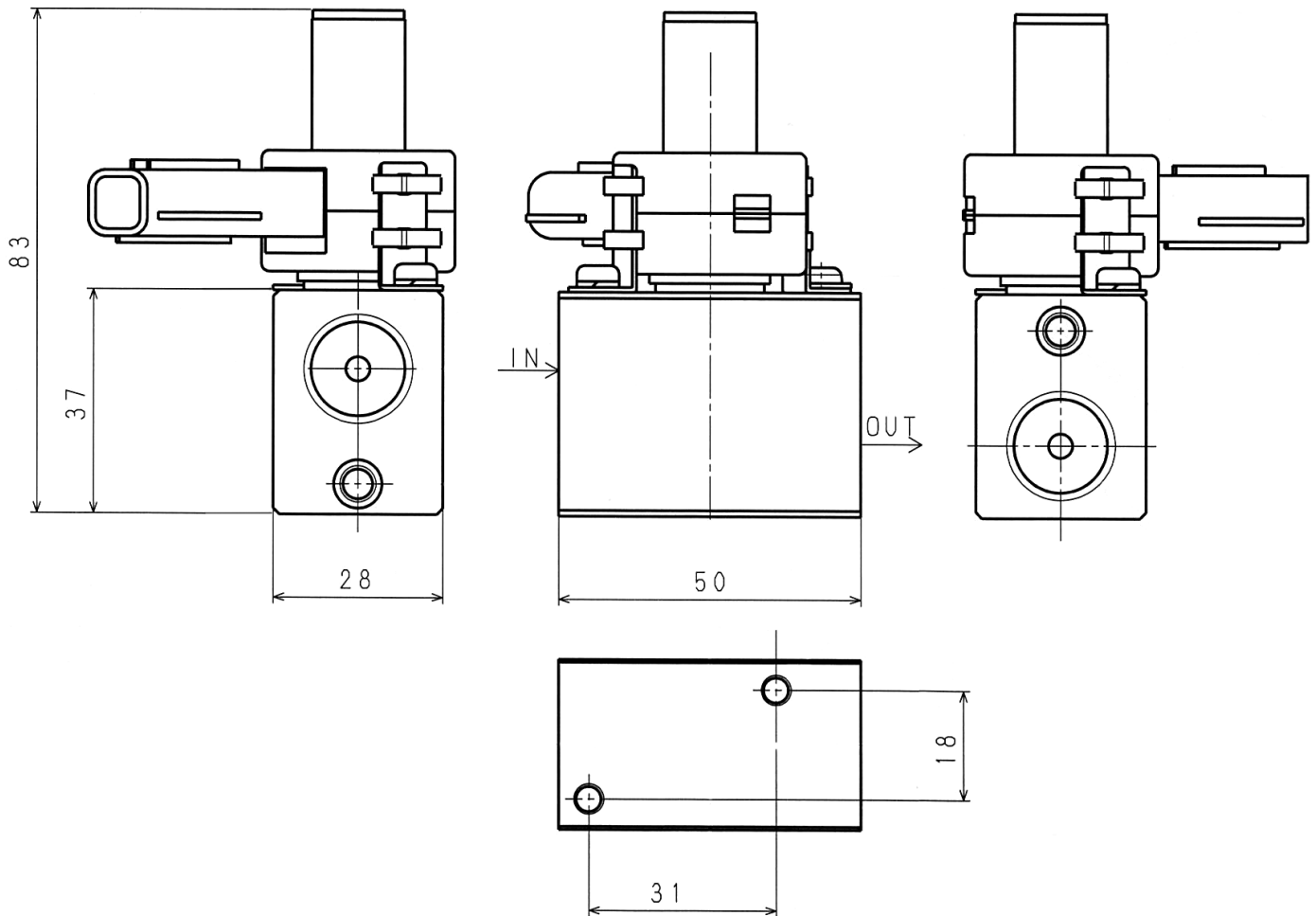
Schrader Pacific can leverage experience with a wide range of valve designs to aid in the development of shut off valves.



Charts above show typical pulse/flow characteristics of 2.6 and 9.0 mm orifice EXV.

At left, typical system in which EXVs will routinely operate. Schrader Pacific can be contracted under confidentiality agreement to partner in developing a valve to meet your specific needs.

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## Specifications\*

1. Refrigerant	HFC-134a, HFO-1234yf
2. Ambient Temperature	-30~120°C
Liquid Temperature	-30~120°C
3. Airtight Pressure	3.53 MPaG
4. Compressive Strength	5.30 MPaG
5. Max operating pressure difference	2.2 MPa (DC 12V)
6. Valve Leakage Amount	200 cm <sup>3</sup> /min. (1MPaG)
7. Voltage Tolerance	9~16V (12V)

\*Specifications provided are for reference only. Your requirements may vary and can be accommodated into your particular design.