

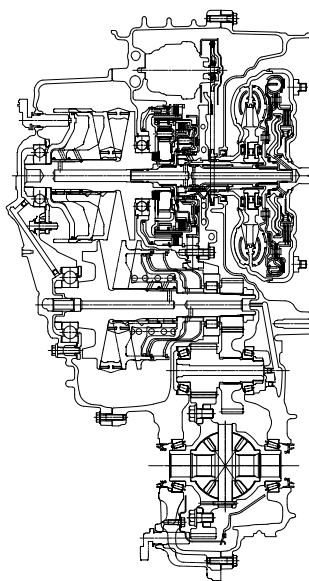
## Introducing the Jatco CVT-XS (JF023E) for the Nissan Sentra

The Jatco CVT-XS (JF023E) is installed on the Nissan Sentra that Nissan Motor Co., Ltd. released in North America in October 2023.

The newly developed JF023E has a completely redesigned hydraulic system and uses a twin oil pump to downsize the mechanical oil pump and reduce mechanical loss. In addition, by using a multi-plate lock-up, three-way linear solenoid, the engine speed is suppressed during launch and re-acceleration, achieving the feeling of acceleration that the driver intended.

By placing the control valve vertically instead of horizontally, and lowering the overall height of the unit, we have achieved the crash requirements for small cars. Moreover, by reducing the belt winding diameter, we were able to shorten the distance between the pulley shafts and increase the gear ratio (from 7.0 to 7.9), achieving both an increase in the gear ratio and a smaller unit.

These technologies contribute to fuel efficiency, power/driving performance, and vehicle safety performance, and have earned high praise from customers.



**Fig. 1 Main cross-sectional view**

**Table 1 Specifications of JF023E**

|                       |               |
|-----------------------|---------------|
| Torque capacity       | 280 Nm        |
| Torque converter size | 230 mm        |
| Pulley ratios         | 2.805 - 0.357 |
| Ratio coverage        | 7.9           |
| Reverse gear ratio    | 0.745         |
| Final gear ratio      | 5.034         |
| Selector positions    | P, R, N, D, B |
| Overall length        | 379.9 mm      |
| Weight (wet)          | 94.6 kg       |



**Nissan Sentra**