Reaction force control and steering models can be created based on the steering reaction force data on vehicle dynamics.

Control models can be created by the use of digital analysis software.

The Generator can be installed in the simple driving simulator as well as the driving simulator using an actual car body.

Steering Reaction Force Generation
The steering reaction force is controlled with high accuracy and low cogging torque by using a coreless direct drive AC servomotor.

Constant Measurement of Steering Reaction Force Torque
The steering reaction force torque that is generated by the AC servomotor and transmitted to any output axis is constantly measured. The dynamic torque variations are accurately measured by using a high accuracy and high response torque sensor.

Transmission of Steering Reaction Force Torque
The steering reaction force torque is transmitted to an arbitrary steering column connected to the generator. The axial ends are provided with serration processing for connection.

Features
- Designed for space saving, allowing desktop experiments
- Controlled with high accuracy and low cogging torque
- Operable with 100V AC power supply

Main Functions
- **Steering Reaction Force Generation**
  The steering reaction force is controlled with high accuracy and low cogging torque by using a coreless direct drive AC servomotor.

- **Constant Measurement of Steering Reaction Force Torque**
  The steering reaction force torque that is generated by the AC servomotor and transmitted to any output axis is constantly measured. The dynamic torque variations are accurately measured by using a high accuracy and high response torque sensor.

- **Transmission of Steering Reaction Force Torque**
  The steering reaction force torque is transmitted to an arbitrary steering column connected to the generator. The axial ends are provided with serration processing for connection.

Specifications

<table>
<thead>
<tr>
<th>Item</th>
<th>Required Specifications</th>
<th>Item</th>
<th>Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steering velocity/constant torque</td>
<td>Max. 17.5Nm at 750deg/sec or more</td>
<td>Movable range</td>
<td>360 deg. x 5 rotations or more</td>
</tr>
<tr>
<td>Maximum momentary torque</td>
<td>43Nm or more</td>
<td>Maximum velocity</td>
<td>650 deg./s or more</td>
</tr>
<tr>
<td>Torque fluctuation</td>
<td>0.18Nm or less</td>
<td>Maximum reaction force</td>
<td>12Nm or more</td>
</tr>
<tr>
<td>Torque resolution</td>
<td>0.018Nm or less</td>
<td>Resolution</td>
<td>16 bits or more</td>
</tr>
</tbody>
</table>
The steering reaction force torque is generated by the AC servomotor in accordance with the torque command from the upper control system.

The steering reaction force torque is transmitted to an arbitrary steering column connected to the output axis of the generator.

The torque value generated by the generator is constantly measured and outputted by a torque sensor.

### Components

<table>
<thead>
<tr>
<th>Component</th>
<th>Quantity</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steering Reaction Force Generator</td>
<td>1 set</td>
<td>With a motor and a torque sensor</td>
</tr>
<tr>
<td>AC Servomotor Unit</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Torque Sensor</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Output axis</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Reaction Force Generator Control Unit</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Instruction Manual</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

[Reaction Force Generator Inside]

• Specifications may be subject to change without notice.

For further information, contact:

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