### Product Specifications

<table>
<thead>
<tr>
<th>Product</th>
<th>Nominal torque</th>
<th>Self-holding torque</th>
<th>Nominal rated speed</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSS 301-14</td>
<td>1 Nm</td>
<td>0.5 Nm</td>
<td>210 rpm</td>
</tr>
<tr>
<td>PSS 302-14</td>
<td>2 Nm</td>
<td>1 Nm</td>
<td>100 rpm</td>
</tr>
<tr>
<td>PSS 305-14</td>
<td>5 Nm</td>
<td>2.5 Nm</td>
<td>40 rpm</td>
</tr>
<tr>
<td>PSS 322-14</td>
<td>2 Nm</td>
<td>1 Nm</td>
<td>150 rpm</td>
</tr>
<tr>
<td>PSS 325-14</td>
<td>5 Nm</td>
<td>2.5 Nm</td>
<td>68 rpm</td>
</tr>
</tbody>
</table>

### Duty Cycle
- 20% (basis time 600s) at nominal torque

### Mode of Operation
- S3

### Supply Voltage
- 24 V DC ± 10% galvanically separated between control and motor and bus

### Nominal Current
- PSS 30_: 2.4 A, PSS 32_: 3.1 A

### Power Consumption (Control Unit)
- 0.1 A

### Positioning Accuracy
- 0.9°

### Positioning Range
- 250 rotations not subject to mechanical limits

### Shock Resistance
- In accordance with IEC/DIN EN 60068-2-27 50 g 11 ms

### Vibration Resistance
- In accordance with IEC/DIN EN 60068-2-6 10...55 Hz 1.5 mm
  - 55...1000 Hz 10 g
  - 10...2000 Hz 5 g

### Output Shaft
- 14 mm solid shaft or 14 mm hollow shaft with adjustable collar

### Snap-on Brake
- Optional (holding torque = nominal torque)

### Maximum Axial Force
- 20 N

### Maximum Radial Force
- 40 N

### Ambient Temperature
- 0...45°C

### Storage Temperature
- -10...70°C

### Protection Class
- IP65 under installed and wired conditions

### Material
- As for PSE, but with stainless steel housing

### Weight
- 1200 g

### Certificates
- CE, optional: NRTL (UL, CSA, ANSI)

---

**Data Interfaces**

- CANopen, PROFINET DP, DeviceNet, Modbus RTU, Sercos, EtherCAT, PROFIBUS DP, DeviceNet, EtherCAT, PROFINET, IO-Link

---

**Duty cycle**

20% (basis time 600s) at nominal torque

**Mode of operation**

S3

**Supply voltage**

24 V DC ± 10% galvanically separated between control and motor and bus

**Nominal current**

PSS 30_: 2.4 A, PSS 32_: 3.1 A

**Power consumption (control unit)**

0.1 A

**Positioning accuracy**

0.9°

**Positioning range**

250 rotations not subject to mechanical limits

---

**Shock resistance**

In accordance with IEC/DIN EN 60068-2-27 50 g 11 ms

**Vibration resistance**

In accordance with IEC/DIN EN 60068-2-6 10...55 Hz 1.5 mm
  - 55...1000 Hz 10 g
  - 10...2000 Hz 5 g

---

**Output shaft**

14 mm solid shaft or 14 mm hollow shaft with adjustable collar

---

**Snap-on brake**

Optional (holding torque = nominal torque)

---

**Maximum axial force**

20 N

---

**Maximum radial force**

40 N

---

**Ambient temperature**

0...45°C

---

**Storage temperature**

-10...70°C

---

**Protection class**

IP65 under installed and wired conditions

---

**Material**

As for PSE, but with stainless steel housing

---

**Weight**

1200 g

---

**Certificates**

CE, optional: NRTL (UL, CSA, ANSI)

---

**2) welded V2A housing, ball bearings at the output shaft with sealing disc**

---

**All dimensions in mm.**

For details of the connections please see also p. 47 and the instruction manual.
**Product** | **Nominal torque** | **Self-holding torque** | **Nominal rated speed**
---|---|---|---
PSS 3210-14 | 10 Nm | 5 Nm | 30 rpm
PSS 3218-14 | 18 Nm | 9 Nm | 17 rpm

**Data interfaces**
CANopen, PROFIBUS DP, DeviceNet, Modbus RTU, Sercos, EtherCAT, PROFINET, EtherNet/IP, POWERLINK, IO-Link

- Duty cycle: 20 % (basis time 600 s) at nominal torque
- Mode of operation: S3
- Supply voltage: 24 V DC ± 10 %
galvanically separated between control and motor and bus
- Nominal current: 2.2 A
- Power consumption (control unit): 0.1 A
- Positioning accuracy: 0.9°
- Positioning range: 250 rotations
not subject to mechanical limits
- Shock resistance: 50 g 11 ms
in accordance with IEC/DIN EN 60068-2-27
- Vibration resistance: 10...55 Hz 15 mm/
in accordance with IEC/DIN EN 60068-2-6
55...1000 Hz 10 g/
10...2000 Hz 5 g
- Output shaft: 14 mm hollow shaft
with adjustable collar
- Snap-on brake: optional (holding torque = nominal torque)
- Maximum axial force: 20 N
- Maximum radial force: 40 N
- Ambient temperature: 0...45 °C
- Storage temperature: -10...70 °C
- Protection class: IP65 under installed and wired conditions
- Material: as for PSE, but with stainless steel housing
- Weight: 1350 g
- Certificates: CE, optional: NRTL (UL, CSA, ANSI)

1) welded V2A housing, ball bearings at the output shaft with sealing disc

The order key and accessories can be found on p. 18 / 19.
ORDER KEY PSE/PSS/PSW 3 SERIES

All the positioning systems in the PSE / PSS / PSW 3 series share the same order key. To provide the best possible overview and to simplify customer documentation, the diverse range of options available for the PSE/PSS/PSW 3 series has been organised in a shared order key.

Order key PSE / PSS / PSW:

Standard equipment (connections):
- always provided with 3 plugs / sockets (not for IO-Link or Y-encoded connector)
- address switches always provided (also for I-buses, not for IO-Link)

For further information on connections and address settings see also “Overview: bus communication” on p. 47.

<table>
<thead>
<tr>
<th>Protection class</th>
<th>A Design</th>
<th>B Type</th>
<th>C Bus communication (see p. 7)</th>
<th>D Connections</th>
<th>E Brake (see p. 11)</th>
<th>F Certification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positioning System</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0: standard</td>
<td></td>
</tr>
<tr>
<td>Efficient</td>
<td>IP 54</td>
<td>PSE</td>
<td>CA: CANopen</td>
<td></td>
<td>0: without M</td>
<td></td>
</tr>
<tr>
<td>(see p. 20-25)</td>
<td></td>
<td></td>
<td>DP: PROFIBUS DP</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positioning System</td>
<td>IP 65</td>
<td>PSS</td>
<td>DN: DeviceNet</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stainless</td>
<td></td>
<td></td>
<td>MB: Modbus RTU</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(see p. 27-30)</td>
<td></td>
<td></td>
<td>SE: Sercos</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positioning System</td>
<td>IP 68</td>
<td>PSW</td>
<td>EC: EtherCAT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Washable</td>
<td></td>
<td></td>
<td>PN: PROFINET</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(see p. 32-35)</td>
<td></td>
<td></td>
<td>EI: EtherNet/IP</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>PL: POWERLINK</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>IO: IO-Link</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

You can find the order key for the PSE 34_-14 on page 26.

Example 2
You require the protection class IP 54 and a maximum torque of 2 Nm. The speed should be greater than 100 rpm. An 8 mm hollow shaft and longitudinal construction meet the requirements of your application.

You wish to use EtherNet/IP as the bus and connect the PSE to the control unit using a hybrid connector and hub. You do not require an additional holding brake in your application.

→ PSE 312-8-EI-Y-0-0

Example 2
You require the protection class IP 54 and a maximum torque of 2 Nm. The speed should be greater than 100 rpm. An 8 mm hollow shaft and longitudinal construction meet the requirements of your application.

You wish to use EtherNet/IP as the bus and connect the PSE to the control unit using a hybrid connector and hub. You do not require an additional holding brake in your application.

→ PSE 312-8-EI-Y-0-0

Examples of orders provided below.

TORQUES AND SPEEDS

You require the protection class IP 54 and a maximum torque of 2 Nm. The speed should be greater than 100 rpm. An 8 mm hollow shaft and longitudinal construction meet the requirements of your application.

Your wish to use EtherNet/IP as the bus and connect the PSE to the control unit using a hybrid connector and hub. You do not require an additional holding brake in your application.

→ PSE 312-8-EI-Y-0-0

Example 2
IP68, max. 3 Nm, > 100 rpm, horizontal construction, 14 mm solid circular shaft, IO-Link via a connector, with brake.

→ PSW 325-14V-IO-0-M-0

Nominal torque – nominal speed combinations

PSE / PSS 30 / 31
PSE / PSS 32 / 33
PSE / PSS 3210 / 3218
PSW 30 / 31
PSW 32 / 33
ACCESSORIES PSE/PSS/PSW 3 SERIES

The connectors shown here can be used for all three types of device (PSE/PSS/PSW). This ensures that the PSE (IP54) and PSS (IP65) comply with the IP protection classes. We will also be pleased to help you find a suitable mating connector for the PSW (IP68) if necessary – just ask us!

<table>
<thead>
<tr>
<th>Bus communication</th>
<th>Power supply + databus connector (2x) (for option 0)</th>
<th>Power supply + databus (2x) + jog key connector (for option T, not for PSW)</th>
<th>Cable and connectors for 1-connector solution (for option Y or IO-Link)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CANopen</td>
<td>![Image]</td>
<td>![Image]</td>
<td>![Image]</td>
</tr>
<tr>
<td>PROFIBUS DP</td>
<td>![Image]</td>
<td>![Image]</td>
<td>![Image]</td>
</tr>
<tr>
<td>Modbus RTU</td>
<td>Connector set: Order no. 9601.0060</td>
<td>Connector set: Order no. 9601.0062</td>
<td>5 m: Order no. 9601.0245</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>10 m: Order no. 9601.0233</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>20 m: Order no. 9601.0234</td>
</tr>
<tr>
<td>DeviceNet</td>
<td>Connector set: Order no. 9601.0088</td>
<td>Connector set: Order no. 9601.0090</td>
<td>5 m: Order no. 9601.0240</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>10 m: Order no. 9601.0244</td>
</tr>
<tr>
<td>Sercos</td>
<td></td>
<td></td>
<td>Hub on request</td>
</tr>
<tr>
<td>EtherCAT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PROFINET</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EtherNet/IP</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>POWERLINK</td>
<td>Connector set: Order no. 9601.0112</td>
<td>Connector set: Order no. 9601.0317</td>
<td></td>
</tr>
<tr>
<td>IO-Link</td>
<td>-</td>
<td>-</td>
<td>Connector: Order no. 9601.0107</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1) see under “D” in the order key  
2) power supply and bus via one cable, without second databus connector  
3) A- or B- coding of the connectors is possible

Further Accessories

- Jog key box (for option T, not for PSW)  
  Order no. 9601.0241
- Screw cap to cover the second bus connection (for PSS/PSW)  
  Order no. 9601.0176

MODULES AND DESCRIPTION FILES

Take advantage of our functional modules or description files for the various buses. You can download the files on our website:

www.halstrup-walcher.de/en/software