High-Performance Stepper Motors
HS200 Series

- 2-phase Hybrid Step Motor in Frame Size NEMA 23
- Holding Torque from 0.4 up to 1.6 Nm
- Peak Torque up to 2.8 Nm
- Full Step Angle 1.8°
- Direct Heat Dissipation from the Lamination
- Noise and Vibration optimized Shape of Lamination
- Linear Torque of up to 2.5 Times of the rated Current for short Acceleration/Deceleration Periods
Technical Data (Standard Types)

<table>
<thead>
<tr>
<th>Model</th>
<th>Holding Torque (bipolar, 2 phases parallel connected)</th>
<th>Rated Current Phase (bipolar parallel)</th>
<th>Rated Current Phase (bipolar serial)</th>
<th>Step Angle</th>
<th>Angular Tolerance</th>
<th>Resistance per Phase</th>
<th>Inductance per Phase</th>
<th>Residual Torque</th>
<th>Insulation Class</th>
<th>Rotor Inertia</th>
<th>Mass</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$M_H$ Nm</td>
<td>$I$ A</td>
<td>$I$ A</td>
<td>$\theta$ °</td>
<td>%</td>
<td>$R_{ph}$ $\Omega$</td>
<td>$L_{ph}$ mH</td>
<td>$M_P$ Nm</td>
<td></td>
<td>$J$ Kgm$^{2}10^{-3}$</td>
<td>m kg</td>
</tr>
<tr>
<td>HS200-2231-0300AX08</td>
<td>0,47</td>
<td>1,4</td>
<td>0,7</td>
<td>1,8</td>
<td>5</td>
<td>4,6</td>
<td>4,6</td>
<td>0,02</td>
<td>B</td>
<td>0,008</td>
<td>0,5</td>
</tr>
<tr>
<td>HS200-2221-0300AX08</td>
<td>0,98</td>
<td>4,2</td>
<td>2,1</td>
<td>1,8</td>
<td>5</td>
<td>0,7</td>
<td>0,9</td>
<td>0,04</td>
<td>B</td>
<td>0,022</td>
<td>0,7</td>
</tr>
<tr>
<td>HS200-2216-0100AX08</td>
<td>1,63</td>
<td>4,2</td>
<td>2,1</td>
<td>1,8</td>
<td>5</td>
<td>1,1</td>
<td>1,7</td>
<td>0,07</td>
<td>B</td>
<td>0,034</td>
<td>1,0</td>
</tr>
</tbody>
</table>

Standard Version:  
NEMA 23, smooth shaft  
8 flying leads for serial or parallel connection

Further types and options for those series as well as stepper drives and other accessories are available upon request.

Torque Characteristics  
(Connection bipolar, parallel)

![Torque Characteristics Graph](image)
Dimensions

<table>
<thead>
<tr>
<th>Length (Lmax)</th>
<th>Shaft (∅A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HS200-2216</td>
<td>41 mm 6.35 mm</td>
</tr>
<tr>
<td>HS200-2221</td>
<td>55 mm 6.35 mm</td>
</tr>
<tr>
<td>HS200-2231</td>
<td>77 mm 8 mm</td>
</tr>
</tbody>
</table>

all dimensions in mm

subject to change without notice
We are committed to quality customer service. In order to serve you in the most effective way please contact your local sales representative for assistance. If you do not know the local sales representative please contact our customer support.

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