

Dimensions in mm.

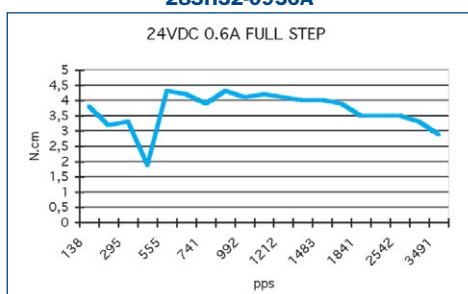
### Specifications

| MODEL     |                                                      | 28SH32-0956A | 28SH32-0674A | 28SH45-0956A | 28SH45-0674A |
|-----------|------------------------------------------------------|--------------|--------------|--------------|--------------|
| <b>1</b>  | <b>STEP ANGLE</b>                                    | 1,8°         | 1,8°         | 1,8°         | 1,8°         |
| <b>2</b>  | <b>STEP ANGLE ACCURACY</b><br>(FULL STEP, NO LOAD) % | ± 5%         | ± 5%         | ± 5%         | ± 5%         |
| <b>3</b>  | <b>RATED VOLTAGE</b> V                               | 2,66         | 3,8          | 3,4          | 6,8          |
| <b>4</b>  | <b>CURRENT/PHASE</b> A                               | 0,95         | 0,67         | 0,95         | 0,67         |
| <b>5</b>  | <b>RESISTANCE/PHASE</b> Ω                            | 2,8          | 5,6          | 3,4          | 10,1         |
| <b>6</b>  | <b>INDUCTANCE/PHASE</b> mH                           | 1            | 4,2          | 1,2          | 4,9          |
| <b>7</b>  | <b>HOLDING TORQUE</b> Ncm                            | 4,3          | 6            | 7,5          | 9,5          |
| <b>8</b>  | <b>ROTOR INERTIA</b> g-CM <sup>2</sup>               | 9            | 9            | 12           | 12           |
| <b>9</b>  | <b>WEIGHT</b> Kg                                     | 0,11         | 0,11         | 0,14         | 0,14         |
| <b>10</b> | <b>NUMBER OF LEADS</b> N°.                           | 6            | 4            | 6            | 4            |

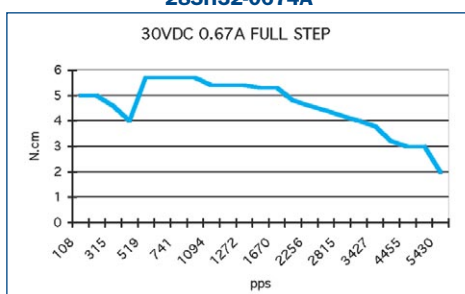
28SH...-A single shaft • 28SH...-B double shaft

### Speed vs. Torque Characteristics

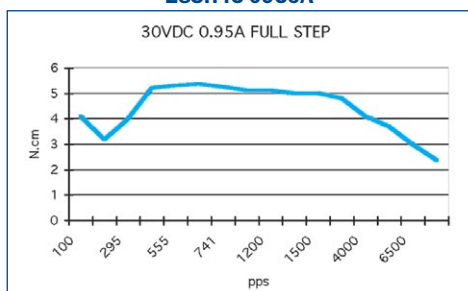
**28SH32-0956A**



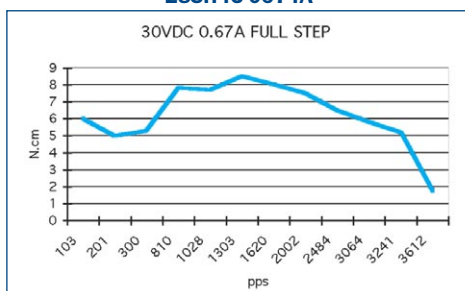
**28SH32-0674A**



**28SH45-0956A**



**28SH45-0674A**



### Characteristics

**RESISTANCE ACCURACY**  
± 10%

**INDUCTANCE ACCURACY**  
± 20%

**TEMPERATURE RISE**  
80° C MAX. (RATED CURRENT, 2 PHASE ON)

**AMBIENT TEMPERATURE**  
-20° C - + 50° C

**INSULATION RESISTANCE**  
100 M Ω MIN., 500 VDC

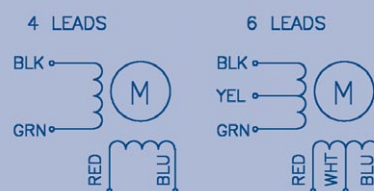
**DIELECTRIC STRENGTH**  
500 VAC FOR ONE MINUTE

**SHAFT RADIAL PLAY**  
0,02 MAX. (450 G-LOAD)

**SHAFT AXIAL PLAY**  
0,08 MAX. (450 G-LOAD)

**MAX RADIAL FORCE**  
28 N (20MM FROM FLANGE)

**MAX AXIAL FORCE**  
10 N



### AVAILABLE OPTIONS

- Motor modifications:** custom winding, special bearing, special tap.
- Shaft modifications:** flat, pinion, keyway, length.
- Leadwire modifications:** wire type, wire color, wire length, connector installation.