

|                    |        |     |
|--------------------|--------|-----|
| MODEL              | 513A   |     |
| Ø OUTPUT SHAFT     | 30     | mm  |
| APPROXIMATE RATIO  | 293    |     |
| EXACT RATIO        | 292.57 |     |
| OUTPUT SPEED       | 5      | RPM |
| EXACT OUTPUT SPEED | 5      | RPM |
| INPUT POWER        | 0.12   | KW  |
| INPUT ROTATION     | 1400   | RPM |
| INPUT PAM          | 63B5   |     |
| OUTPUT TORQUE      | 225.10 | N.m |
| NOMINAL TORQUE     | 326.00 | N.m |
| NOMINAL POWER      | 0.17   | KW  |
| SERVICE FACTOR     | 1.42   |     |
| DYNAMIC EFFICIENCY | 0.94   |     |

#### Oil Quantity (L)

| B3/H1 | B6/H4 | B7/H3 | B8/H2 | V5/H5 | V6/H6 |
|-------|-------|-------|-------|-------|-------|
| 1     | 0.9   | 1.125 | 1.15  | 1.45  | 1.4   |

#### Radial and Axial Loads



| $n_2$ [min-1] | $F_A$ [N] | $F_R$ [N] |
|---------------|-----------|-----------|
| 300           | 460       | 2300      |
| 200           | 520       | 2600      |
| 120           | 620       | 3100      |
| 15            | 1000      | 5000      |

Universal Motors S.A.  
Rua Comendador Brandão, 484  
4495-375 Póvoa de Varzim  
[geral@universalmotors.pt](mailto:geral@universalmotors.pt)  
TEL.: 252 299 080

Universal Motors UK, Ltd  
Unit E2, Meltham Mills Road  
West Yorkshire HD9 4AR  
[enquiries@universalmotors-group.co.uk](mailto:enquiries@universalmotors-group.co.uk)  
TEL.: +44(0) 1484660222

Universal Motors SL  
C/La Habana n.6 nave 4 PI Camporroso  
28806 Alcalá de Henares  
[info@universalmotors-group.es](mailto:info@universalmotors-group.es)  
TEL.: 918 864 213

