

Technical Data Sheet  
Gearbox  
WORM GEARBOX ROUND DESIGN



|                    |        |     |
|--------------------|--------|-----|
| MODEL              | 063    |     |
| Ø OUTPUT SHAFT     | 25     | mm  |
| APPROXIMATE RATIO  | 20     |     |
| EXACT RATIO        | 19.00  |     |
| OUTPUT SPEED       | 73     | RPM |
| EXACT OUTPUT SPEED | 77     | RPM |
| INPUT POWER        | 1.50   | KW  |
| INPUT ROTATION     | 1400   | RPM |
| INPUT PAM          | 90B5   |     |
| OUTPUT TORQUE      | 151.63 | N.m |
| NOMINAL TORQUE     | 138.00 | N.m |
| NOMINAL POWER      | 1.4    | KW  |
| SERVICE FACTOR     | 0.93   |     |
| DYNAMIC EFFICIENCY | 0.78   |     |



#### Oil Quantity (L)

| B3/H1 | B6/H4 | B7/H3 | B8/H2 | V5/H5 | V6/H6 |
|-------|-------|-------|-------|-------|-------|
| 0.4   | 0.4   | 0.4   | 0.4   | 0.4   | 0.4   |

#### Radial and Axial Loads



| $n_2$ [min-1] | FA [N] | FR [N] |
|---------------|--------|--------|
| 200           | 360    | 1800   |
| 100           | 460    | 2300   |
| 50            | 600    | 3000   |
| 15            | 800    | 4000   |

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 Camporoso  
28806 Alcala de Henares  
[info@universalmotors-group.es](mailto:info@universalmotors-group.es)  
TEL.: 918 864 213



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>$f.s.$ | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    |    |    | Available B14 motor flanges |     |    | Dynamic efficiency<br><br>RD | Tooth Module<br><br>[mm] | Ratios code |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|--------------------------|-----------------------------------|------------------------------------|----------------------------|----|----|----|-----------------------------|-----|----|------------------------------|--------------------------|-------------|
|                                               |              |                                 |                                   |                          |                                   |                                    | -B                         | -C | -D | -E | -Q                          | -R  | -T |                              |                          |             |
|                                               |              |                                 |                                   |                          |                                   |                                    | 63                         | 71 | 80 | 90 | 71                          | 80  | 90 |                              |                          |             |
| 200                                           | 7            | 1.8                             | 71                                | 1.8                      | 3.2                               | 125                                |                            | B  | B  |    | B-C                         | B-C |    | 83                           | 3.1                      | 01          |
| 140                                           | 10           | 1.8                             | 99                                | 1.4                      | 2.4                               | 134                                |                            | B  | B  |    | B-C                         | B-C |    | 81                           | 3.1                      | 02          |
| 93                                            | 15           | 1.5                             | 121                               | 1.1                      | 1.7                               | 138                                |                            | B  | B  |    | B-C                         | B-C |    | 79                           | 3.1                      | 03          |
| 74                                            | 19           | 1.1                             | 111                               | 1.2                      | 1.4                               | 138                                |                            | B  | B  |    | B-C                         | B-C |    | 78                           | 2.6                      | 04          |
| 58                                            | 24           | 1.1                             | 135                               | 1.0                      | 1.2                               | 142                                |                            | B  | B  |    | B-C                         | B-C |    | 75                           | 2.0                      | 05          |
| 47                                            | 30           | 1.1                             | 167                               | 0.9                      | 0.96                              | 146                                |                            | B  | B  |    | B-C                         | B-C |    | 74                           | 3.2                      | 06          |
| 39                                            | 36           | 0.75                            | 125                               | 1.2                      | 0.88                              | 147                                |                            | B  | B  |    | B-C                         | B-C |    | 68                           | 2.7                      | 07          |
| 35                                            | 40           | 0.75                            | 135                               | 1.0                      | 0.78                              | 140                                |                            | B  | B  |    | B-C                         | B-C |    | 66                           | 2.5                      | 13          |
| 31                                            | 45           | 0.55                            | 111                               | 1.2                      | 0.67                              | 135                                | B                          | B  |    |    | B-C                         | C   |    | 66                           | 2.1                      | 08          |
| 23                                            | 60           | 0.55                            | 140                               | 0.9                      | 0.51                              | 130                                | B                          | B  |    |    | B-C                         | C   |    | 62                           | 1.6                      | 12          |
| 21                                            | 67           | 0.55                            | 151                               | 0.8                      | 0.45                              | 124                                | B                          | B  |    |    | B-C                         | C   |    | 60                           | 1.5                      | 09          |
| 17.5                                          | 80           | 0.37                            | 115                               | 1.0                      | 0.38                              | 119                                | B                          | B  |    |    | B-C                         | C   |    | 57                           | 1.3                      | 10          |
| 14.9                                          | 94           | 0.37                            | 123                               | 1.0                      | 0.36                              | 119                                | B                          | B  |    |    | B-C                         | C   |    | 52                           | 1.1                      | 11          |

Motor Flanges Available  
Flange Motore Disponibili

B) Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position  
Posizione Fori Flangia Motore

**EN** Unit **063** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us.  
See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **063** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico.  
Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe **063** mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **063** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **063** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

#### LUBRICATION 063 Oil Quantity 0.40 Lt.

SHELL Omala S4 WE 320

ENI Telium VSF 320

For all details on lubrication and plugs check our website

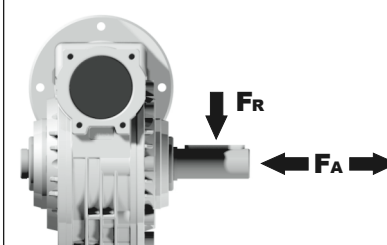
tab. 1

Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

#### RADIAL AND AXIAL LOADS

##### Output shaft

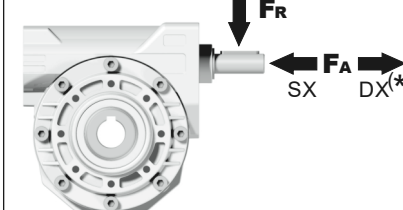
Albero di uscita



| $n_2$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 200                           | 360       | 1800      |
| 150                           | 400       | 2000      |
| 100                           | 460       | 2300      |
| 75                            | 500       | 2500      |
| 50                            | 600       | 3000      |
| 25                            | 700       | 3800      |
| 15                            | 800       | 4000      |

##### Input shaft

albero in entrata



| $n_1$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 1400                          | 90        | 450       |

\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

tab. 2