

Technical Data Sheet  
Gearbox  
WORM GEARBOX ROUND DESIGN



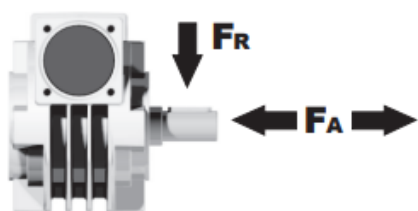
|                    |         |     |
|--------------------|---------|-----|
| MODEL              | 110     |     |
| Ø OUTPUT SHAFT     | 42      | mm  |
| APPROXIMATE RATIO  | 20      |     |
| EXACT RATIO        | 20.00   |     |
| OUTPUT SPEED       | 73      | RPM |
| EXACT OUTPUT SPEED | 73      | RPM |
| INPUT POWER        | 3.00    | KW  |
| INPUT ROTATION     | 1400    | RPM |
| INPUT PAM          | 100 B14 |     |
| OUTPUT TORQUE      | 335.59  | N.m |
| NOMINAL TORQUE     | 546.00  | N.m |
| NOMINAL POWER      | 4.9     | KW  |
| SERVICE FACTOR     | 1.63    |     |
| DYNAMIC EFFICIENCY | 0.82    |     |



#### Oil Quantity (L)

| B3/H1 | B6/H4 | B7/H3 | B8/H2 | V5/H5 | V6/H6 |
|-------|-------|-------|-------|-------|-------|
| 1.9   | 1.35  | 1.35  | 2     | 2     | 2     |

#### Radial and Axial Loads



| $n_2$ [min-1] | FA [N] | FR [N] |
|---------------|--------|--------|
| 200           | 600    | 2900   |
| 100           | 750    | 3600   |
| 50            | 920    | 4600   |
| 15            | 1400   | 7000   |

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

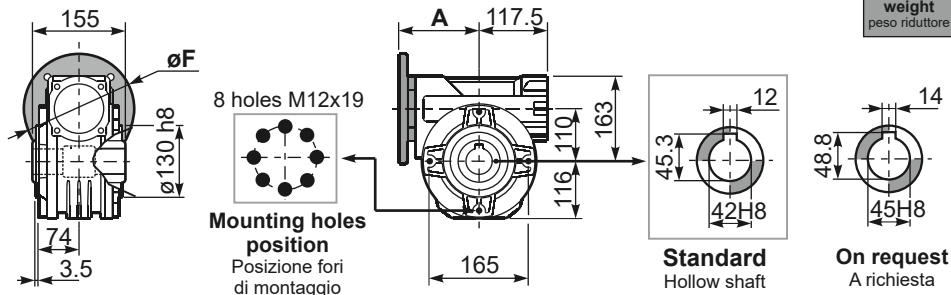
Universal Motors UK, Ltd  
Unit E2, Meltham Mills Road  
West Yorkshire HD9 4AR  
[enquiries@universalmotors-group.co.uk](mailto:enquiries@universalmotors-group.co.uk)  
TEL.: +44(0) 1484660222

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

## P110FB...

Basic wormbox  
Riduttore baseGearbox weight  
peso riduttore **35.00 kg**

| M. flanges | Kit code   | øF  | A   |
|------------|------------|-----|-----|
| 71B5       | K023.4.041 | 160 | 136 |
| 80/90B5    | K023.4.042 | 200 | 138 |
| 100/112B5  | K023.4.043 | 250 | 147 |
| 132B5      | -          | 300 | 187 |
| 80B14      | K085.4.046 | 120 | 138 |
| 90B14      | K085.4.045 | 140 | 138 |
| 100/112B14 | K023.4.041 | 160 | 136 |
| 132B14     | -          | 200 | 187 |



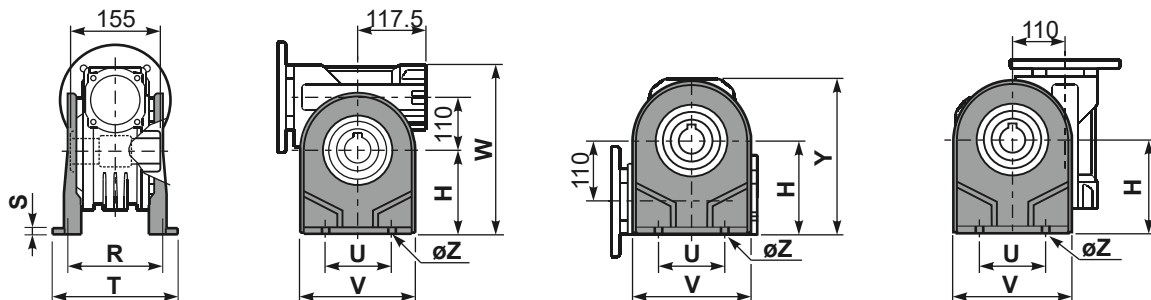
## P110PA...

Feet  
Piedini

## P110PB...

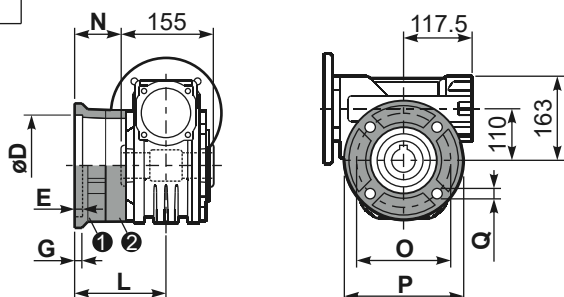
Feet  
Piedini

## P110PV...

Feet  
Piedini

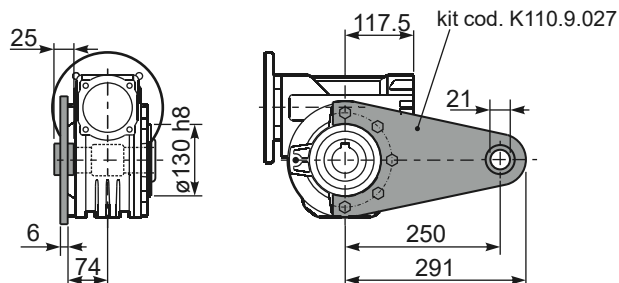
|        | H   | R   | S | T   | U   | V   | Y   | W   | øZ  | kit code   |
|--------|-----|-----|---|-----|-----|-----|-----|-----|-----|------------|
| type B | 170 | 180 | 8 | 224 | 200 | 240 | 286 | 333 | ø13 | K110.9.022 |
| type S | -   | -   | - | -   | -   | -   | -   | -   | -   | -          |

## P110FC...

Output flange  
Flangia uscita

| type B | øD                                      | E  | G    | L     | N    | O   | P   | Q  | kit code             |
|--------|-----------------------------------------|----|------|-------|------|-----|-----|----|----------------------|
| FC     | 170 <sup>+0.083</sup> <sub>+0.043</sub> | 11 | 16.5 | 131.5 | 54   | 230 | 270 | 13 | 1 K110.9.010<br>2 -  |
| FL     | 170 <sup>+0.083</sup> <sub>+0.043</sub> | 11 | 16.5 | 179.5 | 102  | 230 | 270 | 13 | 1 K110.9.011<br>2 -  |
| type S | øD                                      | E  | G    | L     | N    | O   | P   | Q  | kit code             |
| F1     | 180 <sup>+0.040</sup> <sub>0</sub>      | 5  | 18   | 150   | 72.5 | 215 | 250 | 15 | 1 KS110.9.014<br>2 - |
| F3     | 180 <sup>+0.040</sup> <sub>0</sub>      | 5  | 18   | 130   | 52.5 | 215 | 250 | 15 | 1 KS110.9.013<br>2 - |

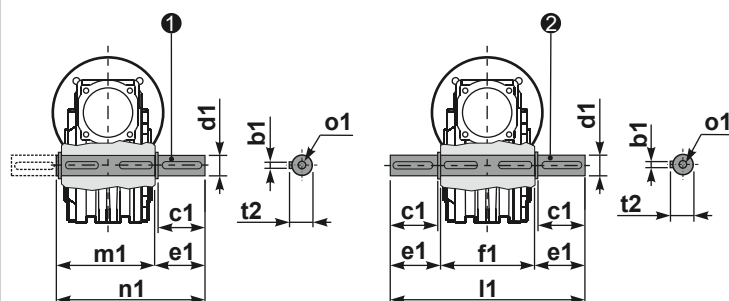
## P110BR...

Reaction arm  
Braccio di reazione

## P110.....S...

Single Shaft  
Albero lento semplice

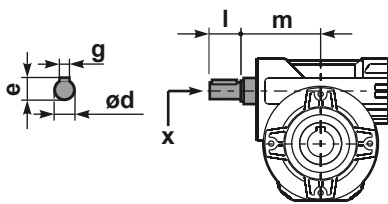
## P110.....D...

Double Shaft  
Albero lento bisp.

① kit cod. K110.5.028 type B

② kit cod. K110.5.029 type B

## R110FB...

Input shaft  
Albero in entrata

|        | ød    | e  | g | l  | m     | x     | kit code                                    |
|--------|-------|----|---|----|-------|-------|---------------------------------------------|
| type B | 25 h6 | 28 | 8 | 50 | 131.5 | M8x20 | 1 K085.5.007 PAM90<br>2 K085.5.008 PAM100   |
| type S | 24 h6 | 27 | 8 | 50 | 131.5 | M8x20 | 1 KS085.5.009 PAM90<br>2 KS085.5.011 PAM100 |

|        | b1 | c1 | d1                                     | e1   | f1  | l1  | m1    | n1  | t2 | o1     |
|--------|----|----|----------------------------------------|------|-----|-----|-------|-----|----|--------|
| type B | 12 | 75 | 42 <sup>-0.005</sup> <sub>-0.020</sub> | 96.5 | 155 | 348 | 163.5 | 260 | 45 | M12x32 |
| type S | -  | -  | -                                      | -    | -   | -   | -     | -   | -  | -      |