

Technical Data Sheet  
Gearbox  
INLINE GEARBOX



|                    |            |
|--------------------|------------|
| MODEL              | 413A       |
| Ø OUTPUT SHAFT     | 25 mm      |
| APPROXIMATE RATIO  | 50         |
| EXACT RATIO        | 50.64      |
| OUTPUT SPEED       | 29 RPM     |
| EXACT OUTPUT SPEED | 29 RPM     |
| INPUT POWER        | 0.18 KW    |
| INPUT ROTATION     | 1400 RPM   |
| INPUT PAM          | 63B14      |
| OUTPUT TORQUE      | 58.44 N.m  |
| NOMINAL TORQUE     | 160.00 N.m |
| NOMINAL POWER      | 0.49 KW    |
| SERVICE FACTOR     | 2.72       |
| DYNAMIC EFFICIENCY | 0.94       |

Oil Quantity (L)

| B3/H1 | B6/H4 | B7/H3 | B8/H2 | V5/H5 | V6/H6 |
|-------|-------|-------|-------|-------|-------|
| 0.3   | 0.35  | 0.45  | 0.45  | 0.45  | 0.55  |

Radial and Axial Loads



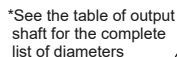
| $n_2$ [min-1] | FA [N] | FR [N] |
|---------------|--------|--------|
| 300           | 310    | 1550   |
| 200           | 360    | 1800   |
| 120           | 448    | 2240   |
| 70            | 540    | 2700   |

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

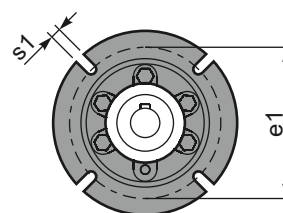
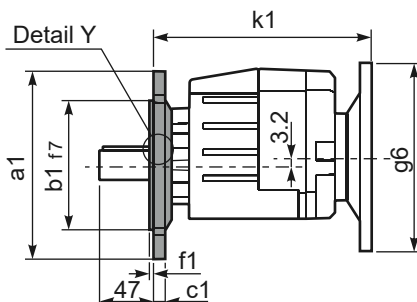
Universal Motors SL  
C/La Habana n.6 nave 4 PI Camporoso  
28806 Alcala de Henares  
[info@universalmotors-group.es](mailto:info@universalmotors-group.es)  
TEL.: 918 864 213

|                                         |             |               |
|-----------------------------------------|-------------|---------------|
| <b>Gearbox weight</b><br>peso riduttore | With flange | <b>6.1 kg</b> |
|                                         | With feet   | <b>6.3 Kg</b> |



| Feet Code | Market reference | G  | H   | R       | L      | L1 | S   | H1    | O  | øI | S2 only with motor flange | B5 max. Flange | kit code   |
|-----------|------------------|----|-----|---------|--------|----|-----|-------|----|----|---------------------------|----------------|------------|
| B1        | 112              | 18 | 85  | 110     | 87     | 50 | 130 | 167.5 | 15 | -  | -                         | -              | KC35.9.021 |
| B2        | 212/3            | 18 | 100 | 130     | 107.5  | 60 | 155 | 182.5 | 17 | 11 | -                         | -              | KC40.9.025 |
| S1        | 17               | 18 | 75  | 110     | 90÷110 | 50 | 145 | 155.5 | 15 | 9  | 2 80/90B5                 | -              | KC40.9.022 |
| S2        | 27               | 25 | 90  | 110     | 130    | -  | 145 | 172.5 | 20 | 9  | -                         | -              | KC40.9.024 |
| H2        | 022-223          | 25 | 100 | 110     | 115    | -  | 145 | 182.5 | 20 | 9  | -                         | -              | KC40.9.026 |
| M1        | 42/3             | 25 | 80  | 110÷120 | 85     | -  | 145 | 162.5 | 15 | 9  | -                         | -              | KC40.9.023 |

 Most popular types  
Tipi più diffusi

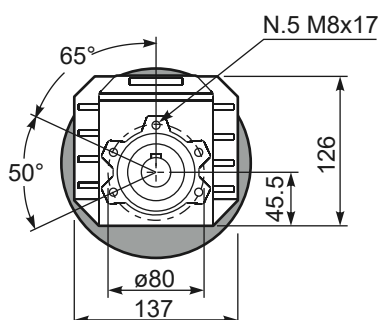
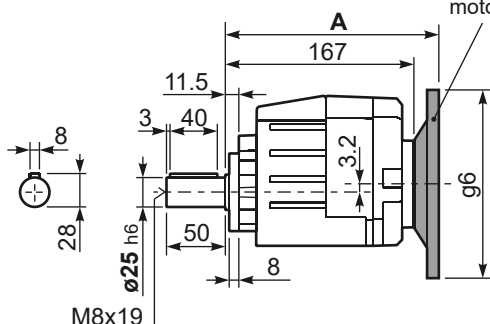


|                           | Shaft - d1 | p1 | h1   | x     |
|---------------------------|------------|----|------|-------|
| Standard                  | ø 25x50    | 8  | 28   | M8x19 |
| On request<br>A richiesta | ø 16x40    | 5  | 18   | M6x16 |
|                           | ø 19x40    | 6  | 21.5 | M6x16 |
|                           | ø 20x40    | 6  | 22.5 | M8x19 |
|                           | ø 24x50    | 8  | 27   | M8x19 |

| a1 ø | b1  | c1   | e1  | f1  | s1 | kit code   |
|------|-----|------|-----|-----|----|------------|
| 120  | 80  | 10   | 100 | 3   | 7  | KC40.9.010 |
| 140  | 95  | 10   | 115 | 3   | 9  | KC40.9.011 |
| 160  | 110 | 10   | 130 | 3.5 | 9  | KC40.9.012 |
| 200  | 130 | 10   | 165 | 3.5 | 11 | KC40.9.013 |
| 250  | 180 | 11.5 | 215 | 3.5 | 14 | KC40.9.014 |

With flange and feet only on request. Ask for compatibility

Suggested B14  
motor flanges



Technical drawing of a shaft-hub assembly. The drawing shows a side view of the assembly with the following dimensions and labels:

- Input shaft / Albero entrata:** The shaft on the right, with a diameter of  $\varnothing 14$  h6.
- M10x18:** A screw or bolt on the left side of the hub.
- 60:** The inner diameter of the hub.
- 177:** The total length of the assembly.
- 25:** The length of the input shaft.
- 20:** The length of the hub.
- 2.5:** The thickness of the input shaft's end flange.
- 5:** The thickness of the input shaft's end flange.
- 16:** The diameter of the input shaft's end flange.
- M5x13:** A screw or bolt on the right side of the hub.
- 37:** The distance from the left end of the assembly to the center of the input shaft.
- 78:** The distance from the center of the input shaft to the right end of the assembly.

| B5 Motor Flanges | A     | C <sub>max</sub> | g6  | k1    | kit code   |
|------------------|-------|------------------|-----|-------|------------|
| 63 B5            | 185.5 | 173.2            | 140 | 189.5 | K050.4.041 |
| 71 B5            | 183   | 183.2            | 160 | 187   | K050.4.042 |

| <b>B14 Motor Flanges</b> | <b>A</b> | <b>C<sub>max</sub></b> | <b>g6</b> | <b>k1</b> | <b>kit code</b> |
|--------------------------|----------|------------------------|-----------|-----------|-----------------|
| 56 B14                   | 183      | 143.2                  | 80        | 187       | KC40.4.049      |
| 63 B14                   | 185.5    | 148.2                  | 90        | 189.5     | K050.4.047      |
| 71 B14                   | 183      | 155.7                  | 105       | 187       | K050.4.045      |