# FRD GEARBOX DATA SHEET

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**TEC REFERENCE:** **FRD43-B3-160-4**



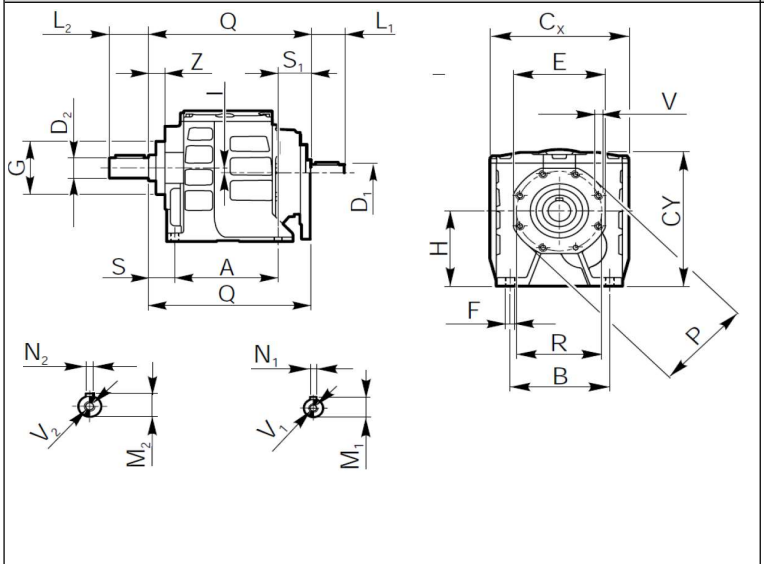
## General Data

| | |
|---|---|
| **Size** | FRD43-B3 |
| **Nominal Ratio** | 160 |
| **Exact Ratio** | 160.689 |
| **Input Power (kW)** | 0.55 |
| **Motor poles** | 4 |
| **Motor frame** | 80B14 |
| **Final Output Speed (RPM)** | 8.8 |
| **Output Torque (Nm)** | 559 |
| **Service Factor** | 1.24 |
| **Construction** | Aluminium |
| **Weight (kg excluding motor)** | 21.5 |
| **Rated Torque (Nm)** | 700 |
| **Mounting position** | H1 |
| **Lubrication** | Synthetic long-life oil VG-320 (volume dependant on mounting position) |

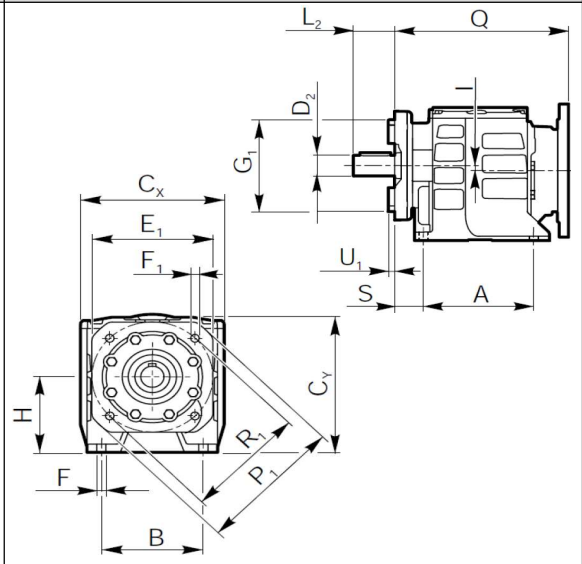
## Installation Dimensions

**FRD43-B3**

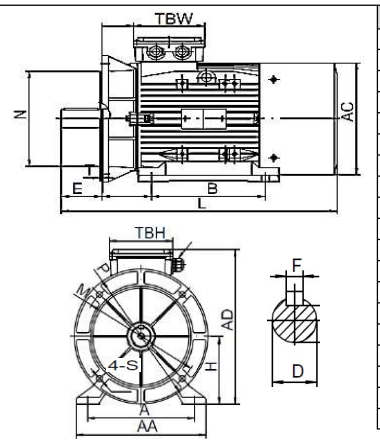
**FRD-B3**




**FRD-B5**




| Size | Overall Dimensions | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A | B | Cy | Cx | D1 | D2 | E | E1 | F | F1 | Gg6 | G1h7 | H | I | L1 | L2 | M1 | | |
| FRD43-B3 | 195 | 150 | 222 | 215 | 28 | 35(40) | 142 | - | 14 | - | 95 | - | 130 | 14 | 60 | 70(80) | 31 | | |
| | M2 | N1 | N2 | P | P1 | Q | R | R1 | S | S1 | U1 | V | V1 | Weight | | | | | |
| | 38(43) | 8 | 10(12) | 145 | - | 305 | 130 | - | 30 | 80 | - | M8x18(8) | M10x22 | 21.5 | | | | | |
| | V2 | Z | | | | | | | | | | | | | | | | | |
| | M10x22(M12x28) | 15 | | | | | | | | | | | | | | | | | |



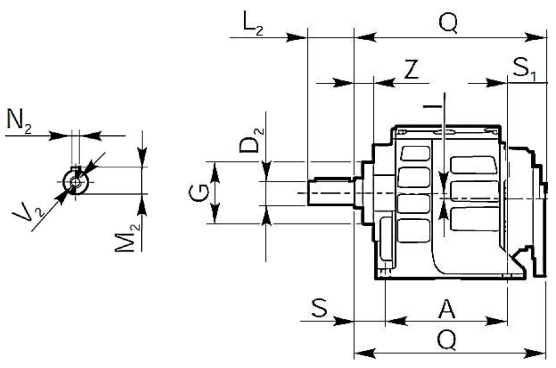

| Motor Dimensions | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ref | D | E | F | P | M | N | S | T | AC | L | A | B | AA | H | AD | TBW | TBH |
| 56B5 | 9 | 20 | 3 | 120 | 100 | 80 | 7 | 3 | 110 | 195 | 90 | 71 | 112 | 56 | 151 | 83 | 83 |
| 63B14 | 11 | 23 | 4 | 90 | 75 | 60 | M5 | 2.5 | 122 | 217 | 100 | 80 | 124 | 63 | 172 | 98 | 98 |
| 63B5 | 11 | 23 | 4 | 140 | 115 | 95 | 10 | 3 | 122 | 217 | 100 | 80 | 124 | 63 | 172 | 98 | 98 |
| 71B14 | 14 | 30 | 6 | 105 | 85 | 70 | M6 | 2.5 | 138 | 245 | 112 | 90 | 140 | 71 | 189 | 98 | 98 |
| 71B5 | 14 | 30 | 6 | 160 | 130 | 110 | 10 | 3.5 | 138 | 245 | 112 | 90 | 140 | 71 | 189 | 98 | 98 |
| 80B14 | 19 | 40 | 8 | 120 | 100 | 80 | M6 | 3 | 157 | 227/304* | 125 | 100 | 160 | 80 | 214 | 109 | 109 |
| 80B5 | 19 | 40 | 8 | 200 | 165 | 130 | 12 | 3.5 | 157 | 227/304* | 125 | 100 | 160 | 80 | 214 | 109 | 109 |
| 90B14 | 24 | 50 | 8 | 140 | 115 | 95 | M8 | 3 | 177 | 315/340 | 140 | 100/125 | 176 | 90 | 235 | 109 | 109 |
| 90B5 | 24 | 50 | 8 | 200 | 165 | 130 | 12 | 3.5 | 177 | 315/340 | 140 | 100/125 | 176 | 90 | 235 | 109 | 109 |
| 100B14 | 28 | 60 | 8 | 160 | 130 | 110 | M8 | 3.5 | 199 | 376/411* | 160 | 140 | 200 | 100 | 260 | 118 | 118 |
| 100B5 | 28 | 60 | 8 | 250 | 215 | 180 | 15 | 4 | 199 | 376/411* | 160 | 140 | 200 | 100 | 260 | 118 | 118 |
| 112B14 | 28 | 60 | 8 | 160 | 130 | 110 | M8 | 3.5 | 220 | 398 | 190 | 140 | 224 | 112 | 283 | 118 | 118 |
| 112B5 | 28 | 60 | 8 | 250 | 215 | 180 | 15 | 4 | 220 | 398 | 190 | 140 | 224 | 112 | 283 | 118 | 118 |
| 132B14 | 38 | 80 | 10 | 200 | 165 | 130 | M10 | 3.5 | 261 | 460/498 | 216 | 140/178 | 269 | 132 | 323 | 118 | 118 |
| 132B5 | 38 | 80 | 10 | 300 | 265 | 230 | 15 | 4 | 261 | 460/498 | 216 | 140/178 | 260 | 132 | 323 | 118 | 118 |
| 160B14 | 42 | 110 | 12 | 250 | 215 | 180 | M12 | 5 | 313 | 605/650 | 254 | 210/254 | 316 | 160 | 404 | 162 | 187 |
| 160B5 | 42 | 110 | 12 | 350 | 300 | 250 | 19 | 5 | 313 | 605/650 | 254 | 210/254 | 316 | 160 | 404 | 162 | 187 |
| 180B5 | 48 | 110 | 14 | 350 | 300 | 250 | 19 | 5 | 360 | 687/725 | 279 | 241/279 | 354 | 180 | 445 | 162 | 187 |

*please check the available inputs for this model with the TEC team

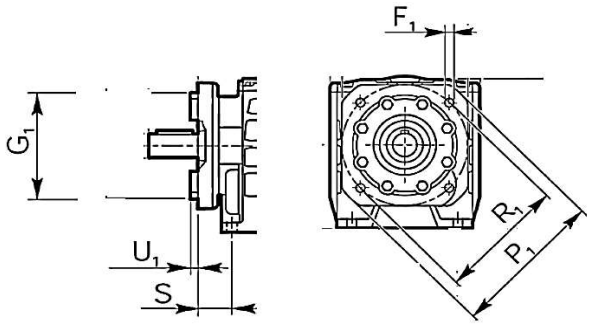
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## Options dimensions

### Output shaft

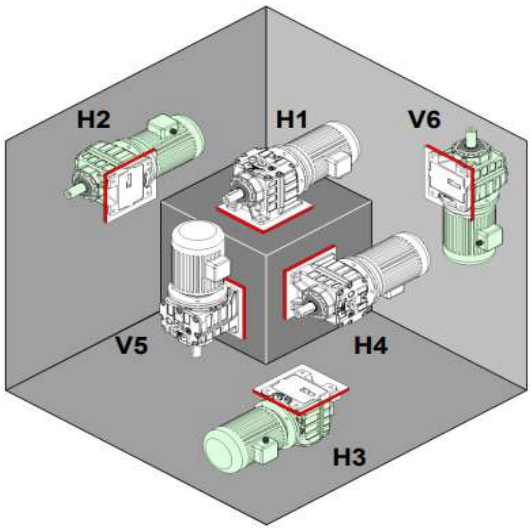



### Output flange




| Size | D2 | F1 | G1 | L2 | M2 | N2 | P1 | R1 | S | U1 | V2 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| FRD43-B3 | 40 | - | - | 80 | 43 | 12 | - | - | 30 | - | M12x28 |

## Mounting positions

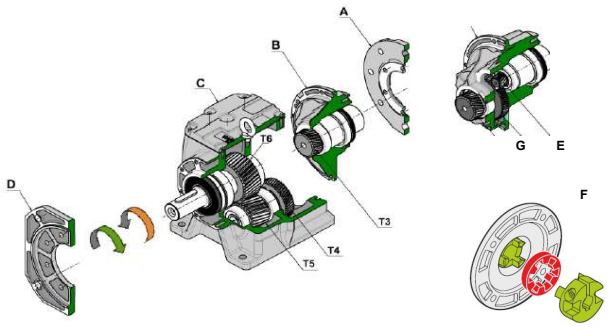



## Quantity of oil in litres

| Size | H1 | H2 | H3 | H4 | V5 | V6 |
|---|---|---|---|---|---|---|
| FRD02 | 0.20 | 0.20 | 0.20 | 0.20 | 0.28 | 0.28 |
| FRD03 | 0.30 | 0.30 | 0.30 | 0.30 | 0.38 | 0.38 |
| FRD12 | 0.50 | 0.50 | 0.50 | 0.50 | 0.70 | 0.70 |
| FRD13 | 0.50 | 0.50 | 0.50 | 0.50 | 0.70 | 0.70 |
| FRD22 | 0.80 | 0.80 | 0.80 | 0.80 | 1.00 | 1.00 |
| FRD23 | 0.80 | 0.80 | 0.80 | 0.80 | 1.00 | 1.00 |
| FRD32 | 1.30 | 1.30 | 1.30 | 1.30 | 1.80 | 1.80 |
| FRD33 | 1.60 | 1.60 | 1.60 | 1.60 | 2.10 | 2.10 |
| FRD42 | 2.20 | 2.20 | 2.20 | 2.20 | 3.00 | 3.00 |
| FRD43 | 2.20 | 2.20 | 2.20 | 2.20 | 3.40 | 3.40 |
| FRD52 | 4.50 | 4.50 | 4.50 | 4.50 | 5.50 | 5.50 |
| FRD53 | 4.50 | 4.50 | 4.50 | 4.50 | 6.50 | 6.50 |
| FRD62 | 7.00 | 7.00 | 7.00 | 7.00 | 9.00 | 9.00 |
| FRD63 | 7.00 | 7.00 | 7.00 | 7.00 | 11.00 | 11.00 |

## Main assembly codes

| Input coupling F | Input flange A | Output flange D | Input 2 stage B | Input Gears 3 stage E | Output stage C | Input 3 stage G |
|---|---|---|---|---|---|---|
| KG6.XXX | K534.206.XXX | N/A | KRD43E105G6-AL | KRD4I038 | KRD4U03935(40)-AL | N/A |




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