

ORDERING CODE

VST7EB - 042 - B12 - 1 R 00 - A 1 - *

Series

VT7EB series-ISO 4 bolts 3019-2
Mounting flange 125-A2 HW

Cam ring for "P1"

Volumetric displacement cm^3/rev (in^3/rev)

- 042 = 132.3 (8.07)
- 045 = 142.4 (8.69)
- 050 = 158.5 (9.67)
- 052 = 164.8 (10.06)
- 057 = 180.7 (11.02)
- 062 = 196.7 (12.00)
- 066 = 213.3 (13.02)
- 072 = 227.1 (13.86)
- 085 = 268.7 (16.40)

Cam ring for "P2"

Volumetric displacement cm^3/rev (in^3/rev)

- B02 = 5.7 (0.35)
- B03 = 9.8 (0.60)
- B04 = 12.8 (0.78)
- B05 = 15.9 (0.97)
- B06 = 19.8 (1.21)
- B07 = 22.5 (1.37)
- B08 = 24.9 (1.52)
- B09 = 28.0 (1.71)
- B10 = 31.8 (1.94)
- B11 = 34.9 (2.13)
- B12 = 40.9 (2.50)

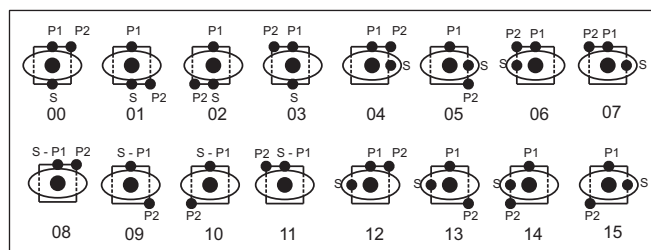
Modifications

Seal Class

- 1 - S1 (for mineral oil)
- 4 - S4 (for fire resistant fluids)
- 5 - S5 (for mineral oil and fire resistant fluids)

Design Letters

Porting Combination



Direction of rotation (view on shaft end)

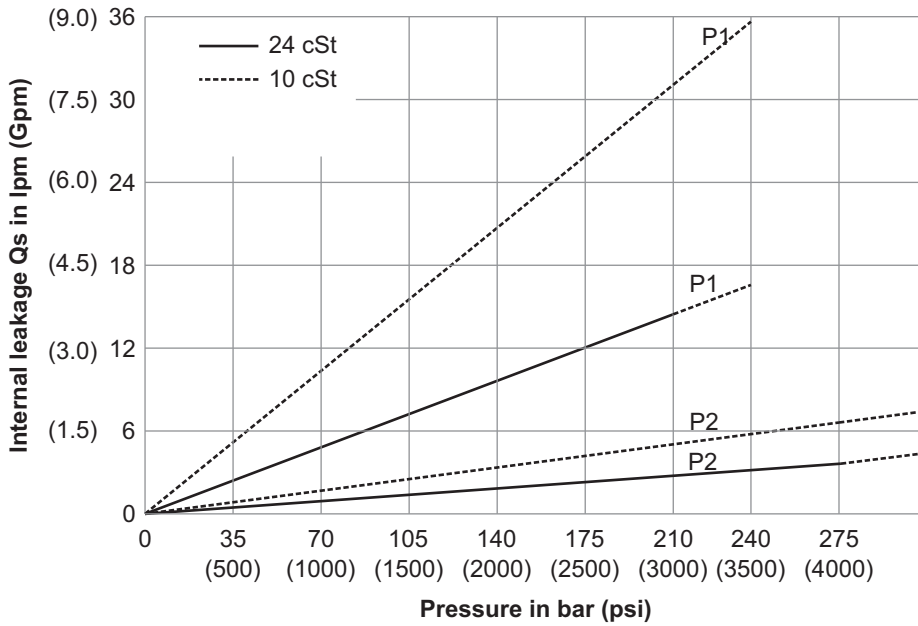
- R - clockwise
- L - Counter - Clockwise

Type of shaft

- 1 - Keyed
- 2 - Keyed (no SAE)
- 3 - Splined (SAE-C)
- 4 - Splined (SAE-CC)

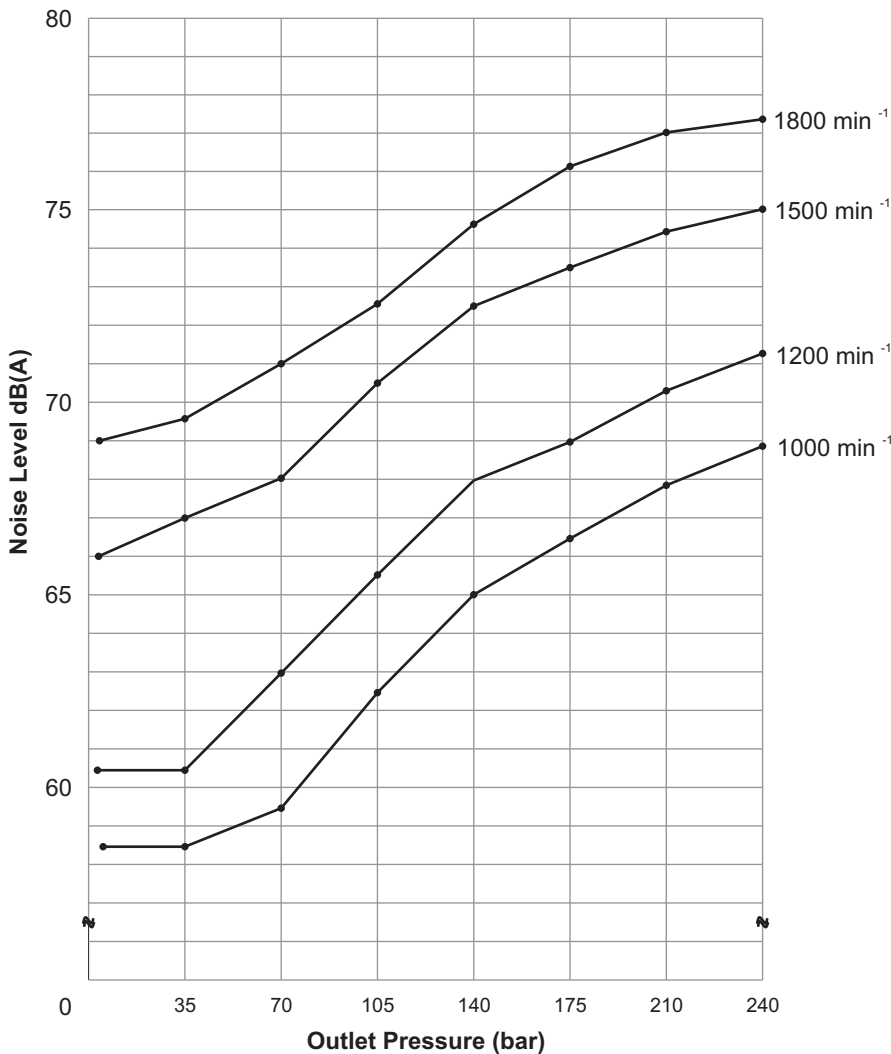


INTERNAL LEAKAGE (TYPICAL)



Do not operate pump more than 5 seconds at any speed or viscosity if internal leakage is more than 50% of theoretical flow. Total leakage is the sum of each section loss at its operating conditions.

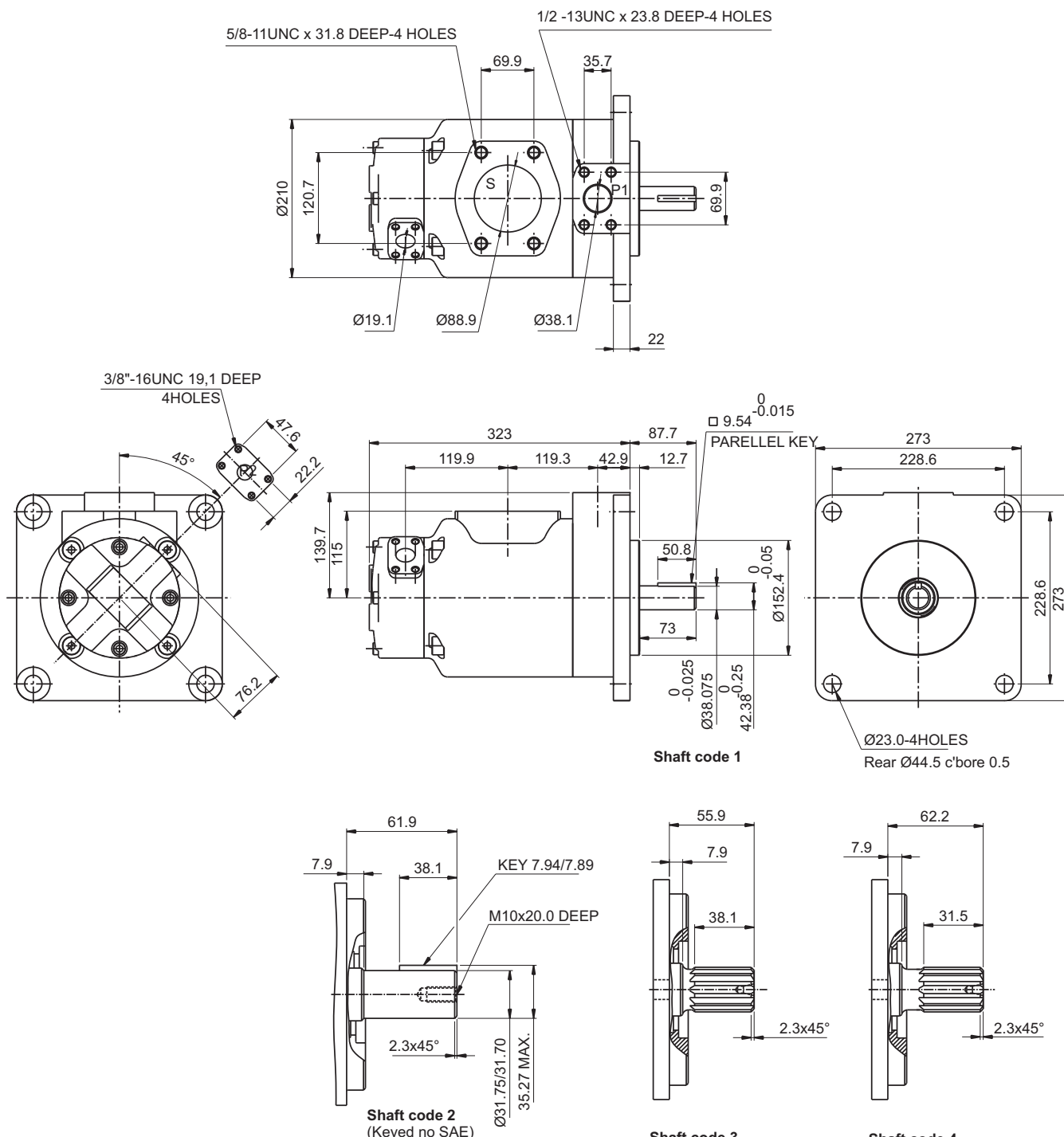
NOISE LEVEL (TYPICAL) VST7EB-050-B09



Measurement Conditions:
ISO VG32 oil at 50°C and measured 1m from rear of pump cover

INSTALLATION DRAWING

FLANGE MOUNTING



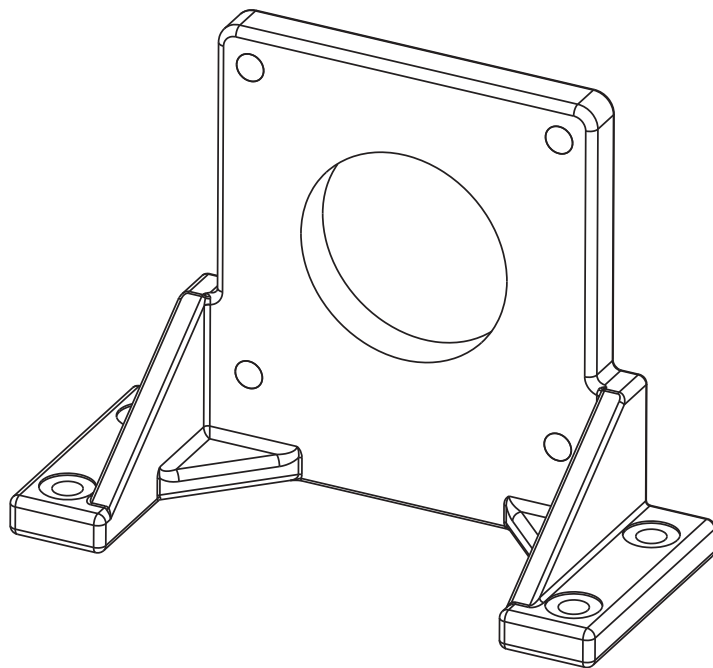
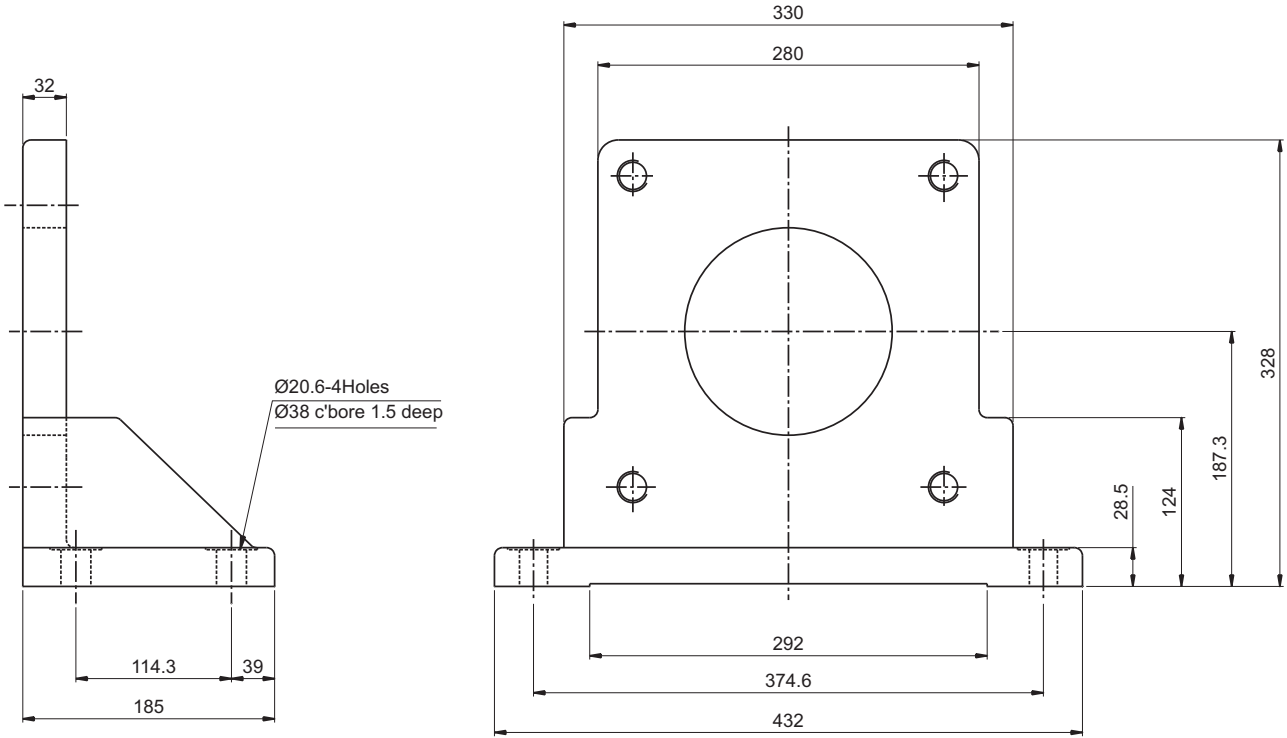
| Shaft torque limits in ³ / rev x psi (ml / rev x bar) | |
|--|---------------------|
| Shaft | Vp x p max. (P1+P2) |
| 1 | 60673 (68568) |
| 2 | 30638 (34590) |
| 3 | 54207 (61200) |
| 4 | 60673 (68568) |

Shaft code 3
SAE C splined shaft
Class 1-J498b
12/24 dp. 14 teeth
30° pressure angle
Flat root side fit

Shaft code 4
SAE CC splined shaft
Class 1-J498b
12/24 dp. 17 teeth
30° pressure angle
Flat root side fit

Weight - 74.0 Kgs.

INSTALLATION DRAWING
FOOT MOUNTING



Weight - 25 Kgs.

OPERATING CHARACTERISTICS (24 cSt)

| Pressure port | Series | Volumetric Displacement Vp | | Flow q (lpm) & n = 1500 rpm | | | | | |
|---------------|--------|----------------------------|----------------------|-----------------------------|-------|-------------------|-------|-------------------|-------|
| | | | | p = 0 bar (0 psi) | | p=140bar(2000psi) | | p=240bar(3500psi) | |
| | | in ³ /rev | cm ³ /rev | gpm | lpm | gpm | lpm | gpm | lpm |
| P1 | 042 | 8.07 | 132.3 | 52.50 | 198.5 | 49.87 | 188.5 | 47.96 | 181.3 |
| | 045 | 8.69 | 142.4 | 56.51 | 213.6 | 53.86 | 203.6 | 51.98 | 196.5 |
| | 050 | 9.67 | 158.5 | 62.88 | 237.7 | 60.24 | 227.7 | 58.36 | 220.6 |
| | 052 | 10.06 | 164.8 | 65.40 | 247.2 | 62.75 | 237.2 | 60.87 | 230.1 |
| | 057 | 11.02 | 180.7 | 71.71 | 271.1 | 69.07 | 261.1 | 67.19 | 254.0 |
| | 062 | 12.00 | 196.7 | 78.04 | 295.0 | 75.40 | 285.0 | 73.52 | 277.9 |
| | 066 | 13.02 | 213.3 | 84.63 | 319.9 | 81.98 | 309.9 | 80.11 | 302.8 |
| | 072 | 13.86 | 227.1 | 90.11 | 340.6 | 87.46 | 330.6 | 85.58 | 323.5 |
| | 085 | 16.40 | 268.7 | 107.00 | 404.7 | -- | -- | -- | -- |

DP

| Pressure port | Series | Volumetric Displacement Vp | | Input power p & n = 1500 rpm | | | | | |
|---------------|--------|----------------------------|----------------------|------------------------------|-----|------------------------|------|------------------------|-------|
| | | | | p = 7 bar (100 psi) | | p = 140 bar (2000 psi) | | p = 240 bar (3500 psi) | |
| | | in ³ /rev | cm ³ /rev | hp | kw | hp | kw | hp | kw |
| P1 | 042 | 8.07 | 132.3 | 6.97 | 5.2 | 66.25 | 49.4 | 110.77 | 82.6 |
| | 045 | 8.69 | 142.4 | 7.24 | 5.4 | 70.94 | 52.9 | 118.95 | 88.7 |
| | 050 | 9.67 | 158.5 | 7.64 | 5.7 | 78.45 | 58.5 | 131.82 | 98.3 |
| | 052 | 10.06 | 164.8 | 7.78 | 5.8 | 81.53 | 60.8 | 136.92 | 102.1 |
| | 057 | 11.02 | 180.7 | 8.18 | 6.1 | 89.04 | 66.4 | 143.35 | 106.9 |
| | 062 | 12.00 | 196.7 | 8.58 | 6.4 | 96.42 | 71.9 | 162.67 | 121.3 |
| | 066 | 13.02 | 213.3 | 8.98 | 6.7 | 104.20 | 77.7 | 175.94 | 131.2 |
| | 072 | 13.86 | 227.1 | 9.25 | 6.9 | 110.77 | 82.6 | 187.07 | 139.5 |
| | 085 | 16.40 | 268.7 | 9.78 | 7.3 | -- | -- | -- | -- |

1) 085 = 90 bar(1300 psi) max.int. & 085 = 2000 rpm max.

Measurement Conditions: ISO VG32 oil at 50°C

OPERATING CHARACTERISTICS (24 cSt)

| Pressure port | Series | Volumetric Displacement Vp | | Flow q (lpm) & n = 1500 rpm | | | | | |
|---------------|--------|----------------------------|----------------------|-----------------------------|-------|------------------------|-------|------------------------|------|
| | | | | p = 0 bar (0 psi) | | p = 140 bar (2000 psi) | | p = 240 bar (3500 psi) | |
| | | in ³ /rev | cm ³ /rev | gpm | lpm | gpm | lpm | gpm | lpm |
| P2 | B02 | 0.35 | 5.7 | 2.29 | 8.70 | 1.94 | 7.34 | – | – |
| | B03 | 0.60 | 9.8 | 3.88 | 14.7 | 3.52 | 13.32 | 2.91 | 11.0 |
| | B04 | 0.78 | 12.8 | 5.07 | 19.2 | 4.71 | 17.83 | 4.09 | 15.5 |
| | B05 | 0.97 | 15.9 | 6.31 | 23.9 | 5.94 | 22.49 | 5.28 | 20.0 |
| | B06 | 1.21 | 19.8 | 7.85 | 29.7 | 7.49 | 28.35 | 6.87 | 26.0 |
| | B07 | 1.37 | 22.5 | 8.90 | 33.7 | 8.56 | 32.40 | 7.79 | 29.5 |
| | B08 | 1.52 | 24.9 | 9.88 | 37.4 | 9.51 | 35.99 | 8.85 | 33.5 |
| | B09 | 1.71 | 28.0 | 11.07 | 41.9 | 10.72 | 40.58 | 10.04 | 38.0 |
| | B10 | 1.94 | 31.8 | 12.62 | 47.8 | 12.24 | 46.33 | 11.23 | 42.5 |
| | B11 | 2.13 | 34.9 | 13.81 | 52.27 | 13.49 | 51.07 | 12.81 | 48.5 |
| | B12 | 2.50 | 40.9 | 16.25 | 61.51 | 15.89 | 60.15 | – | – |



| Pressure port | Series | Volumetric Displacement Vp | | Input power p & n = 1500 rpm | | | | | |
|---------------|--------|----------------------------|----------------------|------------------------------|------|------------------------|-------|------------------------|-------|
| | | | | p = 7 bar (100 psi) | | p = 140 bar (2000 psi) | | p = 240 bar (3500 psi) | |
| | | in ³ /rev | cm ³ /rev | hp | kw | hp | kw | hp | kw |
| P2 | B02 | 0.35 | 5.7 | 0.62 | 0.46 | 3.08 | 2.30 | – | – |
| | B03 | 0.60 | 9.8 | 0.71 | 0.53 | 4.96 | 3.70 | 8.35 | 6.23 |
| | B04 | 0.78 | 12.8 | 0.78 | 0.58 | 6.37 | 4.75 | 10.77 | 8.03 |
| | B05 | 0.97 | 15.9 | 0.86 | 0.64 | 7.78 | 5.80 | 13.18 | 9.83 |
| | B06 | 1.21 | 19.8 | 0.95 | 0.71 | 9.49 | 7.08 | 16.40 | 12.23 |
| | B07 | 1.37 | 22.5 | 1.01 | 0.75 | 10.74 | 8.01 | 18.28 | 13.63 |
| | B08 | 1.52 | 24.9 | 1.06 | 0.79 | 12.00 | 8.95 | 20.42 | 15.23 |
| | B09 | 1.71 | 28.0 | 1.14 | 0.85 | 13.39 | 9.99 | 22.84 | 17.03 |
| | B10 | 1.94 | 31.8 | 1.23 | 0.92 | 15.13 | 11.28 | 25.25 | 18.83 |
| | B11 | 2.13 | 34.9 | 1.30 | 0.97 | 16.69 | 12.45 | 28.46 | 21.23 |
| | B12 | 2.50 | 40.9 | 1.45 | 1.08 | 19.51 | 14.55 | – | – |

Measurement Conditions: ISO VG32 oil at 50°C

CONSTRUCTION

1. Key
2. Shaft
3. Shaft Seal
4. Bearing
5. Retaining Ring
6. Mounting Flange
7. Cartridge
8. Housing
9. Bolts
10. Cartridge
11. Endcap
12. Bolts

