

VT6C \* - 022 - 1 R 00 - B 1 \*

## Series

Y - Metric port connection, Omit for UNC

## Cam ring

Volumetric displacement cm<sup>3</sup>/rev (in<sup>3</sup>/rev)

|                            |                            |
|----------------------------|----------------------------|
| *003/B03/Y03 = 10.8 (0.66) | 015/B15/Y15 = 50.5 (3.08)  |
| 005/B05/Y05 = 17.2 (1.05)  | 017/B17/Y17 = 58.3 (3.56)  |
| 006/B06/Y06 = 21.3 (1.30)  | 020/B20/Y20 = 63.8 (3.89)  |
| 008/B08/Y08 = 26.4 (1.61)  | 022/B22/Y22 = 70.3 (4.29)  |
| 010/B10/Y10 = 34.1 (2.08)  | 025/B25/Y25 = 79.3 (4.84)  |
| 012/B12/Y12 = 37.1 (2.26)  | 028/B28/Y28 = 88.8 (5.42)  |
| 014/B14/Y14 = 46.0 (2.81)  | 031/B31/Y31 = 100.0 (6.10) |

\*'0' - Uni - directional 'B' - Bi - directional 'Y' - Bi - directional for cold start

## Type of shaft

- 1 - keyed (SAE B)
- 2 - keyed (no SAE)
- 3 - splined (SAE B)
- 4 - splined (SAE BB)

## Modifications

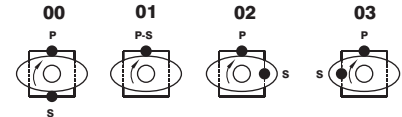
### Seal class

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

## Design letter

### Porting combination

00 - standard

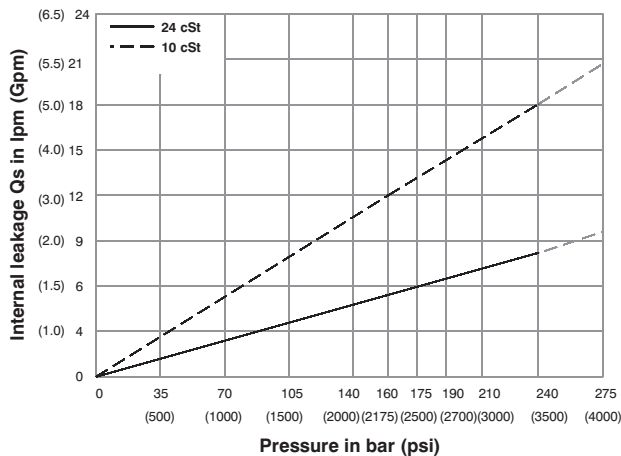


S - Suction port P - Pressure port

### Direction of rotation (view on shaft end)

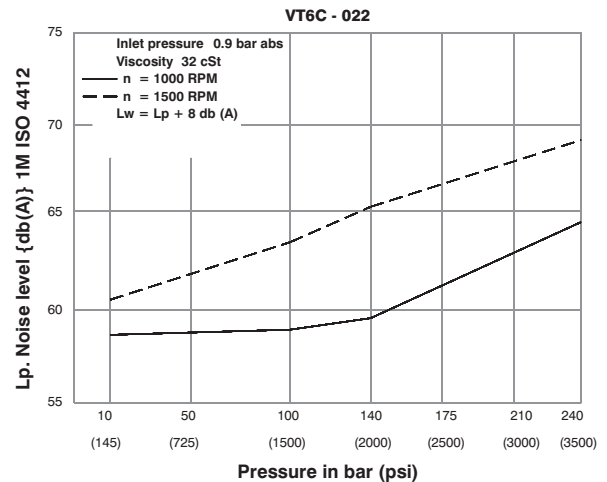
- R - clockwise
- L - counter-clockwise

## INTERNAL LEAKAGE (TYPICAL)

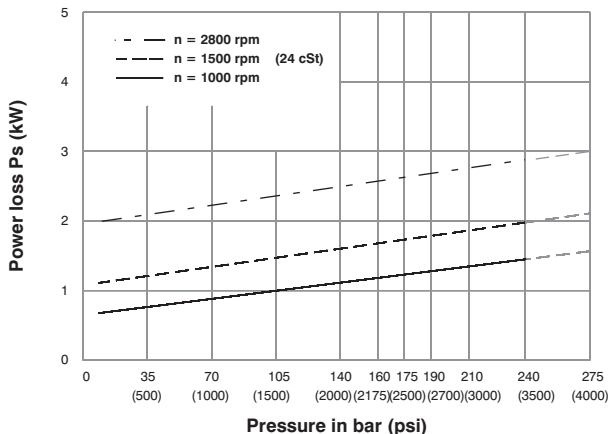


Do not operate pump more than 5 seconds at any speed or viscosity if internal leakage is more than 50% of theoretical flow.

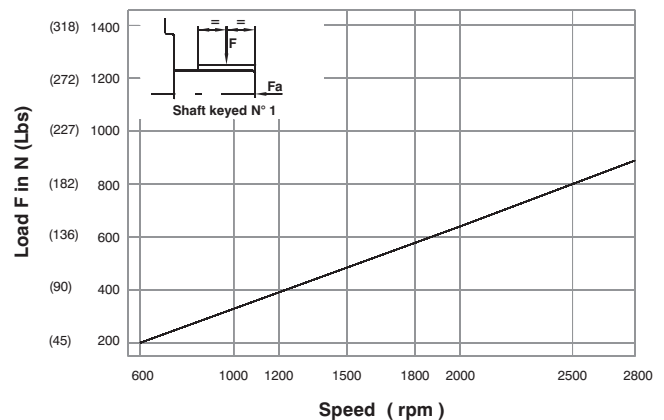
## NOISE LEVEL (TYPICAL)



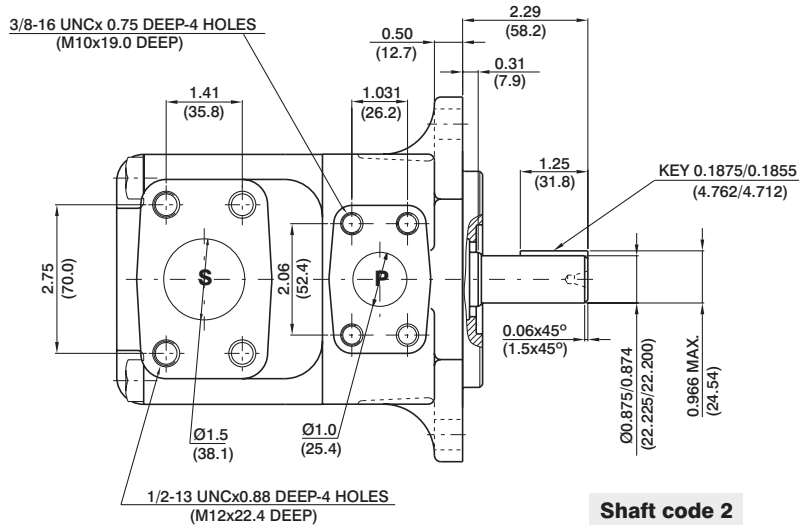
## HYDROMECHANICAL POWER LOSS (TYPICAL)



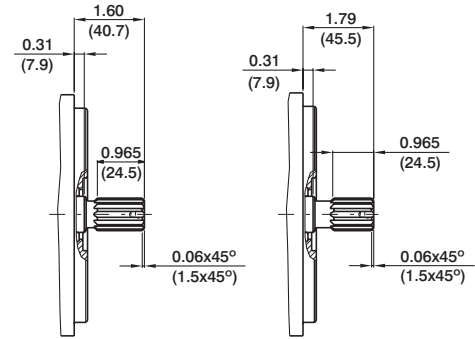
## PERMISSIBLE RADIAL LOAD



Maximum axial load permissible Fa = 800 N (180 Lbs)

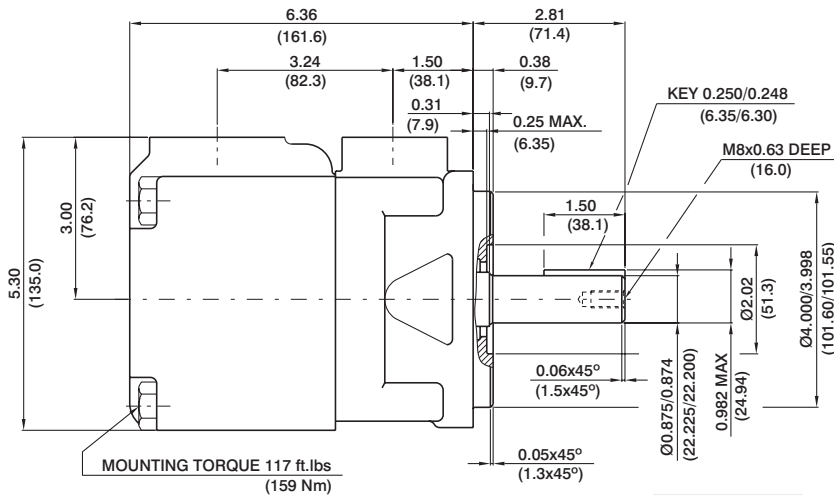


**Shaft code 2**  
(Keyed no SAE)

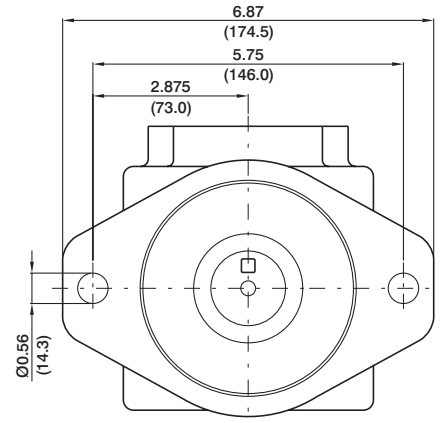


**Shaft code 3**  
SAE B splined shaft  
Class 1-J498b  
16/32 dp. 13 teeth  
30° pressure angle  
flat root side fit

**Shaft code 4**  
SAE BB splined shaft  
Class 1-J498b  
16/32 dp. 15 teeth  
30° pressure angle  
flat root side fit



**Shaft code 1**  
(Keyed SAE B)



| Shaft torque limits in <sup>3</sup> /rev x psi (ml/rev x bar) |               |
|---------------------------------------------------------------|---------------|
| Shaft                                                         | Vp x p max.   |
| 1                                                             | 14473 (16500) |
| 2                                                             | 12666 (14300) |
| 3                                                             | 18246 (20600) |
| 4                                                             | 19309 (21821) |

## OPERATING CHARACTERISTICS - TYPICAL (24 cSt)

| Pressure port | Series            | Volumetric Displacement Vp |                      | Flow q & n = 1500 rpm |       |                        |       |                        |                     | Input power p & n = 1500 rpm |     |                        |      |                        |                    |
|---------------|-------------------|----------------------------|----------------------|-----------------------|-------|------------------------|-------|------------------------|---------------------|------------------------------|-----|------------------------|------|------------------------|--------------------|
|               |                   |                            |                      | p = 0 bar (0 psi)     |       | p = 140 bar (2000 psi) |       | p = 240 bar (3500 psi) |                     | p = 7 bar (100 psi)          |     | p = 140 bar (2000 psi) |      | p = 240 bar (3500 psi) |                    |
|               |                   | in <sup>3</sup> /rev       | cm <sup>3</sup> /rev | gpm                   | lpm   | gpm                    | lpm   | gpm                    | lpm                 | hp                           | kw  | hp                     | kw   | hp                     | kw                 |
| VT6C          | 003               | 0.66                       | 10.8                 | 4.29                  | 16.2  | 2.96                   | 11.2  | 2.04                   | 7.7                 | 1.74                         | 1.3 | 7.11                   | 5.3  | 11.26                  | 8.4                |
|               | 005               | 1.05                       | 17.2                 | 6.83                  | 25.8  | 5.50                   | 20.8  | 4.57                   | 17.3                | 1.88                         | 1.4 | 10.06                  | 7.5  | 16.36                  | 12.2               |
|               | 006               | 1.30                       | 21.3                 | 8.44                  | 31.9  | 7.11                   | 26.9  | 6.19                   | 23.4                | 2.01                         | 1.5 | 11.94                  | 8.9  | 19.71                  | 14.7               |
|               | 008               | 1.61                       | 26.4                 | 10.48                 | 39.6  | 9.15                   | 34.6  | 8.22                   | 31.1                | 2.15                         | 1.6 | 14.35                  | 10.7 | 22.93                  | 17.7               |
|               | 010               | 2.08                       | 34.1                 | 13.52                 | 51.1  | 12.19                  | 46.1  | 11.26                  | 42.6                | 2.28                         | 1.7 | 18.64                  | 13.4 | 29.90                  | 22.3               |
|               | 012               | 2.26                       | 37.1                 | 14.71                 | 55.6  | 13.36                  | 50.6  | 12.46                  | 47.1                | 2.28                         | 1.7 | 19.31                  | 14.4 | 32.32                  | 24.1               |
|               | 014               | 2.81                       | 46.0                 | 18.25                 | 69.0  | 16.93                  | 64.0  | 16.00                  | 60.5                | 2.55                         | 1.9 | 23.60                  | 17.6 | 39.56                  | 29.5               |
|               | 015               | 3.08                       | 50.5                 | 20.00                 | 75.6  | 18.73                  | 73.2  | 19.02                  | 67.5                | 2.68                         | 2.0 | 25.61                  | 19.1 | 42.91                  | 32.0               |
|               | 017               | 3.56                       | 58.3                 | 23.12                 | 87.4  | 21.79                  | 82.4  | 20.87                  | 78.9                | 2.82                         | 2.1 | 29.37                  | 21.9 | 49.48                  | 36.9               |
|               | 020               | 3.89                       | 63.8                 | 25.32                 | 95.7  | 23.99                  | 90.7  | 23.07                  | 87.2                | 2.95                         | 2.2 | 31.92                  | 23.8 | 53.91                  | 40.2               |
|               | 022               | 4.29                       | 70.3                 | 27.88                 | 105.4 | 26.56                  | 100.4 | 25.63                  | 96.9                | 3.08                         | 2.3 | 35.00                  | 26.1 | 59.14                  | 44.1               |
|               | 025 <sup>1)</sup> | 4.84                       | 79.3                 | 31.46                 | 118.9 | 30.13                  | 113.9 | 29.21                  | 110.4               | 3.35                         | 2.5 | 39.16                  | 29.2 | 66.38                  | 49.5               |
|               | 028 <sup>1)</sup> | 5.42                       | 88.8                 | 35.24                 | 133.2 | 33.92                  | 128.2 | 33.28 <sup>2)</sup>    | 125.8 <sup>2)</sup> | 3.75                         | 2.8 | 43.85                  | 32.7 | 65.04 <sup>2)</sup>    | 48.5 <sup>2)</sup> |
|               | 031 <sup>1)</sup> | 6.10                       | 100.0                | 39.68                 | 150.0 | 38.35                  | 145.0 | 37.72 <sup>2)</sup>    | 142.6 <sup>2)</sup> | 3.75                         | 2.8 | 48.95                  | 36.5 | 72.95 <sup>2)</sup>    | 54.4 <sup>2)</sup> |

1) 025-028-031 = 2500 RPM. max.

2) 028-031 = 210 bar (3000 psi) max. int.