

VT6DCCR - 038 - 028 - 008 - 2 R 00 - A 1 - 00 - *

Series

Rear cap end for mounting
SAE "A" auxiliary pump
coupling adaptor
SAE "A" -9 teeth

Cam ring for "P1"

Volumetric displacement cm³/rev (in³/rev)

| | |
|------------------------|-------------------------|
| *014/B14 = 47.6 (2.90) | 035/B35 = 111.0 (6.77) |
| 017/B17 = 58.2 (3.55) | 038/B38 = 120.3 (7.34) |
| 020/B20 = 66.0 (4.03) | 042/B42 = 136.0 (8.30) |
| 024/B24 = 79.5 (4.85) | 045/B45 = 145.7 (8.89) |
| 028/B28 = 89.7 (5.47) | 050/B50 = 158.0 (9.64) |
| 031/B31 = 98.3 (6.00) | 061/B61 = 190.5 (11.62) |

*'0' - Uni - directional 'B' - Bi - directional

Cam ring for "P2" & "P3"

Volumetric displacement cm³/rev (in³/rev)

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

*'0' - Uni - directional 'B' - Bi - directional

Modifications

Mounting w/connection variables

| | UNC | | METRIC | |
|----|-----|------|--------|------|
| | 00 | 01 | M0 | M1 |
| P3 | 1" | 3/4" | 1" | 3/4" |

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 (see page DI-1-13)

00 = Standard

Direction of rotation

(view on shaft end)

- R - Clockwise
- L - Counter - clockwise

Type of Shaft

- 2 - Keyed (SAE CC)
- 3 - Splined (SAE D & E)



OPERATING CHARACTERISTICS - TYPICAL (24 cST) (Input power p (KW) for one cartridge only)

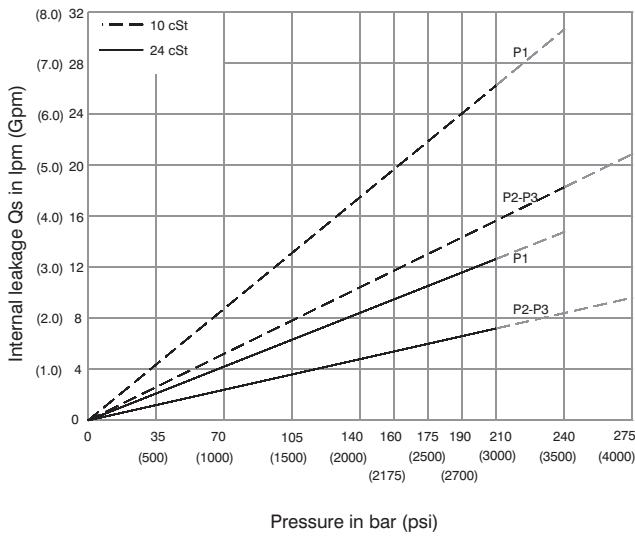
| Pressure port | Series | Volumetric Displacement Vp | | Flow q & n = 1500 rpm | | | | | | Input power p & n = 1500 rpm | | | | | |
|-------------------|-------------------|----------------------------|-------|-----------------------|----------------------|------------------------|---------------------|------------------------|---------------------|------------------------------|---------------------|------------------------|---------------------|------------------------|--------------------|
| | | | | 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 ³ /rev | cm ³ /rev | gpm | lpm | gpm | lpm | gpm | lpm | hp | kw | hp | kw |
| P1 | 014 | 2.90 | 47.6 | 18.88 | 71.4 | 16.42 | 62.1 | 14.78 | 55.9 | 3.08 | 2.3 | 24.81 | 18.5 | 41.03 | 30.6 |
| | 017 | 3.55 | 58.2 | 23.09 | 87.3 | 20.63 | 78.0 | 18.99 | 71.8 | 3.35 | 2.5 | 29.75 | 22.2 | 49.60 | 37.0 |
| | 020 | 4.00 | 66.0 | 26.19 | 99.0 | 23.73 | 89.7 | 22.08 | 83.5 | 3.75 | 2.8 | 33.39 | 24.9 | 55.92 | 41.7 |
| | 024 | 4.80 | 79.5 | 31.56 | 119.3 | 29.10 | 110.0 | 27.46 | 103.8 | 4.02 | 3.0 | 39.69 | 29.6 | 66.78 | 49.8 |
| | 028 | 5.50 | 89.7 | 35.58 | 134.5 | 33.12 | 125.2 | 31.48 | 119.0 | 4.29 | 3.2 | 44.52 | 33.2 | 74.96 | 55.9 |
| | 031 | 6.00 | 98.3 | 39.00 | 147.5 | 36.53 | 138.1 | 34.89 | 131.9 | 4.42 | 3.3 | 48.54 | 36.2 | 81.80 | 61.0 |
| | 035 | 6.80 | 111.0 | 44.04 | 166.5 | 41.58 | 157.2 | 39.94 | 151.0 | 4.69 | 3.5 | 54.58 | 40.7 | 92.13 | 68.7 |
| | 038 | 7.30 | 120.3 | 47.72 | 180.4 | 45.26 | 171.1 | 43.62 | 164.9 | 4.96 | 3.7 | 58.87 | 43.9 | 99.64 | 74.3 |
| | 042 ¹⁾ | 8.30 | 136.0 | 53.96 | 204.0 | 51.50 | 194.7 | 49.86 | 188.5 | 5.36 | 4.0 | 66.25 | 49.4 | 112.24 | 83.7 |
| | 045 ¹⁾ | 8.89 | 145.7 | 57.80 | 218.5 | 55.34 | 209.2 | 53.70 | 203.0 | 5.50 | 4.1 | 70.81 | 52.8 | 120.02 | 89.5 |
| | 050 ¹⁾ | 9.64 | 158.0 | 62.69 | 237.0 | 60.23 | 227.7 | 59.25 ²⁾ | 224.0 ²⁾ | 5.90 | 4.4 | 76.44 | 57.0 | 113.98 ²⁾ | 85.0 ²⁾ |
| 061 ¹⁾ | 11.62 | 190.5 | 76.25 | 285.7 | 73.54 ³⁾ | 278.0 ³⁾ | -- | -- | 6.16 | 4.6 | 81.26 ³⁾ | 60.6 ³⁾ | -- | -- | |
| P2 & P3 | 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 | 11.22 | 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 | 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 | 5.42 | 88.8 | 35.24 | 133.2 | 33.92 | 128.2 | 33.28 ²⁾ | 125.8 ²⁾ | 3.75 | 2.8 | 43.85 | 32.7 | 65.04 ²⁾ | 48.5 ²⁾ |
| 031 | 6.10 | 100.0 | 39.68 | 150.0 | 38.35 | 145.0 | 37.72 ²⁾ | 142.6 ²⁾ | 3.75 | 2.8 | 48.95 | 36.5 | 72.95 ²⁾ | 54.4 ²⁾ | |

1) 042-045-050-061=2200 RPM max.

2) 028-031 - 050=210 bar (3000 psi) max.

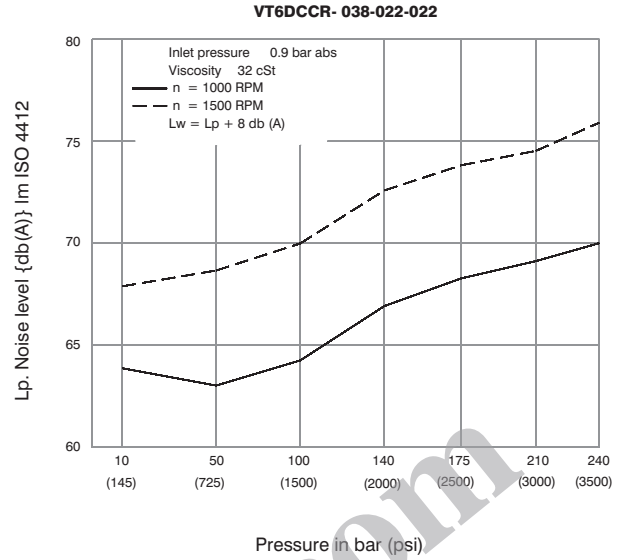
3) 061 = 120 bar (1740 psi) max. int, 061 = 80 bar (1160 psi) cont.

INTERNAL LEAKAGE (TYPICAL)



Total leakage is the sum of each section loss at its operating conditions.

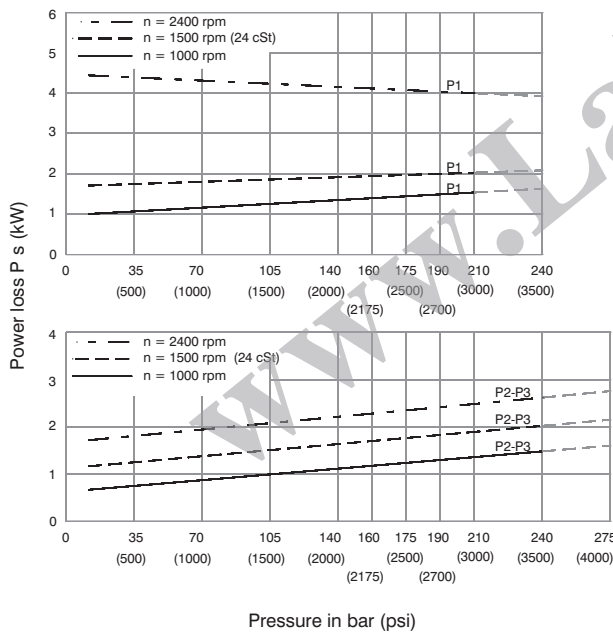
NOISE LEVEL (TYPICAL)



Triple pump noise level is given with each section discharging at the pressure noted on the curve.

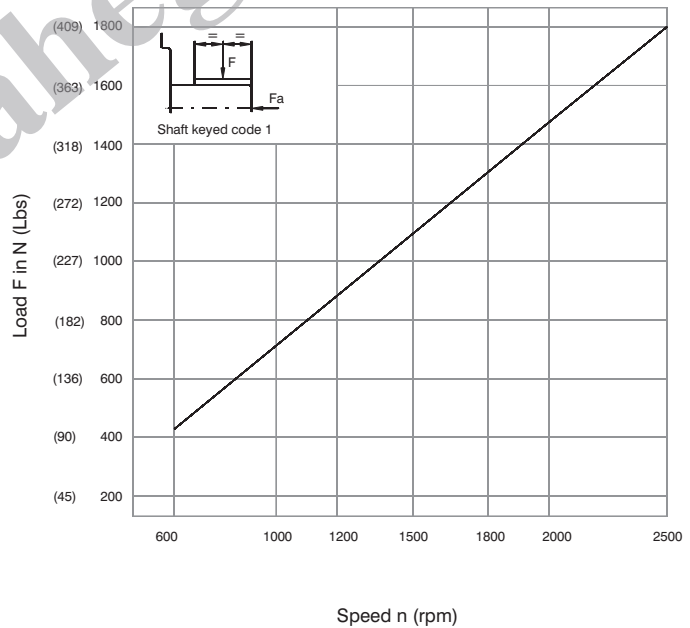


HYDROMECAHNICAL POWER LOSS (TYPICAL)



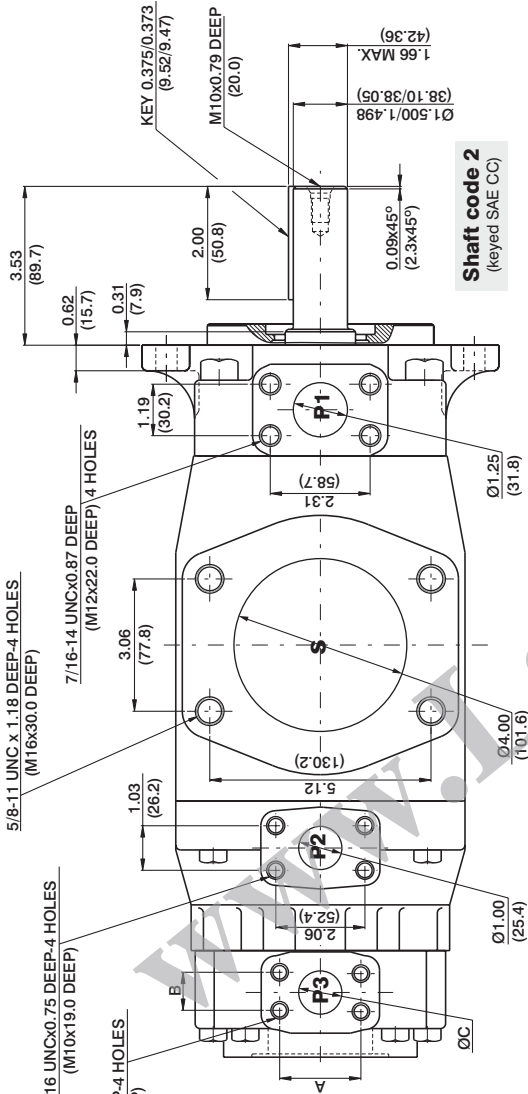
Total hydromechanical power loss is the sum of each section at its operating conditions.

PERMISSIBLE RADIAL LOAD



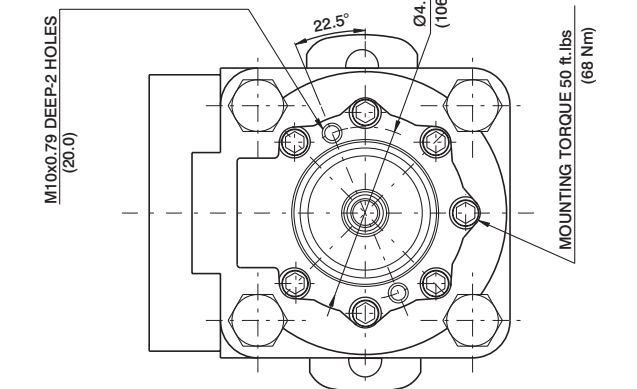
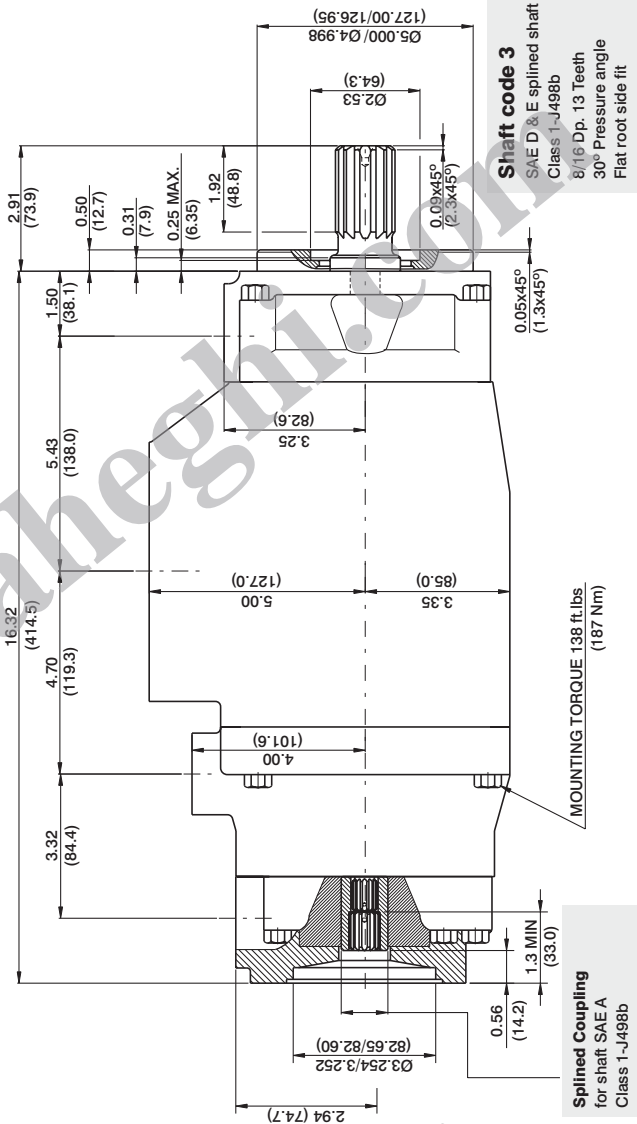
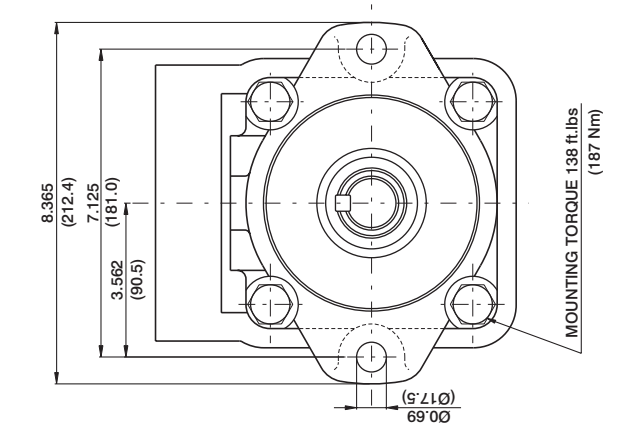
Maximum axial load permissible $F_a = 1200 \text{ N (449 Lbs)}$

DT



| PORT | CODE | A | B | C |
|---------|---------|-------|-------|-------|
| 00 & M0 | 2.06 | 52.4 | 1.03 | 26.2 |
| P3 | 01 & M1 | 1.874 | 47.6 | 0.874 |
| | | | 22.2 | 0.75 |
| | | | 19.05 | |

| Shaft torque limits in ³ /rev x psi (ml/rev x bar) | | | |
|---|---------------|----------------|-------------|
| Shaft | V x P max. | Coupling drive | V x P max. |
| 2 | 58842 (66500) | SAE'A" | 3061 (3456) |
| 3 | 54207 (61200) | | |



Splined Coupling
for shaft SAE A
Class 1-J498b
16/32 Dp. 9 teeth
30° Pressure angle
Side fit
Ext. dia. 0.625 min (15.875)
int. dia. 0.500 min (12.7)