

HIGH PERFORMANCE VANE PUMP VT6EDC



VT6EDC - 062 - 035 - 017 - 1 R 00 - C 1 - P - 0 - *

Series

Cam ring for "P1"

Volumetric displacement cm³/rev (in³/rev)

| | |
|---------------------|---------------------|
| 042 = 132.3 (8.07) | 062 = 196.7 (12.00) |
| 045 = 142.4 (8.69) | 066 = 213.3 (13.02) |
| 050 = 158.5 (9.67) | 072 = 227.1 (13.86) |
| 052 = 164.8 (10.06) | 085 = 269.8 (16.46) |
| 057 = 180.7 (11.02) | |

Cam ring for "P2"

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 "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

0 = P3 = 1" SAE
1 = P3 = 3/4" SAE

Mounting (pump)

P= Pedestal mounting
F= Face mounting

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 CI-1-4,5)

00 = Standard

Direction of rotation (view on shaft end)

R - Clockwise
L - Counter - clockwise

Type of Shaft

1 - Keyed (G45N-ISO 3019-2)

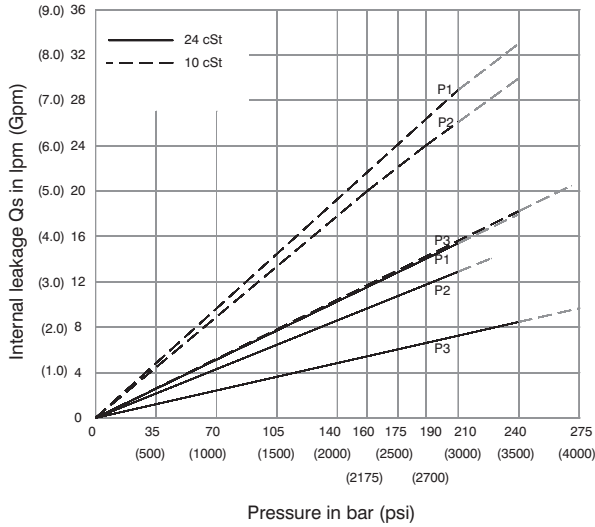


OPERATING CHARACTERISTICS - TYPICAL (24 cST) (Input power p (KW) for one cartridge only)

| Pressure port | Series | Volumetric Displacement Vp | | Flow q & n = 1500 rpm | | | | | | Input power p & n = 1500 rpm | | | | | |
|---------------|-------------------|----------------------------|----------------------|-----------------------|-------|------------------------|---------------------|------------------------|---------------------|------------------------------|-------|------------------------|---------------------|------------------------|--------------------|
| | | in ³ /rev | cm ³ /rev | 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) | |
| | | | | gpm | lpm | gpm | lpm | gpm | lpm | hp | kw | hp | kw | hp | kw |
| P1 | 042 | 8.07 | 132.3 | 52.50 | 198.5 | 49.87 | 188.5 | 47.96 | 181.3 | 6.97 | 5.2 | 66.25 | 49.4 | 110.77 | 82.6 |
| | 045 | 8.70 | 142.4 | 56.51 | 213.6 | 53.86 | 203.6 | 51.98 | 196.5 | 7.24 | 5.4 | 70.94 | 52.9 | 118.95 | 88.7 |
| | 050 | 9.67 | 158.5 | 62.88 | 237.7 | 60.24 | 227.7 | 58.36 | 220.6 | 7.64 | 5.7 | 78.45 | 58.5 | 131.82 | 98.3 |
| | 052 | 10.00 | 164.8 | 65.40 | 247.2 | 62.75 | 237.2 | 60.87 | 230.1 | 7.78 | 5.8 | 81.53 | 60.8 | 136.92 | 102.1 |
| | 057 | 11.02 | 180.7 | 71.71 | 271.1 | 69.07 | 261.1 | 67.19 | 254.0 | 8.18 | 6.1 | 89.04 | 66.4 | 143.35 | 106.9 |
| | 062 | 12.00 | 196.7 | 78.04 | 295.0 | 75.40 | 285.0 | 73.52 | 277.9 | 8.58 | 6.4 | 96.42 | 71.9 | 162.67 | 121.3 |
| | 066 | 13.00 | 213.3 | 84.63 | 319.9 | 81.98 | 309.9 | 80.11 | 302.8 | 8.98 | 6.7 | 104.20 | 77.7 | 175.94 | 131.2 |
| | 072 | 13.86 | 227.1 | 90.11 | 340.6 | 87.46 | 330.6 | 85.58 | 323.5 | 9.25 | 6.9 | 110.77 | 82.6 | 187.07 | 139.5 |
| P2 | 085 ¹⁾ | 16.40 | 269.8 | 107.00 | 404.7 | 105.21 ²⁾ | 397.7 ²⁾ | -- | -- | 9.78 | 7.3 | 87.56 ²⁾ | 65.3 ²⁾ | -- | -- |
| | 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 | 23.1 | 87.3 | 20.6 | 78.0 | 18.99 | 71.8 | 3.35 | 2.5 | 29.77 | 22.2 | 49.62 | 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 | 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 |
| P3 | 045 | 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 | 9.64 | 158.0 | 62.69 | 237.0 | 60.23 | 227.7 | 59.25 ³⁾ | 224.0 ³⁾ | 5.90 | 4.4 | 76.44 | 57.0 | 113.98 ³⁾ | 85.0 ³⁾ |
| | 061 | 11.62 | 190.5 | 76.25 | 285.7 | 73.54 ⁴⁾ | 278.0 ⁴⁾ | -- | -- | 6.16 | 4.6 | 81.26 ⁴⁾ | 60.6 ⁴⁾ | -- | -- |
| | 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 ⁴⁾ | 125.8 ⁴⁾ | 3.75 | 2.8 | 43.85 | 32.7 | 65.04 ⁴⁾ | 48.5 ⁴⁾ | |
| 031 | 6.10 | 100.0 | 39.68 | 150.0 | 38.35 | 145.0 | 37.72 ⁴⁾ | 142.6 ⁴⁾ | 3.75 | 2.8 | 48.95 | 36.5 | 72.95 ⁴⁾ | 54.4 ⁴⁾ | |

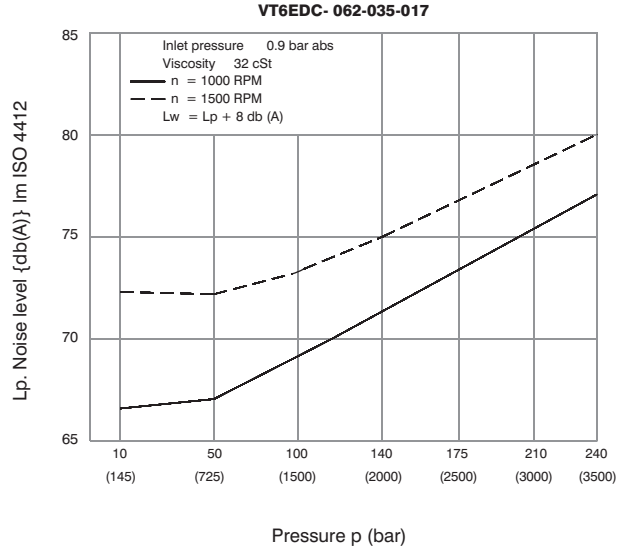
1) 085 = 2000 RPM max. 2) 085 = 75 bar (1100 psi) cont. 085 = 90 bar (1300 psi) max. int. 3) 028-031-050=210 bar (3000 psi) max.
4) 061 = 120 bar (1740 psi) max. int, 061 = 80 bar (1160 psi) cont.

INTERNAL LEAKAGE (TYPICAL)



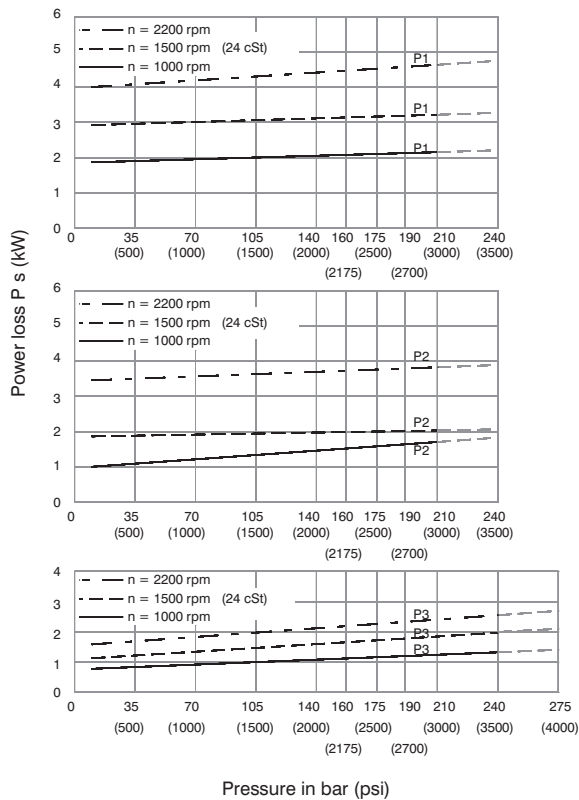
Total leakage is the sum of each section loss at its operating conditions.

NOISE LEVEL (TYPICAL)



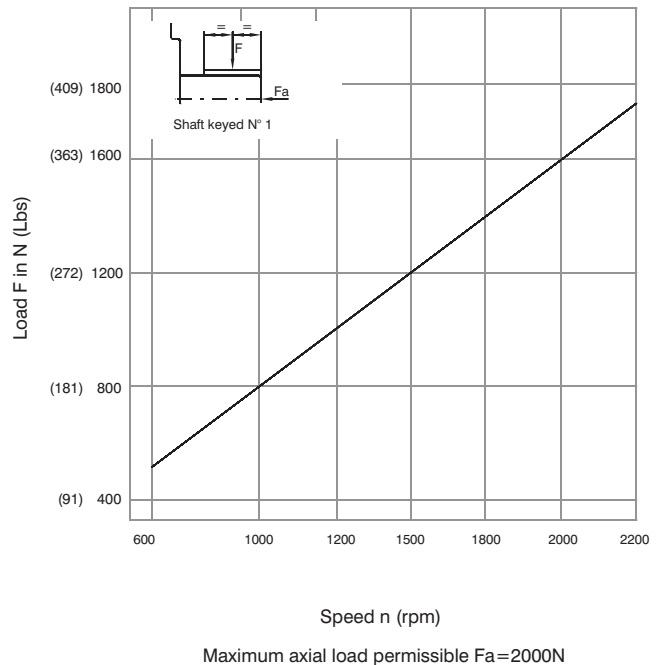
Triple pump noise level is given with each section discharging at the pressure noted on the curve.

HYDROMECHANICAL POWER LOSS (TYPICAL)



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

PERMISSIBLE RADIAL LOAD



| PORT CODE | A | B | C |
|-----------|--------------|--------------|--------------|
| 0 | 2.06 (52.4) | 1.03 (26.2) | 1.00 (25.4) |
| 1 | 1.874 (47.6) | 0.874 (22.2) | 0.75 (19.05) |

Shaft torque limits in³/rev x psi (ml/rev x bar)

| | |
|-------|------------------------|
| Shaft | Vp x p max. (P1+P2+P3) |
| 1 | 101506 (114715) |

