

VT67DC W - 038 - B08 1 R 00 - A 1 M1 -

Series
SAE B 2 bolts
Mounting flange J744c

use for severe duty shaft only

Camring for "P1"

Volumetric displacement cm^3/rev (in^3/rev)
 B14=2.68 (43.9) B31=6.05 (99.1)
 B17=3.36 (55.0) B35=6.92 (113.4)
 B20=4.03 (66.0) B38=7.36 (120.6)
 B22=4.29 (70.3) B42=8.39 (137.5)
 B24=4.95 (81.1) 045=8.89 (145.7)
 B28=5.49 (89.9) 050=9.64 (157.9)
 * '0' - Uni - directional 'B' - Bi - directional

Camring for "P2"

Volumetric displacement cm^3/rev (in^3/rev)
 003/B03=0.66 (10.80) 015/B15=3.08 (50.50)
 005/B05=1.05 (17.20) 017/B17=3.56 (58.30)
 006/B06=1.30 (21.30) 020/B20=3.89 (63.80)
 008/B08=1.61 (26.40) 022/B22=4.29 (70.30)
 010/B10=2.08 (34.10) 025/B25=4.84 (79.30)
 012/B12=2.26 (37.10) 028/B28=5.42 (88.80)
 014/B14=2.81 (46.00) 031/B31=6.10 (100.00)
 * '0' - Uni - directional 'B' - Bi - directional

Modifications

Mounting W/connection variables

	UNC		METRIC	
	00	01	M0	M1
P2	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

00 - standard

Direction of rotation (view on shaft end)

- R - clockwise
- L - counter-clockwise

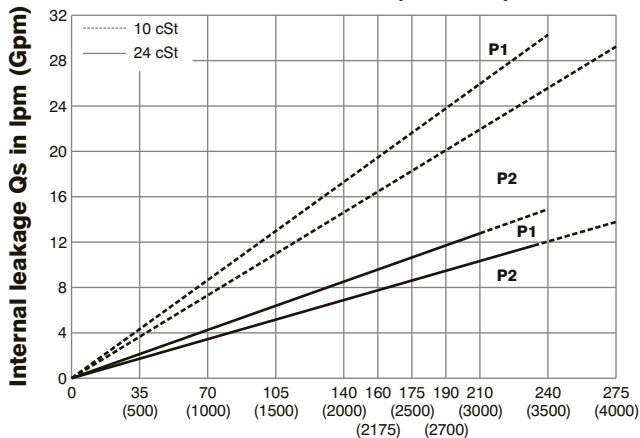
Type of shaft

- 1 - keyed (SAE C)
- 2 - keyed (no SAE)
- 3 - splined (SAE C)
- 4 - splined (no SAE)

Sever duty (VT67DCW only)

5 - keyed (no SAE)

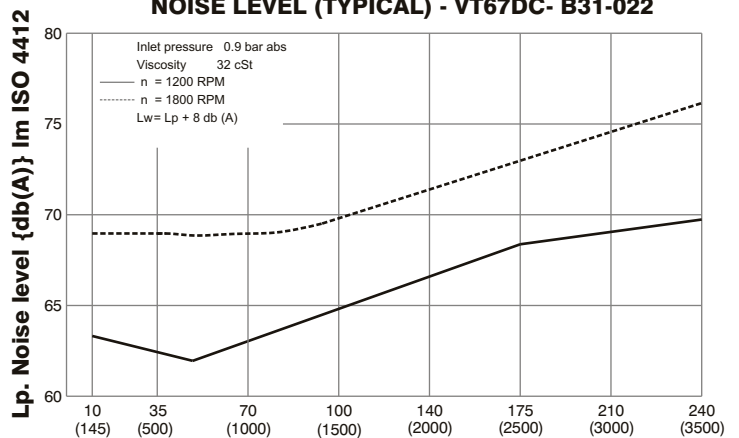
INTERNAL LEAKAGE (TYPICAL)



Pressure in bar (psi)

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.

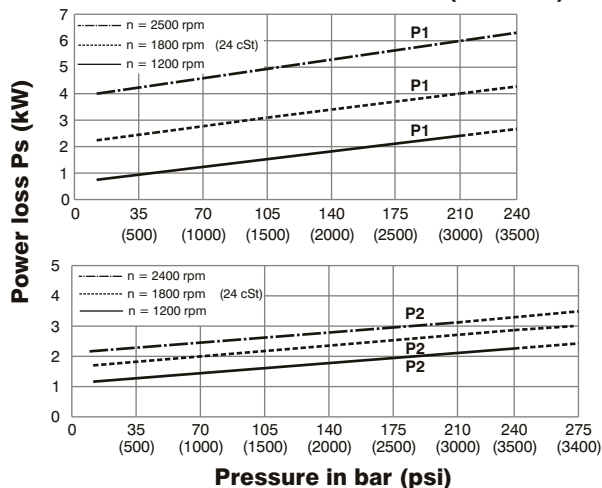
NOISE LEVEL (TYPICAL) - VT67DC- B31-022



Pressure in bar (psi)

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

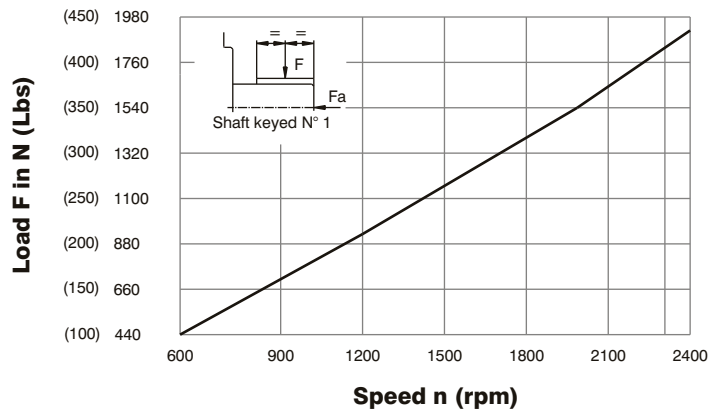
HYDROMECAHNICAL POWER LOSS (TYPICAL)



Pressure in bar (psi)

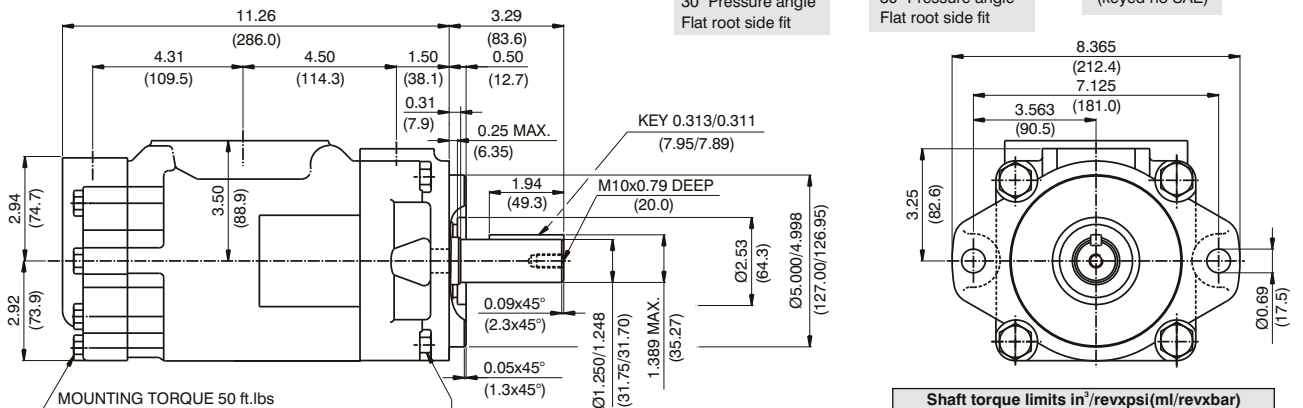
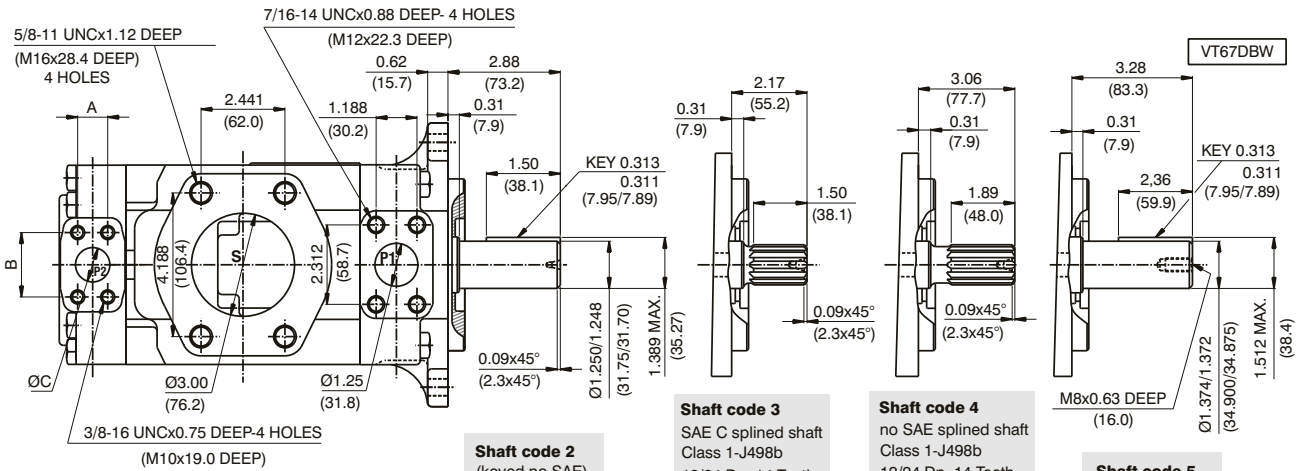
Total hydromechanical power loss is the sum of each section at its operating conditions.

PERMISSIBLE RADIAL LOAD



Maximum permissible axial load $F_a = 1200 \text{ N (270 Lbs)}$

HIGH PERFORMANCE VANE PUMP VT67DC



Shaft torque limits in ³ /revxpsi(ml/revxbar)	
Shaft	Vp x p max. (P1+P2)
1	38299 (43240)
2	30638 (34590)
3	54207 (61200)
4	54207 (61200)
5	49247 (55600)

Alternate connect. variables		
	00 & M0	11 & M1
A	1.031 (26.2)	0.874 (22.2)
B	2.06 (52.4)	1.874 (47.6)
C	1.00 (25.4)	0.75 (19.05)

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

Pressure port	Series	Volumetric Displacement Vp		Flow q & n = 1800 rpm						Input power p & n = 1800 rpm					
		in ³ /rev		p = 0 bar (0 psi)		p = 140 bar (2000 psi)		p = 250 bar (3630 psi)		p = 7 bar (100psi)		p = 140 bar (2000 psi)		p = 250 bar (3630 psi)	
		cm ³ /rev	gpm	lpm	gpm	lpm	gpm	lpm	gpm	lpm	hp	kw	hp	kw	hp
P1	B14	2.68	43.9	20.92	79.1	19.18	72.5	17.81	67.3	3.46	2.6	27.77	20.7	47.03	35.07
	B17	3.36	55.0	26.16	98.8	24.41	92.3	23.04	87.0	3.77	2.8	33.88	25.3	57.71	43.03
	B20	4.03	66.0	31.39	118.6	29.64	112.0	28.27	106.8	4.07	3.0	39.98	29.8	68.39	50.99
	B22	4.29	70.3	33.43	126.4	31.69	119.8	30.32	104.6	4.19	3.1	42.37	31.6	72.57	54.11
	B24	4.95	81.1	38.57	145.8	36.82	139.2	35.45	134.0	4.49	3.4	48.36	36.1	83.06	61.93
	B28	5.49	89.9	42.80	161.8	41.06	155.2	39.69	150.0	4.74	3.5	53.30	39.7	91.70	68.38
	B31	6.05	99.1	47.18	178.3	45.43	171.7	44.06	166.5	4.99	3.7	58.41	43.6	100.63	75.03
	B35	6.92	113.4	53.93	203.9	52.18	197.2	50.81	192.0	5.39	4.0	66.29	49.4	114.42	85.32
	B38	7.36	120.6	57.35	216.8	55.61	210.2	54.24	204.9	5.59	4.2	70.28	52.4	121.42	90.54
	B42	8.39	137.5	65.39	247.2	63.65	240.6	62.28	235.4	6.05	4.5	79.66	59.4	137.83	102.77
	045	8.89	145.7	69.29	262.0	67.11	253.6	65.31	246.8	6.74	5.0	83.75	62.4	145.79	108.71
	050	9.64	157.9	75.14	284.0	72.96	275.8	71.78 ¹⁾	271.3 ¹⁾	7.08	5.3	90.58	67.5	134.50 ¹⁾	100.3 ¹⁾
P2				p=0 bar (0 psi)	p=140 bar (2000 psi)	p=275 bar (4000 psi)	p=7 bar (100 psi)	p=140 bar (2000 psi)	p=275 bar (4000 psi)						
	003	0.66	10.8	5.14	19.6	3.85	14.6	--	--	2.11	1.57	8.45	6.30	--	--
	005	1.05	17.2	8.18	30.9	6.89	26.0	5.68	21.5	2.29	1.70	12.00	8.94	19.81	14.77
	006	1.30	21.3	10.13	38.3	8.84	33.4	7.63	28.8	2.40	1.78	14.28	10.64	23.79	17.74
	008	1.61	26.4	12.55	47.4	11.26	42.6	10.05	37.9	2.54	1.89	17.11	12.75	28.75	21.43
	010	2.08	34.1	16.22	61.3	14.93	56.4	13.71	51.8	2.76	2.06	21.38	15.94	36.22	27.00
	012	2.26	37.1	17.64	66.7	16.35	61.8	15.14	57.2	2.84	2.11	23.05	17.18	39.14	29.18
	014	2.81	46.0	21.88	82.7	20.59	77.8	19.37	73.2	3.09	2.30	27.99	20.87	47.78	35.62
	015	3.08	50.5	23.99	90.7	22.83	86.3	21.56	81.5	3.21	2.40	30.30	22.60	51.36	38.30
	017	3.56	58.3	27.73	104.8	26.44	99.9	25.22	95.3	3.43	2.55	34.81	25.95	59.73	44.54
	020	3.89	63.8	30.34	114.7	29.05	109.8	27.84	105.2	3.58	2.66	37.86	28.23	65.07	48.52
	022	4.29	70.3	33.43	126.4	32.14	121.5	30.93	116.9	3.76	2.80	41.47	30.92	71.38	53.22
	025	4.84	79.3	37.71	142.5	36.42	137.6	35.21	133.1	4.01	2.99	46.46	34.64	80.12	59.74
	028	5.42	88.8	42.23	159.6	40.94	154.7	40.32 ²⁾	152.4 ²⁾	4.27	3.18	51.74	38.58	76.73 ²⁾	57.22 ²⁾
	031	6.10	100.0	47.56	179.7	46.27	174.9	45.65 ²⁾	172.5 ²⁾	4.58	3.41	57.95	43.21	86.06 ²⁾	64.17 ²⁾

- Not recommended to use as the internal leakage is over 50% of theoretical flow.

1) 050 = 210 bar (3000 psi) max. int 2) 028 - 031 = 210 bar (3000 psi) max.int