



# Industrial Hydraulic Pumps T67DCC

Denison Vane Technology, fixed displacement

## Hydraulic Pumps

- Hydraulic Motors
- Hydraulic Valves
- Hydraulic Cylinders
- Hydraulic Filtration
- Hydraulic Accumulators



ENGINEERING YOUR SUCCESS.



**Model No.**

**T67DCC - B38 - 028 - 010 - 1 R 00 - A 1 - M1 - ..**

T67DCC series - SAE C 2 bolts  
Mounting flange J744

P1 P2 P3

**Displacement for "P1"**

Volumetric displacement (ml/rev)

B14 = 44,0 B31 = 99,2  
B17 = 55,0 B35 = 113,4  
B20 = 66,0 B38 = 120,6  
B22 = 70,3 B42 = 137,5  
B24 = 81,1 045 = 145,7  
B28 = 90,0 050 = 158,0

**Displacement for "P2" & P3**

Volumetric displacement (ml/rev)

003 = 10,8 017 = 58,3  
005 = 17,2 020 = 63,8  
006 = 21,3 022 = 70,3  
008 = 26,4 025 = 79,3  
010 = 34,1 028 = 88,8  
012 = 37,1 031 = 100,0  
014 = 46,0

**Type of shaft**

1 = keyed (non SAE)  
2 = keyed (SAE CC)  
3 = splined 12/24 (SAE C)  
4 = splined 12/24 (SAE CC)

**Modifications**

**Mounting w/connection variables**

4 bolts SAE flange J518  
P1 = 1"1/4 - P2 = 1" - S = 4"

	UNC	Metric
P3 = 1"	00	M0
P3 = 3/4"	01	M1

**Seal class**

1 = S1 (for mineral oil)  
4 = S4 (for the resistant fluid)  
5 = S5 (for mineral oil and fire resistant fluids)

**Design letter**

Porting combination (see page 62 - 63)  
00 = standard

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

R = Clockwise  
L = Counter-clockwise

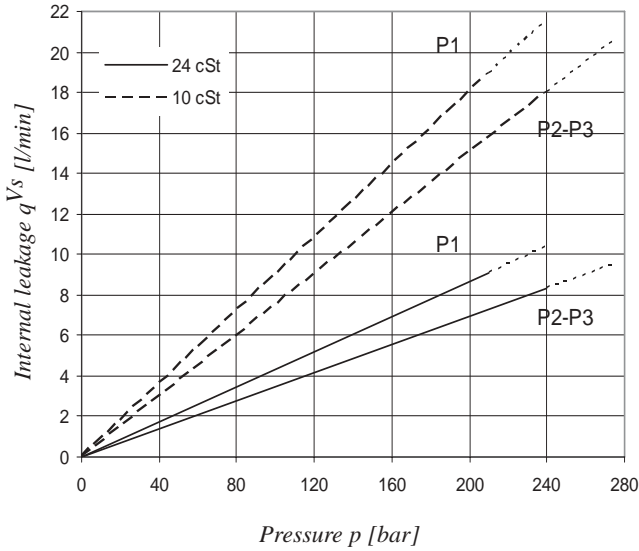
**OPERATING CHARACTERISTICS – TYPICAL [24 cSt]**

Pressure port	Series	Volumetric displacem. Vi	Flow q <sub>vc</sub> [l/min] & n = 1500 RPM			Input power P [kW] & n = 1500 RPM		
			p = 0 bar	p = 140 bar	p = 250 bar	p = 7 bar	p = 140 bar	p = 250 bar
P1	B14	44,0 ml/rev	66,0	59,4	54,6	1,5	16,6	29,1
	B17	55,0 ml/rev	82,5	76,4	71,9	1,7	20,4	35,8
	B20	66,0 ml/rev	99,0	93,3	88,5	1,9	24,2	42,7
	B22	70,3 ml/rev	105,4	99,5	94,6	2,0	25,7	45,4
	B24	81,1 ml/rev	121,6	115,4	110,1	2,2	29,6	52,2
	B28	90,0 ml/rev	135,0	128,6	123,6	2,3	32,6	57,7
	B31	99,2 ml/rev	148,8	142,1	137,5	2,5	35,9	63,4
	B35	113,4 ml/rev	170,1	162,9	157,9	2,9	41,2	72,9
	B38	120,6 ml/rev	180,9	174,5	170,4	2,9	43,4	76,8
	B42	137,5 ml/rev	206,2	199,6	195,9 <sup>1)</sup>	3,4	49,8	81,3 <sup>1)</sup>
045 <sup>3)</sup>	145,7 ml/rev	218,5	209,2	203,0	4,1	52,8	89,5	
050 <sup>3)</sup>	158,0 ml/rev	237,0	227,7	224,0 <sup>2)</sup>	4,4	57,0	85,0 <sup>2)</sup>	
			p = 0 bar	p = 140 bar	p = 275 bar	p = 7 bar	p = 140 bar	p = 275 bar
P2 & P3	003	10,8 ml/rev	16,2	11,2	-	1,3	5,3	-
	005	17,2 ml/rev	25,8	20,8	16,1	1,4	7,5	13,9
	006	21,3 ml/rev	31,9	26,9	22,2	1,5	8,9	16,8
	008	26,4 ml/rev	39,6	34,6	29,9	1,6	10,7	20,3
	010	34,1 ml/rev	51,1	46,1	41,4	1,7	13,4	25,6
	012	37,1 ml/rev	55,6	50,6	45,9	1,7	14,4	27,6
	014	46,0 ml/rev	69,0	64,0	59,3	1,9	17,6	33,7
	017	58,3 ml/rev	87,4	82,4	77,7	2,1	21,9	42,2
	020	63,8 ml/rev	95,7	90,7	86,0	2,2	23,8	46,0
	022	70,3 ml/rev	105,4	100,4	95,7	2,3	26,1	50,4
	025 <sup>4)</sup>	79,3 ml/rev	118,9	113,9	109,2	2,5	29,2	56,6
	028 <sup>4)</sup>	88,8 ml/rev	133,2	128,2	125,8 <sup>2)</sup>	2,8	32,7	48,5 <sup>2)</sup>
	031 <sup>4)</sup>	100,0 ml/rev	150,0	145,0	142,6 <sup>2)</sup>	2,8	36,5	54,4 <sup>2)</sup>

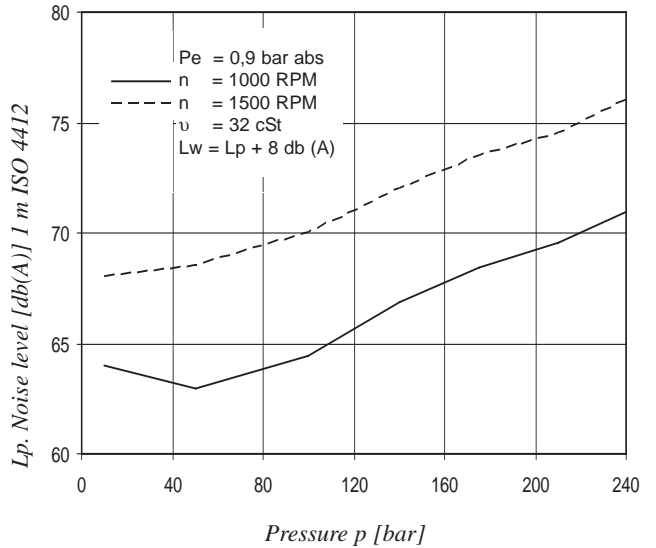
- We do not recommend to use this 003 at 275 bar & 1500 RPM as the internal leakage is over 50% of theoretical flow.

1) B42 = 230 bar max. int. 2) 050 - 028 - 031 = 210 bar max. int. 3) 045 - 050 = 2200 RPM max 4) 025 - 028 - 031 = 2500 RPM max.

INTERNAL LEAKAGE (TYPICAL)



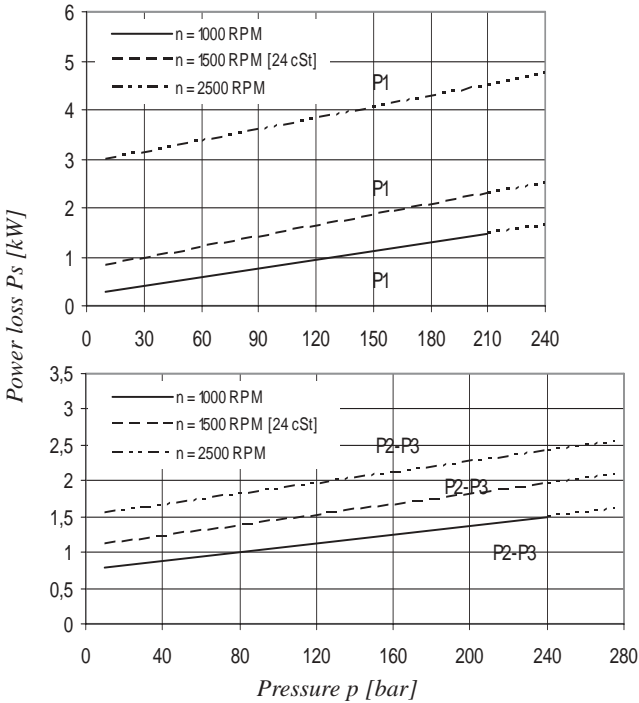
NOISE LEVEL (TYPICAL)  
T67DCC - B31 - 022 - 022



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

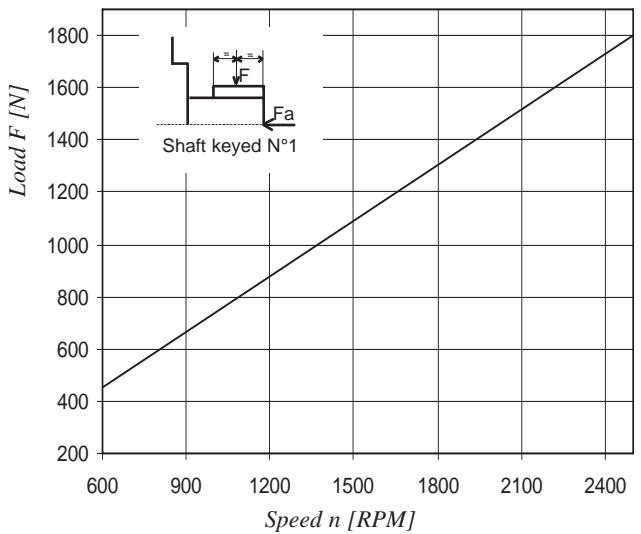
Triple pump noise level is given with each section discharging at the pressure noted on the curve.

HYDROMECHANICAL POWER LOSS (TYPICAL)

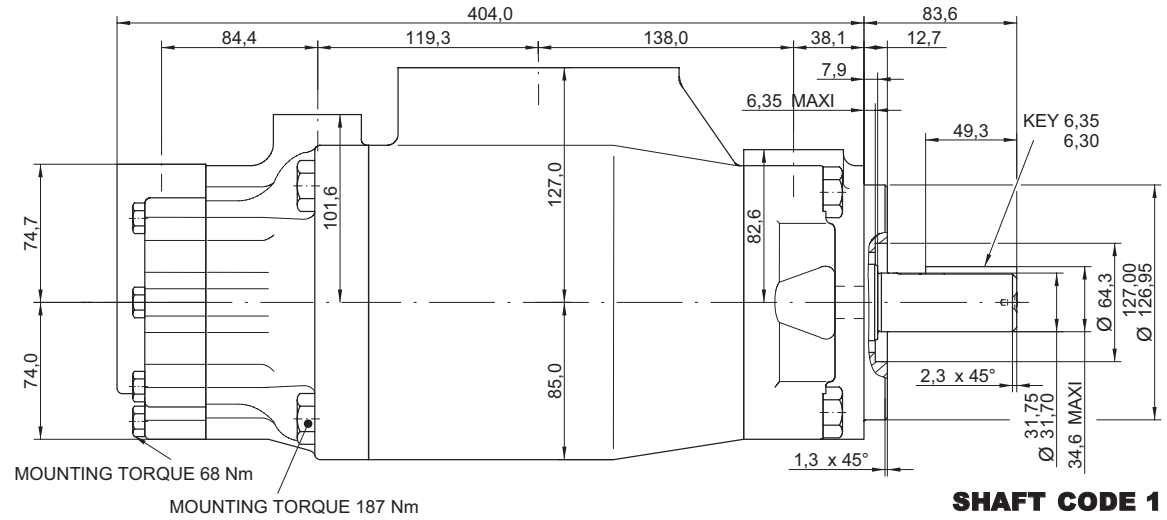
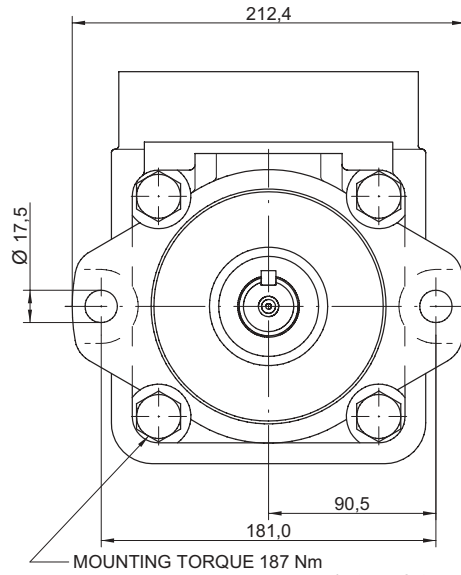


Total hydromechanical power loss is the sum of each section at its operating conditions.

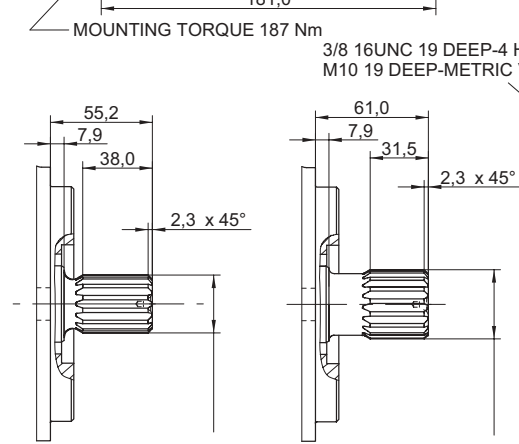
PERMISSIBLE RADIAL LOAD



Maximum permissible axial load  $F_a = 1200$  N



**SHAFT CODE 1**  
 (keyed SAE C)

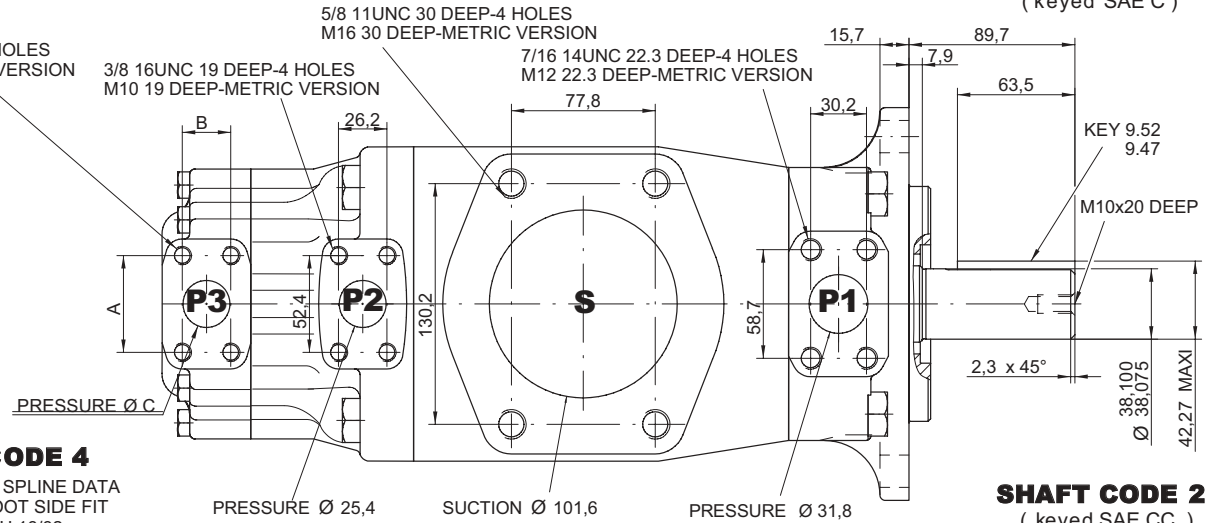


**SHAFT CODE 3**

SAE C INVOLUTE SPLINE DATA  
 CLASS 1-FLAT ROOT SIDE FIT  
 J498b - PITCH 12/24  
 14 TEETH - 30° PRESSURE ANGLE

**SHAFT CODE 4**

SAE CC INVOLUTE SPLINE DATA  
 CLASS 1-FLAT ROOT SIDE FIT  
 J498b - PITCH 16/32  
 17 TEETH - 30° PRESSURE ANGLE



**SHAFT CODE 2**  
 (keyed SAE CC)

Shaft torque limits [ml/rev. x bar]	
Shaft	Vi x p max. P1 + P2 + P3
1	43240
2	66500
3	61200
4	66500

	Alternate connect. variables	
	00 & M0	01 & M1
A	52,4	47,6
B	26,2	22,2
C	25,4	19,0