

## PVQ63 Piston Pumps – 40 Design

PVQ200 and PVQ700 Families

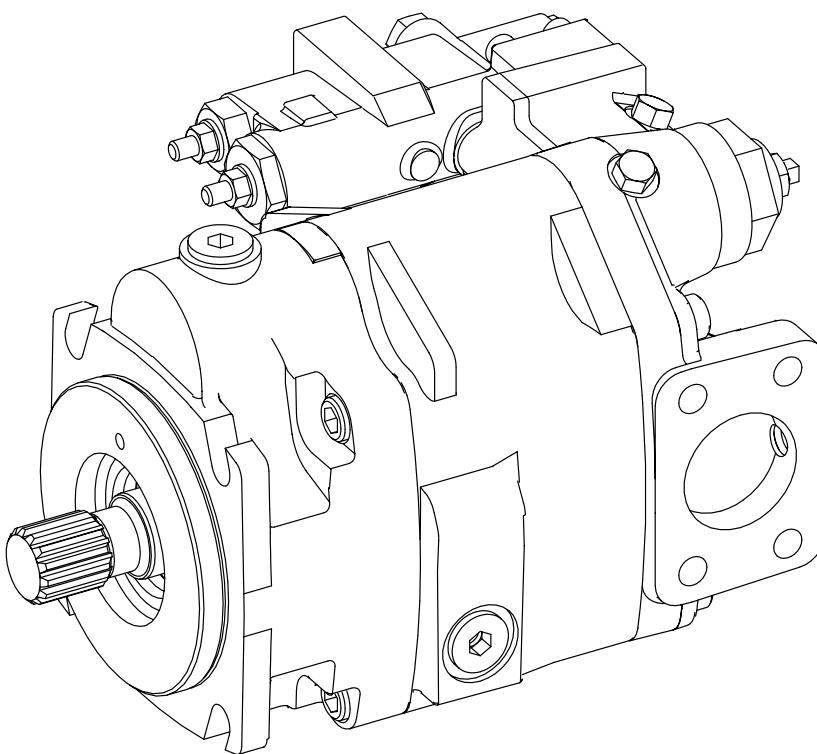


TABLE 1 – CONTROL KIT

| Model designation                 | 13        |
|-----------------------------------|-----------|
| PVQ63***_*_*_*_*-40-C**_31        | 02-125160 |
| PVQ63***_*_*_*_*-40-CM**_31       | 02-125162 |
| PVQ63***_*_*F*_*-40-C**V**P-31    | 02-346305 |
| PVQ63***_*_*F*_*-40-CM**V**P-31   | -         |
| PVQ63***_*_*F*_*-40-C**V**B-31    | 02-346306 |
| PVQ63***_*_*F*_*-40-CM**V**B-31   | -         |
| PVQ63***_*_*M*_*-40-C**V**P-31    | 02-346307 |
| PVQ63***_*_*M*_*-40-CM**V**P-31   | -         |
| PVQ63***_*_*M*_*-40-C**V**B-31    | 02-347730 |
| PVQ63***_*_*M*_*-40-CM**V**B-31   | 02-347729 |
| PVQ63***_*_*F*_*-40-C**VC**P-31   | 02-125161 |
| PVQ63***_*_*F*_*-40-CM**VC**P-31  | 02-306056 |
| PVQ63***_*_*F*_*-40-C**VC**B-31   | 02-160591 |
| PVQ63***_*_*F*_*-40-CM**VC**B-31  | -         |
| PVQ63***_*_*M*_**_40-C**VC**P-31  | 02-346308 |
| PVQ63***_*_*M*_**_40-CM**VC**P-31 | -         |
| PVQ63***_*_*M*_**_40-C**VC**B-31  | 02-347727 |
| PVQ63***_*_*M*_**_40-CM**VC**B-31 | 02-347728 |

TABLE 2 – VALVE BLOCK (NON THRU DRIVE)

| Model designation | 11     |
|-------------------|--------|
| PVQ63**R-*_-NFS   | 934088 |
| PVQ63**R-*_-NMS   | 937208 |
| PVQ63**L-*_-NFS   | 937209 |
| PVQ63**L-*_-NMS   | 937210 |
| PVQ63**R-*_-NFE   | 937211 |
| PVQ63**R-*_-NME   | 937248 |
| PVQ63**R-*_-NSE   | 937375 |
| PVQ63**R-*_-NDE   | 937376 |
| PVQ63**L-*_-NFE   | 934236 |
| PVQ63**L-*_-NME   | 937213 |
| PVQ63**L-*_-NSE   | 937377 |
| PVQ63**L-*_-NDE   | 937144 |

TABLE 3 – VALVE PLATE

| Model designation | 21     |
|-------------------|--------|
| PVQ63*ER          | 943973 |
| PVQ63*MR          | 943974 |
| PVQ63*EL          | 943975 |
| PVQ63*ML          | 943976 |

TABLE 4 – HOUSING, DRAIN PLUGS AND O-RINGS

| Model designation | 16     | 17     | 18     |
|-------------------|--------|--------|--------|
| PVQ63***_*_*F     | 934090 | 320137 | 396100 |
| PVQ63***_*_*S     | 934090 | 320137 | 396100 |
| PVQ63***_*_*M     | 934599 | 737300 | 932751 |
| PVQ63***_*_*D     | 934599 | 737300 | 932751 |

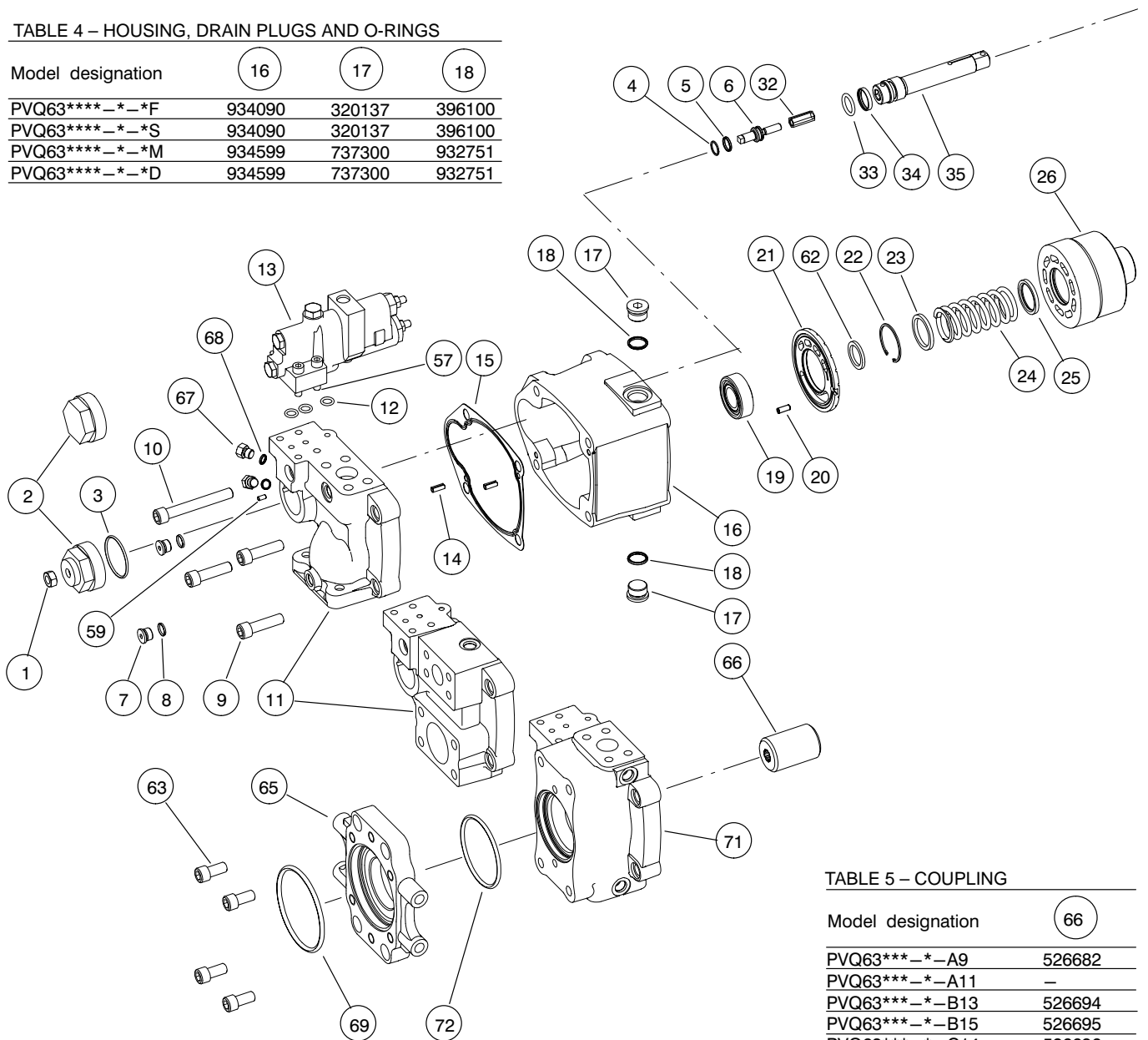


TABLE 5 – COUPLING

| Model designation | 66     |
|-------------------|--------|
| PVQ63***_*_-A9    | 526682 |
| PVQ63***_*_-A11   | -      |
| PVQ63***_*_-B13   | 526694 |
| PVQ63***_*_-B15   | 526695 |
| PVQ63***_*_-C14   | 526696 |
| PVQ63***_*_-MA    | -      |
| PVQ63***_*_-MB    | -      |
| PVQ63***_*_-MC    | -      |

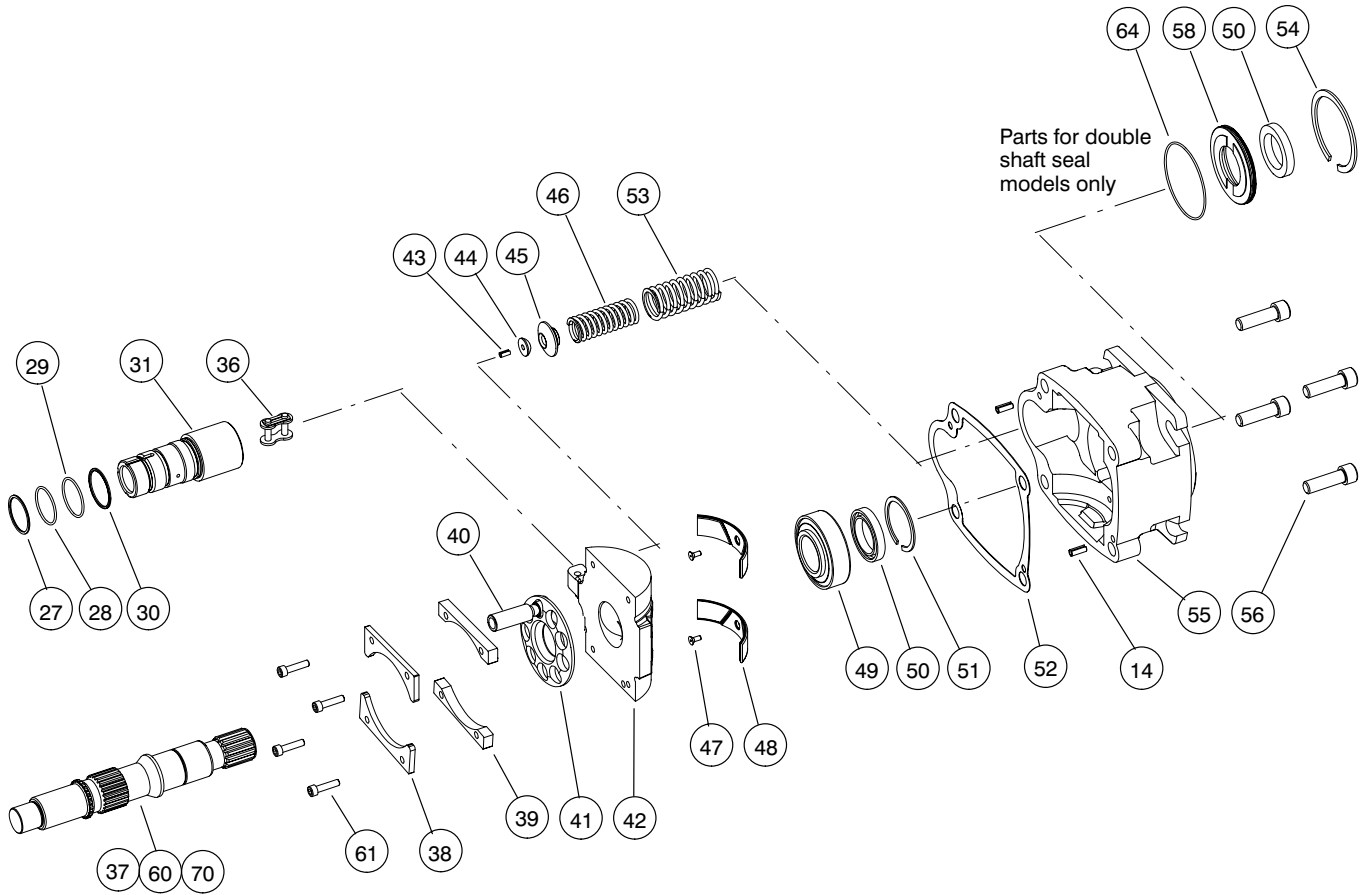


TABLE 6 – MOUNTING FLANGE

| Model designation  | 55     |
|--------------------|--------|
| PVQ63B2**-*F**N/S  | 934159 |
| PVQ63B2**-*S**N/S  | 934159 |
| PVQ63B2**-*F/S**D  | 937286 |
| PVQ63B2**-*M**N/S  | 937323 |
| PVQ63B2**-*D**N/S  | 937323 |
| PVQ63B2**-*M/D**D  | 937324 |
| PVQ63MB2**-*M**N/S | 937287 |
| PVQ63MB2**-*D**N/S | 937287 |
| PVQ63MB2**-*M/D**D | 937288 |
| PVQ63C2**-*F**N/S  | 937278 |
| PVQ63C2**-*S**N/S  | 937278 |
| PVQ63C2**-*F/S**D  | 937289 |
| PVQ63C2**-*M**N/S  | 937325 |
| PVQ63C2**-*D**N/S  | 937325 |
| PVQ63C2**-*M/D**D  | 937326 |
| PVQ63MC2**-*M**N/S | 937290 |
| PVQ63MC2**-*D**N/S | 937290 |
| PVQ63MC2**-*M/D**D | 937291 |
| PVQ63C4**-*F**N/S  | 934087 |
| PVQ63C4**-*S**N/S  | 934087 |
| PVQ63C4**-*F/S**D  | 934417 |
| PVQ63C4**-*M**N/S  | 937327 |
| PVQ63C4**-*D**N/S  | 937327 |
| PVQ63C4**-*M/D**D  | 937328 |
| PVQ63MC4**-*M**N/S | 937001 |
| PVQ63MC4**-*D**N/S | 937001 |
| PVQ63MC4**-*M/D**D | 937002 |

TABLE 7 – THRU DRIVE VALVE BLOCK, ADAPTER, AND O-RINGS

| Model designation  | 65     | 69     | 71     | 72     |
|--------------------|--------|--------|--------|--------|
| PVQ63***R**-*A*FS  | None   | None   | 934251 | 576601 |
| PVQ63***R**-*B*FS  | 934296 | 401525 | 934251 | 576601 |
| PVQ63***R**-*C*FS  | 934298 | 353264 | 934251 | 576601 |
| PVQ63***R**-*A*MS  | None   | None   | 937257 | 576601 |
| PVQ63***R**-*B*MS  | 934567 | 401525 | 937257 | 576601 |
| PVQ63***R**-*C*MS  | 934569 | 353264 | 937257 | 576601 |
| PVQ63***R**-*MB*MS | 934568 | 401525 | 937257 | 943809 |
| PVQ63***R**-*MC*MS | 934570 | 353264 | 937257 | 943809 |
| PVQ63***R**-*MA*MS | None   | None   | 937378 | 943809 |
| PVQ63***L**-*A*FS  | None   | None   | 937258 | 576601 |
| PVQ63***L**-*B*FS  | 934296 | 401525 | 937258 | 576601 |
| PVQ63***L**-*C*FS  | 934298 | 353264 | 937258 | 576601 |
| PVQ63***L**-*A*MS  | None   | None   | 937259 | 576601 |
| PVQ63***L**-*B*MS  | 934567 | 401525 | 937259 | 576601 |
| PVQ63***L**-*C*MS  | 934569 | 353264 | 937259 | 576601 |
| PVQ63***L**-*MB*MS | 934568 | 401525 | 937259 | 943809 |
| PVQ63***L**-*MC*MS | 934570 | 353264 | 937259 | 943809 |
| PVQ63***L**-*MA*MS | None   | None   | 937379 | 943809 |

TABLE 8 – SHAFT/KEY

| Model designation   | 37     | 60     | 70     |
|---------------------|--------|--------|--------|
| PVQ63***-*_*_*_*-1  | 937008 | 937380 | 114516 |
| PVQ63***-*_*_*_*-3  | 934338 | 937051 | -      |
| PVQ63***-*_*_*_*-6  | 937011 | 937382 | 58303  |
| PVQ63***-*_*_*_*-7  | 934574 | 937383 | -      |
| PVQ63***-*_*_*_*-8  | 937009 | 937384 | -      |
| PVQ63***-*_*_*_*-N1 | 937050 | 937385 | 944106 |
| PVQ63***-*_*_*_*-N3 | 937044 | 939386 | 944107 |

| Item | Part no.        | Description              |
|------|-----------------|--------------------------|
| 1    | 470681          | Jam nut                  |
| 2    | 943930          | Cap (S stop)             |
|      | 934051          | Cap (F stop)             |
| 3    | 934580          | s O-ring                 |
| 4    | 197573          | s Backup ring            |
| 5    | 262335          | s O-ring                 |
| 6    | 943985          | Adjustment screw         |
| 7    | 315932 (2)      | SAE gage port plug       |
|      | 937297 (2)      | ISO gage port plug       |
| 8    | 396096 (2)      | s SAE O-ring             |
|      | 932747 (2)      | s ISO O-ring             |
| 9    | 473804 (3)      | Screw                    |
| 10   | 473813          | Screw                    |
| 11   | See table 2     | Valve block              |
| 12   | 177969 (3)      | s□ O-ring                |
| 13   | See table 1     | Control S/A              |
| 14   | 179339 (4)      | Pin                      |
| 15   | 934444          | s Gasket                 |
| 16   | See table 4     | Housing                  |
| 17   | See table 4 (2) | Drain plug               |
| 18   | See table 4 (2) | s O-ring                 |
| 19   | 02-328741       | ■ Bearing                |
| 20   | 248935          | Pin                      |
| 21   | See table 3     | Valve plate              |
| 22   | 85560           | ● Retaining ring         |
| 23   | 584524          | ● Spring guide           |
| 24   | 627524          | ● Spring                 |
| 25   | 680624          | ● Spring guide           |
| 26   | 934553          | ● Cylinder block         |
| 27   | 937216          | s Backup ring            |
| 28   | 262365          | s O-ring                 |
| 29   | 262366          | s O-ring                 |
| 30   | 937217          | s Backup ring            |
| 31   | 934053          | Control sleeve           |
| 32   | 937407          | Hex. nut                 |
| 33   | 262390          | s O-ring                 |
| 34   | 934489          | s Glide ring             |
| 35   | 934052          | Control piston           |
| 36   | 934493          | Chain link               |
| 37   | See table 8     | Non thru drive shaft     |
| 38   | 690218 (2)      | ● Limiter plate          |
| 39   | 690801 (2)      | ● Spacer                 |
| 40   | 02-306363 (9)   | ● Piston & shoes S/A     |
| 41   | 860754          | ● Shoe cage              |
| 42   | 934086          | * Yoke                   |
| 43   | 226816          | * Pin                    |
| 44   | 409998          | Button                   |
| 45   | 934429          | * Seat                   |
| 46   | 937489          | Spring                   |
| 47   | 690339 (2)      | * Screw                  |
| 48   | 943984 (2)      | * Saddle bearing         |
| 49   | 02-334757       | ■ Bearing                |
| 50   | 513439          | s△○ Shaft seal           |
| 51   | 103824          | s△○ Retaining ring       |
| 52   | 934445          | s Gasket                 |
| 53   | 937488          | Spring                   |
| 54   | 119787          | s○ Retaining ring        |
| 55   | See table 6     | Flange                   |
| 56   | 473803 (4)      | Screw                    |
| 57   | 473765 (4)      | □ Screw                  |
| 58   | 934058          | Shaft sleeve             |
| 59   | 248865          | Pin                      |
| 60   | See table 8     | Thru drive shaft         |
| 61   | 473741 (4)      | ● Screw                  |
| 62   | 02-346221       | ⊞ Shaft spacer kit       |
| 63   | 473800 (4)      | Screw                    |
| 64   | 944108          | s○ O-ring                |
| 65   | See table 7     | Thru drive adapter       |
| 66   | See table 5     | Coupling                 |
| 67   | 189087 (2)      | Plug                     |
| 68   | 396094 (2)      | s O-ring                 |
| 69   | See table 7     | Adapter o-ring           |
| 70   | See table 8     | Shaft key                |
| 71   | See table 7     | s Thru drive valve block |
| 72   | See table 7     | Valve block o-ring       |

| Item | Torque values                |
|------|------------------------------|
| 1    | 18–24 Nm (13.3–17.8 ft-lb)   |
| 2    | 260–300 Nm (192.4–222 ft-lb) |
| 7    | 29–32 Nm (21.5–23.7 ft-lb)   |
| 9    | 103–127 Nm (76.2–94 ft-lb)   |
| 10   | 103–127 Nm (76.2–94 ft-lb)   |
| 17   | 75–83 Nm (55.5–61.4 ft-lb)   |
| 47   | 3,6–4,4 Nm (2,7–3,3 ft-lb)   |
| 56   | 103–127 Nm (76.2–94 ft-lb)   |
| 57   | 31–37 Nm (23–27,4 ft-lb)     |
| 61   | 12,9–14,9 Nm (9,6–11 ft-lb)  |
| 63   | 103–127 Nm (76.2–94 ft-lb)   |
| 67   | 15-16 Nm (11.1-11.8 ft-lb)   |

□ Available in control kit, table 1.

s Available in seal kit 02-346217.

● Available in rotating group kit 02-346224.

\* Available in yoke and saddle bearing kit 02-346219.

■ Available in shaft bearing kit 02-346220.

△ Available in single shaft seal kit 02-346222.

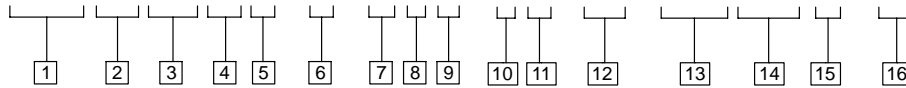
○ Equivalent double shaft seal kit 02-346223.

⊞ Seat bearing cone against shoulder.

⊞ Contains spacers 681854 thru 681870. Shim as required to obtain 0,01 to 0,10 mm (0.00039 to 0.0039 in.) axial shaft end play.

# Model Code

**PVQ 63 B2 E R - S - N F S - 1 S - 40 - C23 V11 B - 31**



**1 Pump series**

**2 Maximum geometric displacement**

63,1 cm<sup>3</sup>/ (3.85 in<sup>3</sup>/r)

**3 Mounting flange**

B2 – SAE J744-101-2 (B, 2-bolt)  
 MB2 – ISO 3019/2-100A2HW  
 C2 – SAE J744-127-2 (C, 2-bolt)  
 MC2 – ISO 3019/2-125A2HW  
 C4 – SAE J744-127-4 (C, 4-bolt)  
 MC4 – ISO 3019/2-125B4HW

**4 Speed rating**

E – Electric motor speeds,  
 1800 r/min max. (PVQ200 Family)  
 M – Mobile equipment speeds at zero  
 inlet (PVQ700 Family)

**5 Rotation viewed from shaft end**

R – Right hand (clockwise)  
 L – Left hand (counterclockwise)

**6 Adjustable maximum displacement stop**

S – With stop  
 F – Without stop

**7 Thru-drive Options**

N – Single pump, non-thru-drive  
 A9 – SAE A, 2-bolt, 9T spline  
 B13 – SAE B, 2/4-bolt, 13T spline  
 B15 – SAE B-B, 2-/4-bolt, 15T spline  
 C14 – SAE C, 2-/4-bolt, 14T spline  
 MA9 – ISO 80-A2HW, 9T SAE spline  
 MB13 – ISO 100-A2/B4HW, 13T SAE spline  
 MB15 – ISO 100-A2/B4HW, 15T SAE spline  
 MC14 – ISO 125-A2/B4HW, 14T SAE spline

**8 Main port options**

S – SAE J514 tube ports  
 F – SAE J518 flange ports  
 D – ISO 6149-1 tube ports  
 M – ISO 6162 flange ports

**9 Main port locations**

E – End  
 S – Sides

**10 Shaft end type**

1 – SAE J744-32-1, SAE C, Str. Key  
 3 – SAE J744-32-4, SAE C, 14T spline  
 6 – SAE J744-25-1, SAE B-B, Str. Key  
 7 – SAE J744-22-4, SAE B, 13T spline  
 8 – SAE J744-25-4, SAE B-B, 15T spline  
 N1 – ISO 3019/2 E32N, Str. Key, short spigot  
 N3 – ISO 3019/2 E25N, Str. Key, short spigot

**11 Shaft seal at prime mover end**

S – Single shaft seal, one way  
 D – Double shaft seal, two way  
 N – No shaft seal

**12 Pump design number**

**13 Pump control options**

C\*\* – Pressure compensator; 100–230 bar (1500–3300 psi). Asterisks denote maximum pressure setting in tens of bar. “C23” – 230 bar (3300 psi) – is standard.  
 CM\*\* – Pressure compensator; 20–100 bar (300–1500 psi). Asterisks denote maximum pressure setting in tens of bar. “CM7” – 70 bar (1000 psi) – is standard.

**14 Additional control functions**

Blank – No additional control functions.  
 V\*\* – Load sensing control. 6–14 bar (90–200 psi). Asterisks denote differential setting in bar. “V11” is standard 11 bar (160 psi) factory setting.  
 VC\*\* – High differential spring. 15–25 bar (218–363 psi). “VC20” is standard 20 bar (300 psi) factory setting.

**15 Bleed down orifice option for load sense control**

B – Bleed-down orifice installed in control.  
 P – Orifice plugged. No bleed-down in control.

**16 Control design number**