V series piston pump

Features

- **Low noise**
  - ○ Realized low noise operation in overall pressure area on each series.
- **High efficiency**
  - ○ Oil temperature rise can be reduced due to the less power-loss. Accordingly, it is possible to design the tank in small size.
- **High reliability**
  - ○ High response, high stability, and long life make it possible to increase the reliability of the main machine.

Nomenclature

- **Pressure compensator control**

*	-	V	**	A	*	*	*	-	**	**
1		2	3	4	5	12	15		16	17

- **Combination control (Self pressure method)**

*	-	V	**	C	*	*	R	H	X	-	**	**
1		2	3	4	7	8	12	13	15		16	17

- **Combination control(Solenoid operated method)**

*	-	V	**	C	*	*	R	J	*	X	-	**	**
1		2	3	4	7	8	12	13	14	15		16	17

- **Dual pressure control**

*	-	V	**	D	*	*	R	*	X	-	**	**
1		2	3	4	9	10	12	14	15		16	17

- **Power-match control**

*	-	V	**	SA	*	*	*	*	-	**
1		2	3	4	6	11	12	15		16

(1) Nomenclature of applied fluid (refer to page 1 for the applied models)
No mark : Working oil with petroleum contents
W : Working oil with water/glycol
F : Working oil with phosphoric acid ester

(2) Model No.
V : V series piston pump

(3) Displacement volume
8 : 8.0cm³/rev
15 : 14.8cm³/rev
23 : 23.0cm³/rev
38 : 37.7cm³/rev
50 : 51.6cm³/rev
70 : 69.8cm³/rev

(4) Control method I (refer to page 1 for the applied models)
A : Pressure compensator control
C : Combination control
D : Dual pressure control
SA : Power match control

(5)(6) Pressure adjusting range
(refer to the pressure adjusting range table)

(7)(9) Low pressure adjusting range
(refer to the pressure adjusting range table)

(8)(10) High pressure adjusting range
(refer to the pressure adjusting table)

(11) FC valve pressure differential
A : 0.7MPa {7kgf/cm²}
B : 1.4MPa {14kgf/cm²}
C : 2.1MPa {21kgf/cm²}

(12) Direction of the rotation from the view of the shaft end (refer to page 1 for the applied models)
R : Clockwise (rightward)
L : Counterclockwise (leftward)
* Impossible to exchange “clockwise” to “counterclockwise”.

(13) Control method II
H : Self pressure method
J : Solenoid operated method

(14) Voltage for the solenoid operated valve
A : AC100V (50/60Hz), AC110V (60Hz)
B : AC200V (50/60Hz), AC220V (60Hz)
N : DC12V
P : DC24V

(15) Piping direction (refer to page 1 for the applied models)
No mark : Axial port
X : Side port

(16) Design number (the design number is subject to change)
20 : Pump model No. V8, V50
95 : Pump model No. V15, V38
30 : Pump model No. V23
<In case that the control method is A, CH, or SA>
35 : Pump model No. V23
<In case that the control method I is CJ or D>
60 : Pump model No. V70

(17) Control method III
No mark : Without remote control system
RC : With remote control system

Pressure adjusting range table

● Pressure compensator control

(5) Pressure adjusting range

Mark	Pressure adjusting range MPa {kgf/cm²}	Without remote controller system						With remote controller system				
		V8	V15	V23	V38	V50	V70	V15	V23	V38	V50	V70
1	0.8~7 {8~70}	○	○	○	○	—	—	—	—	—	—	—
1	1.5~7 {15~70}	—	—	—	—	○	○	—	—	—	—	—
2	1.5~14 {15~140}	—	○	○	○	○	○	—	—	—	—	—
3	1.5~21 {15~210}	—	—	—	—	—	—	○	○	○	—	—
3	2~21 {20~210}	—	—	—	—	—	—	—	—	—	○	○
3	3.5~21 {35~210}	—	○	○	○	○	○	—	—	—	—	—
4	1.5~25 {15~250}	—	—	—	—	—	—	—	○	○	—	—
4	3.5~25 {35~250}	—	—	○	○	—	—	—	—	—	—	—

● Combination control

(7) Low pressure adjusting range

Mark	Pressure adjusting range MPa {kgf/cm²}	Self pressure method				Solenoid operated valve method		
		V15	V23	V38	V70	V15	V23	V38
1	1.5~7 {15~70}	—	—	—	○	○	○	○
1	2.5~7 {25~70)	○	○	○	—	—	—	—
2	1.5~14 {15~140}	—	—	—	○	○	○	○
2	2.5~14 {25~140}	○	○	○	—	—	—	—

(8) High pressure adjusting range

Mark	Pressure adjusting range MPa {kgf/cm²}	Self pressure method				Solenoid operated valve method		
		V15	V23	V38	V70	V15	V23	V38
1	1.5~7 {15~70}	—	—	—	○	○	○	○
1	2.5~7 {25~70}	○	○	○	—	—	—	—
2	1.5~14 {15~140}	—	—	—	○	○	○	○
2	2.5~14 {25~140}	○	○	○	—	—	—	—
3	3.5~21 {35~210}	○	○	○	○	○	○	○
4	3.5~25 {35~250}	—	○	○	—	—	○	○

● Dual pressure control

(9) Low pressure adjusting range

Mark	Pressure adjusting range MPa {kgf/cm²}	V15	V23	V38
1	1.5~7 {15~70}	○	○	○
2	1.5~14 {15~140}	○	○	○

Note) If both low and high pressure adjusting range are the pattern 1, the addjusting pressure range becomes 0.8~7MPa {8~70kgf/cm²}.

(10) High pressure adjusting range

Mark	Pressure adjusting range MPa {kgf/cm²}	V15	V23	V38
1	1.5~7 {15~70}	○	○	○
2	1.5~14 {15~140}	○	○	○
3	3.5~21 {35~210}	○	○	○
4	3.5~25 {35~250}	—	○	○

● Power match control

(6) Pressure adjusting range

Mark	Pressure adjusting range MPa {kgf/cm²}	V15	V23	V38	V50	V70
1	0.8~7 {8~70}	○	○	○	—	—
1	1.5~7 {15~70}	—	—	—	○	○
2	1.5~14 {15~140}	○	○	○	○	○
3	3.5~21 {35~210}	○	○	○	○	○
4	3.5~25 {35~250}	—	○	○	—	—

Nomenclature

*	-	V	**	SAJS	-	*	*	X	-	**
1		2	3	4		5	6	7		8

(1) Fluid mark applied
No mark : Working oil with petroleum contents
W : Working oil with water/glycol

(2) Model No.
V : V series piston pump

(3) Displacement volume
23 : 23.0cm³/rev
38 : 37.7cm³/rev
50 : 51.6cm³/rev
70 : 69.8cm³/rev

(4) Control method
SAJS : Power match control

(5) Pressure adjusting range
A :*~14 MPa {140kgf/cm²}
B :*~17.5 MPa {175kgf/cm²}
C :*~21 MPa {210kgf/cm²}
* The lowest adjusting pressure is different from model by model.

(6) Direction of the rotation from the view of the shaft end (refer to page 1 for the applied models)
R : Clockwise (rightward)
L : Counterclockwise (leftward)

(7) Piping direction
X : Side port

(8) Design number (the design number is subject to change)
30 : Model No. V23
95 : Model No. V38
20 : Model No. V50
60 : Model No. V70

*	-	V	15	A	1	R	Y	-	95
1		2	3	4	5	6	7		8

(1) Nomenclature of applied fluid (refer to page 1 for the models applied)
No mark : Working oil with petroleum contents
W : Working oil with water/glycol
F : Working oil with phosphoric acid ester

(2) Model No.
V : V series piston pump

(3) Displacement volume
15 : 14.8cm³/rev

(4) Control method
A : Pressure compensation control

(5) Pressure adjusting range
1 : 0.8~7MPa {8~70kgf/cm²}

(6) Direction of the rotation (from the view of the shaft end)
R : Clockwise (rightward)

(7) Piping connection
Y : Suction connection : Flange
Discharge connection : Taper screw for tube use

(8) Design number (the design number is subject to change)

Specifications

Model No.	Theoretical displacement cm³/rev	Operating pressure MPa {kgf/cm²}		Permissible rotation speed min⁻¹	Displacement adjusting range 1800min⁻¹ L/min	Weight (with control method A) kg	
		Max.	Rating			Axial port	Side port
V8	8.0	7 {70}	7 {70}	500~1800	4~14.4	—	8.9
V15	14.8	21 {210}	14 {140}	500~1800	5.6~26.6	12.8	14.5
V15 (Y type)	14.8	7 {70}	7 {70}	500~1800	5.6~26.6	13.5	
V23	23.0	25 {250}	17.5 {175}	500~1800	11~41.4	18.4	21.5
V38	37.7	25 {250}	17.5 {175}	500~1800	28~68	24.4	26
V50	51.6	21 {210}	14 {140}	500~1800	0~93	—	50
V70	69.8	21 {210}	14 {140}	500~1800	20~126	—	55

Note) JR-G(T)02 and JRP-G02 are recommended for the relief valve of the remote control system.
When the vent port is blocked, the pressure compensation structure doesn't work, and it comes to be a fixed pump state.
●Since foot is not attached to the pump, you might order it separately in at your use.