



# Daikin V series Axial Variable Volume Piston Pump



Nominal pressure 175 bar, peak pressure 280 bar

**Feature:**

1. Combining special internal designs and strict engineering disciplines has reduced noise level to new lows in whole pressure zones.
2. Depending on variety of application needs multiple optional unique control methods are available. It does not only reduce a number of unnecessary hoses, pipes and control valves but also increase efficiency and save horsepower and cost.
3. Less capacity reservoirs can be selected and applied because of performances of low pressure loss and less head generation.
4. Wide application ranges: it is very suitable for machine tools, plastic injection molding machines, forging machines and other industrial machines etc..
5. Mounting flanges are made to SAE A or B 2-bolt (V15, 18, 23, 38 types) and SAE-C 2 & 4-bolt (V50, V70 types).

## Specifications:

Model	Max.Pressure kgf/cm <sup>2</sup> (psi)	Displacement cc/rev (in <sup>3</sup> /rev)	Displacement Under Unloading Conditions		Pressure Adj. Range kgf / cm <sup>2</sup> (psi)	InputSpeed Range		Weight kg(lb)
			1500rpm	1800rpm		Min	Max	
V15A	250(3500)	15(0.90)	22.5(5.78)	27.0(7.05)	A1:8~70(115~1000) A2:15~140(210~2000) A3:20~210(280~3000) A4:20~250(280~3500)	500	1800	13 (28.6)
V18A	250(3500)	17.8(1.09)	26.7(7.05)	32.0(8.45)				13 (28.6)
V23A	250(3500)	23.0(1.40)	35.4(9.11)	41.4(10.94)				22 (48.4)
V25A	210 (3000)	25.0 (1.52)	37.5(9.66)	45.0(11.6)				22 (48.4)
V38A	250(3500)	37.8(2.31)	56.7(14.98)	68.0(17.96)				26 (57.2)
V42A	210 (3000)	42.0(2.56)	63.0(16.23)	76.0(19.58)				26 (57.2)
V50A	210 (3000)	51.5(3.14)	77.2(20.37)	92.7(24.49)				55.0(121)
V70A	210 (3000)	69.7(4.25)	104.5(27.60)	125.4(33.13)				56.0(123.2)
V15A-V15A	250(3500)	15/15	22.5/22.5	27/27				28.5(62.7)
V23A-V23A	250(3500)	23.0/23	35.4/35.4	41.4/41.4				46.5(102.3)
V15A-V38A	250(3500)	15/37.8	22.5/34.5	27/68	41.5(91.3)			
V38A-V38A	250(3500)	37.8/37.8	56.7/56.7	68/68	54.5(119.4)			
V15A-V70A	210 (3000)	15/69.7	22.5/104.5	27/125.4	71.5(157.3)			
V38A-V70A	210 (3000)	37.8/69.7	56.7/104.5	68/125.4	87.5(186)			

## Handling:

**Cautions for selecting hydraulic oil:** \* In case hydraulic pressure is under 6.9MPa (70 krf/cm2), use hydraulic oil which is corresponding to ISO VG32-60 in viscosity grade or wear resisting hydraulic oil. \* In case hydraulic pressure is over 6.9MPa (70kgf//cm2), use wear resisting hydraulic oil which is corresponding to ISO VG32-68 in viscosity grade. \* In case the following oils are used, Fatty acid ester family Water+ Glycol family. Water-in-oil emulsion.

**Viscosity and oil temperature:** Oil viscosity ranging from 15mm2/s to 400mm2/s and oil temperature ranging from 0 C to 60 C are recommended.

**Alignment and installation of pumps:** \* Eccentricity between the driving shaft and pump shaft should be under 0.05 TIR, and operate the pump in such a way that the pump shaft is not subjected to orthogonal force. If centering between the driving shaft and pump shaft is incorrect, the bearing and oil seal may be damaged and noise and vibration may occur, which cause trouble with the pump. \* Avoid driving the pump in the lateral direction by belt, chain or gears. (This may cause noise and damage the bearing.) \* The pump can be operated with its shaft mounted perpendicularly.

**Piping work:** \* Use parallel thread pipe joints for the suction inlet and discharge outlet. Do not use taper thread piping joints, or air may intrude or abnormal noise be produced. \* In case where steel pipes are used, lay piping with care so as not to put force on the pump. \* Eccentricity of a pump being forced by piping may cause serious trouble with noise.

*For more information and technical data, please contact us.*

**Drain piping:** \*Lay the drain piping independently not joined with other return lines, in such a way that the pump internal pressure is under 0.04MPa (0.35kgf/cm2). \* Lay the oil return piping under the oil level of the tank and as far as possible from the suction piping.

**Cautions for starting:** \* Before starting the pump, fill the pump case with hydraulic oil using the case drain charging port on the pump body. \* Do not operate the pump at full speed right away. Instead, turn the motor input switch on - off several times so as to extract air from the piping, then operate it continuously. At the start, be sure to reduce the pressure or operate it unloaded.

**Revolution direction:** \* Shaft rotation is clockwise viewed from the end of pump shaft. In case reverse revolution is required, indicate it by Model No. at a time of your order.

**Suction pressure:** \* Adjust suction pressure to within-16.7kPa (-125mmHg). \* High suction pressure may cause cavitations' damage of parts, noise and vibration which greatly shorten the life of pumps.

**Max. working pressure:** \* Operating period at maximum working pressure should be under 10% of one cycle and the retaining period should be under 6 seconds. \* Other limits for the operation period at maximum working pressure are described in the operation manual.