

## Energy-Saving Power Unit

Variable Displacement Piston Pumps Driven by AC Servo Motor  
Precise Pressure Flow Control Based on Machine Motion

# POWER-FIT



### Features

#### Energy-Saving

80% Energy Savings  
Over Conventional Units

#### High Pressure

25MPa (3625psi) (PVS Type)  
28MPa (4060psi) (PZS Type)

#### High Flow

90L/min (23.8GPM) (PVS Type)  
140L/min (37.0GPM) (PZS Type)

#### Pressure and Flow Settings

16 Patterns of Settings of Pressure  
and Flow Combination

#### Compact

60% Less Space  
15.9, 21.2 Gal. Reservoir

#### Low Noise

60dB(A)  
3045psi

#### Low Temperature

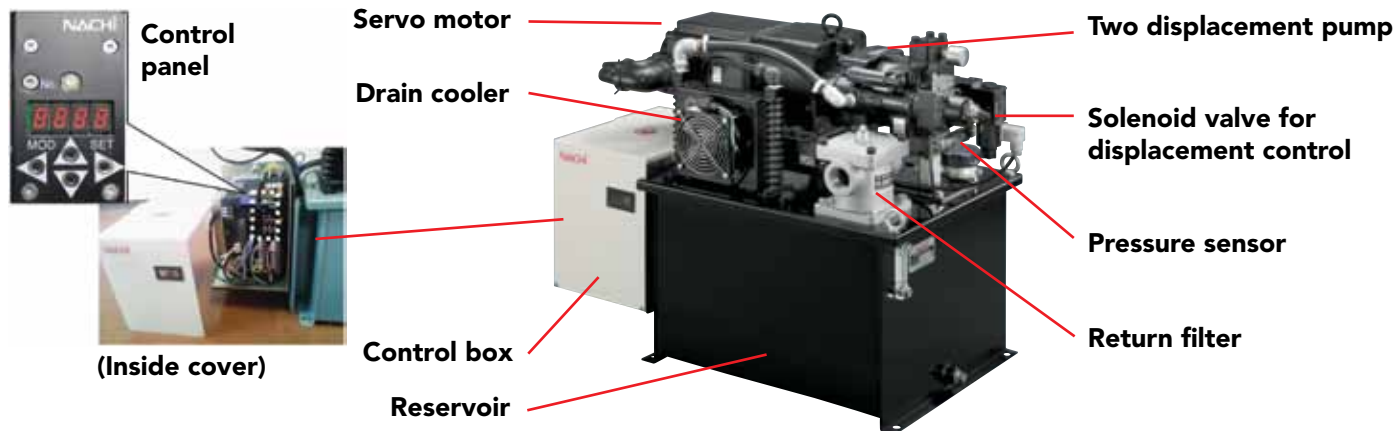
10°C (50°F) + Ambient  
Temp.



Suitable for Hydraulic Source of Press Machines  
Compact • High Pressure • High Flow

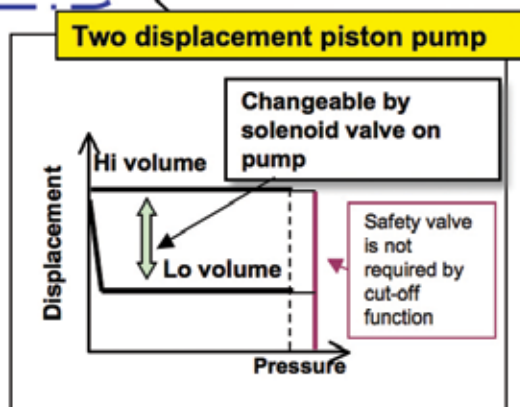
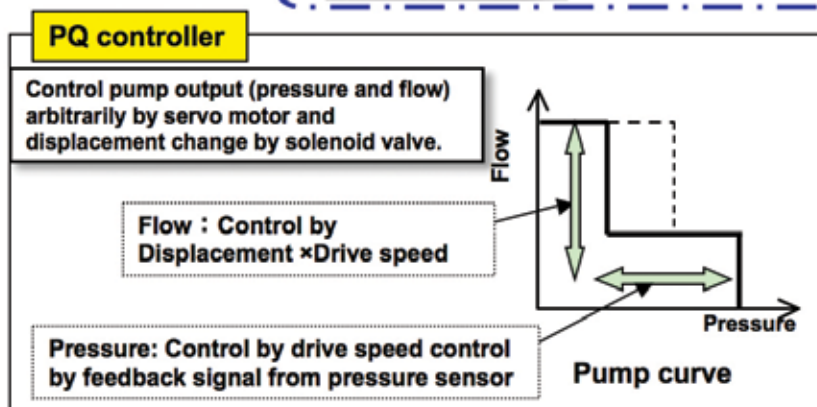
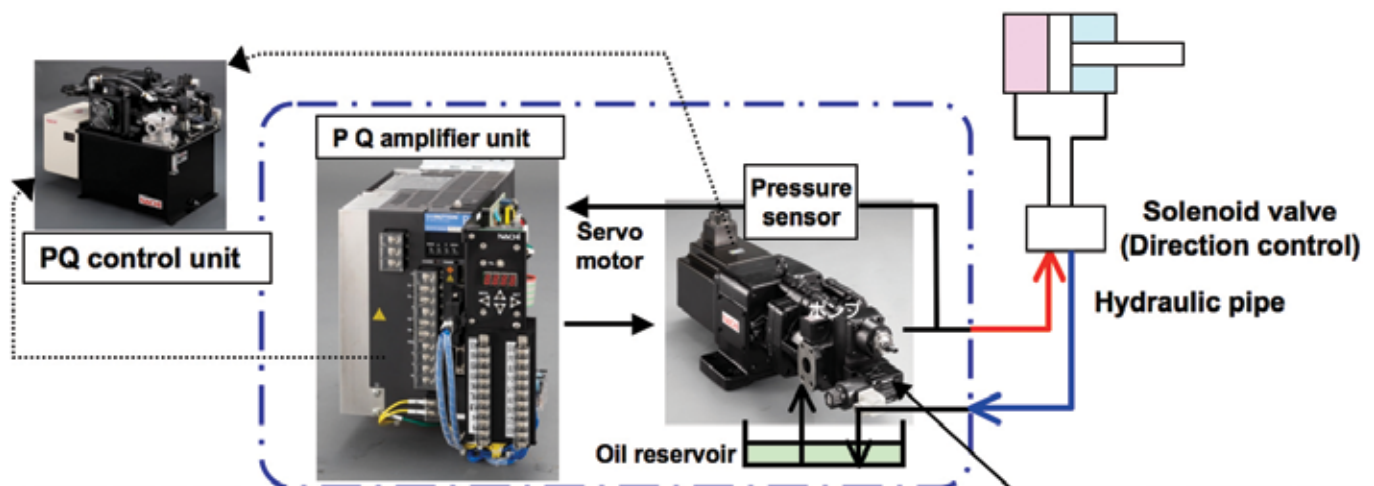
## Features

- Energy saving type power unit with two displacement piston pump driven by AC servo motor.
- Pressure and flow is controlled by motor drive speed and pump displacement. Pressure and flow can be set digitally at given value by control panel.
- Multiple value control of pressure and flow is possible by external signal input.



## Configuration

Two Displacement Pumps + Servo Motor + PQ Amplifier Unit



## Pressure and Flow Setting

16 patterns of settings are possible as pressure and flow combinations. Setting operation is very easy by using control panel in control box.

1. Select mode "u.XXX" by "MOD button" on control panel (Mode changes by every push of "MOD button")
2. When input pressure setting of pattern 0, show "u.100" and push "SET" button for 1 second.
3. Input pressure by 0.1MPa resolution and then push "SET" button for 1 second. Then 4 digit data flush and setting is complete.



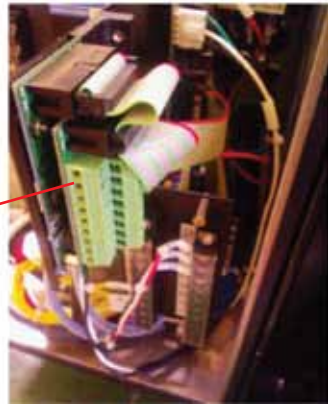
Number change up/down  
 SET or digit select  
 MOD or digit select

Pattern No.	Flow Settings		Change over time			Presser Setting		General Output	
	Parameter	units: 0.1 l/m in	parameter	flow	Pressure	parameter	units: 0.1 MPa	Parameter	XXXX   XXXX
Pattern 0	u.110		u.120			u100		u.200	
Pattern 1	u.111		u.121			u.101		u.201	
Pattern 2	u.112								
Pattern 3	u.113								
Pattern 4	u.114								
Pattern 5	u.115		u.125			u.105		u.205	

For pattern 0 to 15, pressure, flow and time of setting shift can be set.

## External input of pressure and flow (Multiple step control)

Multiple step control of pressure and flow is possible by choosing pattern number set with control panel by external signal (4 contacts)



Connect external signal after removing the right bottom screw and moving down the control panel.

Selecting 16 patterns with rotary switch is possible (parameter setting is required. Manual operation)



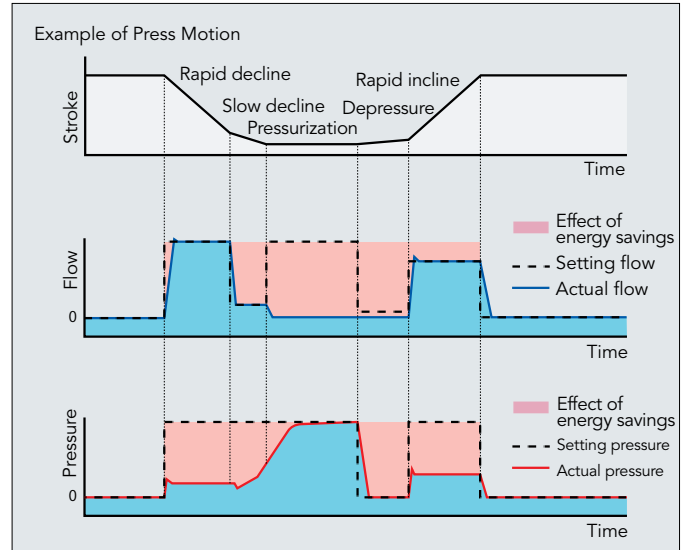
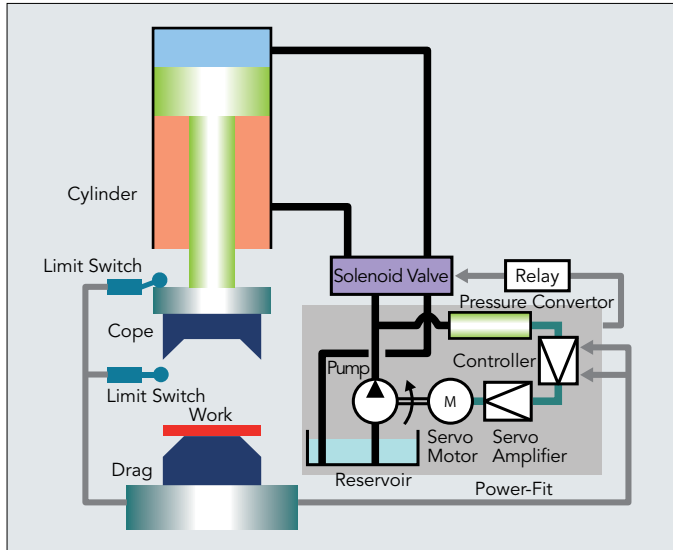
## Specifications

Model	Max. pressure	Max. flow	Pump Displacement Hi/Lo (initial setting)	Servo motor	Reservoir
NPQ-60E-55PV45N3A2-6161A	25MPa	90 L/min	45 / 12cm3/rev	5.5kW	60L
NPQ-80E-75PZ70N4A2-6161A	28MPa	140 L/min	70 / 17cm3/rev	7.5kW	80L

Power unit without control box is also possible. In that case, separated PQ amplifier unit (in customer's control box) and cable kit are required.

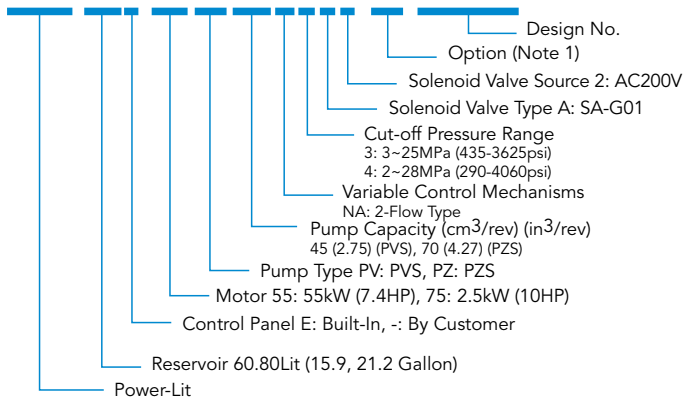
## Outline

- Compatible with conventional units
- Direction motion of cylinder is controlled by solenoid valve
- Speed (flow) and load (pressure) are automatically controlled by controller based on load situation
- No need to use valves for flow and pressure control
- Linked command of flow and pressure is available to output open corrector signal. Linked command, solenoid valve is changed



## Model Number Coding

**NPQ-60E-55PV45N3A2-\*\*-6161A**



Notes: G: Guard Level Gauge H: Thermostat M: Microseparator P: Oil Pan  
S: Float Switch (for lower) T: Level Gauge with Thermometer

Available only to supply pump with servo motor and amplifier.

Amplifier equipped in control panel



Pump with servo motor



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