

# NDJ Series New DAIPACK



## Features

- **Low noise**  
The tank contains the pump and motor inside and functions itself as noise insulation panels to trap noise internally.
- **Low oil temperature rise**  
A hollow tank with a large heat exchange area and forced cooling of the tank's internal panels and the pump surfaces with a motor cooling fan suppresses fluid temperature rise.
- **Compact design**  
Reduced installation space with compact design

## Nomenclature

NDJ ※※ ※ - ※※ ※ - 30 - ※※

1 2 3 4 5 6 7

- |   |   |   |
|---|---|---|
| <p><b>1 Model No.</b><br/>NDJ: New DAIPACK</p> <p><b>2 Pump capacity</b><br/>8: V 8 used ( 8 cm<sup>3</sup>/rev)<br/>15: V15 used (14.8 cm<sup>3</sup>/rev)</p> <p><b>3 Pressure adjustment range</b><br/>9: 0.8 to 3.5 MPa {8 to 35 kgf/cm<sup>2</sup>}<br/>1: 0.8 to 7 MPa {8 to 70 kgf/cm<sup>2</sup>}</p> | <p><b>4 Tank capacity</b><br/>10: 10 L<br/>15: 15 L</p> <p><b>5 Motor capacity</b><br/>1: 0.75 kW, 4-pole<br/>2: 1.5 kW, 4-pole</p> | <p><b>6 Design No.</b><br/><b>(The design No. is subject to change.)</b><br/>The design number was changed to 30 due to the motor high efficiency restrictions took effect in April 2015.</p> <p><b>7 Option code</b><br/>No designation: Standard (floor mounted type)<br/>LC: Wall mounted type</p> |
|---|---|---|

Refer to Page A-8 for details of V series piston pumps incorporated into these units.

## Specifications

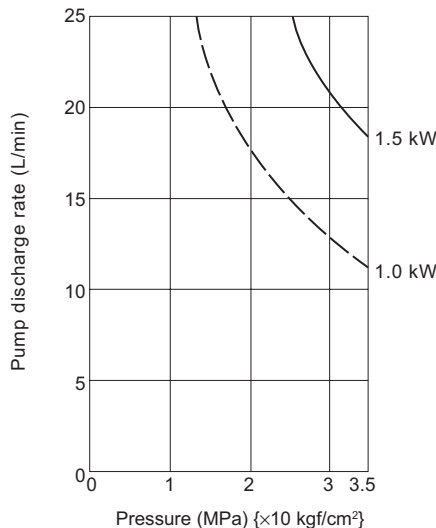
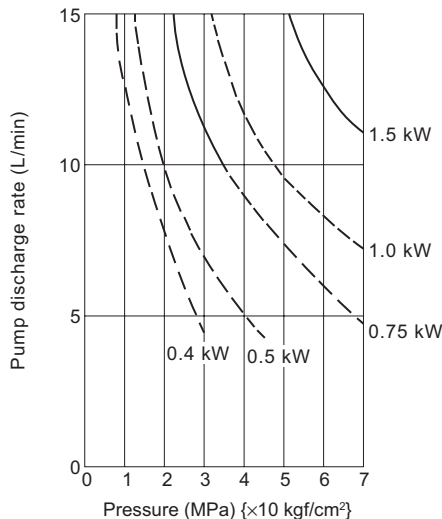
Model code	Pump capacity cm <sup>3</sup> /rev	Motor capacity Output kW (Number of poles: 4)	Tank capacity L	Maximum operating pressure MPa {kgf/cm <sup>2</sup> }	Pressure adjustment range MPa {kgf/cm <sup>2</sup> }	Discharge rate *1 L/min		Pressure at shipment MPa {kgf/cm <sup>2</sup> }	Mass (Fluid excluded) kg
						50 Hz	60 Hz		
NDJ 89-101-30 (-LC)	8	0.75	10	3.5 {35}	0.8 to 3.5 {8 to 35}	6 to 11	7 to 14	3.5 {35}	35
NDJ 81-152-30 (-LC)									
NDJ159-152-30 (-LC)	14.8	1.5	15	3.5 {35}	0.8 to 3.5 {8 to 35}	5 to 20	6 to 25	3.5 {35}	50

Note: \*1. The discharge rate is set to the maximum value before shipment

## Pressure - Flow rate characteristics

8 series  
NDJ89-101-30 (-LC)  
NDJ81-152-30 (-LC)

15 series  
NDJ159-152-30 (-LC)



## Contact Details

Before using the product, please check the guide pages at the front of this catalog.

Internet

<http://www.daikinpmc.com/en/>

For latest information, PDF catalogs and operation manuals

## Paint color

Tank: Ivory white (Munsell code 5Y7.5/1)

Pump: Black

## Handling

### ● Hydraulic fluid, ambient environment

- Use a petroleum-based hydraulic fluid equivalent to ISO VG32 to 46.  
Use of hydraulic fluids other than the petroleum-based type (e.g. hydrous/synthetic) is prohibited.
- Operate the unit in an environment where both the following conditions are satisfied: viscosity range from 15 to 400 mm<sup>2</sup>/s {cSt} and oil temperature from 0 to 60°C.
- Be sure to maintain the water content in the hydraulic fluid at 0.1% maximum by volume.
- Contamination of the hydraulic fluid causes device trouble and reduces the service life, so pay due attention to controlling contamination and ensure that it goes no higher than NAS contamination class 10.
- Use the unit indoors under the following conditions.  
Ambient temperature: 0 to 35°C, Ambient humidity: 20 to 90%RH (with no condensation)

### ● At start

- Fill the pump case with hydraulic fluid through the filler port before starting trial operation, after replacing the pump, or after stopping the unit for 3 months or longer. Use the same hydraulic fluid as for the hydraulic circuit.

	NDJ8*	NDJ159
Pump case filling volume cm <sup>3</sup>	300	500

- After checking that all hydraulic circuits and electrical circuits are ready for operation, set the hydraulic circuit at the load side in the no-load status or connect an unloading circuit before starting the pump.
- When the pump is driven for the first time, turn the power switch to the motor on and off a few times to let the air out of the piping and then run it continuously at full speed. Noise may be observed until the air has been completely removed but this is not abnormal.

### ● Electric wiring

- Connect the power cable matching the phases at the pump motor and power supply sides as shown below.



Check that the pressure at the delivery side rises at the pressure gauge.

If wires are connected with the wrong phase order, the motor and pump rotate in the reverse direction and no fluid is discharged. If fluid is not discharged within 5 minutes after turning the power on, the phase order may be incorrect. In this case, switch the wires for two phases among the three.

- Be sure to connect the ground terminal.
- Install a no-fuse breaker and an earth leakage breaker on the main power supply.  
The electrical ratings are as shown in the table below.
- These are premium efficiency products and therefore they tend to have a higher current value than products with the previous design. Pay attention to the design of the power distribution when replacing products of the previous design.

<Motor rating table (rated current)>

Permissible voltage fluctuation: ±10%

Model code	Motor capacity Output kW (Number of poles: 4)	Rated current (A)			Starting current (A)		
		AC 200 V (50 Hz)	AC 200 V (60 Hz)	AC 220 V (60 Hz)	AC 200 V (50 Hz)	AC 200 V (60 Hz)	AC 220 V (60 Hz)
NDJ 89-101-30 (-LC)	0.75	4.2	3.6	3.6	28.0	25.0	28.0
NDJ 81-152-30 (-LC)	1.5	6.8	6.4	6.0	42.0	37.0	41.0
NDJ159-152-30 (-LC)							

### ● Air intake/exhaust

Do not place any obstacles to motor cooling fan air intake and exhaust within a distance of 100 mm from intake and exhaust vent of the motor cooling fan. Install the unit at a location with good air flow so that heated air can be vented.

### ● Transportation

Use eye bolts for hoisting to transport the unit.

### ● Installation

The unit is a stationary type. Fix it with bolts on a level location that is free of vibration.

# Contact Details

Before using the product, please check the guide pages at the front of this catalog.

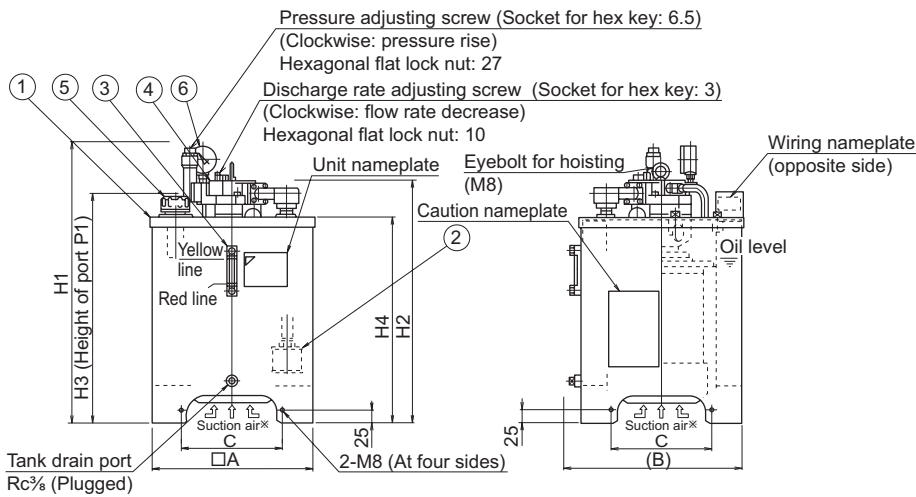
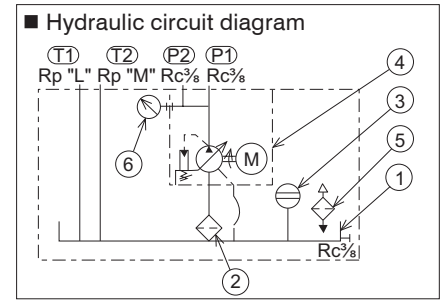
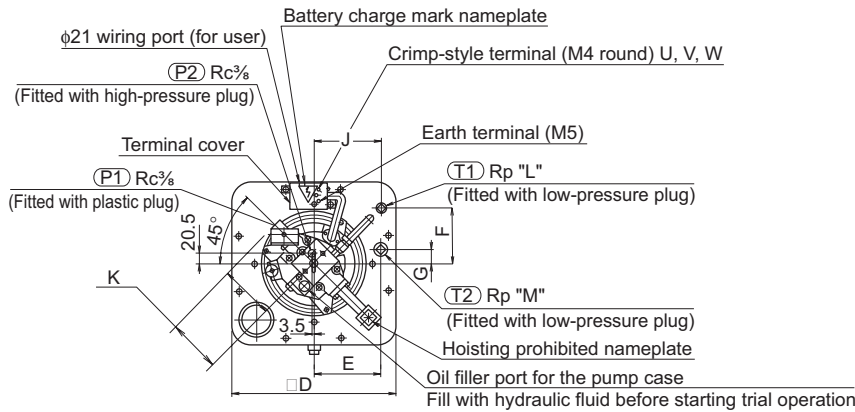
Internet

<http://www.daikinpmc.com/en/>

For latest information, PDF catalogs and operation manuals

## External dimension diagram

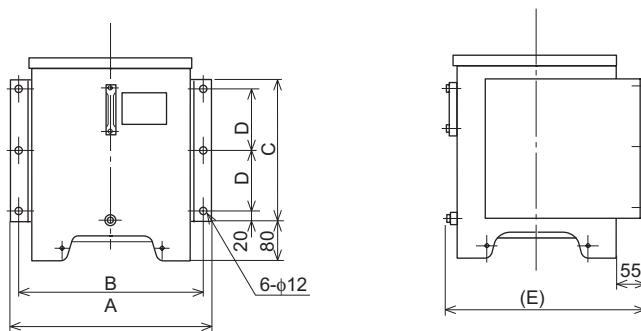
NDJ-\*\*\*-\*\*\*-30



Part No.	Name
1	Oil tank
2	Suction strainer
3	Oil level gauge
4	Motor pump
5	Oil filler port with air breather
6	Pressure gauge

	A	B	C	D	E	F	G	H1	H2	H3	H4	J	K	L	M	Tank fluid volume		Mass (Fluid excluded)
																Yellow line	Red line	
NDJ 89-101-30	290	325	175	300	120	99	25	510	433	407	354	123	109	3/8	1/2	10 L	7.5 L	35 kg
NDJ 81-152-30	320	355	200	330	133	111	27	555	478	452	406	135	109	3/8	1/2	15 L	12 L	45 kg
NDJ159-152-30	320	355	200	330	133	111	27	570	496	469	406	135	112	1/2	3/4			50 kg

## Optional wall mounted type (-LC) installation dimension diagram



	A	B	C	D	E
NDJ89-101-30-LC	370	340	240	100	380
NDJ***-152-30-LC	400	370	280	120	410

## Contact Details

Before using the product, please check the guide pages at the front of this catalog.

Internet

<http://www.daikinpmc.com/en/>

For latest information, PDF catalogs and operation manuals

## Options (separately available parts)

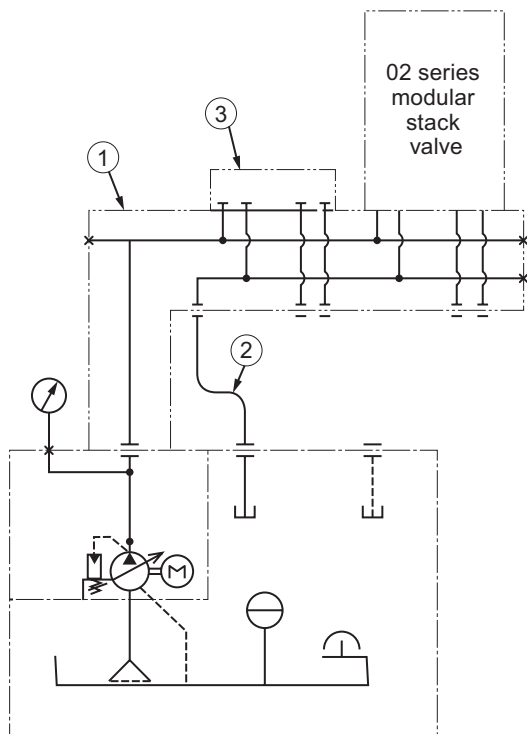
### ● Option table

Part No.	Name	Detail of accessories		Model code		
		Model	Quantity	For NDJ89-101	For NDJ81-152	For NDJ159-152
1	2-series block set	2-series block	1	P-BTJSET-20		
		O-ring (P20, class 1 B)	1			
		Hexagon socket head cap bolt: M8 × 70	3			
		Hoisting bolt M8	2			
		High-pressure plug Rc $\frac{3}{8}$	3			
		Installation guide	1			
2	Piping set	Piping (rubber hose with braid)	1	P-NDJ89PIPE-20	P-NDJ81PIPE-20	P-NDJ159PIPE-20
		Plastic joint/rubber band	2 pcs. each			
		Piping guide	1			
3	Blocking block set	Blocking block	1	P-BS02SET-20		
		O-ring (P9, class 1 B)	4			
		Hexagon socket head cap bolt (M5 × 25)	4			

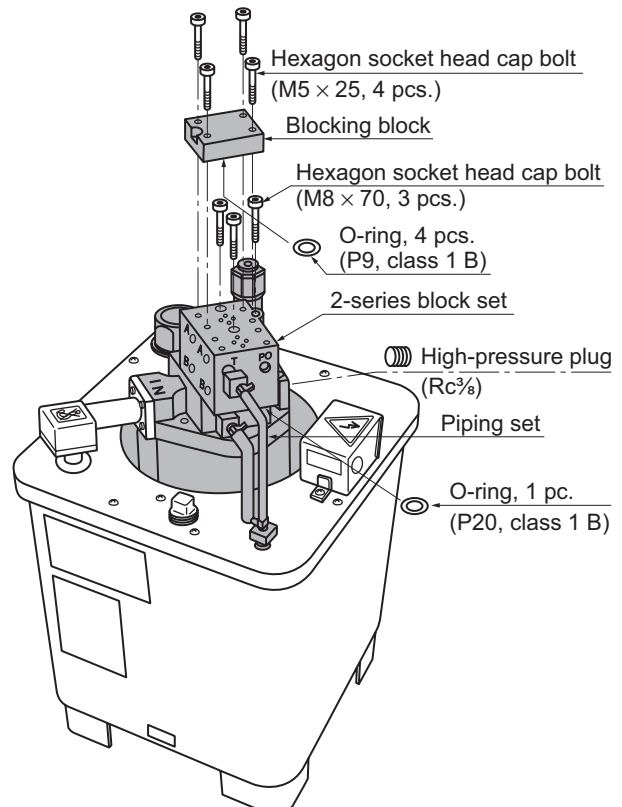
Each option can be installed using just hex keys, an adjustable wrench, and screw drivers.

For guidance on installation, refer to the installation (piping) guide provided with the option or the instruction manual for the NDJ series.

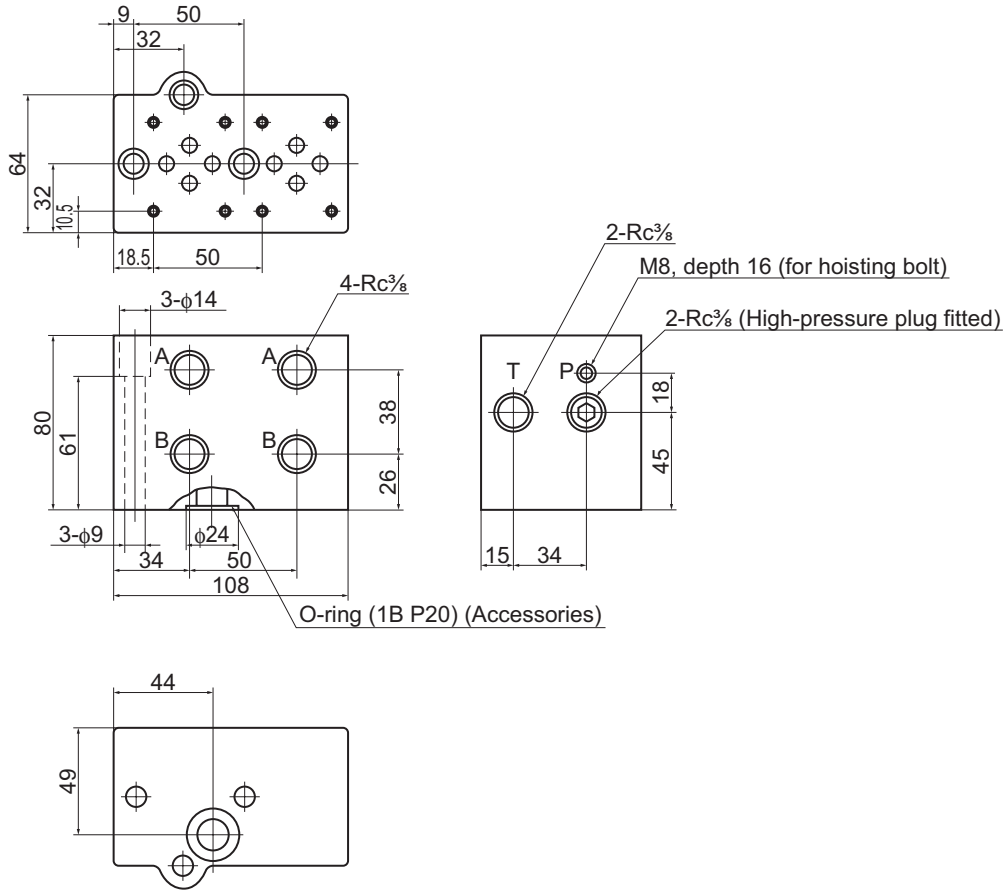
### ● Hydraulic circuit



### ● Option installation guide



● 2-series block (P-BTJSET-20)  
External dimension diagrams



- Accessories: Mounting bolts: M8 × 70 hexagon socket head cap bolt, 3 pcs.
- O-ring: JIS B 2401 class 1 B P20, 1 pc.
- Hoisting bolt: M8 eye bolt, 2 pcs.