



## NRD Specifications

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NRD- 

|    |   |   |    |   |   |   |
|----|---|---|----|---|---|---|
| 12 | T | E | 24 | - | N | S |
| 1  | 2 | 3 | 4  |   | 5 | 6 |

- 1 **Pump size** 05, 08, 08Z, 12, 20, 30
- 2 **Bearing material** T: Filled PTFE
- 3 **O ring material** V: FKM  
E: EPDM
- 4 **Power source voltage**  
24: 24VDC
- 5 **Connection** No code: Tube  
R: R thread  
N: NPT thread
- 6 **Base** No code: Left and right direction mounting type  
(Left-to-right direction when viewed from pump front)  
S: Custom type

RD - **40** **E** **24** - **H**  **V**  
 1 2 3 4 5 6

- 1 Pump size** 40, 40X
- 2 O ring material** V: FKM E: EPDM
- 3 Power source voltage** 24: 24VDC
- 4 Liquid Temperature range** H: High Liquid Temperature  
0 – 80°C
- 5 Connection** No symbol: Hose  
R1: R Thread  
N1: NPT thread
- 6 Input signal** V: 1 – 5VDC

| Model   | Connection sizes          |                             | Max flow<br>GPM<br>(L/min) | Max head<br>FT (m) | Max<br>Specific<br>Gravity | Motor     |                     | Weight<br>lbs (kg) |
|---------|---------------------------|-----------------------------|----------------------------|--------------------|----------------------------|-----------|---------------------|--------------------|
|         | Suction<br>Inches<br>(mm) | Discharge<br>Inches<br>(mm) |                            |                    |                            | Power (V) | Rated<br>output (W) |                    |
| NRD-05  | 0.55 (14)                 | 0.31 (8)                    | 1.3 (5.1)                  | 13.5 (4.1)         | 1.07                       | DC24      | 6                   | 0.9 (0.4)          |
|         | R 3/8                     | R 1/8                       |                            |                    |                            |           |                     |                    |
|         | 3/8 NPT                   | 1/8 NPT                     |                            |                    |                            |           |                     |                    |
| NRD-08  | 0.55 (14)                 | 0.31 (8)                    | 2.1 (7.9)                  | 37.7 (11.5)        | 1.07                       | DC24      | 22                  | 0.9 (0.4)          |
|         | R 3/8                     | R 1/8                       |                            |                    |                            |           |                     |                    |
|         | 3/8 NPT                   | 1/8 NPT                     |                            |                    |                            |           |                     |                    |
| NRD-08Z | 0.55 (14)                 | 0.31 (8)                    | 2.1 (8.0)                  | 62.3 (19)          | 1.07                       | DC24      | 33                  | 0.9 (0.4)          |
|         | R 3/8                     | R 1/8                       |                            |                    |                            |           |                     |                    |
|         | 3/8 NPT                   | 1/8 NPT                     |                            |                    |                            |           |                     |                    |
| NRD-12  | 0.71 (18)                 | 0.71 (18)                   | 3.6 (13.6)                 | 24.3 (7.4)         | 1.07                       | DC24      | 17                  | 0.9 (0.4)          |
|         | R 3/8                     | R 3/8                       |                            |                    |                            |           |                     |                    |
|         | 3/8 NPT                   | 3/8 NPT                     |                            |                    |                            |           |                     |                    |
| NRD-20  | 0.83 (21)                 | 0.67 (17)                   | 5.2 (19.5)                 | 27.9 (8.5)         | 1.0                        | DC24      | 28                  | 2.6 (1.2)          |
|         | R 1/2                     | R 3/8                       |                            |                    |                            |           |                     |                    |
|         | 1/2 NPT                   | 3/8 NPT                     |                            |                    |                            |           |                     |                    |
| NRD-30  | 0.83 (21)                 | 0.67 (17)                   | 6.2 (23.5)                 | 36.1 (11)          | 1.0                        | DC24      | 45                  | 2.6 (1.2)          |
|         | R 1/2                     | R 3/8                       |                            |                    |                            |           |                     |                    |
|         | 1/2 NPT                   | 3/8 NPT                     |                            |                    |                            |           |                     |                    |
| RD-40   | 1 (25)                    | 0.75 (19)                   | 6.6 (25)                   | 49.2 (15)          | 1.0                        | DC24      | 85                  | 3.3 (1.5)          |
|         | 1 NPT                     | 1/2 NPT                     |                            |                    |                            |           |                     |                    |
| RD-40X  | 1 (25)                    | 1 (25)                      | 18.5 (70)                  | 26.2 (8)           | 1.0                        | DC24      | 72                  | 3.3 (1.5)          |
|         | 1 NPT                     | 3/4 NPT                     |                            |                    |                            |           |                     |                    |

Notes:

1. Performance data is based on pumping clear water at ambient temperature.
2. Max. flow based on discharge pressure of 0 psi and max. head based on operating pump at shut-off.
3. The viscosity limit of the working fluid is up to 1.0 mPa·s (with specific gravity of 1.07 for the NRD-05/08/08Z and 1.0 for the NRD-20/30, RD-40/40X).
4. Ambient installed temperature range: 32 - 122 °F (0 - 50 °C) for NRD-05/08/12/20/30, 32 - 104°F (0 - 40°C) for NRD-08Z, RD-40/40X.
5. Working liquid temperature range: 32 - 176°F (0 - 80 °C) for NRD-05/08/12/20/30, 32 - 104°F (0 - 40°C) for NRD-08Z, RD-40/40X.
6. Max. specific gravity is the value at maximum flow.
7. 12VDC option available for OEM applications. Contact Iwaki America for details.
8. Motor specifications:
  - Pumps use a DC brushless motor equipped with the following protective functions in drive circuitry:
    - a. Protection against jammed impeller.  
Drive circuitry will detect locked impeller and stop the pump.
    - b. Excessive temperatures.  
The pump will stop when the motor temperature increases beyond rated temperature as a result of elevated fluid temperature or installed environment temperature.
    - c. Over current protection.  
The drive circuitry is protected against excessive current
    - d. Fuse  
NRD's are equipped with internal fuse to protect pump from overheating or causing damage to system when drive circuit has been damaged. The built-in fuse cannot be replaced, so, we recommend use of an external fuse.

Performance and dimensions of pumps may be changed without prior notice.