



**4 connection ports** **Hose** **R thread** **NPT thread** **G thread**  
**DC48V canned motor centrifugal pumps**

Small canned motor centrifugal pumps NRD series powered by brushless DC motors has a new lineup with the high flow rate NRD-40 / 40X added. The elimination of the converter contributes to simplification and cost reduction of components. Suitable for refrigerant circulation applications of various cooling devices because of low noise and space saving.

**Compact and lightweight with a seal-less structure**

The pumps with a canned motor offer compactness and light weight. Compared with conventional magnetic drive pumps, they require minimal space for installation. Select the best connection for your plumbing system from Hose, R thread, NPT thread and G thread. Seal-less structure eliminates wear leakage and other problems involved with seal replacement.

**Long life design**

Use of a DC brushless motor eliminates concerns over brush abrasion, ensuring a service life comparable to an AC motor.

**Readily compliant with global safety standards**

The NRD series power voltage is classified as safety voltage (50V or less), which allow the user to easily comply with global safety standards such as UL, CSA and CE.

**DC power system**

The DC power system overcomes installation limits for voltage and frequency of each area.

**Flow rate adjustment**

Flow rate can be adjusted by means of an external signal of 1-5VDC.

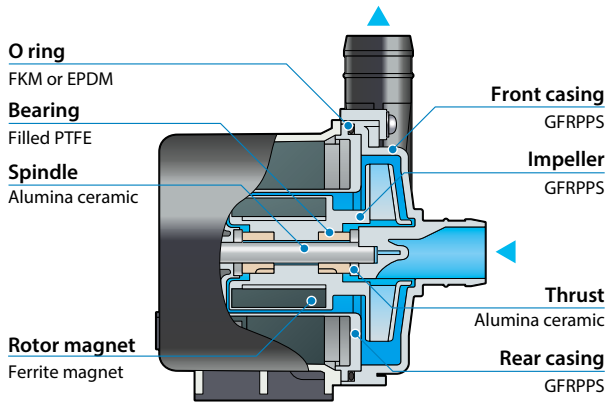
**Built-in drive circuit**

A drive circuit is fitted as standard inside the pump. Connect power to the pump and provide an external signal to start operation.

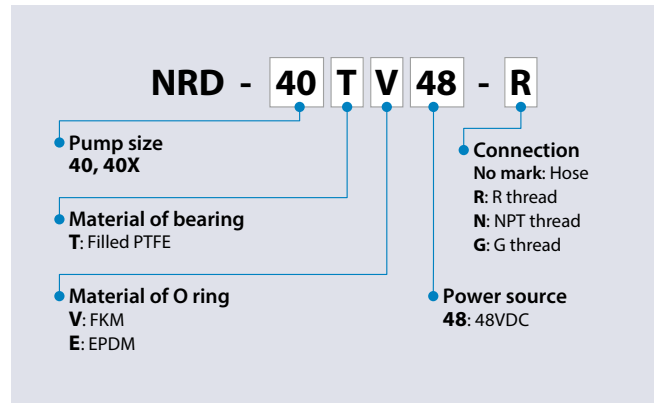
**High temperature resistance**

The pump can handle hot liquids up to 80°C.

## Construction and Wet-end materials



## Pump identification

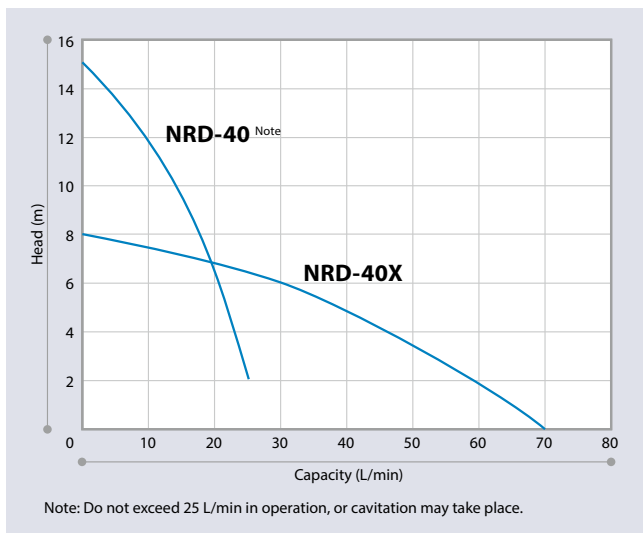


## Specifications

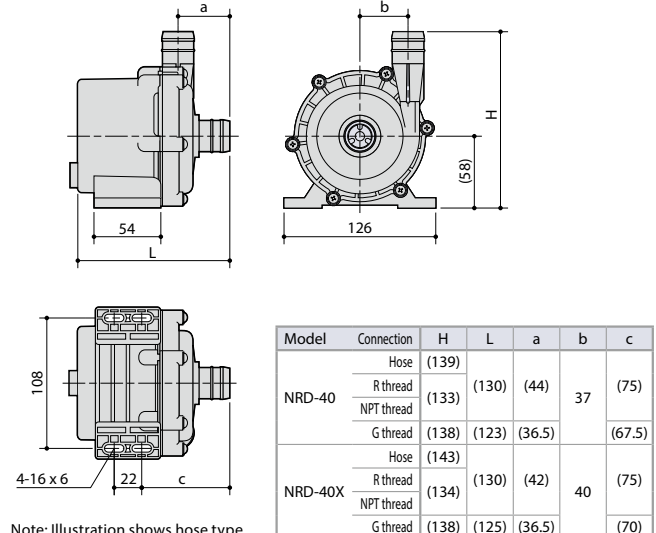
Model	Connection (Outer diameterØ) mm		Max. discharge capacity L/min	Max. head m	Noise <sup>Note</sup> dB	Max. SG	Motor		Mass kg
	IN	OUT					Output	Power source	
NRD-40	Hose	27	21	25	up to 55	1.07	85W	DC48V	1.5
	R thread	R1	R1/2						
	NPT thread	NPT1	NPT1/2						
	G thread	G1 · 1/2	G1 · 1/4						
NRD-40X	Hose	27	27	70	up to 55	1.07	72W	DC48V	1.5
	R thread	R1	R3/4						
	NPT thread	NPT1	NPT3/4						
	G thread	G1 · 1/2	G1 · 1/2						

Note: The noise measurement conditions are the front of the pump, A scale, and 1 m.  
 • The data is collected from operation with clear water at room temperature.  
 • The maximum capacity is obtained based on the presumption that delivery head is at 0 m. The maximum head is obtained based on the presumption that discharge capacity is at 0 L/min.  
 • The maximum viscosity is 1 mPa·s when the maximum specific gravity is 1.07.  
 • Operating condition Ambient temperature: 0 - 50°C, Liquid temperature: 0 - 80°C, Ambient humidity: 35 - 90%RH

## Performance curves



## Dimensions (mm)



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**Caution for safety use:** Before use of pump, read instruction manual carefully to use the product correctly. Actual pumps may differ from the photos. Specifications and dimensions are subject to change without prior notice. For further details please contact us.

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