REINHA Pumps

MINHO

VERTICAL INLINE CENTRIFUGAL PUMP

PT Reinha Pumps Indonesia
www.reinhapumps.com
2026

Overview

The MINHO is a vertical single-stage inline centrifugal pump designed for HVAC systems, booster applications, and water supply installations. Its compact inline configuration minimizes floor space requirements and simplifies piping layout. The pull-up construction allows convenient access to internal components for maintenance without disturbing the pipeline. Built for robust, continuous operation, the MINHO features PN16 flanges as standard and delivers reliable performance when handling clean, non-flammable, and non-explosive liquids.

Pump Structure Design

The MINHO employs a vertical single-stage inline construction, enabling direct installation within the pipeline to conserve valuable floor space. Its pull-up design permits complete removal of the rotating assembly from above without disconnecting the piping or disturbing the system alignment. The motor and pump body are structurally separated, joined by a precision-machined pump cover bracket that ensures accurate concentricity between the drive shaft and impeller. This bracket serves as the sole mechanical connection between the two assemblies, simplifying disassembly and granting unobstructed access to all wetted internal components — including the impeller, wear rings, and mechanical seal — for inspection or replacement.

Reliable sealing is achieved through high-grade O-rings at all static joints, eliminating the need for traditional gasket materials and reducing the risk of leakage over extended service intervals. All pump flanges conform to the PN16 standard per GB/T17241.6 and ISO 7005-2/DIN 2501, with overall hydraulic dimensions in accordance with DIN 24255 and BS EN 733.

This maintenance-friendly architecture significantly reduces downtime: technicians can service the complete rotating element in situ, returning the pump to operation quickly and without specialist alignment tools.

Pump Operating Conditions

The MINHO is suitable for pumping clean, thin, non-flammable, non-combustible, non-explosive liquids free of solid particles or fibrous matter. Permissible fluid temperature ranges from -15 °C to +70 °C for the normal-temperature type and -15 °C to +105 °C for the hot-temperature type. Maximum ambient temperature is 40 °C; maximum installation altitude is 1000 m above sea level. Where ambient temperature exceeds 40 °C or altitude exceeds 1000 m, motor output must be derated in accordance with the manufacturer's guidelines. Maximum allowable working pressure is PN12 for the normal type and PN16 for the high-pressure type.

Designation

MINHO - TK-65- 34/2

- Series Name
- Vertical Inline Centrifugal Pump
- Rated Diameter Outled (DN in mm
- Rated Head (Meter)
- Pole of Motor

Application

Water Management

- Booster systems
- Water supply installations
- Circulation and transfer applications

General Industry

- HVAC
- Booster Pump
- Transfer Pump
- Cooling Pump

Building Service

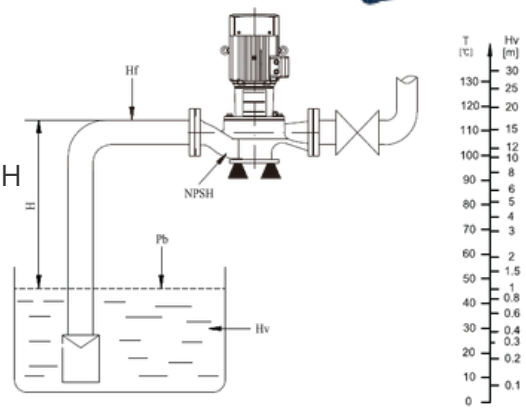
- Cooling Air Conditioning System
- Transfer Pump
- Fire Pump
- Booster Pump

Minimum Inlet Pressure, NPSHa

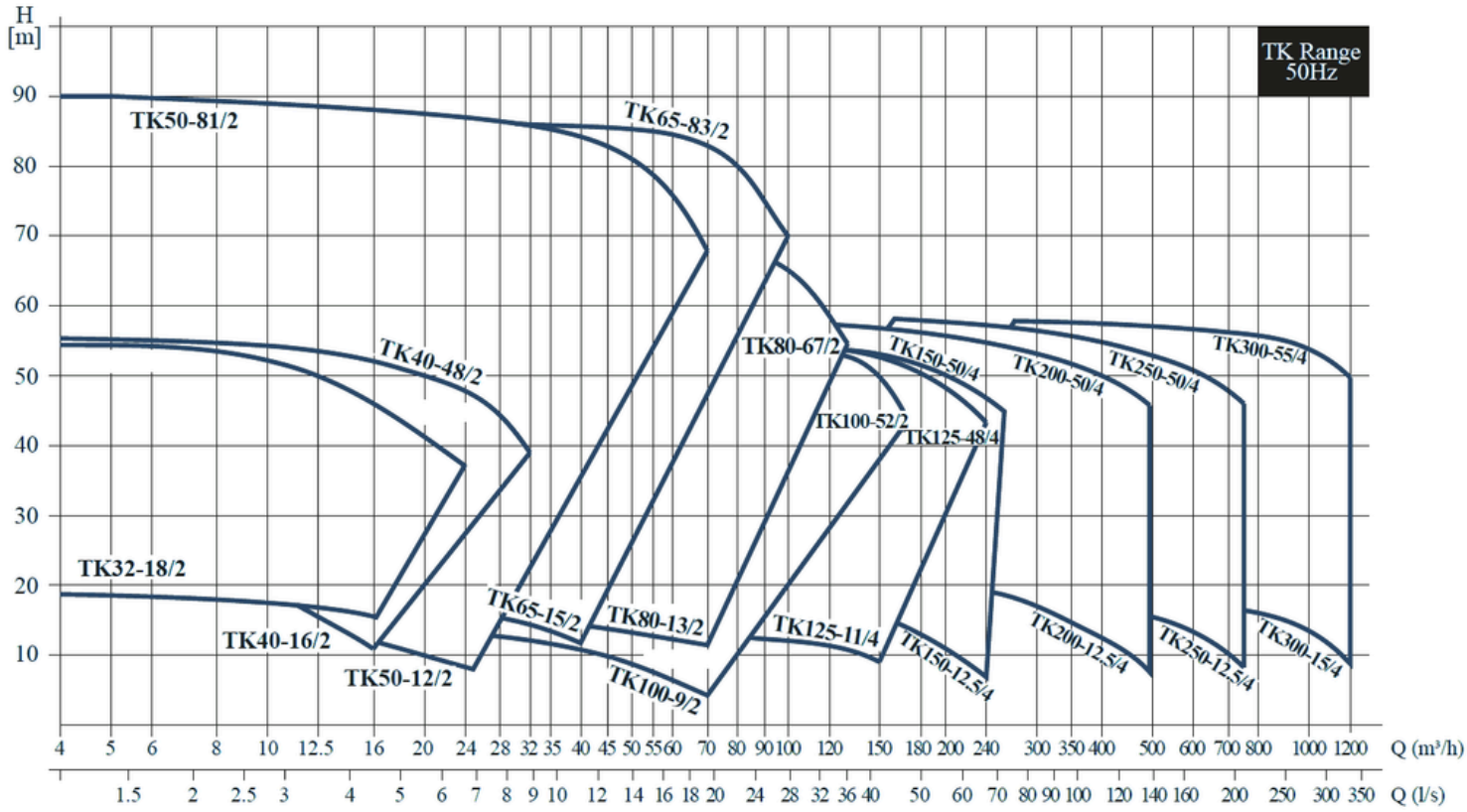
Cavitation may occur if the following conditions exist during the operation of the water pump:
- The water tank or pool is lower than the pump inlet
- Actual flow is significantly greater than the rated flow

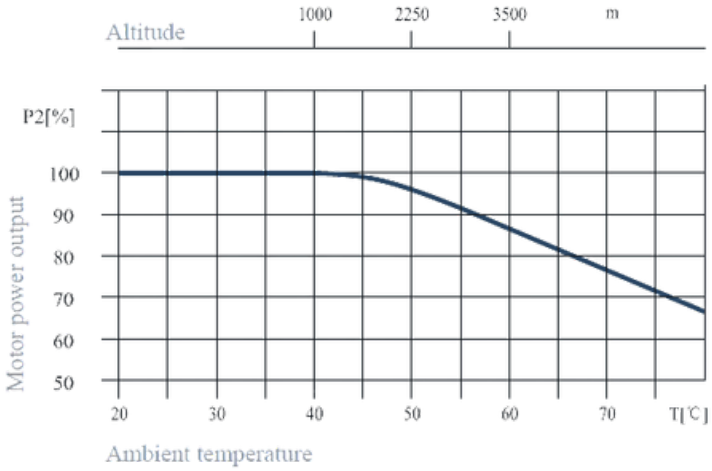
To avoid cavitation, make sure there is a minimum pressure on the inlet side of the pump. The maximum suction range H (m) can be calculated as follows:

NPSHa = Pb - H - Hf - Hv
NPSHa > NPSHr + Hs (to avoid cavitation)
Pb = Atmospheric pressure (can be set to bar = 9.8 meters)
NPSHr = Net positive suction head (read from max flow rate on NPSH curve)
Hf = Pipeline loss at inlet
Hv = Vaporization pressure
HS = Safety margin, minimum 0.5m head



PERFORMANCE RANGE : MINHO SERIES





Ambient temperature

If the ambient temperature exceeds the 40˚C or the pump is installed at an altitude exceeding 1000 m, the motor output power P2 will decrease. In such cases, it is necessary to use a motor with a higher rating.