

TDC

Quiet Operation Brushless DC PUMP

High Efficient
Ultra Quiet 26dB
Ideal Life 50000hrs'
Continuous Duty
No maintenance
Small Footprint



- It's compact design, quiet and powerful brushless motor make it ideally suited for heavy duty cooling in environments where space is at a premium
- High density ceramic bearing and graphite impeller bearing sleeve designed for high efficiency and long life
- Highly efficient and dynamically balanced impeller with carbon bearing sleeve for smooth ultra quiet operation
- Such reliability is afforded by the unique design of this pump, which contains only one moving part: the magnetically driven rotor/impeller spins on a single ceramic bearing, thus extending the life of this pump beyond existing standards
- High efficient ECM brushless DC motor, ideal long life time 50000 hours
- Advanced magnetic drive technology for static-seal, without any leakage for ever
- The pump is completely plug-and-play, and connects directly to any computer power-supply through standard power connectors

TDC QUIET PUMP

Specifications:

Rated voltage: 12 V DC
Operating voltage range 6 to 13.2 VDC
Rated power: 6 W
Rated current: 0.5A
Max head: 0.8 ft (2.7 m)
Nominal discharge: 400 LPH
Connection size 3/8" barbs (10mm)
Maximum pressure: 58 Psi (4 Bar)
Temperature range: up to 185°F (85°C)
Weight : 200 g
Noise measurement: 26 ~ 30dBA
Motor: brushless DC motor
Pump ideal life time: 50,000 Hours
RPM Signal: single wire on 3 pin connector
RoHS Compliant

Application

As the computer industry continues to accelerate its pace towards implementing liquid cooling solutions, pumps have become a pivotal concern for the adoption of such systems in mission critical machines. Small size, low or no maintenance, similar to that afforded by fans, and extended reliability are prerequisites for the successful transition from air to liquid cooling systems. The TOPSFLO TDC is the qualified pump to be used in mass produced water-cooled workstations, and presents an ideal solution for liquid cooling of processors and electronic components..

Summary

The pump continues to work quietly throughout its entire service life. The bearing is self-realigning. It is lubricated directly by the fluid being pumped (wet rotor design). This means that the pump is maintenance free. Since the rotor is always magnetically held in the designated position, small particles of dirt do not present a problem. Under normal conditions, it is impossible for the rotor to become locked. Reliable start is also ensured even after long periods of shut down. The permanent magnet rotor /impeller unit is driven by the magnetic field generated by the surrounding stator. The stator is wrapped entirely around the rotor. As a result, the entire pump is only slightly taller than the rotor itself, measuring only 1.4 inch height, perfect for applications where space is limited. Supply voltage variation provides a simple means of controlling the speed of the TDC pump over a large output range. All parts in contact with the medium are 100% corrosion resistant. With an optional tachometer output, it is possible to monitor the speed of the pump directly.



Materials of Construction (wetted parts)

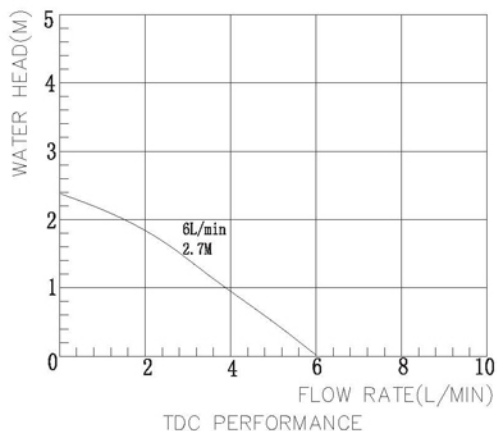
Part	Materials
Pump Housing	PPS
Gasket	EPDM/Silicon Rubber
Impeller	PPE/ABS
Bearing	Fine Ceramic / Carbon
Other	Stainless Steel / Plastic

Areas of Use:

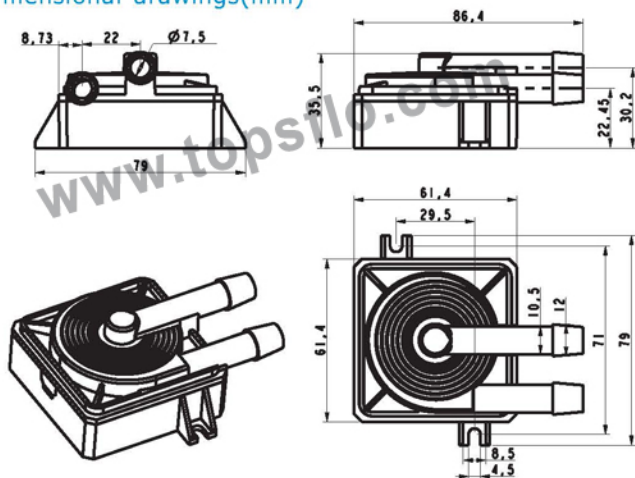
- Electronics Cooling
- Laser Cooling
- Medical Water Circulation
- Chiller Systems Liquid Transfer
- General Purpose Pumping

TDC QUIET PUMP

Pump curves



Dimensional drawings(mm)



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