RT Series Regenerative Turbine Refrigerant Cooling Pumps

RT Series Regenerative Turbine Cooling Pumps are precision engineered for

pumping liquid refrigerant through a cooling system loop, directly to blade servers and chips, ensuring heat removal. Delivering high-efficiency, extended life, and quiet operation – this hermetically sealed regenerative turbine pump is designed with high-pressure and low flow rates in mind, making it ideal for high-density data center racks.



RT Series Regenerative Cooling Pumps Benefits

- **High pressure** pump with low energy intake 600 PSI operating pressure
 - 600 PSI operating pressure
 - 2,500 PSI construction pressure
- Power Supply 3 Phase, 400/460V AC, 50/60 Hz
- Cooling capabilities
- Flow Rate 0-36 GMP
- Quality material selection to ensure longevity and no leaching
- Compact footprint to minimize space claim
- Precise operating controls
- Low decibel operation

The RT Series Advantage

- Tailor made for high-density cooling and immersion applications
- Designed for HPC cooling
- Reduced footprint maximizing available rack space
- Life expectancy optimized for 80,000 hours
- Increased durability via optimized flow path and minimized wetted material wear
- Low energy consumption and power draw
- Precision motor controls that optimize cooling performance
- Low maintenance design w/ easy service
- accessibility

The RT Series Applications



High Density CDUs



Immersion Cooling



High Performance Computing Environments



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RT Series Regenerative Cooling Pump Specifications

PERFRORMANCE

| RT Series | | | | | |
|-----------------------|--------------------|--------------------|-------------------|--|--|
| Input Voltage | 400 VAC 50 Hz | 460 VAC 60 Hz | 380 VAC 60 Hz | | |
| Power | 5HP (3.7kW) | 5HP (3.7kW) | COMING IN 2025 | | |
| Variable Speed (RPM) | 3000 | 3450 | | | |
| Flow Rate Range (GPM) | 0-30 | 0-36 | | | |
| Pressure Range (PSI) | 0-150 | 0-150 | | | |
| Inlet* | 2 ¼" – 12 Rotalock | 2 ¼" – 12 Rotalock | | | |
| Discharge* | 1 ¾" – 12 Rotalock | 1 ¾" – 12 Rotalock | | | |
| Reliability | 10 Year Life | | | | |
| Max Temperature (°C) | 60 | | | | |

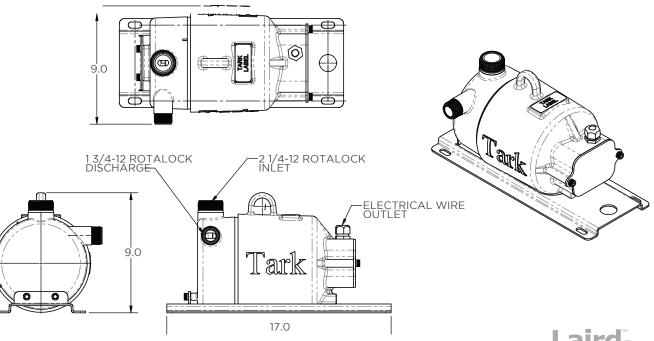
*Customization available upon request

WETTED MATERIAL

| SHAFT | HOUSING | BEARINGS | IMPELLER | CASING |
|----------------|---------|----------------|----------|--------|
| ASTM A108 4140 | 304SS | Hybrid Ceramic | Brass | Brass |

MATERIAL COMPATIBILITY

R134a / R515B / R471A / R1234ze (E) / R1234yf



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