DYNATRON

L3-UH

1U Liquid Cooler

PRODUCT SPECIFICATIONS

DYNATRON
The Thermal Solution Architect

NEW PRODUCT SPEC SHEET

Model Number: L3-UH

- Liquid Cooling Solution Recommended for CPU Models As Following,
  - Intel® Processor, Socket LGA2011, Square ILM Mounting
  - Intel® Processor, Socket LGA2066, Square ILM Mounting
  - Intel® Processor, Socket LGA1356, 1366
  - Intel® Processor, Socket LGA1150, 1151, 1155, 1156
  - Intel® Processor, Socket LGA1200
  - Intel® Processor, Socket LGA1700
  - AMD® Processor, Socket AM2, AM2+, AM3, AM4, AM5, FM1, FM2

- For 1U Server

Overall Description :

- Cold Plate Module with Copper Base
- Space Saver Light Weight Radiator
- 4cm Cooling Fans with 4-Pin PWM Connector
- Stand-alone Water Pump with Powerful Flow Rate 1.7 Liter Per Minute
- 30cm Black Pair EPDM Tube Assembled
- Mounting Accessories are included
- Shin-Etsu 7762 or Equivalent Thermal Compound Pre-Printed on Base
- Support CPU Power up to 210 Watts at 30℃ ambient temperature(Intel) and up to 170 Watts at 30℃ ambient temperature(AMD) .
- **Each fan should have its own fan header due to the high current consumption at full speed**

Cooling Fan Specification:

- Model Number: DF124028BU-PWMH
- Dimension: 40mm x 40mm x 28mm
- Bearing Type: Ball, Dual
- Rated Voltage: 12V
- Rated Speed:
  - At Duty Cycle 0~20%: 3300±200 RPM
  - At Duty Cycle 50%: 15000±10% RPM
  - At Duty Cycle 100%: 26000±10% RPM

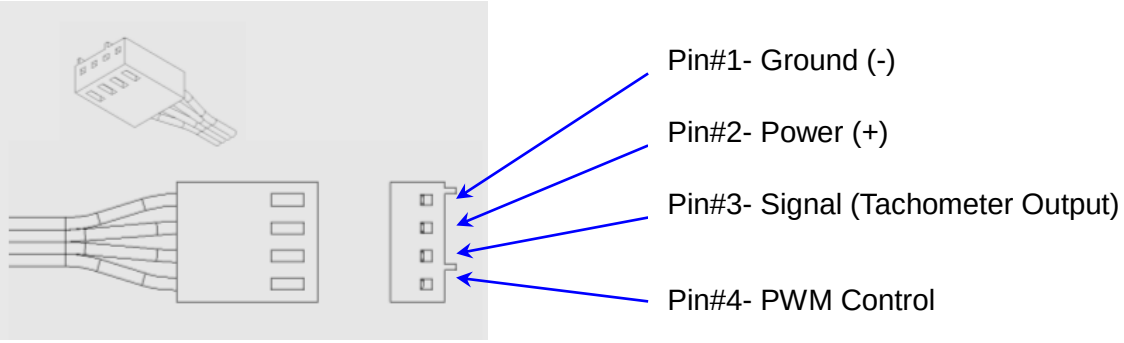
- Rated Input Power:
  - At Duty Cycle 0~20%: 0.72 W
  - At Duty Cycle 50%: 6 W
  - At Duty Cycle 100%: 22.8 W

- Rated Airflow:
  - At Duty Cycle 0~20%: 4.74 CFM
  - At Duty Cycle 50%: 21.53 CFM
  - At Duty Cycle 100%: 37.32 CFM

- Rated Static Pressure:
  - At Duty Cycle 0~20%: 1.612 mm-H_2O
  - At Duty Cycle 50%: 33.30 mm-H_2O
  - At Duty Cycle 100%: 100.06 mm-H_2O

- Rated Acoustical Noise:
  - At Duty Cycle 0~20%: 19.35 dBA
  - At Duty Cycle 50%: 52.23 dBA
  - At Duty Cycle 100%: 64.17 dBA

- Lead Wire Pin Out Diagram :

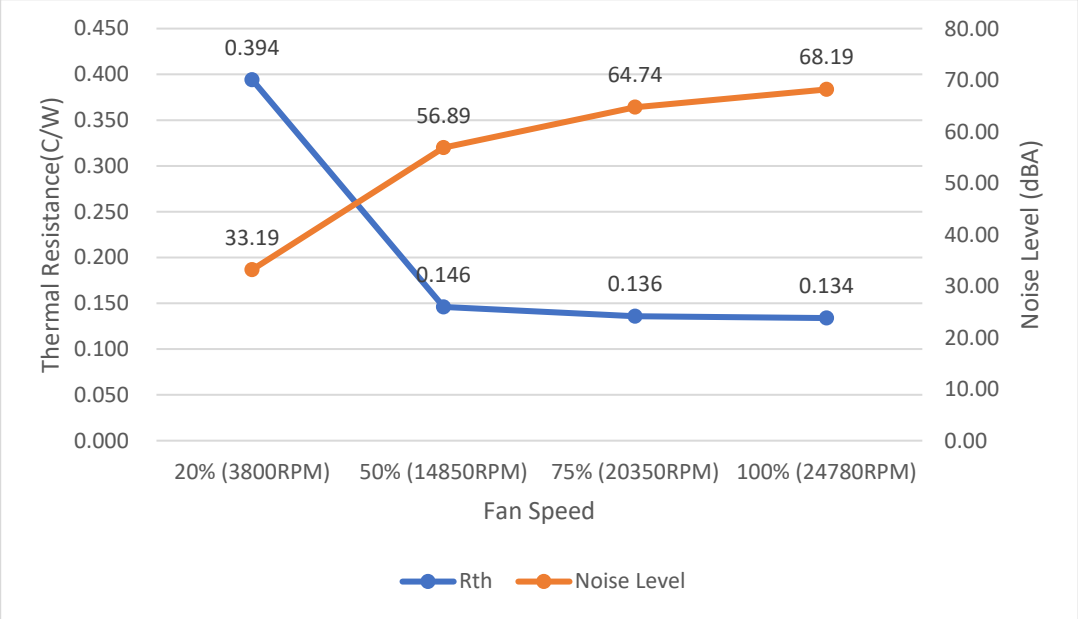


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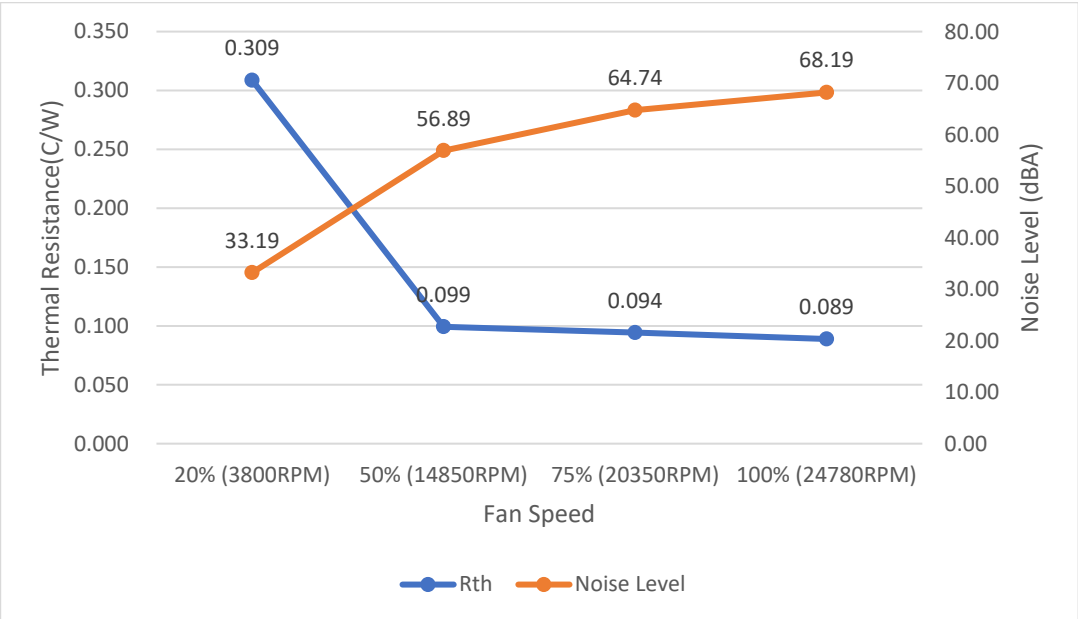
Performance Chart: Active Cooler L3-UH Thermal Resistance

Thermal Resistance vs. Fan Speed (Duty Cycle and RPM)

LGA 1700



Socket AM5

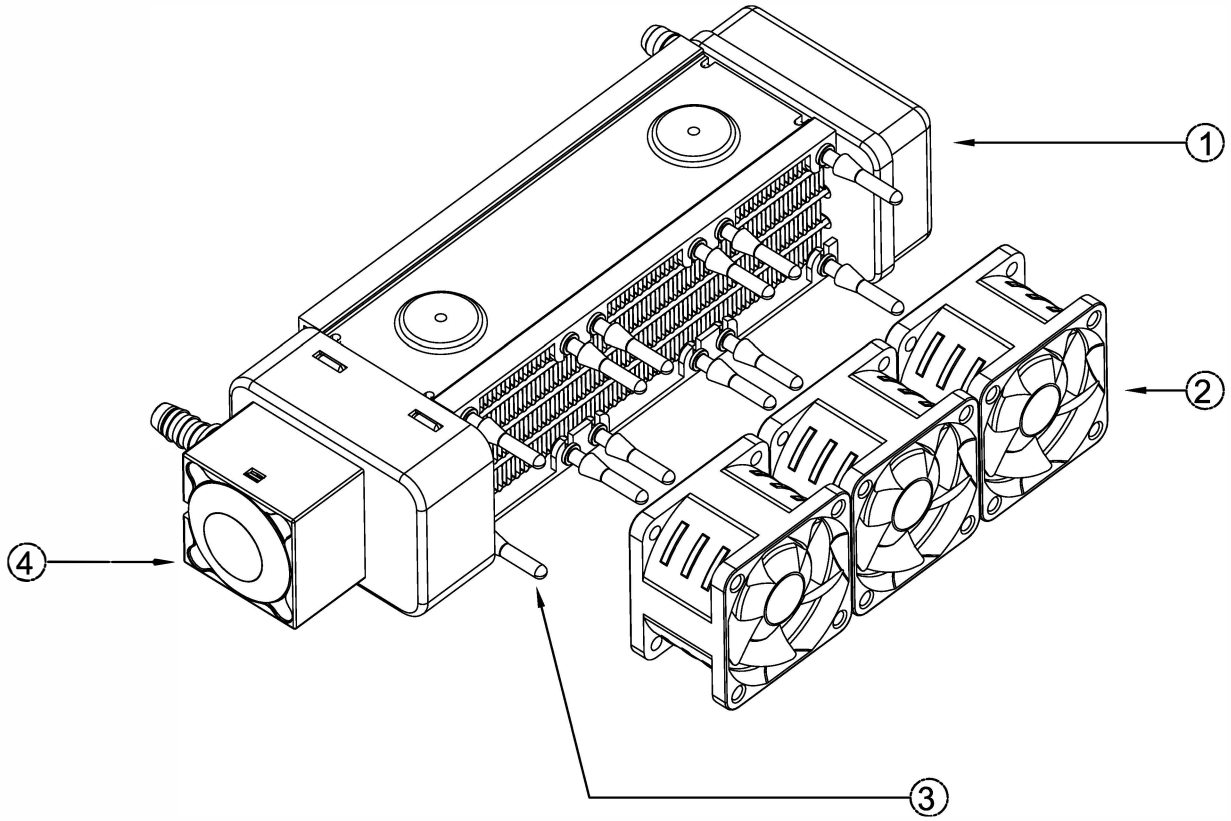


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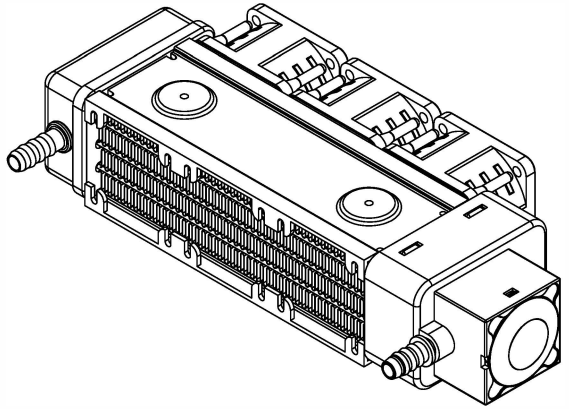
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REV#	DESCRIPTION	CHECKER	DATE
0.0	INITIAL RELESE	ENGR	01/ 16/23

ASSEMBLY PARTS



WHOLE SET OF CONDENSER



ITEM#	DESCRIPTION	MATERIAL	QTY.
4	Pump Enclosure	Plastic	1
3	Grommet	Rubber	12
2	Fan, DF124028BU-PWMH, 26000RPM	Plastic	3
1	Radiator	Aluminum Alloy	1

Notes:

1. The Figure is For Reference Only, and Not For Scale
2. Overall Dimension: 188 x 74 x 40 mm

	DATE	NAME
DRAWN	01/16/23	ENGR
CHECKED	01/16/23	ENGR
ENG. APPR.		
MFG.APPR.		
Q.A.		
COMMENTS:		

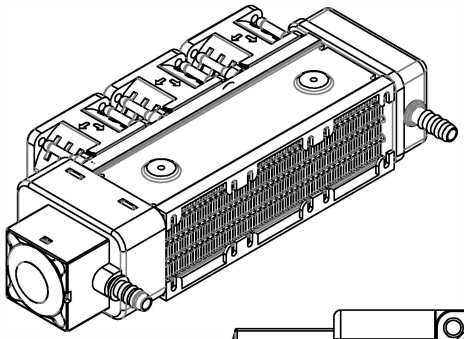
TOP MOTOR DYNATRON CORPORATION

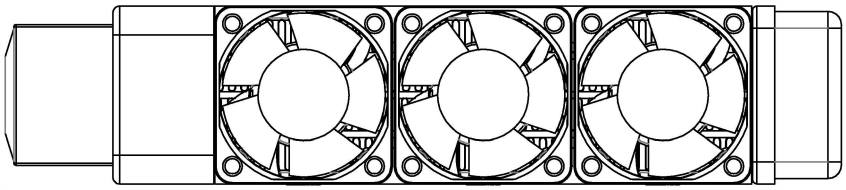
TITLE: 1U Liquid Cooler **L3-UH**
Condenser
BOM & Exploded Assembly Drawing

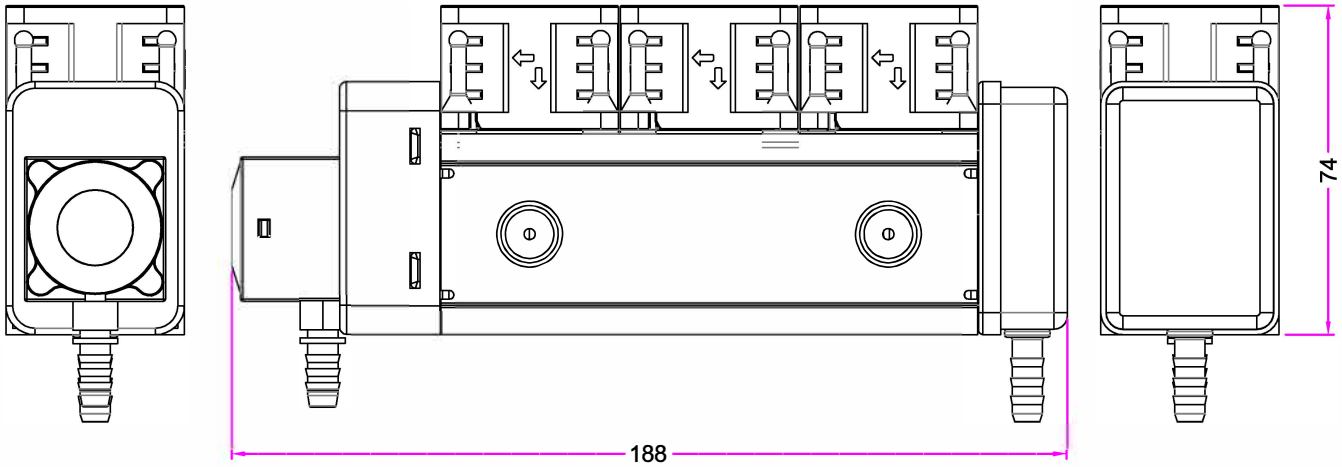
DWG. No: DYN-EP-L3-UH

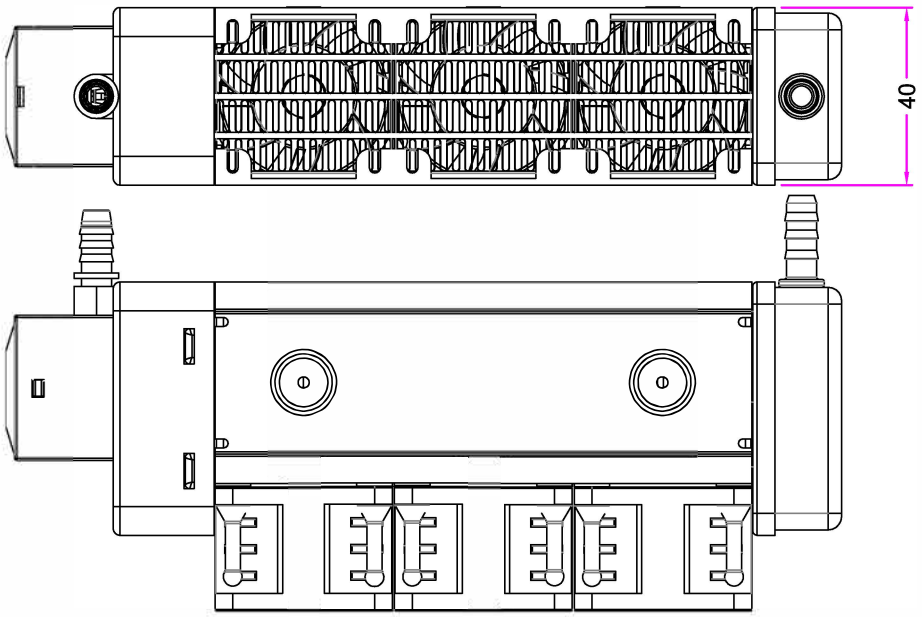
REV 0.0

REV#	DESCRIPTION	CHECKER	DATE
0.0	INITIAL RELEASE	ENGR	01/16/23









	NAME	DATE
DRAWN BY	ENGR	01/16/23
CHECKED BY	ENGR	01/16/23
ENG.APPROVED		
MFG.APPROVED	-	-

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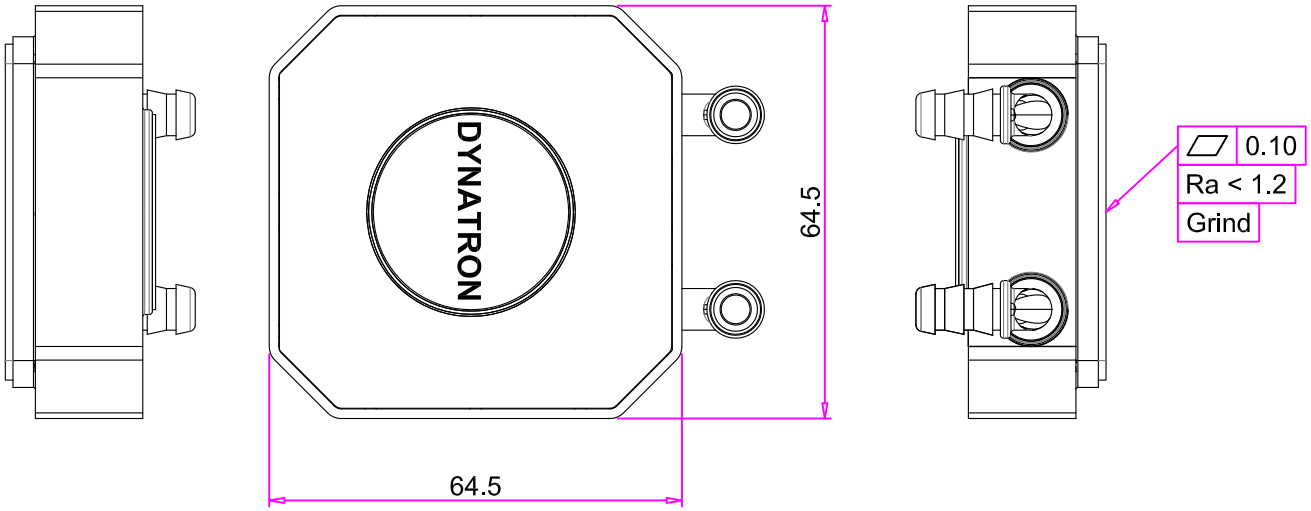
DYNATRON CORPORATION

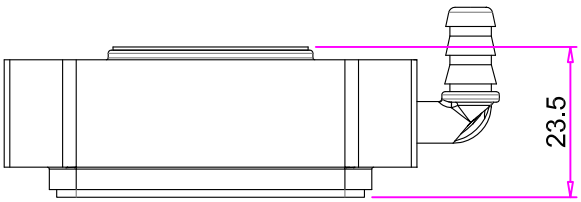
TOP MOTOR

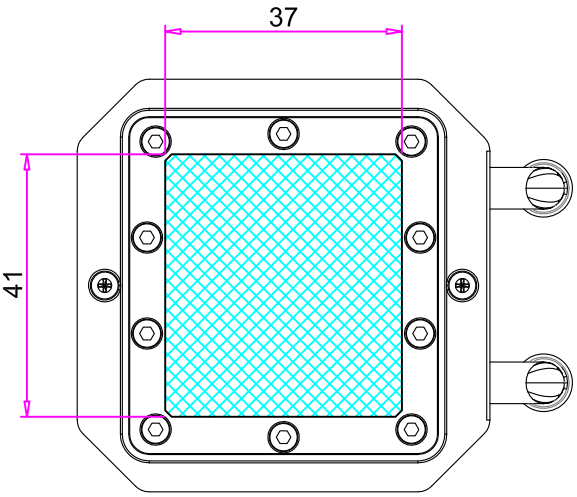
TITLE: 1U Server Liquid Cooler Condenser L3-UH
Overall Dimension Drawing

VIEW		DWG. No:	REV.
UNITS	MM		0.0

REV#	DESCRIPTION	CHECKER	DATE
0.0	INITIAL RELEASE	LANG	10/07/15
1.0	ADD THERMAL GREASE PRE-APPLIED, F-3	LANG	12/04/15







ITEM#	DESCRIPTION		MATERIAL	QTY.
8	Thermal Grease, Pre-applied		Shin-Etsu 7762	1
7	Retaining Ring		Rubber	1
6	O-ring		Rubber	6
5	Nipple, 90° Angle		Plastic	2
4	Cold Plate Screw		Steel	10
3	Cold Plate Lid Screw		Steel	2
2	Cold Plate Lid		Plastic	1
1	Cold Plate Set	Enclosure	Plastic	1
		Base	Copper 1100	

	NAME	DATE
DRAWN BY	ENGR	12/04/2015
CHECKED BY	LANG	12/04/2015
ENG.APPROVED		
MFG.APPROVED	-	-

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TITLE: Liquid Cooler Cold Plate
BOM & Overall Dimension Drawing

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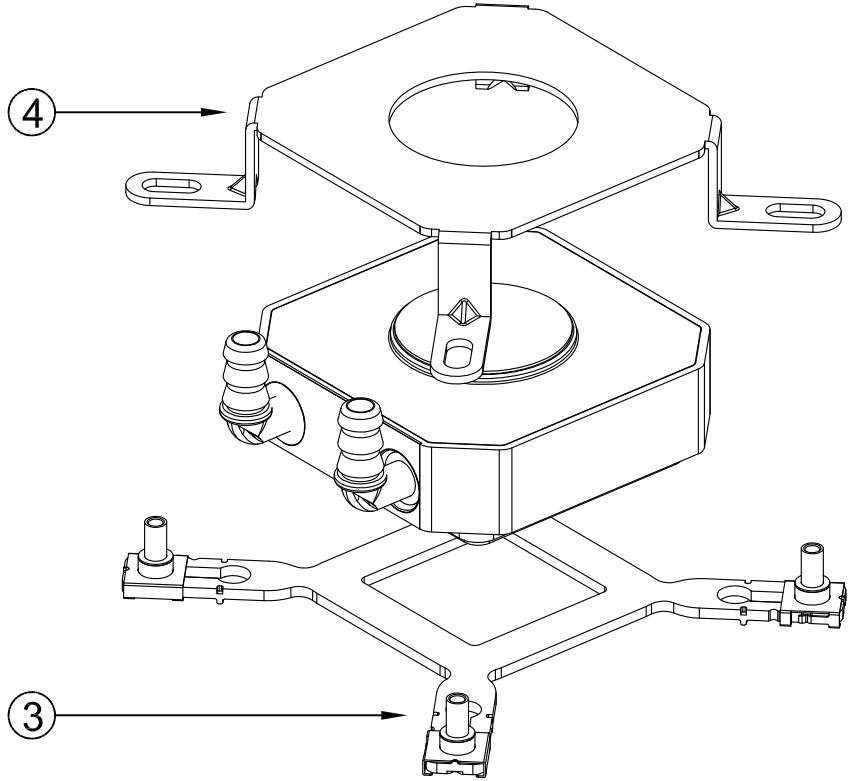
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UNITS	MM	DYN-BD-LCP	1.0

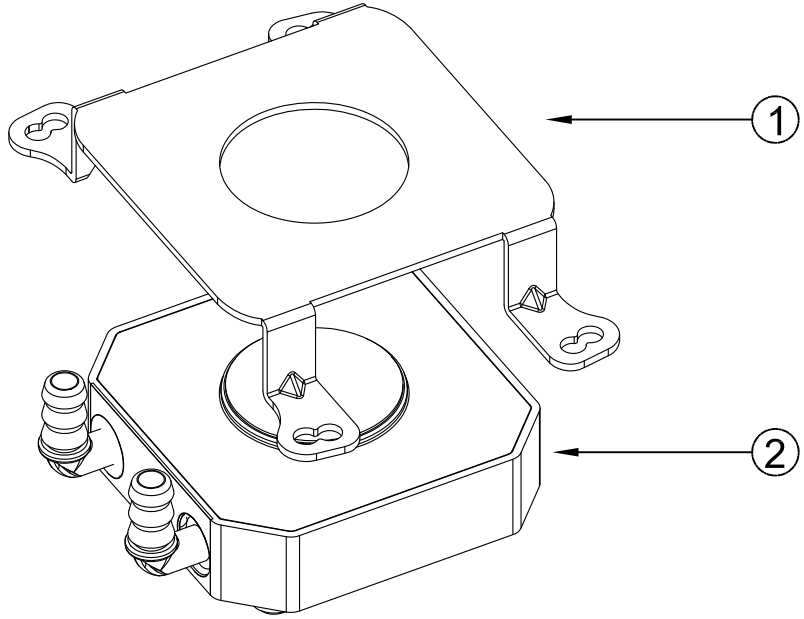
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REV#	DESCRIPTION	CHECKER	DATE
0.0	Initial Release	LANG	10/07/15

ASSEMBLY PARTS





ITEM NO.	DESCRIPTION		MATERIAL	QTY.
4	Retention, for Intel Socket LGA775 / 1151 / 1366 / 2011		SPCC	1
3	Backplate Set, for Intel Socket LGA775 / 1151 / 1366 / 2011		Steel	1
2	Cold Plate Set	Enclosure	Plastic	1
		Base	Copper 1100	
1	Retention for Intel Socket2011 Narrow for AMD Socket AM3 / AM2 / FM1 / FM2		SPCC	1

	DATE	NAME
DRAWN	10/07/15	ENGR
CHECKED	10/07/15	LANG
ENG. APPR.		
MFG. APPR.		
Q.A.		
COMMENTS:		

TOP MOTOR DYNATRON CORPORATION

TITLE: Liquid Cooler Cold Plate BOM & Exploded Drawing

DWG. No: DYN-EP-LCP

REV 0.0

DYNATRONCORPORATION

TOP MOTOR TECHNOLOGY (HUIZHOU) CO, LTD

Specification for Approval

Customer:	
Model Number:	watercooler pump
Part Number:	
Issued Date:	Wednesday, August 31, 2016
Version:	A

Customer Approval	
Approval:	Check:

Corporate Headquarters ***Dynatron Corporation*** 33200 Western Avenue Union City, CA 94587 U.S.A. Tel: 510-498-8888 Fax: 510-498-8488	*Taipei Office* *(Taiwan, R.O.C.)* 8F, No. 35,Lane:221 Gang Cian. Road, Taipei, Taiwan, R.O.C. Tel: 886-2-27995799 (Rep.) Fax: 886-2-2799-9577	Manufactory ***TOP MOTOR TECHNOLOGY(HUI ZHOU)CO,LTD*** Baishi Village,QiuchangTown, Huiyang Dist,HuizhouCity,Guangdong Province,P.R.China Tel: 86-752-822-8000 (Rep.) Fax: 86-752-822-8999
Approval:	Check:	Handler:
Simon Wang	-	Hui mei

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1. SCOPE

This specification defines the electrical and mechanical characteristics of the □ AC / ■ DC Brush Less (■Sleeve Bearing /□2-Balls Bearing) axial flow fan, which is carefully designed and manufactured for your special needs by Dynatron Corporation.

2.ELECTRICAL CHARACTERISTICS

Items		Description
1.	Rated Voltage	DC 12 V
2.	Start Voltage	DC 8 V
3.	Operating Voltage	10.2V~13.8V
4.	Flow Rate (minimal value)	1.7 LPM
5.	Input Current	0.25 A (Max)
6.	Input Power	3.0 W
7.	Speed	4000RPM±10%
8.	Insulation Resistance – Between Frame and Terminal	10 M ohm at DC 500 V
9.	Dielectric Strength – Between Frame and Terminal	5 mA (Max.) @ AC 500 V 60 Hz 1 min.
10.	Life – Continuous operating under normal temperature (40 °C or 104 °F)	70,000 hours
11.	Rotation	Counterclockwise Air Discharged
12.	Autorestart Time	3-5sec
13.	Lead Wires	UL 2468, awg 26 or Equivalent "-": Black; "+": Black; "s": Black.
14.	Acoustical Noise	30.00dBA

3. MECHANICAL CHARACTERISTICS

Items		Description
1.	Dimension	Display as Drawing
2.	Frame	PPS UL94V-0 (Black GP)
3.	Impeller	PPS UL94V-0 (Black GP)
4.	Bearing System	Ceramic Bearing
5.	Weight	56±5grams

4. ENVIRONMENTAL

Items		Description
1.	Operating Temperature	- 10 °C ~ + 65 °C (65 %RH)
2.	Storage Temperature	- 30 °C ~ + 70 °C (65 %RH)
3.	Vibration Test	Displacement Amplitude: 0.75mm(Equivalent 10G) Frequency Range: 10Hz<->55Hz/30SEC. Lineear Scanning 120 Cycle Endurance Timer Per Axis: 30Min. Orientation:X,Y,Z.
4.	Drop Test	Motor withstands one free body drop from 30 cm in high onto 10 mm thickness of wooden board for each of the three faces in minimum packing condition.
5.	Acoustic Noise	30.00dBA – Curve (30.50Max) Measuring Condition – Under rated voltage in semi-anechoic chamber equipment sound level meter. (Figure A.)

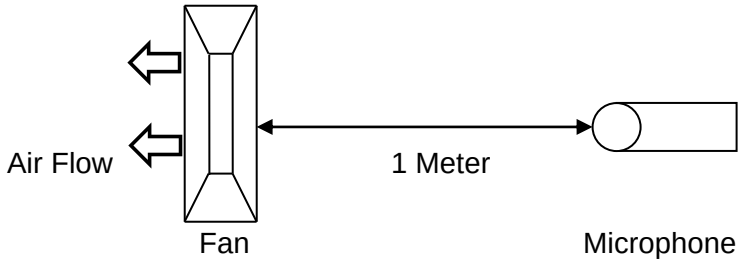
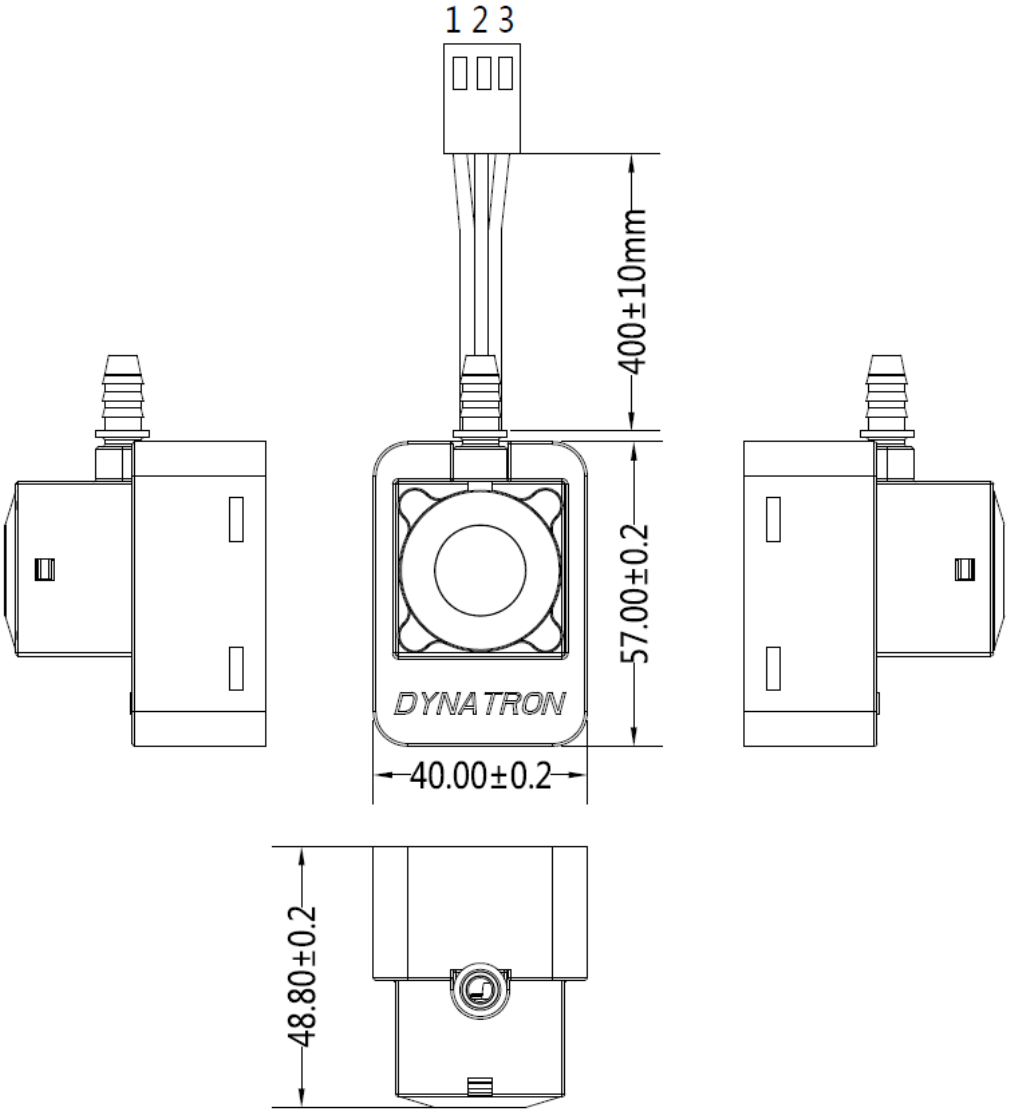


Figure A – Noise Level is measure at rated voltage in anechoic chamber in free air as above.

DIMENSION:



1.Note:

1.Leed Wire:UL2468 #26AWG

PIN 1: Black Wire ----Ground

PIN 2: Black Wire ----Power

PIN 3: Black Wire ----Signal

2.Connector:2510-3P