



TOP MOTOR

DYNATRON CORPORATION

TOP MOTOR TECHNOLOGY(HUIZHOU)CO,LTD

Specification for Approval

Customer:		
Model Number:	L34	
Part Number:		
Issued Date:	Monday, November 7, 2022	
Version:	A	
Customer Approval		
Approval:	Check:	
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Approval:	Check:	Handler:
Guo xuan	—	Xiao li



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1. SCOPE

This specification defines the electrical and mechanical characteristics of the □ AC / ■ DC Brushless Pump (■ Liquid State/ □ 2-Balls Bearing), which is carefully designed and manufactured for your special needs by Dynatron Corporation.

2. ELECTRICAL CHARACTERISTICS(Pump)

Items		Description
1.	Rated Voltage	DC 12V
2.	Start Voltage	DC 7V
3.	Operating Voltage	10.2 V ~ 13.8 V
4.	Flow – (maximum value)	3.19LPM (0.86GPM)
5.	Input Current	0.6A (Max.)
6.	Input Power	4.8W
7.	Speed	4800RPM ± 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)	7,000 hours
11.	Rotation	Anticlockwise Air Discharged
12.	Autorestart Time	3-5sec
13.	Lead Wires	UL 2468, AWG 26 or Equivalent “-”: Black; “+”: Black; “S” Black;
14.	Acoustical Noise	26.5dBA(Max27 dBA)



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1. SCOPE

This specification defines the electrical and mechanical characteristics of the □ AC / ■ DC Brush Less (■Liquid State /□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.	Operating Voltage	10.8V~13.2V		
3.	PWM Frequency 25KHz	Duty Cycle D=0~20%	Duty Cycle D=50%	Duty Cycle D=100%
4.	Start Voltage	8V		
5.	Air Flow – At rated voltage zero static pressure (minimal value)	0.654m ³ / min (23.085CFM)	1.502m ³ / min (53.01CFM)	2.907m ³ / min (102.60CFM)
6.	Static Pressure – At rated voltage At zero air flow	1.152mm-H ₂ O (0.045inch-H ₂ O)	6.074mm-H ₂ O (0.239inch-H ₂ O)	22.752mm-H ₂ O (0.896inch-H ₂ O)
7.	Input Current (Max.)	0.10A	0.32A	1.90A
8.	Speed	1350RPM±200	3100RPM±10%	6000RPM±5%
9.	Acoustical Noise	24.77dBA	42.82dBA	57.16dBA
10.	Input Power	1.20W	3.84W	22.8W
11.	Insulation Resistance – Between Frame and Terminal	10 M ohm at DC 500 V		
12.	Dielectric Strength – Between Frame and Terminal	5 mA (Max.) @ AC 500 V 60 Hz 1 min.		
13.	Life – Continuous operating under normal temperature (40 °C or 104 °F)	70,000 hours		
14.	Rotation	Anticlockwise Air Discharged		
15.	Lead Wires	UL 1007, awg 26 or Equivalent “-”: Black; “+”: Yellow; “S”: Green. “PWM”: Blue.		



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2. MECHANICAL CHARACTERISTICS

Items		Description
1.	Dimension	Display as Drawing
2.	Frame	PBT UL94V-0 (Black GP)
3.	Impeller	PBT UL94V-0 (Black GP)
4.	Frame (Pump)	PPS UL94V-0 (Black GP)
5.	Impeller(Pump)	PPS UL94V-0 (Black GP)
6.	Bearing System	Liquid State
7.	Weight	--grams

3. 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. Linear 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	24.77/42.82/57.16dBAurve (Max25.27/43.32/57.66dBA) Measuring Condition – Under rated voltage in semi-anechoic chamber equipment sound level meter. (Figure A.)

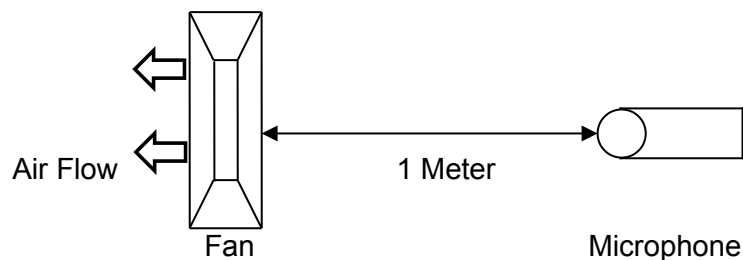


Figure A – Noise Level is measure at rated voltage in anechoic chamber in free air as above.



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4. PROTECTION

Items		Description
1.	Polarity Protection	For polarity error connection to power, the circuit withstands reversed connection between positive and negative leads.
2.	Locked Rotor Protection	Motor winding protects the motor from damage in 72 hours of locked rotor condition at rated voltage.

5. PROTECTION

Items		Description
1.	Polarity Protection	For polarity error connection to power, the circuit withstands reversed connection between positive and negative leads.

6. ATTACHMENTS

6.1. Product Dimension

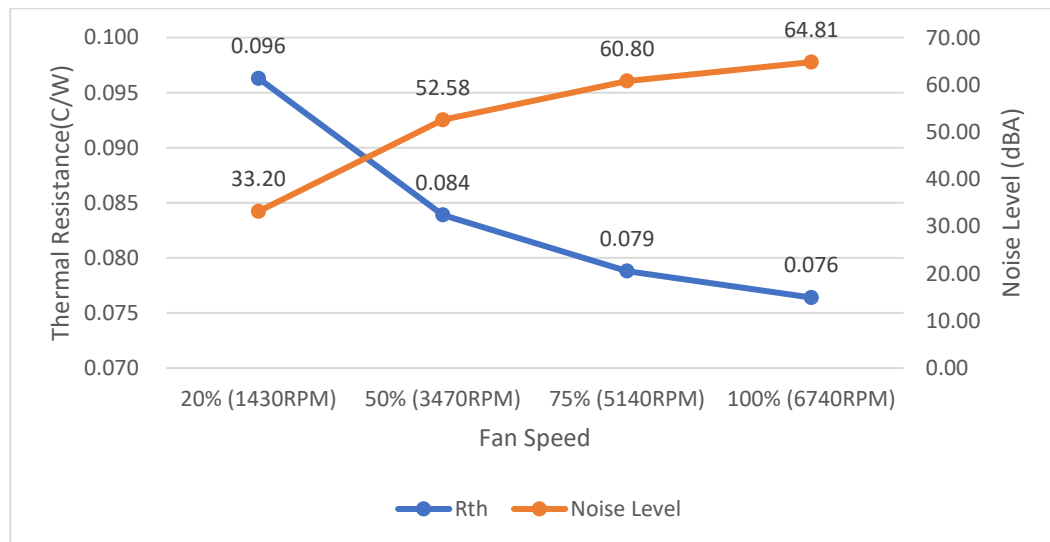


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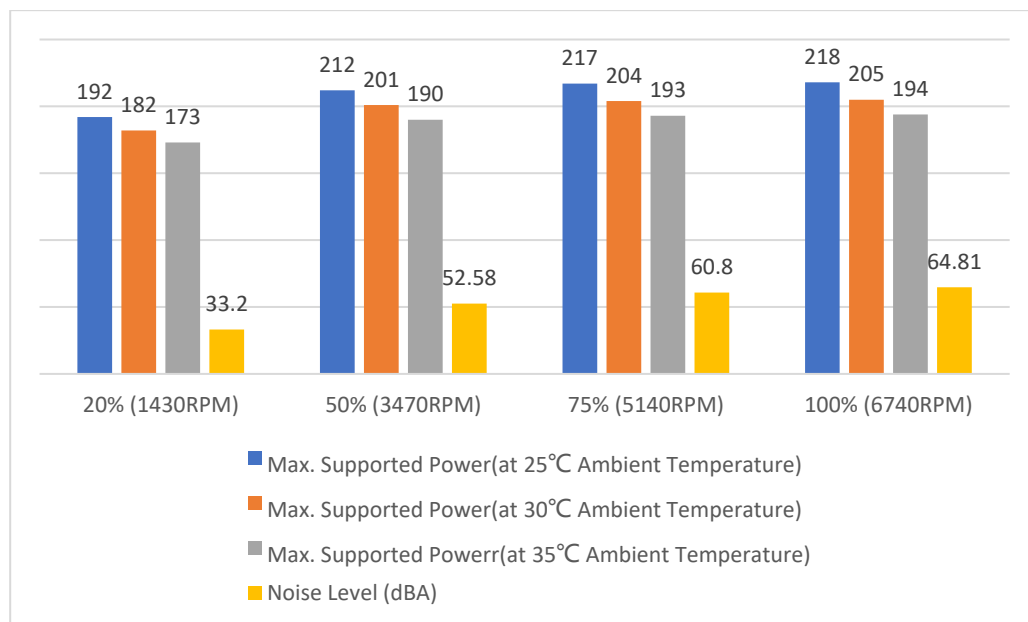
Performance Chart: Active Cooler L34 Thermal Resistance LGA 1700

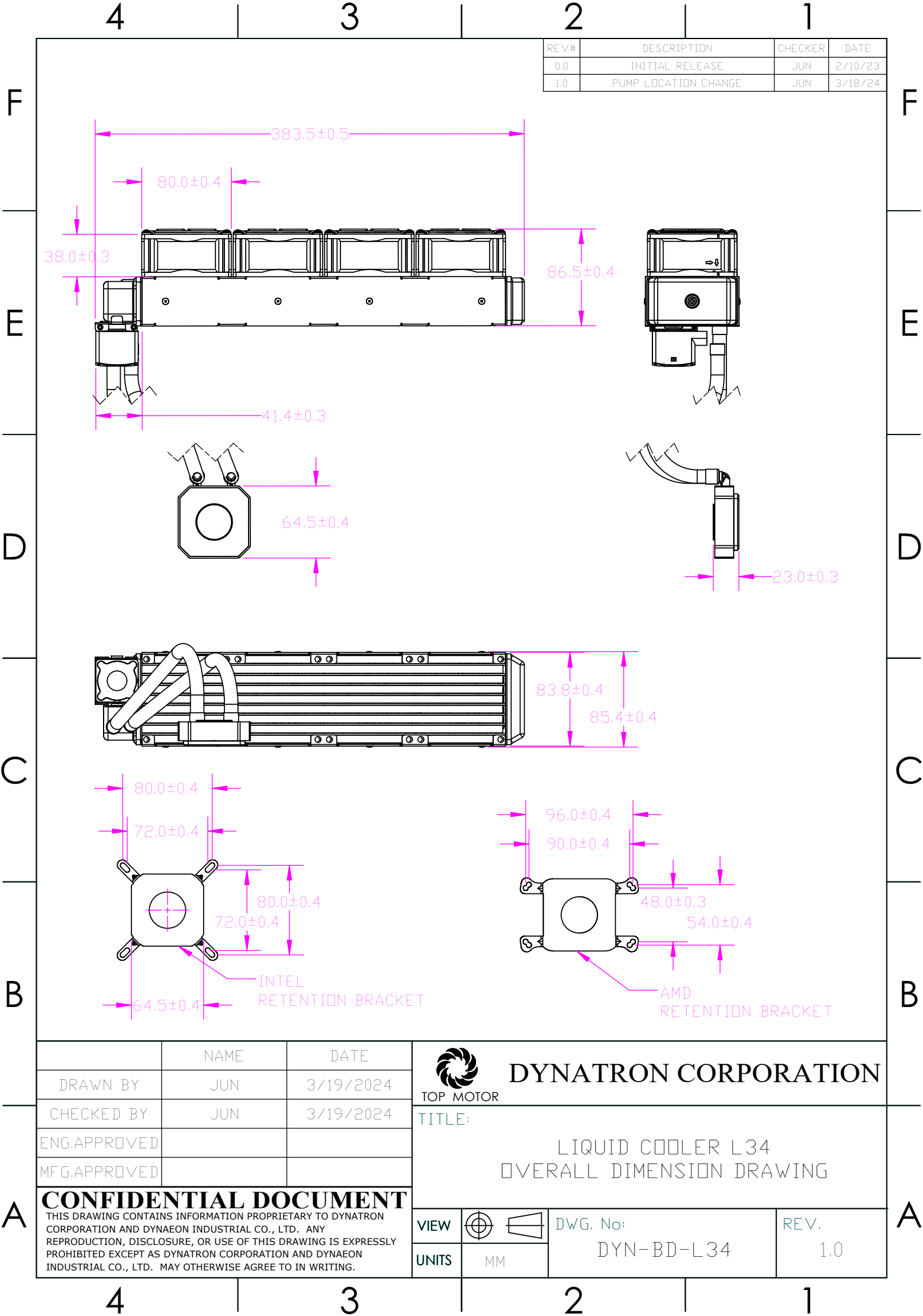
Thermal Resistance vs. Fan Speed (Duty Cycle and RPM)



Socket AM5

Max. supported power (at specific ambient temperature) vs. Fan Speed (Duty Cycle and RPM)





REV#	DESCRIPTION	CHECKER	DATE
0.0	INITIAL RELEASE	JUN	2/10/23
1.0	PUMP LOCATION CHANGE	JUN	3/18/24

	NAME	DATE
DRAWN BY	JUN	3/19/2024
CHECKED BY	JUN	3/19/2024
ENG.APPROVED		
MFG.APPROVED		



DYNATRON CORPORATION

TOP MOTOR

TITLE:

LIQUID COOLER L34
OVERALL DIMENSION DRAWING

VIEW	
UNITS	MM

DWG. No:	DYN-BD-L34
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REV.	1.0
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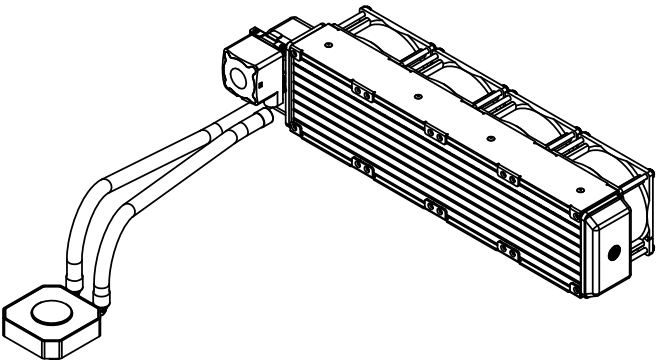
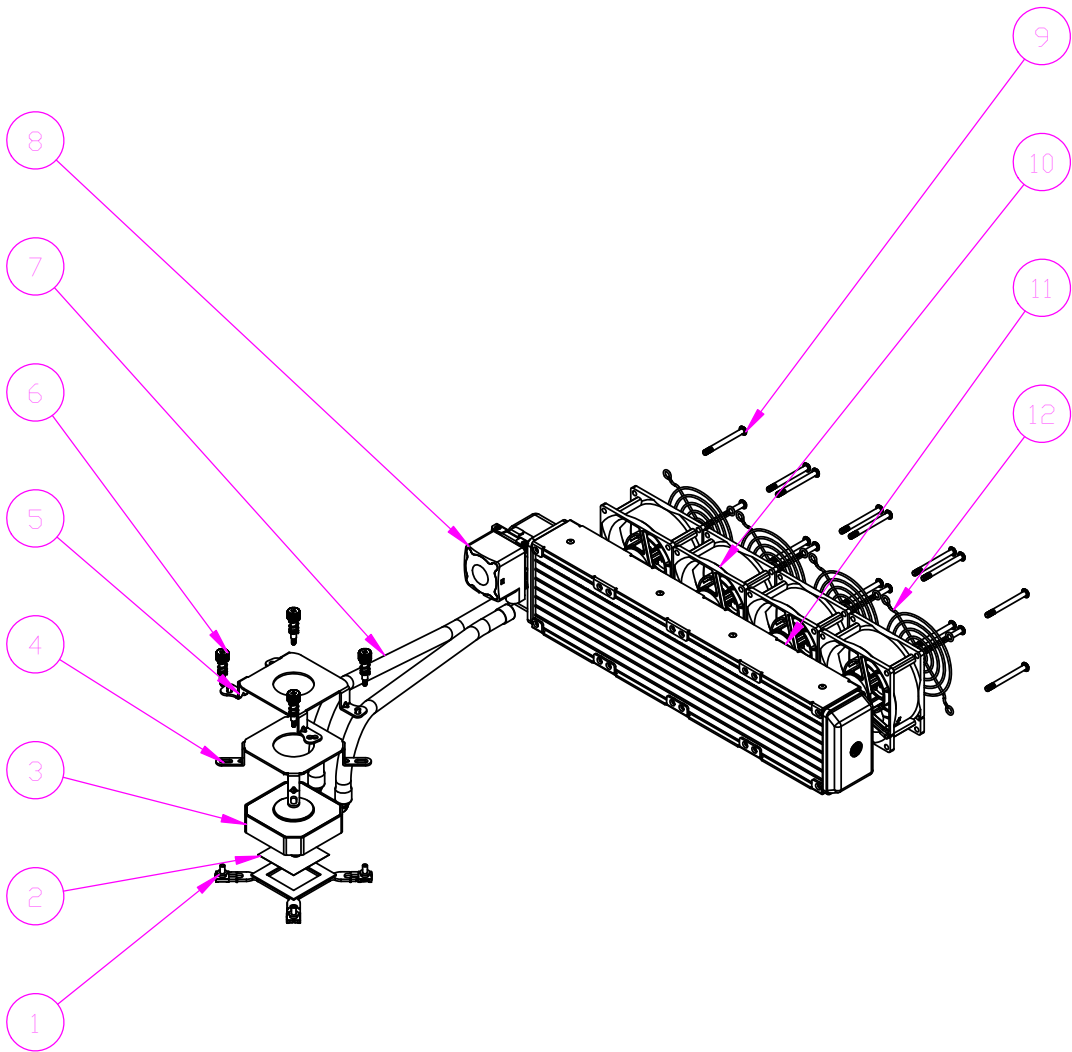
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REV#	DESCRIPTION	CHECKER	DATE
0.0	INITIAL RELEASE	JUN	02/10/24
1.0	PUMP LOCATION CHANGE	JUN	03/18/24

B



B

A

NOTES:
THE FIGURE IS FOR REFERENCE ONLY, AND NOT FOR SCALE

12	FAN GUARD	ALUMINUM ALLOY	4
11	RADIATOR	ALUMINUM ALLOY	1
10	FAN, DF128038BU-PWMG, 6000 RPM	PLASTIC	4
9	SCREW, FANS	STEEL	16
8	PUMP, PUMP-60	PLASTIC	1
7	HOSE, 300MM	EPDM	2
6	SCREW, RETENTION (INCLUD AM4/5, INTEL LGA1700/I15X, LGA2011)	STEEL	12
5	AMD RETENTION BRACKET	STEEL	1
4	INTEL RETENTION BRACKET	STEEL	1
3	COLD PLATE	PLASTIC LID, CU BASE	1
2	THERMAL GREASE	SHIN-ETSU X23-8079-2	N/A
1	INTEL BACKPLATE	STEEL	1
ITEM #	DESCRIPTION	MATERIAL	QTY.

	DATE	NAME	 DYNATRON CORPORATION TOP MOTOR	
DRAWN	3/19/2024	JUN	TITLE: 2U LIQUID COOLER L34 BOM & exploded Assembly Drawing	
CHECKED	3/19/2024	JUN		
ENG.APPR.				
MFG.APPR.				
COMMENTS:				
			DWG. NO. DNY-EP-L34	REV 1.0

A