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Evaluation Report

APEX Stealth Metal Power 120mm



FAN TESTING MACHINE TECHNICAL SPECIFICATIONS

Manufacturer	Long Win Science & Technology Corporation
Model Number	LW-9266
Air Flow Rate	2.4 – 250 CFM
Accuracy of Air Flow Rage	< 3.5% INFS
Repeatability error	< 2%
Static pressure	0-20mmAq (100mmAq with the high static pressure throttle device)
Overall Dimensions	0.7 (W) x 2.2 (L) x 1.6 (H) m
Power Source	220VAC, 5A, Single Phase, 50/60Hz
Based on Standards	ISO 5801-2007, AMCA 210-0, ASHRAE 51-2007, IEC 61591-2005, GB/T 1236-200

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TEST EQUIPMENT	
Test Environment	Hemi-Anechoic Chamber with 6 dB(A) noise floor
Conditions	25(±2) degrees Celsius, 40-50% humidity
Sound Analyzer	Bruel & Kjaer 2270-S G4 & 2250-L G4
Microphone	Bruel & Kjaer Type 4955-A
Mic Calibrator	Bruel & Kjaer Type 4231
Data Logger	Picoscope TC-08

TECHNICAL SPECIFICATIONS TABLE	
Brand	Alphacool
Model	APEX Stealth Metal Power 120mm
Max Speed (RPM)	3030
Max Airflow (CFM)	70.98
Max Static Pressure (mmAq)	4.23
Max Fan Noise Level	40.10
Fan Bearing Type	Hydro Dynamic
Fan Connector	PWM
Fan Max Current (A)	0.28
Fan Weight (gr)	335
Dimensions (W \times H \times D)	120x120x26
Fan daisy-chain connector	
Cable length (mm)	30

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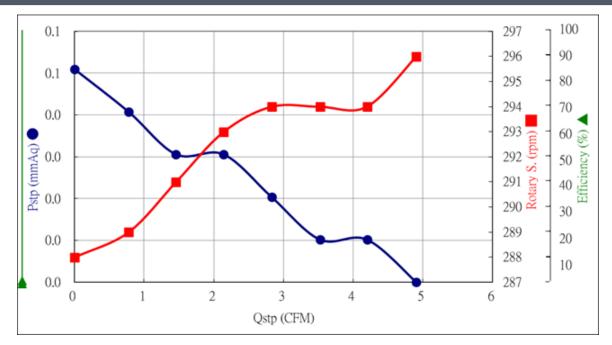


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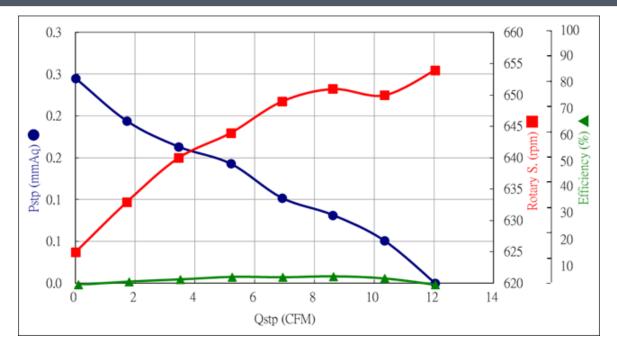
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PQ Chart 20% Speed



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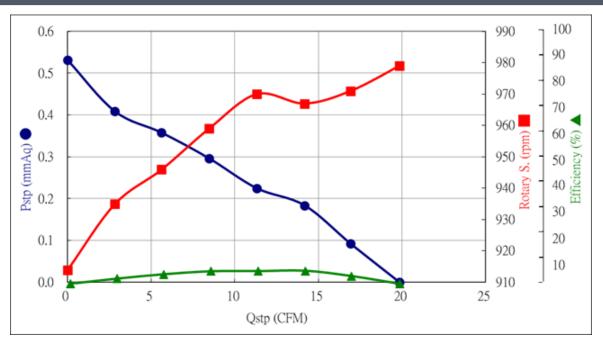


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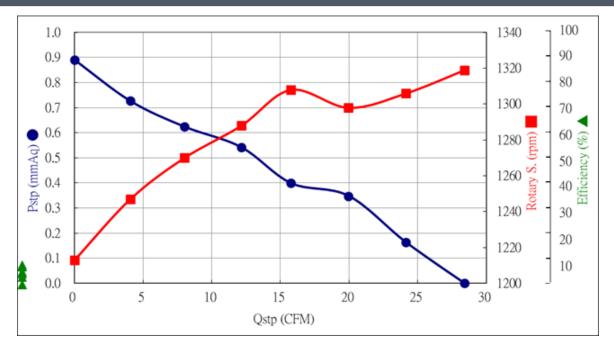
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PQ Chart 40% Speed



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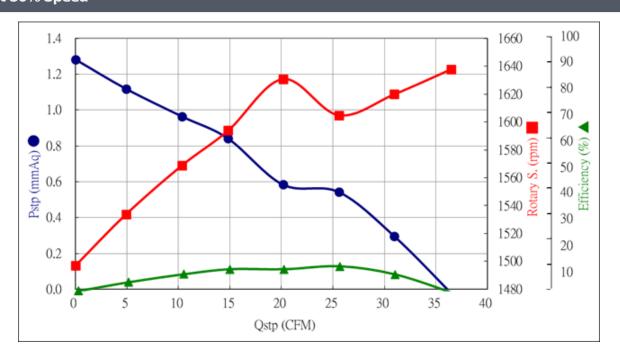


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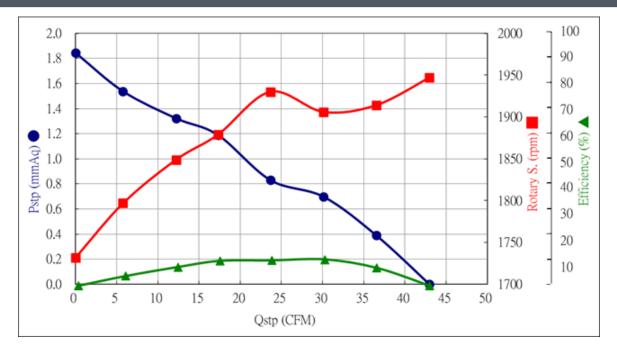
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PQ Chart 50% Speed

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PQ Chart 60% Speed



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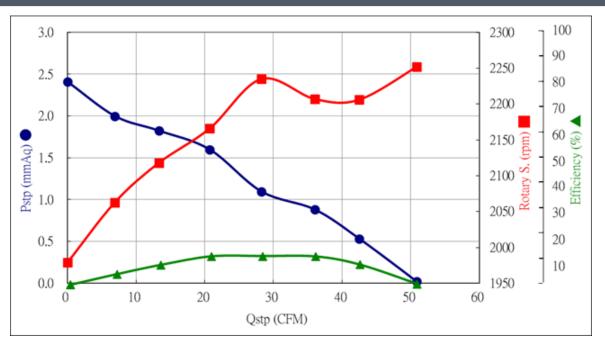


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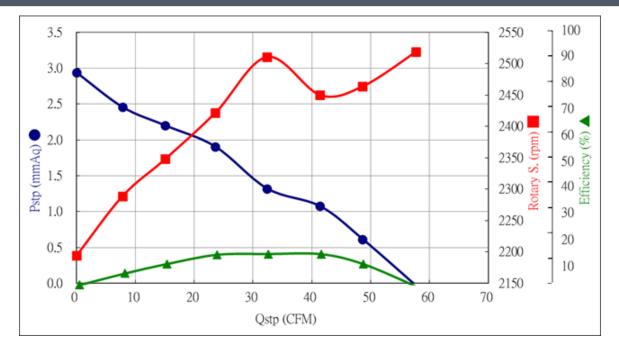
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PQ Chart 80% Speed



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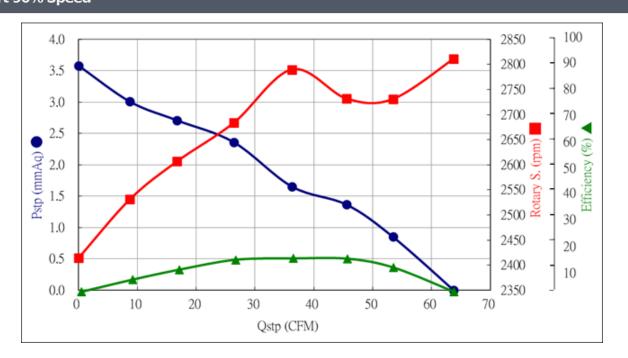


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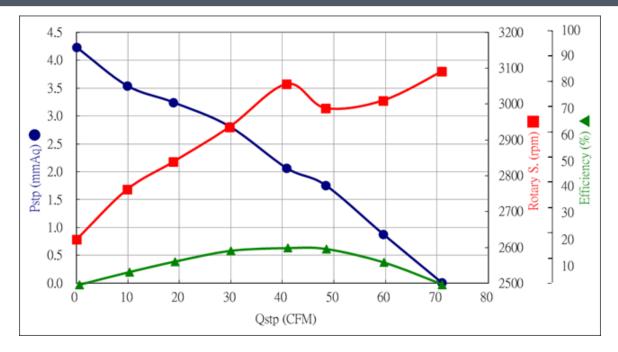
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PQ Chart 90% Speed

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PQ Chart 100% Speed



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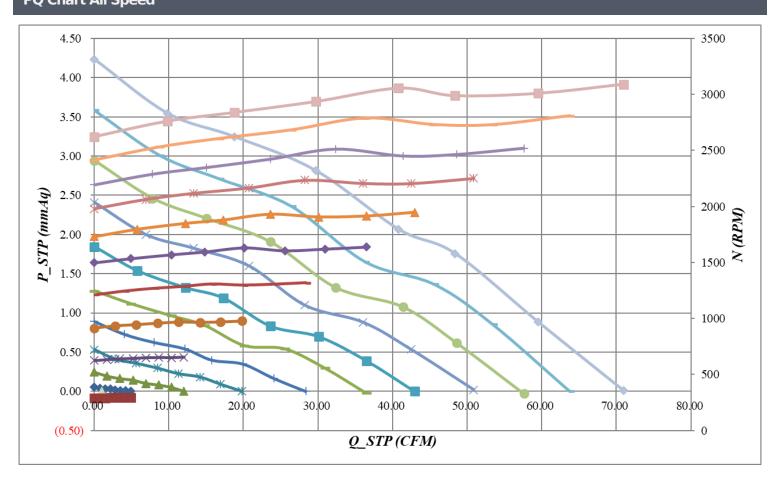


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APEX Stealth Metal Power 120mm

PQ Chart All Speed

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Speed Percentage - Speed RPM - LongWin Alphacool APEX Stealth Metal Power 120mm	Cybenetics Lower is better
10%: 296RPM	
20%: 654RPM	
30%: 979RPM	
40%: 1319RPM	
50%: 1638RPM	
60%: 1947RPM	
70%: 2252RPM	
80%: 2519RPM	
90%: 2811RPM	
100%: 3091RPM	

CFM Alphacool APEX Stealth Metal Power 120mm	Cybenetics Higher is better
10%: 4.91CFM	
20%: 12.04CFM	
30%: 19.84CFM	
40%: 28.38CFM	
50%: 36.49CFM	
60%: 42.95CFM	
70%: 50.9CFM	
80%: 57.63CFM	
90%: 63.76CFM	
100%: 70.98CFM	

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Static Presure Alphacool APEX Stealth Metal Power 120mm	Cybenetics Higher is better
10%: 0.05mmAq	
20%: 0.25mmAq	
30%: 0.53mmAq	
40%: 0.89mmAq	
50%: 1.28mmAq	
60%: 1.85mmAq	
70%: 2.41mmAq	
80%: 2.94mmAq	
90%: 3.58mmAq	
100%: 4.23mmAq	

Power Consumption Alphacool APEX Stealth Metal Power 120mm	Cybenetics Lower is better
10%: 0.01W	
20%: 0.12W	
30%: 0.26W	
40%: 0.48W	
50%: 0.76W	
60%: 1.12W	
70%: 1.57W	
80%: 2.04W	
90%: 2.65W	
100%: 3.36W	

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Amperes Alphacool APEX Stealth Metal Power 120mm	Cybenetics Lower is better
20%: 0.01A	
30%: 0.02A	
40%: 0.04A	
50%: 0.06A	
60%: 0.09A	
70%: 0.13A	
80%: 0.17A	
90%: 0.22A	
100%: 0.28A	

Speed Percentage - Noise Alphacool APEX Stealth Metal Power 120mm	Cybenetics Lower is better
10%: 6dBA	
20%: 6.9dBA	
30%: 9.6dBA	
40%: 15dBA	
50%: 20.5dBA	
60%: 26.1dBA	
70%: 29.6dBA	
80%: 34dBA	
90%: 36.4dBA	
100%: 40.1dBA	

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Speed - Noise Alphacool APEX Stealth Metal Power 120mm	Cybenetics Lower is better
303: 6dBA	
606: 6.9dBA	
758: 9.4dBA	
909: 9.6dBA	
1212: 15dBA	
1515: 20.5dBA	
1818: 26.1dBA	
2121: 29.6dBA	
2272: 32.2dBA	
2424: 34dBA	
2727: 36.4dBA	
3030: 40.1dBA	

Noise - Speed RPM Alphacool APEX Stealth Metal Power 120mm	Cybenetics Lower is better
20 dBA: 1490RPM	
25 dBA: 1780RPM	
30 dBA: 2140RPM	
35 dBA: 2505RPM	
40 dBA: 3020RPM	

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