



## SPECIFICATIONS FOR APPROVAL



**NISIKI MODEL: NIS12038HS2W-EC**

**DRAWING NO.: XXXX-XXX-XXX**

**CUSTOMER:**

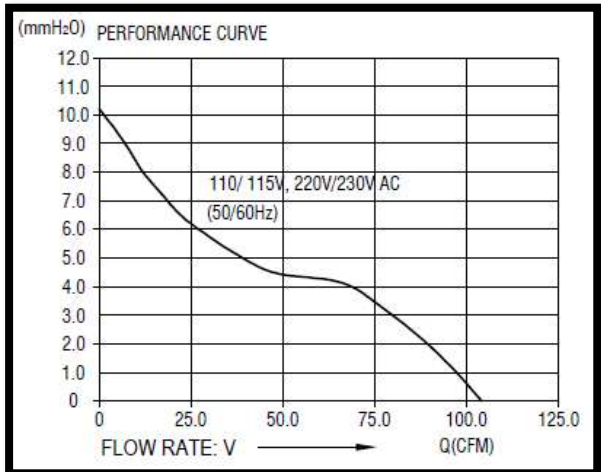
**CUSTOMER PART NO.:**

Accepted by (Sign & stamp)

**NISIKI INDIA PVT. LTD.**

**[www.nisiki.net](http://www.nisiki.net)**

## 1.0 GENERAL SPECIFICATION:

ITEM		SPECIFICATION/ CONDITION	
1	Model No.	NIS12038HS2W-EC	
2	Outline Dimension	120x120x38mm	
3	Rated Voltage	110-120VAC & 220-240VAC	
4	Operating Voltage Range	110~270VAC	
5	Frequency	50/60Hz	
6	Rated Current (±10%)	0.07 Amps	a. Rated Voltage b.25°C 65%RH c. After Testing For 5-10 minutes
7	Power Consumption (±10%)	5W	
8	Speed (±10%)	2600	
9	Airflow AT ZERO STATIC PRESSURE	105 CFM	a. Rated Voltage b. AMCA Standard c. Rated current
	Air Static Pressure AT ZERO AIRFLOW	10.16mm H <sub>2</sub> O	
10	Noise Level	35dB	a. Rated Voltage b.18dB Non-Echo Chamber c. Standard: CNS 8753/ISO 3744 d. Test Condition : ISO 7779 e. Distance: 1.0M
11	Life Expectancy	40,000 Hrs at temp 40°C	MTTF Mean Time to Failure Conf. Level 90%
12	No. of Blades	5	
13	No. of Pole	4	
14	Weight	Approx. 0.230 Kg	
15	Rotating Direction	CW seen from the label side	
16	Lock Protection	Electronically Power Cut Off	
17	<div><p>(mmH<sub>2</sub>O) PERFORMANCE CURVE</p><p>110/ 115V, 220V/230V AC (50/60Hz)</p><p>FLOW RATE: V → Q(CFM)</p></div>		

## **2.0 MAIN MATERIALS/ PARTS SPECIFICATION:**

MATERIALS/ PARTS		SPECIFICATION
1	Frame	Thermoplastic PBT of UL 94V-0 Grade
2	Impeller	Thermoplastic PBT of UL 94V-0 Grade
3	Bearing Type	Sleeve Bearing
4	Lead Wires	UL1007#22AWG Grade, Black
5	Environmental Requirement	√ RoHS

## **3.0 ELECTRICAL SPECIFICATION:**

1	Insulation Resistance	10MΩ between Wire & Frame
2	Dielectric strength	10mA max./measured between lead wire's and frame at 1500VAC/MIN.
3	Motor Protection	Over current Protection

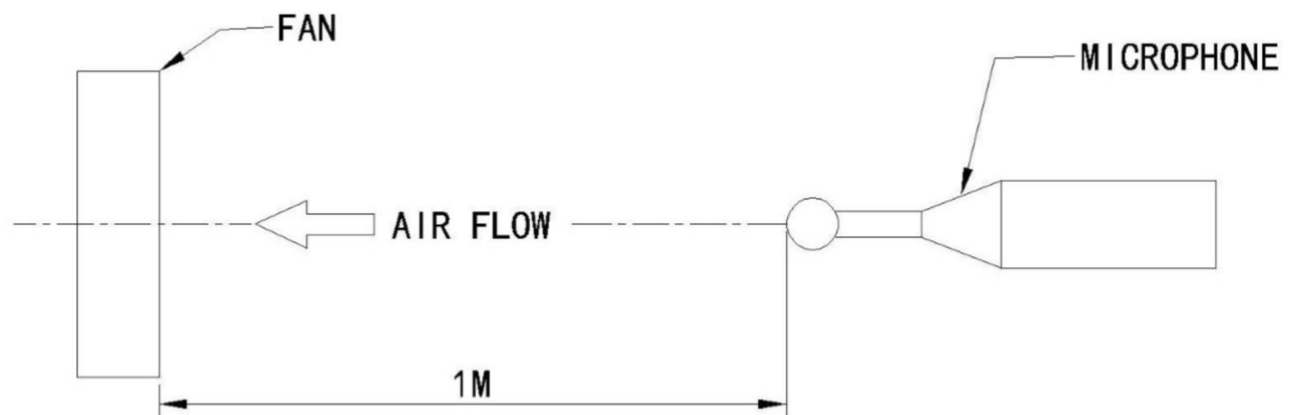
## **4.0 \*NOTES:**

- a. Auto power off after locked at rated voltage for 2~3 sec. Reduce internal temperature rise
- b. After auto power off, circuit attempt to restart in 2 to 6 sec.
- c. Inrush current for 230V AC is 0.18Amp.
- d. Inrush current for DC is 1.7Amp.
- e. Ingress Protection: IP66
- f. Ex Certified
- g. Operating temperature range: -40<sup>0</sup>c to +70<sup>0</sup>c
- h. Epoxy potted
- i. 230V Supply line - Surge Protection Level: Up to 5KV.
- j. In-line Ceramic Fuse added in wires for safety.

## 5.0 ENVIRONMENTAL SPECIFICATION:

1	Operating Temp Range	Temperature: -40°C To +70°C Humidity: 5% To 95%RH
2	Storage Temperature	Temperature: -40°C To +75°C Humidity: 5% To 95%RH
3	Humidity	MIL-STD 202F Method 103B: 95%RH 40±2°C
4	Thermal Shock	Method 107D Per MIL-STD 202F Method 107D, Condition D
5	Insulation Shock	UL : Class A
6	Packing Vibration Test	XYZ, 1.1G Load Vibration test for 30min. No serious damage
7	Packing Shock Proof Test	1 corner, 3 Edges, 6 Faces. Natural drop from 60cm high packing. No serious damage.

## 6.0 Noise is measured at Rated Voltage in Anechoic:

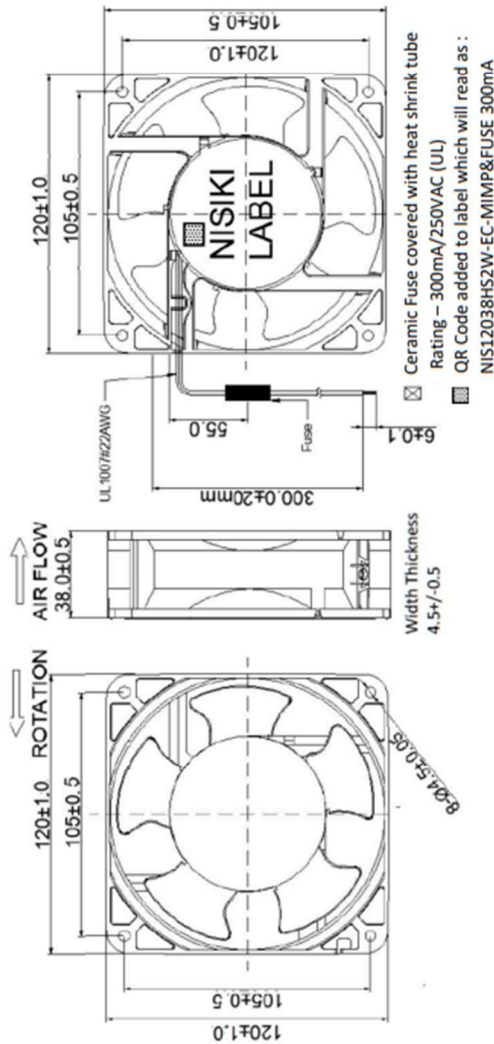


Noise is measured at rated voltage free air in anechoic with B&K sound level meter with a microphone at a distance of one meter from fan intake.

The background noise is 18dB (A)

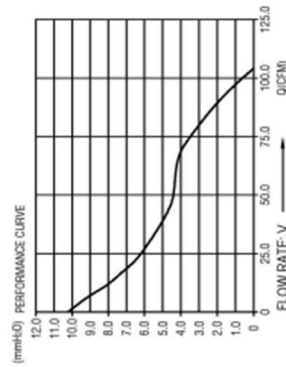
CUSTOMER : Coca-Cola  
CUSTOMER PART NO. :  
APPLICATION: REFRIGERATION EQUIPMENT

ITEM	DESCRIPTION
MOTOR TYPE	EC MOTOR (4 POLES)
RATED VOLTAGE (V AC)	220 – 240
OPERATING VOLTAGE RANGE (V AC)	110 – 270
FREQUENCY (Hz)	50/60
CURRENT (A)	0.07
INPUT POWER (W) ± 10%	5
SPEED (RPM) ± 10%	2600
MAX AIR FLOW (CFM)	105
MAX STATIC PRESSURE (mm H <sub>2</sub> O)	10.16
NOISE (dB)	35
NUMBER OF BLADES	5
MOTOR PROTECTION	OVERCURRENT PROTECTION
LOCK PROTECTION	ELECTRICAL POWER CUT OFF
MAX PERMISSIBLE TEMP.	70 °C
LIVE TIME (MTBF)	40,000 Hrs @ 40 °C
AUTO RESTART FUNCTION	IN-BUILT
EPOXY	YES



#### NOTES:

- AUTO POWER OFF AFTER LOCKED AT RATED VOLTAGE FOR 2-3 SEC. REDUCE INTERNAL TEMPERATURE RISE.
- AFTER AUTO POWER OFF, CIRCUIT ATTEMPT TO RESTART IN 2 TO 6 SEC.
- ROHS
- INSULATION RESISTANCE : 100MΩ BETWEEN WIRE AND FRAME
- INRUSH CURRENT FOR 230VAC IS 0.18Amp.
- INRUSH CURRENT FOR 24VDC IS 1.7Amp.
- DIELECTRIC STRENGTH:  
10mA MAX./MEASURED BETWEEN LEAD WIRE'S AND FRAME AT 1500VAC/MIN.
- INGRESS PROTECTION: IP66
- EX CERTIFIED
- OPERATING TEMPERATURE RANGE: -40 °C TO +70 °C
- EC FAN OPERATE ON 110/ 115V (50/ 60Hz), 220/ 230V (50/ 60Hz).
- EPOXY COATING
- 230V SUPPLY LINE- SURGE PROTECTION LEVEL: UPTO 5KV
- INLINE CERAMIC FUSE ADDED FOR SAFETY
- IMPELLER MODIFIED



3	BEARING TYPE	1	SLEEVE BEARING	SINTERED BRONZE
2	IMPELLER	1	PBT(U194V-0 GRADE) + 30% GLASS FILLED	BLACK
1	FRAME	1	PBT(U194V-0 GRADE) + 30% GLASS FILLED	BLACK
SR. NO.	PART NAME	QTY	MATERIAL	REMARK

NOMENCLATURE				AC COOLING FAN	
				NIS12038H52W-EC (4" FAN)	
SCALE : NTS	DATE	PREPARED BY	CHECKED BY	APPROVED BY	
UNIT : mm		DNYANESHWAR	ASIF	RAJESH	
MASS ≈ 230 G					
DRAWING NUMBER					
XXXX-XX-XX					

**NISIKI**  
INDIA PRIVATE LIMITED

