



Specification For Approval

Customer : _____
Description : Heat Exchanger 15W/K
Customer Part No. : _____ Rev. : _____
Delta Model No. : HEX015VA Rev : 02
Sample Issue No. : _____
Sample Issue Date : Jun.3.2020

Please send one copy of this specification back after you signed approval for production pre-arrangement

Approved by : _____

Date : _____

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*** SAMPLE HISTORY***

CUSTOMER :

CUSTOMER P/N :

DELTA MODEL : HEX015VA[illegible]

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Specification For Approval

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Description : Heat Exchanger 15W/K

Customer P/N :

Rev. :

Delta model no. : HEX015VA

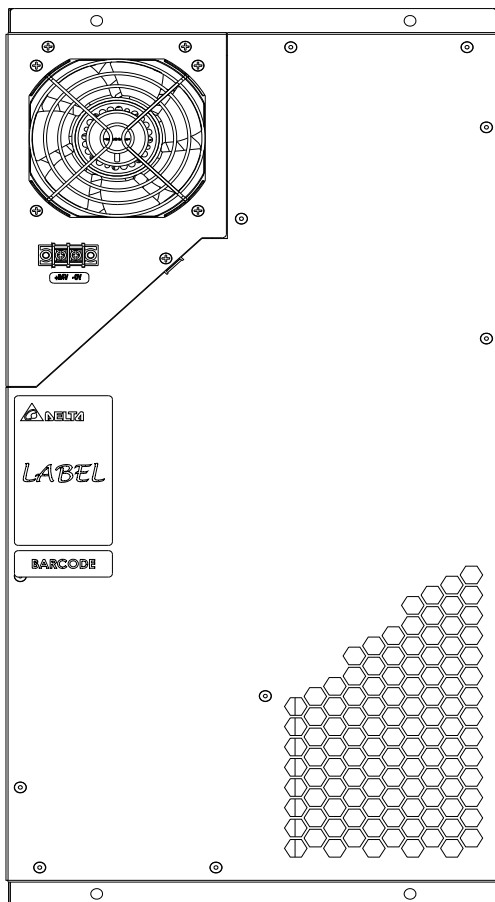
Rev. : 02

Sample revision. :

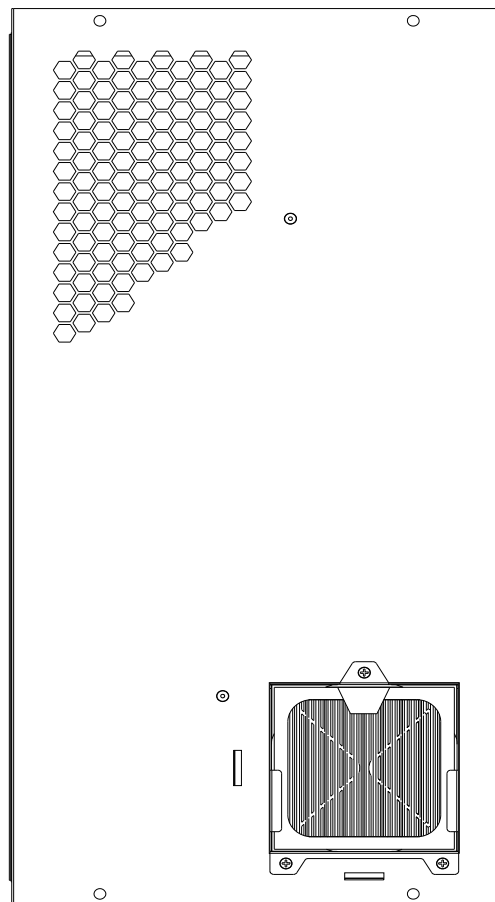
Issue no. :

Sample issue date :

Quantity : sets



Internal



External

Part no. :

Delta model no. : HEX015VA

1. Description

1-1. General description

The Heat Exchanger (HEX) is designed for direct air to air heat exchange to remove the heat from the cabinet.

The internal and the external air circulation loops of the HEX are separated to prevent the introduction of dust, humidity and dirt.

The fan on the external air loop conforms to IP55 protection rating.

1-2. Main feature & Model number

Main feature	Unit	Model Number
		HEX015VA
Outline Dimension	mm	510 H x 253 W x 78 D
Weight	Kg	5.0
Cooling (*Note 1)	W/K	15
Rated Voltage	VDC	24
Rated Current	A	1.2
Operating Voltage Range	VDC	20 – 26
Operating Current	A	1.0
Operating Power Consumption	W	24
Max.Ambient temperature	°C	65
Acoustic Noise (SPL) @ 1.0m	dB-A	65
Mounting Location	N/A	Internal door mount

*Note 1 : The cooling capacity (W/K or W/°C) is defined as $Q / (T_I - T_A)$

Q : Heat dissipation (W) from inside of cabinet

T_I : Return temperature of internal air circuit (K OR °C)

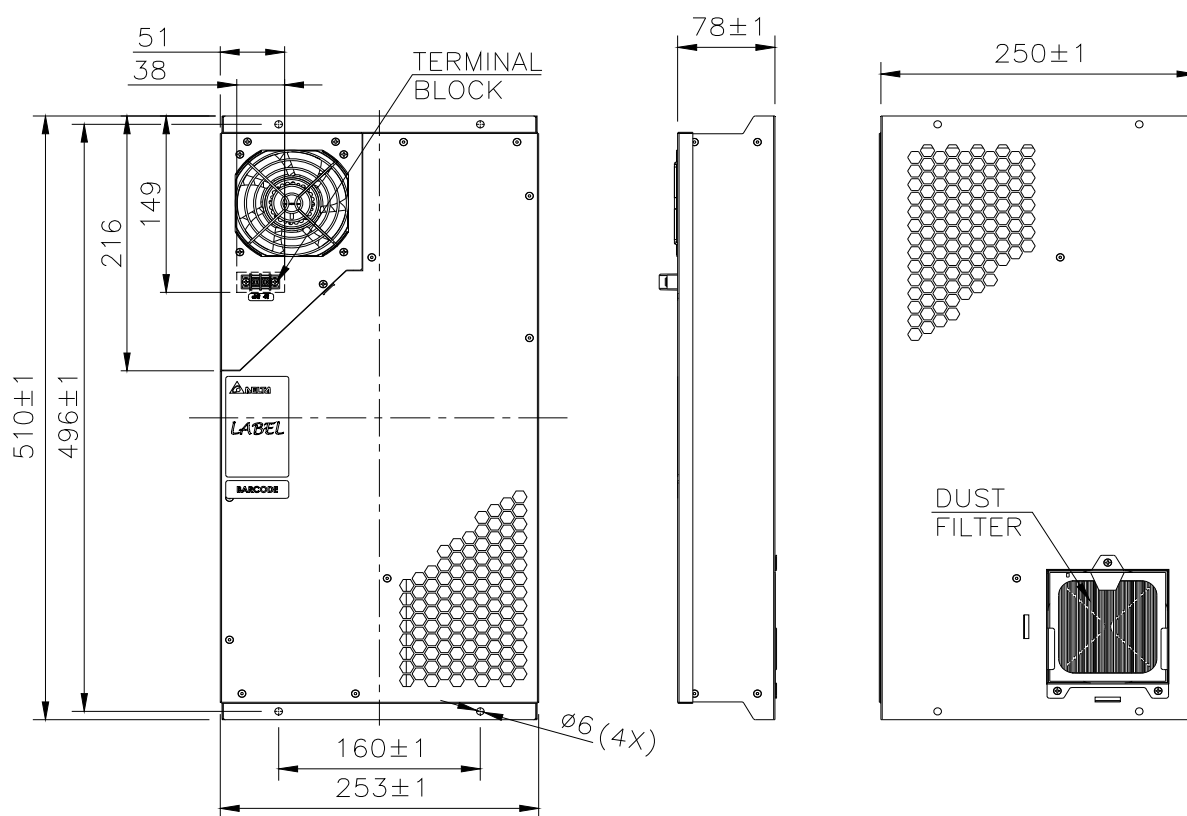
T_A : Ambient temperature of external air circuit (K OR °C)

Part no. :

Delta model no. : HEX015VA

1-3. Dimension

1-3-1. Drawing



(1) Material : SGLC sheet $t = 0.8\text{mm}$

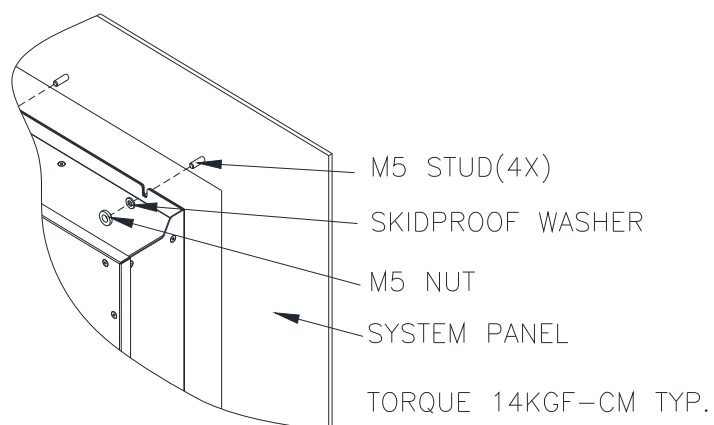
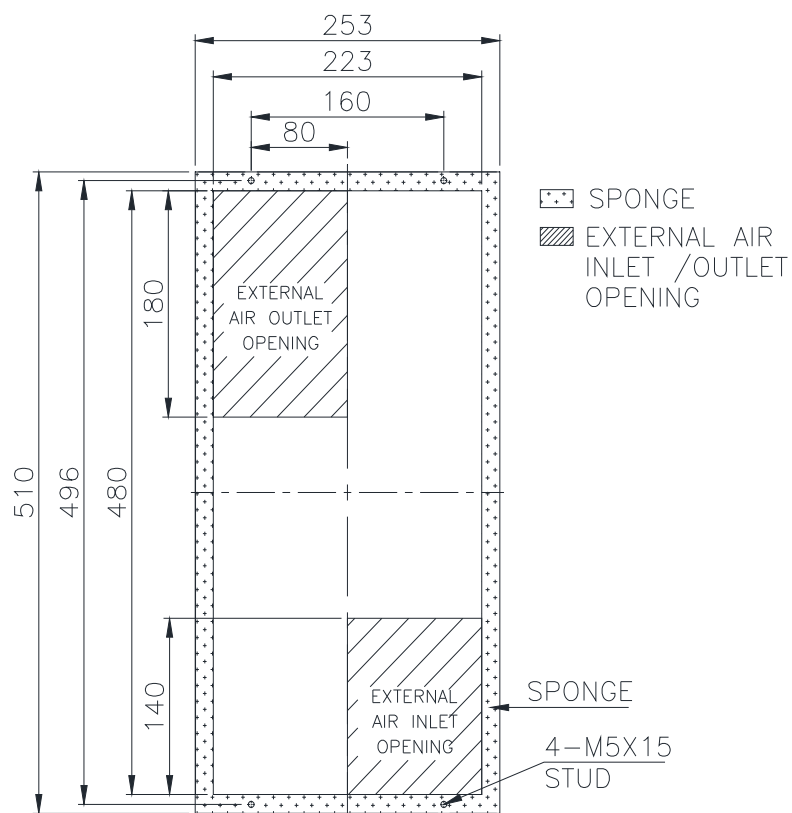
(2) Dimensional tolerance : $\pm 1.0\text{mm}$

Part no. :

Delta model no. : HEX015VA

1-3-2. Mounting panel cutout

Mounting hole at internal side



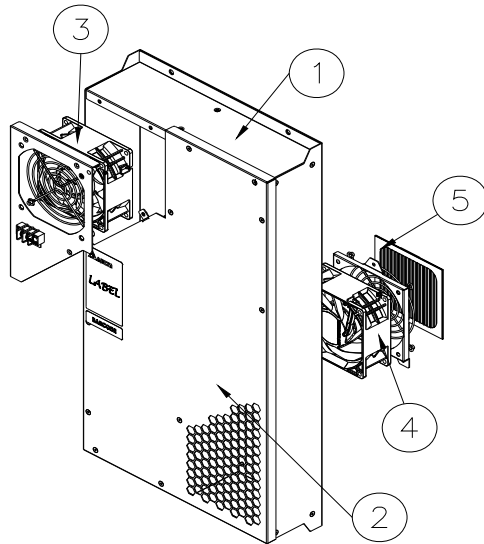
Part no. :

Delta model no. : HEX015VA

1-4. Configuration

The HEX is composed of the key components as the following :

Chassis , Heat exchange Core , Controller Internal/External fan tray & dust filter .

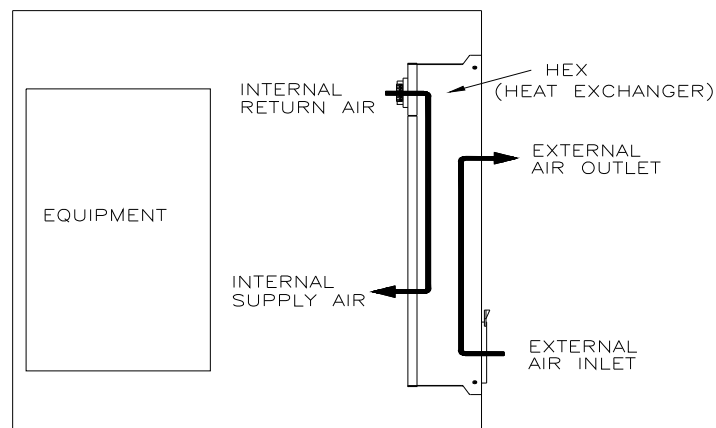


Item	Q'ty	Description
1	1	Chassis
2	1	Heat exchange core
3	1	Internal fantray
4	1	External fantray
5	1	Dust filter

1-5. Thermal path and Airflow baffle

With the forced convection using the axial fan, the warm air generated by the equipment will be blowing into the internal return opening and pass through the HEX , then flow out from internal supply opening , the cold supply air will be used to cool down the system ; While on the opposite side, cooler air from the out environment will be drawn from the external air inlet side and bring the heat of the HEX out from the external air exhaust side.

The thermal exchange path is shown in the figure below.



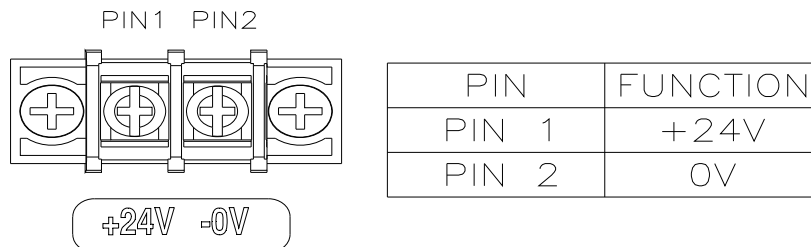
Part no. :

Delta model no. : HEX015VA

2. Electrical specification

2-1. Connector (HEX panel side)

On panel : DT-25-A02W-02



3. Environmental condition

3-1. Operating temperature

-10°C ~ +65°C (14°F ~ 149°F)

3-2. Storage temperature

-40°C ~ +70°C (-40°F ~ 158°F)

3-3. Humidity

External air loop : 0 ~ 100% RH

Internal air loop : 0 ~ 90% RH, non-condensing

3-4. Ingress Protection rating (external side)

IP55 (IEC60529)

3-5. MTBF

The L10 Fan life is expected to be at least 70,000 hours continuous operation at 40°C with 15 ~ 65%RH.@ label rated voltage

Part no. :

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4. Reliability

Test item	Condition
High temperature	IEC 60068-2-2
Low temperature	IEC 60068-2-1
High temp. / High humidity	IEC 60068-2-14 TEST Nb
Temperature cycling	IEC 60068-2-3
Vibration	ETSI 300 019-1-4 CLASS 4.1
Ingress protection (External side)	IEC 60529 IP55 (NEMA 3)
Package bump	IEC 60068-2-29

5. Safety Certification

UL, cUL, TUV, CE



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