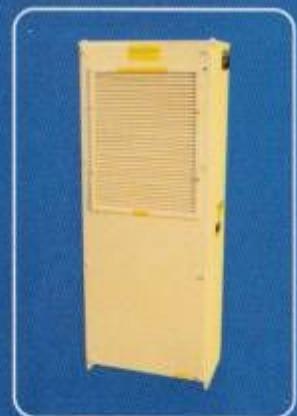


NATIONAL COOLING SYSTEM



Industrial Cooling System

PANEL AC



PANEL AIR CONDITIONER :-

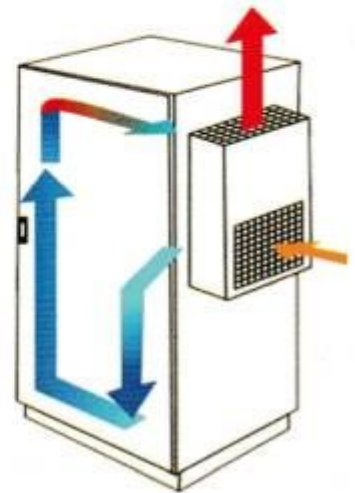


DESCRIPTION OF PANEL AIR CONDITIONER:

Every electronic control system generates heat during operation. Maximum problem occur when such electronic cabinet are placed in hot, dirty and humid area , panel cooler save and protect the costly electronic cabinet against heat, dust and humidity and assure fault free operation of your costly parts of electronic cabinet.

PRINCIPLE OF OPERATION:

It works on Simple Vapour Compression Refrigeration Cycle. The hermetically sealed compressor compresses the refrigerant to a higher temperature and pressure. The Fin and tube type condenser extract heat from the refrigerant with the help of ambient air and liquefies it. The liquid refrigerant then passes through a drier/filter to an expansion device i.e. a capillary tube. The capillary tube reduces the pressure of refrigerant and injects it into the evaporator. The refrigerant in the evaporator evaporates by absorbing heat from the hot air inside the electronic panel. To enable this operation with high Co-efficient of Performance we have provided two separate air circulation inside the Panel cooler for condensing air and cooling air. The clean air within the control panel is



continuously cooled by refrigeration system and re-circulated and the required operating temperature along with cool, clean and moisture free environment can be maintained at all time inside the control panel.

GENERAL CHARACTERISTICS:

• BODY STRUCTURE:

Body structure is made up of CR Sheet of 1.6mm with powder coating of 65 microns dry film thickness which enables not only strength but also rustproof structure. Fasteners used for the purpose of assembly is also nickel & chrome plated.

• COMPRESSOR:

Hermitically sealed compressor of Emerson Climate Control Technologies series is used which gives minimum noise along with discharge pressure & suction pressure as per design. Use of Kirloskar Copeland (Emerson) compressor facilitate easy availability of spare, replacement & service back up all over India.

• CONDENSER & EVAPORATOR FAN MOTOR:

Axial flow fan motor with direct welding by motor and blade, adopt double sided dynamic balance ensures minimum noise, designed Air Flow rate.

• REFRIGERANT:

Refrigerant R -134a have been used which is Eco-friendly gas ensure protection against global warming.

• DIGITAL PROGRAMMABLE TEMPERATURE CONTROLLER:

Microprocessor controller with programming through multifunction keys and alphanumeric programmed values in non-volatile memory/Adjustable time delay between starts warranting the minimum time for temperature equilibrium and compressor start- ups.

This unit controls & monitors the performance of the entire unit & provides diagnostics indication & fault alarms can be programmed to suit the individual operation simplifying the operator's job to the single touch of the button.

• WATER DRAIN PIPE:

To remove water/condensate in the panel.

APPLICATION:

- PLC Control Panel, Drives panel, Instrument panel.
- Sensitive electronic components Control Panel
- Computer CPUs server Panel
- Telecom Equipment
- Robotics

OPTIONS:

- Potential free alarm for high and low temperature
- High / Low pressure switch.
- Fan failure alarm module.
- Door limit switch interface.
- Stainless Steel body available as per requirement.
- Low humidity module.
- Water-cooled condenser for high ambient environment.

TYPES OF MOUNTING :

• VERTICAL DIRECT PANEL MOUNTING:

This Panel Cooler is directly mounted on control panel side view or panel door.

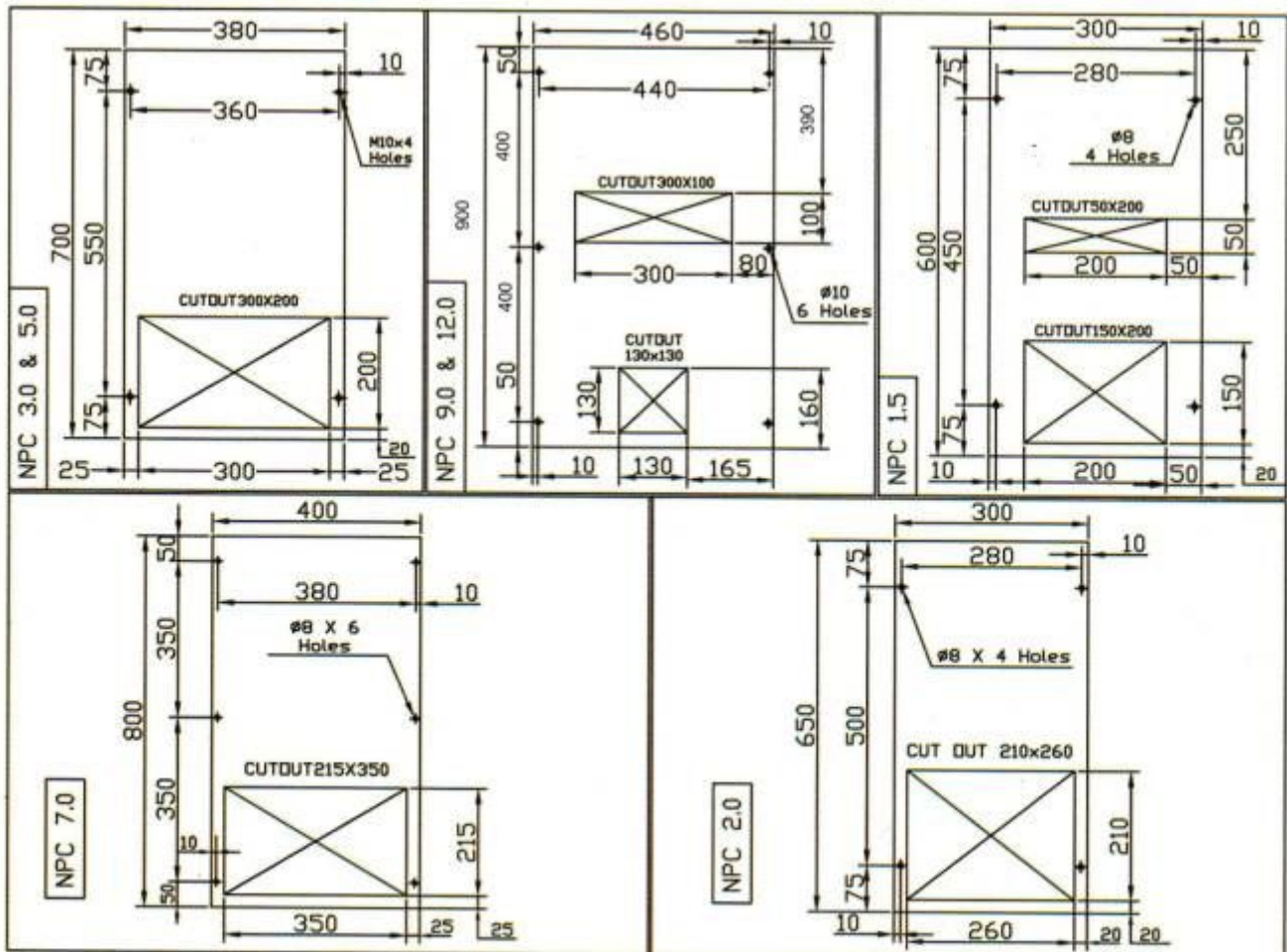
• HORIZONTAL TOP MOUNTING:-

Whenever there is no place to install panel cooler on side view or front door because of PCB card or drive mounted on this side and it is not possible to shift them on the plate . There we offer these model.

• FLOOR MOUNTING PANEL COOLER:-

Where there is no installation place on side view and top side these model is easily installed near control panel and cold air passed through insulated hose pipe to control panel distance between control panel and panel cooler is limited up to 5 meter.

INSTALLATION :-



TECHNICAL DATA OF PANEL AIR CONDITIONER

Sr No.	Model	Voltage	Capacity in Watt	Capacity BTU/HR	Rated Current (Amps)	Weight (Kgs)	Unit Dimension Lx W x H (mm)
1)	NPC 1.5	230V, 1Ph, 50 Hz	450W	1500	2.0 Amps	23	300x220x600
2)	NPC 2.0	230V, 1Ph, 50 Hz	650 W	2000	3.0 Amps	32	300x235x650
3)	NPC 3.0	230V, 1Ph, 50 Hz	1000 W	3000	3.2 Amps	37	380x280x700
4)	NPC 5.0	230V, 1Ph, 50 Hz	1500 W	5000	3.5 Amps	38	380x280x700
5)	NPC 7.0	230V, 1Ph, 50 Hz	2000 W	7000	5.5 Amps	45	400x285x800
6)	NPC 9.0	230V, 1Ph, 50 Hz	2700 W	9000	7.0 Amps	64	460x320x900
7)	NPC 12.0	230V, 1Ph, 50 Hz	3500 W	12000	7.5 Amps	64	460x320x900
8)	NPC 18.0	230V, 1Ph, 50 Hz	5500 W	18000	8.5 Amps	80	450x450 x1150

Note: Specifications are subject to change without notification.

IN ASSOCIATION WITH



NATIONAL COOLING SYSTEM

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