



Deployable Air Conditioning System



TECHNICAL DATA

Technical Description

Description	Value	Notes
Operating Voltage	230volts 50/60	+/- 20%
Operating position	± 5 degrees	From the upright position as indicated by arrows in each axis.
Power Input	500 Watts	
Starting Current	7.0 Amps	With Compressor ON
Running Current	4.5 Amps	
Circuit Current Rating	15.0 Amps	
Weight	31.5 Kg	
Compressor Type	Rotary	
Refrigerant	R417A	420 grams Maximum
Maximum Permissible Pressure	220 PSI	Unit will turn off if this pressure is exceeded.
Operating Temperature		0 to +55 degrees Celsius.
Maximum Operating temperature	55 degrees Celsius	Unit will turn off if the temperature is exceeded.
Cooling capacity to Case	600 Watts	This capacity is at 35 deg Ambient and 30 deg internal case temp with case insulated as specified below.
Temperature Range Ambient	-10 to +50 degrees Celsius	Units will turn off at high temperatures or internal pressure

Noise level at 25 degrees Celsius	70 db	Approximate
Noise level above 45 degrees Celsius	76 db	Approximate
Installation to Case		Hinged Mount on Left Hand Side

Dimensions

Case Material	Comment	Aluminium
Height		440 mm
Width to outside of hinge	Can be supplied without hinge if required (not Recommended)	565 mm
Width to edge of Case		530 mm
Total Depth		303 mm
Finish	As Specified by Purchase Order.	Powder Coated

Expected Performance

The enclosure cooling unit is designed and built for the EDAK 8 RU Equipment Case to dissipate heat from the case to a total capacity of 600 watts at 35 degree's Celsius ambient temperature. Its expected performance is shown in the graph as depicted at Figure 1. However, the performance of the unit is also very much dependant upon other factors outside of the manufactures control. This includes the EDAK equipment case thermal conductivity (case internal insulation) and the airflow inside the EDAK equipment case (this is dependent upon the rack layout). The user and system designer will need to analyse the airflow and adjusted it to prevent short cycling. This is critical before any operational specifications can be specified accurately.

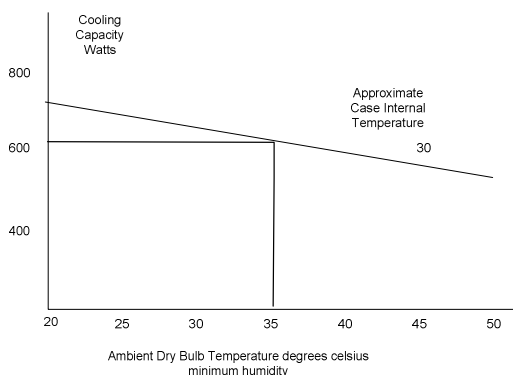


Figure 1 Performance Graph

To ensure that the unit operates as specified, Anitcom recommends that the EDAK equipment case is internally insulated with a minimum of 6mm thick PYROTEC thermal insulation or equivalent. The edges of the insulator should also be covered with aluminium tape to reduce cooling loss. Airflow through the equipment and spacing between the installed equipment inside the case should also be adjusted. Refer to Figure 2.

The Air Conditioner will only work at higher ambient temperatures greater than 50 degrees Celsius if the case thermal conductivity and airflow separators are integrated correctly. There should always be enough air inside the case to allow for flow and cooling. Internal equipment fans should also be considered when thinking about how the air will flow inside the case.

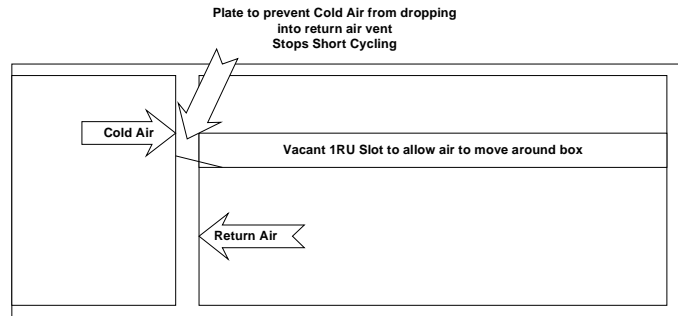


Figure 2 Air Flow allowances inside of case