

SPECIFICATION NO. VFJ/TSS/SP/ARMY & MHA/MPV/04
SPECIFICATION OF SPLIT TYPE AIR CONDITIONING SYSTEM FOR MPV
(ARMY & MHA VERSION)
(Amendment No.7 Dtd.05.11.2014)

Calculate cooling capacity in BTU / Hr using the enthalpies and specific volume (plotting the same from the Psychometric Chart) and the designed rated air flow of evaporator. This will be called Measure Cooling Capacity.

FORMULA :

Measured cooling capacity in Kcal/Hr -
$$\frac{(E1-E2) \times \text{Evaporator Air Flow @ in Cumt/Hr}}{\text{Specific Volume}}$$

- * E1 - ENTHALPY (in kcal / Kg) of return air to the A.C.
- * E2 - Enthalpy (in kcal / Kg) of supply air from the A.C.
- * @ - Evaporator air flow : Designed rated air flow in Cumt/Hr
- * # - Specific volume of supply air plotted from Psychometric Chart (copy enclosed) in Cumt per Kg of dry air.

NOTE :

ENTHALPY (in kcal / Kg) are measured corresponding to the "WET BULB" temperatures in Degree Centigrade from the table of "ENTHALPY" (copy enclosed)

For practical calculations of cooling capacity: 1 Ton = 3000 Kcal/Hr = 12000 BTU/Hr

The best cooling capacity observed in this way is to be selected for comparison. The same should be equal or more than the designed cooling capacity.

For example, in case of unit with designed cooling capacity of 1.5 TR, the above said "Measured Cooling Capacity" should be 1.5 TR (=18000 BTU/Hr = 4500 Kcal.Hr) or more.

In case the measured cooling capacity is less than 1.5 TR (=18000 BTU/Hr =4500 Kcal/Hr) the firms representative should be advised to rectify for confirmatory test purposes.

Encl : (a) Copy of Psychometric Chart

(b) Copy of "ENTHALPY" table.

Signature