

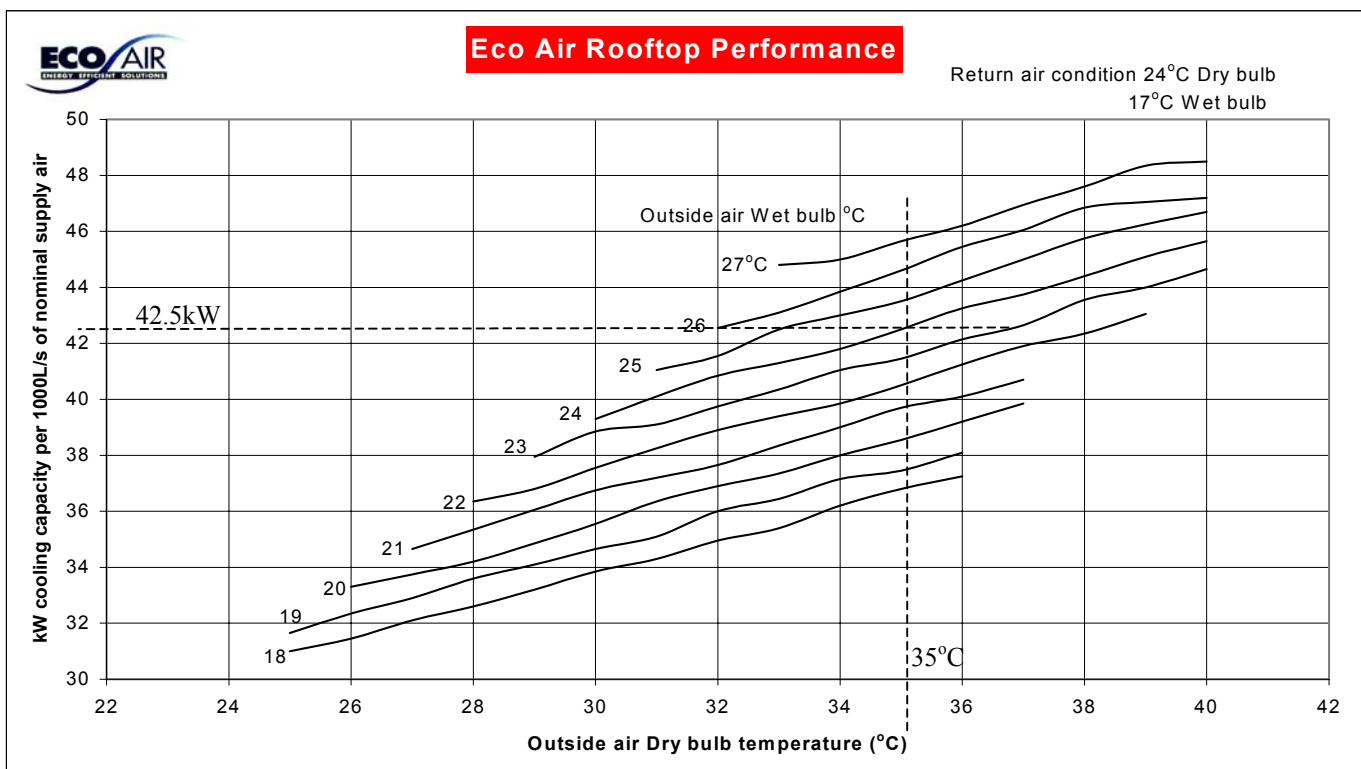
## Eco Air Rooftop Selection Procedure:

Applicable units EA1000 to EA3500

### A) Outside air method

1. Determine the *total outside air cooling capacity* (in kW) using 100% outside air, at the design conditions required for your application. Note: this includes system room load.
2. Plot the design conditions on the Eco Air Performance chart (chart A) and read off the Unit kW cooling capacity per 1000L/s.
3. Divide *total outside air capacity* by Unit nominal capacity and multiply by 1000 to determine airflow (L/s) ( $1 \div 2 \times 1000$ )
4. Select the nearest larger unit according to airflow requirements.

UNIT	NOMINAL AIRFLOW (L/s)
EA1000	1000
EA1200	1200
EA1400	1400
EA1600	1600
EA2000	2000
EA2400	2400
EA3000	3000
EA3500	3500



### **Example**

Design conditions 35°C Dry Bulb 24°C Wet Bulb

Required outside air cooling capacity 90kW

From the above graph the Unit capacity per 1000L/s is 42.5 kW

Required airflow:  $90\text{kW} \div 42.5\text{kW} \times 1000\text{L/s} = 2118 \text{ L/s}$

Unit selection from above table is EA2400 at 2400L/s giving 102 kW cooling or EA2000 at 2000L/s giving 85kW cooling.

For detail on specific data such as supply air temperatures etc. please refer to Eco Air Engineering department.

**B) Room load method**

1. Determine the *room load capacity* (kW including latent) at design conditions.
2. Plot the nominal room load kW cooling capacity per 1000L/s from chart B.
3. Divide *room load capacity* by the above nominal room load kW and multiply by 1000 to determine airflow.
4. Select the nearest larger unit according to airflow requirements from the above table.

For detail on specific data such as supply air temperatures etc. please refer to Eco Air Engineering department.