**Technical Specification : Vapour Absorption Chiller**

|  |  |  |  |
| --- | --- | --- | --- |
| **Client** | **a** | **Version** | **1.2.0 Dt : 07-Aug-2021** |
| **Enquiry** | **a** | **Date** | **18-Aug-2021, 10:55** |
| **Project** | **a** | **Model** | **TAC E2 M1** |

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Description** | **Unit** |  |
|  | **Capacity(+/-3%)** | **TR** | **40** |

|  |  |  |  |
| --- | --- | --- | --- |
| **A** | **Chilled Water Circuit** |  |  |
| 1. | Chilled water flow | m³/hr | 24.1 |
| 2. | Chilled water inlet temperature | °C | 12 |
| 3. | Chilled water outlet temperature | °C | 7 |
| 4. | Evaporate passes | No | 2+2 |
| 5. | Chilled water circuit pressure loss | mLC | 5.3 |
| 6. | Chilled water Connection diameter | DN | 80 |
| 7. | Glycol type |  | NA |
| 8. | Chilled water glycol% | ( % ) | 0 |
| 9. | Chilled water fouling factor | m² hr °C/kcal | standard |
| 10. | Maximum working pressure | kg/cm²(g) | 8 |

|  |  |  |  |
| --- | --- | --- | --- |
| **B** | **Cooling Water Circuit** |  |  |
| 1. | Heat Rejected | kcal/Hr | 204485.7 |
| 2. | Cooling water flow | m³/hr | 48 |
| 3. | Cooling water inlet temperature | °C | 32 |
| 4. | Cooling water outlet temperature | °C | 36.3 |
| 5. | Absorber / Condenser passes | No | 1+1/2 |
| 6. | Cooling water Bypass Flow | m³/hr | - |
| 7. | Cooling water circuit pressure loss | mLC | 5 |
| 8. | Cooling water Connection diameter | DN | 100 |
| 9. | Glycol type |  | NA |
| 10. | Cooling water glycol ( % ) | % | 0 |
| 11. | Cooling water fouling factor | m² hr °C/kcal | standard |
| 12. | Maximum working pressure | kg/cm²(g) | 8 |

|  |  |  |  |
| --- | --- | --- | --- |
| **C** | **EXHAUST GAS CIRCUIT** |  |  |
| 1. | Heat Input | kcal/Hr | 83525.7 |
| 2. | Engine Type | - | gas |
| 3. | Exhaust Gas Flow (+/-3%) | kg/hr | 1300 |
| 4. | Exhaust Gas inlet temperature | °C | 500 |
| 5. | Exhaust Gas Outlet temperature | °C | 257.5 |
| 6. | Exhaust Connection Diameter(Indicative) | DN | 250 |
| 7. | Exhaust Gas Sp.Heat Capacity | kcal/kg°C | 0.3 |
| 8. | Exhaust Gas Flow | kg/hr | 1300 |
| 9. | Percentage Engine Load considered | % | 1300 |
| 10. | Allowable Pressure Drop in VAM - EG Furnace | mmWC | 150 |

|  |  |  |  |
| --- | --- | --- | --- |
| **D** | **Electrical Data** |  |  |
| 1. | Power supply |  | 415 V( ±10%), 50 Hz (±5%), 3 Phase+N |
| 2. | Power consumption | kVA | 5.5 |
| 3. | Absorbent pump rating | kW (A) | 1.1( 3.4 ) |
| 4. | Refrigerant pump rating | kW (A) | 0.2( 1.1 ) |
| 5. | Vacuum pump rating | kW (A) | 0.75( 1.8 ) |

|  |  |  |  |
| --- | --- | --- | --- |
| **F** | **Tube Metallurgy** |  |  |
| 1. | Evaporator |  | name |
| 2. | Absorber tube material |  | Copper |
| 3. | Condenser tube material |  | Copper |

|  |  |  |  |
| --- | --- | --- | --- |
| **G** | **Low Temperature Heat exchanger Type** |  | **Standard** |

|  |
| --- |
| **Caption Notes :** |

1. This selection is valid for insulated chiller only.

2. For non-insulated chiller, the Capacity and Heat source consumption will vary.

3. Plant Room Temperature should be from +5 deg C to +45 deg C

4. Please contact Thermax representative / Office for customised specifications.