**Technical Specification : Vapour Absorption Chiller**

|  |  |  |  |
| --- | --- | --- | --- |
| **Client** | **a** | **Version** | **1.2.0 Dt : 07-Aug-2021** |
| **Enquiry** | **a** | **Date** | **17-Aug-2021, 17:59** |
| **Project** | **a** | **Model** | **TAC G2 M1** |

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Description** | **Unit** |  |
|  | **Capacity(+/-3%)** | **TR** | **45** |

|  |  |  |  |
| --- | --- | --- | --- |
| **A** | **Chilled Water Circuit** |  |  |
| 1. | Chilled water flow | m³/hr | 27.1 |
| 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 | 6.7 |
| 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 | 230697.1 |
| 2. | Cooling water flow | m³/hr | 48 |
| 3. | Cooling water inlet temperature | °C | 32 |
| 4. | Cooling water outlet temperature | °C | 36.8 |
| 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** | **DIRECT FIRED CIRCUIT** |  |  |
| 1. | Heat Input | kcal/Hr | 100433.4 |
| 2. | Fuel Type |  | NaturalGas |
| 3. | Calorific value type | GCV | Normal |
|  | Gas Pressure | mbar | 100 |
| 4. | Calorific Value | kcal/Nm³ | 9000 |
| 5. | Fuel consumption ( + 3 % ) | GCV | 10.8 |
| 6. | Exhaust Gas duct size | DN | 125 |

|  |  |  |  |
| --- | --- | --- | --- |
| **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 ) |
| 6. | Burner Rating | kW (A) | 0.25( 1.7 ) |

|  |  |  |  |
| --- | --- | --- | --- |
| **E** | **Physical Data** |  |  |
| 1. | Length | mm | 3170 |
| 2. | Width | mm | 2180 |
| 3. | Height | mm | 2360 |
| 4. | Operating weight | ton | 4.8 |
| 5. | Shipping weight | ton | 4.6 |
| 6. | Flooded weight | ton | 6.1 |
| 7. | Dry weight | ton | 4 |
| 8. | Tube cleaning space (any one side length-wise) | mm | 2700 |

|  |  |  |  |
| --- | --- | --- | --- |
| **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.

5. Burner Selection is valid upto 100m above mean Sea level.