**TECHNICAL SPECIFICATIONS : VAPOUR ABSORPTION CHILLER**

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| --- | --- | --- | --- |
| Client | a | Version | 1.2.0 Dt : 07-Aug-2021 |
| Enquiry | a | Date | 20-Sep-2021, 13:11 |
| Project | a | Model | TCH G2 M1 |

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| --- | --- | --- | --- |
|  | **Description** | **Unit** |  |
|  | **Capacity ( + 3 %) :** | **TR** | 40 |
|  | | | |
| **A** | **Chilled Water Circuit :** | | |
|  | Chilled water flow | m³/hr | 24.1 |
|  | Chilled water inlet temperature | °C | 12 |
|  | Chilled water outlet temperature | °C | 7 |
|  | Evaporate passes | No. | 2+2 |
|  | Chilled water circuit pressure loss | mLC | 5.3 |
|  | Chilled water Connection diameter | DN | 80 |
|  | Glycol type |  | NA |
|  | Chilled water glycol % | % | 0 |
|  | Chilled water fouling factor | m² hr °C/kcal | standard |
|  | Maximum working pressure | kg/cm²(g) | 8 |
|  | | | |
| **B** | **Hot Water Circuit:** | | |
|  | Heat Input | kCal/hr | 12096 |
|  | Hot water flow | m³/hr | 0.6 |
|  | Hot water inlet temperature | °C | 70 |
|  | Hot water outlet temperature | °C | 90 |
|  | Side Arm passes | No | 4 |
|  | Hot water circuit pressure loss | mLC | 0.6 |
|  | Hot water connection diameter | DN | 50 |
|  | Maximum working pressure | kg/cm²(g) | 8 |
|  | | | |
| **C** | **Cooling Water Circuit:** | | |
| 1. | Heat Rejected | kCal/hr | 213366.8 |
| 2. | Cooling water flow | m³/hr | 48 |
| 3. | Cooling water inlet temperature | °C | 32 |
| 4. | Cooling water outlet temperature | °C | 36.2 |
| 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 |
|  | | | |
| **D** | **DIRECT FIRED CIRCUIT :** | | |
|  | Heat Input | kCal/hr | 98076.6 |
|  | Fuel Type |  | NaturalGas |
|  | Calorific value type | GCV | Normal |
|  | Calorific Value | kcal/Nm³ | 9000 |
|  | Fuel consumption ( + 3% ) | Nm³/hr | 10.5 |
|  | Exhaust Gas duct size | DN | 125 |
| 7. | Gas Pressure | mbar | 100 |
|  | | | |
| **E** | **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) |
|  | | | |
| **F** | **Physical Data :** | | |
| 1. | Length | mm | 3170 |
| 2. | Width | mm | 2180 |
| 3. | Height | mm | 2760 |
| 4. | Operating weight | Tonne | 5.1 |
| 5. | Dry weight | Tonne | 4.3 |
| 6. | Shipping weight | Tonne | 4.9 |
| 7. | Flooded weight | Tonne | 6.4 |
| 8. | Tube cleaning space (any one side length-wise) | mm | 2700 |
|  | | | |
| **G** | **Tube Metallurgy :** | | |
| 1. | Evaporator |  | name |
| 2. | Absorber tube material |  | Copper |
| 3. | Condenser tube material |  | Copper |
|  | | | |

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.