

### DEFINICIÓN DEL COMPRESOR

|                              |                        |
|------------------------------|------------------------|
| Denominación                 | <b>VES F5C</b>         |
| Voltage / Frecuencia nominal | <b>230 V 32-150 Hz</b> |
| Código de Ingeniería         | <b>513907232</b>       |

### A - APLICACIÓN / CONDICIONES LÍMITES DE TRABAJO

|   |                               |                                   |                |
|---|-------------------------------|-----------------------------------|----------------|
| 1 Tipo                                  | Compresor recíproco           |                                   |                |
| 2 Refrigerante                          | R-600a                        |                                   |                |
| 3 Voltaje y frecuencia nominal          | 230 / 32-150                  | [ V / Hz ]                        |                |
| 4 Tipo de aplicación                    |                               |                                   |                |
| 4.1 Rango de temperatura de evaporación | -35°C para 0°C                | (-31°F para 32°F)                 |                |
| 5 Tipo de motor                         | BPM                           |                                   |                |
| 6 Torque de Arranque                    | LST - Bajo Torque de Arranque |                                   |                |
| 7 Elemento de control                   | Tubo capilar                  |                                   |                |
| 8 Enfriamiento del compresor            | Rango de voltaje de operación |                                   |                |
|   |                               | 50 Hz                             | 60 Hz          |
| 8.1 LBP (32°C Temperatura ambiente)     | Estática                      | 160 para 264 V                    | 160 para 264 V |
| 8.2 LBP (43°C Temperatura ambiente)     | Estática                      | 160 para 264 V                    | 160 para 264 V |
| 8.3 HBP (32°C Temperatura ambiente)     | -                             | -                                 | -              |
| 8.4 HBP (43°C Temperatura ambiente)     | -                             | -                                 | -              |
| 9 Máxima temperatura de condensación    |                               |                                   |                |
| 9.1 Operación                           | 6.9                           | [kgf/cm <sup>2</sup> ] (98 psig)  | / °C - °F      |
| 9.2 Pico                                | 7.8                           | [kgf/cm <sup>2</sup> ] (111 psig) | / °C - °F      |
| 10 Máxima temperatura de las bobinas    | 130                           | [ °C ]                            |                |

### B - DATOS MECÁNICOS

|                                |                |                                  |
|--------------------------------|----------------|----------------------------------|
| 1 Referencia Comercial         | 1/5            | [hp]                             |
| 2 Desplazamiento               | 5.19           | [cm <sup>3</sup> ] (0.317 cu.in) |
| 2.1 Diametro [mm]              | 21.000         |                                  |
| 2.2 Curso [mm]                 | 15.000         |                                  |
| 3 Carga de aceite              | 205            | [ml] (6.93 fl.oz.)               |
| 3.1 Aceites aprobados          |                |                                  |
| 3.2 Tipo/Viscosidad del aceite | ALQUILB / ISO5 |                                  |
| 4 Peso (com carga de aceite)   | 6.3            | [kg] (13.89 lb.)                 |
| 5 Carga de nitrógeno           | -              | [kgf/cm <sup>2</sup> ]           |

### C - DATOS ELÉCTRICOS

|   |                                  |                           |
|---|----------------------------------|---------------------------|
| 1 Voltaje nominal/Frecuencia/Numero de fases      | 230 V 31.7-150 Hz 3~ (Trifásico) |                           |
| 2 Tipo de Dispositivo de Arranque                 | Inverter                         |                           |
| 2.1 Dispositivo de Arranque                       | PFC CF02D02 M                    |                           |
| 3 Capacitor de Arranque                           | -                                | [µF(VAC minimo)]          |
| 4 Capacitor de marcha                             | -                                | [µF(VAC minimo)]          |
| 5 Protección del motor                            | PFC CF02D02 M                    |                           |
| 6 Resistencia del motor - bobina arranque         | [Ω en 25°C (77°F)] +/- 8%        |                           |
| 7 Resistencia del motor - bobina marcha           | [Ω en 25°C (77°F)] +/- 8%        |                           |
| 8 LRA - Corriente com rotor trabado (40/150 Hz)   | -                                | [A] - Medido según UL 984 |
| 9 FLA - Corriente a plena carga L/MBP (40/150 Hz) | -                                | [A] - Medido según UL 984 |
| 10 FLA - Corriente a plena carga HBP (40/150 Hz)  | -                                | [A] - Medido según UL 984 |
| 11 Institutos de aprobación                       |                                  |                           |

### D - PERFORMANCE - DATOS CHECK POINT

|   |          |     |                                       |                                |  |                               |           |       |  |
|---|----------|-----|---------------------------------------|--------------------------------|--|-------------------------------|-----------|-------|--|
| CONDICIONES DE PRUEBA:<br><b>@220V1300RPM</b> |          |     | <b>ASHRAELBP32</b><br><b>Estática</b> |                                | Temperatura de evaporación <b>-23.3°C (-9.94°F)</b><br>(Temp. de condensación <b>54.4°C (129.92°F)</b> ) |                               |           |       |  |
| Capacidad de refrigeración<br>+/- 5%          |          |     | Consumo de potencia<br>+/- 5%         | Consumo de corriente<br>+/- 5% | Flujo de masa<br>+/- 5%  | RANGO DE EFICIENCIA<br>+/- 7% |           |       |  |
| [Btu/h]                                       | [kcal/h] | [W] | [W]                                   | [A]                            | [kg/h]   | [Btu/Wh]                      | [kcal/Wh] | [W/W] |  |
| 113   | 28       | 33  | 19                                    | 0.18                           | 0.35   | 6.01                          | 1.51      | 1.76  |  |

|   |          |     |                                       |                                |  |                               |           |       |  |
|---|----------|-----|---------------------------------------|--------------------------------|--|-------------------------------|-----------|-------|--|
| CONDICIONES DE PRUEBA:<br><b>@220V2000RPM</b> |          |     | <b>ASHRAELBP32</b><br><b>Estática</b> |                                | Temperatura de evaporación <b>-23.3°C (-9.94°F)</b><br>(Temp. de condensación <b>54.4°C (129.92°F)</b> ) |                               |           |       |  |
| Capacidad de refrigeración<br>+/- 5%          |          |     | Consumo de potencia<br>+/- 5%         | Consumo de corriente<br>+/- 5% | Flujo de masa<br>+/- 5%  | RANGO DE EFICIENCIA<br>+/- 7% |           |       |  |
| [Btu/h]                                       | [kcal/h] | [W] | [W]                                   | [A]                            | [kg/h]   | [Btu/Wh]                      | [kcal/Wh] | [W/W] |  |
| 177   | 45       | 52  | 29                                    | 0.26                           | 0.56   | 6.21                          | 1.56      | 1.82  |  |

|   |          |     |                                       |                                |  |                               |           |       |  |
|---|----------|-----|---------------------------------------|--------------------------------|--|-------------------------------|-----------|-------|--|
| CONDICIONES DE PRUEBA:<br><b>@220V4500RPM</b> |          |     | <b>ASHRAELBP32</b><br><b>Estática</b> |                                | Temperatura de evaporación <b>-23.3°C (-9.94°F)</b><br>(Temp. de condensación <b>54.4°C (129.92°F)</b> ) |                               |           |       |  |
| Capacidad de refrigeración<br>+/- 5%          |          |     | Consumo de potencia<br>+/- 5%         | Consumo de corriente<br>+/- 5% | Flujo de masa<br>+/- 5%  | RANGO DE EFICIENCIA<br>+/- 7% |           |       |  |
| [Btu/h]                                       | [kcal/h] | [W] | [W]                                   | [A]                            | [kg/h]   | [Btu/Wh]                      | [kcal/Wh] | [W/W] |  |
| 406   | 102      | 119 | 68                                    | 0.53                           | 1.27   | 5.94                          | 1.50      | 1.74  |  |

### E - PERFORMANCE - CURVAS

|  |       |                                      |                                    |     |  |                                |                         |                               |           |       |
|--|-------|--------------------------------------|------------------------------------|-----|--|--------------------------------|-------------------------|-------------------------------|-----------|-------|
| CONDICIONES DE PRUEBA:<br><b>@220V950RPM</b> |       |                                      | <b>ASHRAE32</b><br><b>Estática</b> |     | (Temp. de condensación <b>35°C (+95°F)</b> ) |                                |                         |                               |           |       |
| Temperatura de evaporación                   |       | Capacidad de refrigeración<br>+/- 5% |                                    |     | Consumo de potencia<br>+/- 5%                | Consumo de corriente<br>+/- 5% | Flujo de masa<br>+/- 5% | RANGO DE EFICIENCIA<br>+/- 7% |           |       |
| °C   | (°F)  | [Btu/h]                              | [kcal/h]                           | [W] | [W]  | [A]                            | [kg/h]                  | [Btu/Wh]                      | [kcal/Wh] | [W/W] |
| -35  | (-31) | 48                                   | 12                                 | 14  | 9  | 0.13                           | 0.15                    | 5.36                          | 1.35      | 1.57  |
| -30  | (-22) | 70                                   | 18                                 | 20  | 11   | 0.14                           | 0.22                    | 6.56                          | 1.65      | 1.92  |
| -25  | (-13) | 95                                   | 24                                 | 28  | 12   | 0.15                           | 0.30                    | 7.75                          | 1.95      | 2.27  |
| -20  | (- 4) | 125                                  | 32                                 | 37  | 14   | 0.16                           | 0.39                    | 9.01                          | 2.27      | 2.64  |
| -15  | (+ 5) | 161                                  | 41                                 | 47  | 16   | 0.17                           | 0.51                    | 10.42                         | 2.62      | 3.05  |
| -10  | (+14) | 203                                  | 51                                 | 59  | 17   | 0.18                           | 0.64                    | 12.06                         | 3.04      | 3.53  |
| -5   | (+23) | 252                                  | 63                                 | 74  | 18   | 0.18                           | 0.80                    | 14.01                         | 3.53      | 4.11  |
| 0  | (+32) | 308                                  | 78                                 | 90  | 18   | 0.18                           | 0.98                    | 16.37                         | 4.12      | 4.80  |

### E - PERFORMANCE - CURVAS

| CONDICIONES DE PRUEBA:     |       | ASHRAE32                   |          |     | (Temp. de condensación 45°C (+113°F)) |                      |               |                     |           |       |
|----------------------------|-------|----------------------------|----------|-----|---------------------------------------|----------------------|---------------|---------------------|-----------|-------|
| @220V950RPM                |       | Estática                   |          |     |                                       |                      |               |                     |           |       |
| Temperatura de evaporación |       | Capacidad de refrigeración |          |     | Consumo de potencia                   | Consumo de corriente | Flujo de masa | RANGO DE EFICIENCIA |           |       |
|                            |       | +/- 5%                     |          |     | +/- 5%                                | +/- 5%               | +/- 5%        | +/- 7%              |           |       |
| °C                         | (°F)  | [Btu/h]                    | [kcal/h] | [W] | [W]                                   | [A]                  | [kg/h]        | [Btu/Wh]            | [kcal/Wh] | [W/W] |
| -35                        | (-31) | 38                         | 10       | 11  | 9                                     | 0.14                 | 0.12          | 4.35                | 1.10      | 1.28  |
| -30                        | (-22) | 56                         | 14       | 16  | 10                                    | 0.15                 | 0.17          | 5.30                | 1.34      | 1.55  |
| -25                        | (-13) | 78                         | 20       | 23  | 12                                    | 0.16                 | 0.24          | 6.22                | 1.57      | 1.82  |
| -20                        | (- 4) | 105                        | 26       | 31  | 15                                    | 0.17                 | 0.33          | 7.20                | 1.81      | 2.11  |
| -15                        | (+ 5) | 139                        | 35       | 41  | 17                                    | 0.18                 | 0.44          | 8.31                | 2.09      | 2.44  |
| -10                        | (+14) | 179                        | 45       | 53  | 19                                    | 0.19                 | 0.57          | 9.65                | 2.43      | 2.83  |
| -5                         | (+23) | 227                        | 57       | 67  | 20                                    | 0.20                 | 0.72          | 11.29               | 2.84      | 3.31  |
| 0                          | (+32) | 284                        | 72       | 83  | 21                                    | 0.21                 | 0.90          | 13.31               | 3.35      | 3.90  |

| CONDICIONES DE PRUEBA:     |       | ASHRAE32                   |          |     | (Temp. de condensación 55°C (+131°F)) |                      |               |                     |           |       |
|----------------------------|-------|----------------------------|----------|-----|---------------------------------------|----------------------|---------------|---------------------|-----------|-------|
| @220V950RPM                |       | Estática                   |          |     |                                       |                      |               |                     |           |       |
| Temperatura de evaporación |       | Capacidad de refrigeración |          |     | Consumo de potencia                   | Consumo de corriente | Flujo de masa | RANGO DE EFICIENCIA |           |       |
|                            |       | +/- 5%                     |          |     | +/- 5%                                | +/- 5%               | +/- 5%        | +/- 7%              |           |       |
| °C                         | (°F)  | [Btu/h]                    | [kcal/h] | [W] | [W]                                   | [A]                  | [kg/h]        | [Btu/Wh]            | [kcal/Wh] | [W/W] |
| -35                        | (-31) | 31                         | 8        | 9   | 9                                     | 0.14                 | 0.10          | 3.46                | 0.87      | 1.01  |
| -30                        | (-22) | 43                         | 11       | 13  | 10                                    | 0.15                 | 0.13          | 4.22                | 1.06      | 1.24  |
| -25                        | (-13) | 61                         | 15       | 18  | 13                                    | 0.16                 | 0.19          | 4.94                | 1.24      | 1.45  |
| -20                        | (- 4) | 85                         | 21       | 25  | 15                                    | 0.17                 | 0.27          | 5.70                | 1.44      | 1.67  |
| -15                        | (+ 5) | 116                        | 29       | 34  | 17                                    | 0.19                 | 0.37          | 6.59                | 1.66      | 1.93  |
| -10                        | (+14) | 155                        | 39       | 45  | 20                                    | 0.21                 | 0.49          | 7.69                | 1.94      | 2.25  |
| -5                         | (+23) | 202                        | 51       | 59  | 22                                    | 0.22                 | 0.64          | 9.08                | 2.29      | 2.66  |
| 0                          | (+32) | 258                        | 65       | 76  | 24                                    | 0.23                 | 0.82          | 10.84               | 2.73      | 3.18  |

| CONDICIONES DE PRUEBA:     |       | ASHRAE32                   |          |     | (Temp. de condensación 35°C (+95°F)) |                      |               |                     |           |       |
|----------------------------|-------|----------------------------|----------|-----|--------------------------------------|----------------------|---------------|---------------------|-----------|-------|
| @220V1300RPM               |       | Estática                   |          |     |                                      |                      |               |                     |           |       |
| Temperatura de evaporación |       | Capacidad de refrigeración |          |     | Consumo de potencia                  | Consumo de corriente | Flujo de masa | RANGO DE EFICIENCIA |           |       |
|                            |       | +/- 5%                     |          |     | +/- 5%                               | +/- 5%               | +/- 5%        | +/- 7%              |           |       |
| °C                         | (°F)  | [Btu/h]                    | [kcal/h] | [W] | [W]                                  | [A]                  | [kg/h]        | [Btu/Wh]            | [kcal/Wh] | [W/W] |
| -35                        | (-31) | 73                         | 18       | 21  | 12                                   | 0.13                 | 0.23          | 6.16                | 1.55      | 1.81  |
| -30                        | (-22) | 99                         | 25       | 29  | 14                                   | 0.14                 | 0.31          | 7.02                | 1.77      | 2.06  |
| -25                        | (-13) | 131                        | 33       | 39  | 16                                   | 0.16                 | 0.41          | 8.05                | 2.03      | 2.36  |
| -20                        | (- 4) | 172                        | 43       | 50  | 19                                   | 0.17                 | 0.54          | 9.30                | 2.34      | 2.73  |
| -15                        | (+ 5) | 220                        | 56       | 65  | 20                                   | 0.18                 | 0.69          | 10.80               | 2.72      | 3.16  |
| -10                        | (+14) | 278                        | 70       | 81  | 22                                   | 0.20                 | 0.88          | 12.58               | 3.17      | 3.69  |
| -5                         | (+23) | 345                        | 87       | 101 | 23                                   | 0.21                 | 1.09          | 14.68               | 3.70      | 4.30  |
| 0                          | (+32) | 422                        | 106      | 124 | 24                                   | 0.22                 | 1.34          | 17.13               | 4.32      | 5.02  |

### E - PERFORMANCE - CURVAS

| CONDICIONES DE PRUEBA:     |       | ASHRAE32                   |          |     | (Temp. de condensación 45°C (+113°F)) |                      |               |                     |           |       |
|----------------------------|-------|----------------------------|----------|-----|---------------------------------------|----------------------|---------------|---------------------|-----------|-------|
| @220V1300RPM               |       | Estática                   |          |     |                                       |                      |               |                     |           |       |
| Temperatura de evaporación |       | Capacidad de refrigeración |          |     | Consumo de potencia                   | Consumo de corriente | Flujo de masa | RANGO DE EFICIENCIA |           |       |
|                            |       | +/- 5%                     |          |     | +/- 5%                                | +/- 5%               | +/- 5%        | +/- 7%              |           |       |
| °C                         | (°F)  | [Btu/h]                    | [kcal/h] | [W] | [W]                                   | [A]                  | [kg/h]        | [Btu/Wh]            | [kcal/Wh] | [W/W] |
| -35                        | (-31) | 58                         | 15       | 17  | 12                                    | 0.15                 | 0.18          | 4.80                | 1.21      | 1.41  |
| -30                        | (-22) | 81                         | 20       | 24  | 15                                    | 0.17                 | 0.25          | 5.58                | 1.41      | 1.63  |
| -25                        | (-13) | 112                        | 28       | 33  | 17                                    | 0.18                 | 0.35          | 6.44                | 1.62      | 1.89  |
| -20                        | (- 4) | 149                        | 38       | 44  | 20                                    | 0.19                 | 0.47          | 7.44                | 1.87      | 2.18  |
| -15                        | (+ 5) | 195                        | 49       | 57  | 23                                    | 0.21                 | 0.61          | 8.59                | 2.16      | 2.52  |
| -10                        | (+14) | 249                        | 63       | 73  | 25                                    | 0.22                 | 0.79          | 9.94                | 2.50      | 2.91  |
| -5                         | (+23) | 313                        | 79       | 92  | 27                                    | 0.24                 | 0.99          | 11.52               | 2.90      | 3.38  |
| 0                          | (+32) | 387                        | 97       | 113 | 29                                    | 0.26                 | 1.22          | 13.36               | 3.37      | 3.92  |

| CONDICIONES DE PRUEBA:     |       | ASHRAE32                   |          |     | (Temp. de condensación 55°C (+131°F)) |                      |               |                     |           |       |
|----------------------------|-------|----------------------------|----------|-----|---------------------------------------|----------------------|---------------|---------------------|-----------|-------|
| @220V1300RPM               |       | Estática                   |          |     |                                       |                      |               |                     |           |       |
| Temperatura de evaporación |       | Capacidad de refrigeración |          |     | Consumo de potencia                   | Consumo de corriente | Flujo de masa | RANGO DE EFICIENCIA |           |       |
|                            |       | +/- 5%                     |          |     | +/- 5%                                | +/- 5%               | +/- 5%        | +/- 7%              |           |       |
| °C                         | (°F)  | [Btu/h]                    | [kcal/h] | [W] | [W]                                   | [A]                  | [kg/h]        | [Btu/Wh]            | [kcal/Wh] | [W/W] |
| -35                        | (-31) | 50                         | 13       | 15  | 12                                    | 0.16                 | 0.16          | 4.14                | 1.04      | 1.21  |
| -30                        | (-22) | 71                         | 18       | 21  | 15                                    | 0.18                 | 0.22          | 4.90                | 1.24      | 1.44  |
| -25                        | (-13) | 99                         | 25       | 29  | 18                                    | 0.19                 | 0.31          | 5.67                | 1.43      | 1.66  |
| -20                        | (- 4) | 134                        | 34       | 39  | 21                                    | 0.21                 | 0.42          | 6.48                | 1.63      | 1.90  |
| -15                        | (+ 5) | 177                        | 45       | 52  | 24                                    | 0.23                 | 0.56          | 7.36                | 1.85      | 2.16  |
| -10                        | (+14) | 228                        | 57       | 67  | 27                                    | 0.25                 | 0.72          | 8.34                | 2.10      | 2.44  |
| -5                         | (+23) | 288                        | 73       | 85  | 30                                    | 0.27                 | 0.91          | 9.47                | 2.39      | 2.78  |
| 0                          | (+32) | 359                        | 90       | 105 | 33                                    | 0.29                 | 1.14          | 10.78               | 2.72      | 3.16  |

| CONDICIONES DE PRUEBA:     |       | ASHRAE32                   |          |     | (Temp. de condensación 35°C (+95°F)) |                      |               |                     |           |       |
|----------------------------|-------|----------------------------|----------|-----|--------------------------------------|----------------------|---------------|---------------------|-----------|-------|
| @220V1600RPM               |       | Estática                   |          |     |                                      |                      |               |                     |           |       |
| Temperatura de evaporación |       | Capacidad de refrigeración |          |     | Consumo de potencia                  | Consumo de corriente | Flujo de masa | RANGO DE EFICIENCIA |           |       |
|                            |       | +/- 5%                     |          |     | +/- 5%                               | +/- 5%               | +/- 5%        | +/- 7%              |           |       |
| °C                         | (°F)  | [Btu/h]                    | [kcal/h] | [W] | [W]                                  | [A]                  | [kg/h]        | [Btu/Wh]            | [kcal/Wh] | [W/W] |
| -35                        | (-31) | 92                         | 23       | 27  | 15                                   | 0.16                 | 0.29          | 6.17                | 1.55      | 1.81  |
| -30                        | (-22) | 123                        | 31       | 36  | 17                                   | 0.18                 | 0.39          | 7.02                | 1.77      | 2.06  |
| -25                        | (-13) | 162                        | 41       | 47  | 20                                   | 0.20                 | 0.51          | 8.01                | 2.02      | 2.35  |
| -20                        | (- 4) | 210                        | 53       | 62  | 23                                   | 0.22                 | 0.66          | 9.19                | 2.31      | 2.69  |
| -15                        | (+ 5) | 268                        | 68       | 79  | 25                                   | 0.23                 | 0.84          | 10.59               | 2.67      | 3.10  |
| -10                        | (+14) | 336                        | 85       | 98  | 28                                   | 0.25                 | 1.06          | 12.27               | 3.09      | 3.60  |
| -5                         | (+23) | 415                        | 104      | 121 | 29                                   | 0.25                 | 1.31          | 14.28               | 3.60      | 4.18  |
| 0                          | (+32) | 505                        | 127      | 148 | 29                                   | 0.25                 | 1.60          | 16.65               | 4.20      | 4.88  |

### E - PERFORMANCE - CURVAS

| CONDICIONES DE PRUEBA:     |       | ASHRAE32                   |          |     | (Temp. de condensación 45°C (+113°F)) |                      |               |                     |           |       |
|----------------------------|-------|----------------------------|----------|-----|---------------------------------------|----------------------|---------------|---------------------|-----------|-------|
| @220V1600RPM               |       | Estática                   |          |     |                                       |                      |               |                     |           |       |
| Temperatura de evaporación |       | Capacidad de refrigeración |          |     | Consumo de potencia                   | Consumo de corriente | Flujo de masa | RANGO DE EFICIENCIA |           |       |
|                            |       | +/- 5%                     |          |     | +/- 5%                                | +/- 5%               | +/- 5%        | +/- 7%              |           |       |
| °C                         | (°F)  | [Btu/h]                    | [kcal/h] | [W] | [W]                                   | [A]                  | [kg/h]        | [Btu/Wh]            | [kcal/Wh] | [W/W] |
| -35                        | (-31) | 68                         | 17       | 20  | 15                                    | 0.17                 | 0.21          | 4.68                | 1.18      | 1.37  |
| -30                        | (-22) | 98                         | 25       | 29  | 18                                    | 0.19                 | 0.31          | 5.58                | 1.41      | 1.64  |
| -25                        | (-13) | 137                        | 35       | 40  | 21                                    | 0.21                 | 0.43          | 6.55                | 1.65      | 1.92  |
| -20                        | (- 4) | 186                        | 47       | 54  | 24                                    | 0.23                 | 0.58          | 7.64                | 1.92      | 2.24  |
| -15                        | (+ 5) | 245                        | 62       | 72  | 27                                    | 0.25                 | 0.77          | 8.88                | 2.24      | 2.60  |
| -10                        | (+14) | 314                        | 79       | 92  | 30                                    | 0.27                 | 0.99          | 10.34               | 2.61      | 3.03  |
| -5                         | (+23) | 395                        | 100      | 116 | 33                                    | 0.29                 | 1.25          | 12.05               | 3.04      | 3.53  |
| 0                          | (+32) | 488                        | 123      | 143 | 35                                    | 0.30                 | 1.55          | 14.06               | 3.54      | 4.12  |

| CONDICIONES DE PRUEBA:     |       | ASHRAE32                   |          |     | (Temp. de condensación 55°C (+131°F)) |                      |               |                     |           |       |
|----------------------------|-------|----------------------------|----------|-----|---------------------------------------|----------------------|---------------|---------------------|-----------|-------|
| @220V1600RPM               |       | Estática                   |          |     |                                       |                      |               |                     |           |       |
| Temperatura de evaporación |       | Capacidad de refrigeración |          |     | Consumo de potencia                   | Consumo de corriente | Flujo de masa | RANGO DE EFICIENCIA |           |       |
|                            |       | +/- 5%                     |          |     | +/- 5%                                | +/- 5%               | +/- 5%        | +/- 7%              |           |       |
| °C                         | (°F)  | [Btu/h]                    | [kcal/h] | [W] | [W]                                   | [A]                  | [kg/h]        | [Btu/Wh]            | [kcal/Wh] | [W/W] |
| -35                        | (-31) | 59                         | 15       | 17  | 15                                    | 0.17                 | 0.18          | 3.87                | 0.98      | 1.14  |
| -30                        | (-22) | 83                         | 21       | 24  | 18                                    | 0.19                 | 0.26          | 4.69                | 1.18      | 1.37  |
| -25                        | (-13) | 118                        | 30       | 35  | 22                                    | 0.21                 | 0.37          | 5.50                | 1.39      | 1.61  |
| -20                        | (- 4) | 162                        | 41       | 48  | 26                                    | 0.23                 | 0.51          | 6.36                | 1.60      | 1.86  |
| -15                        | (+ 5) | 217                        | 55       | 64  | 30                                    | 0.26                 | 0.68          | 7.31                | 1.84      | 2.14  |
| -10                        | (+14) | 284                        | 72       | 83  | 34                                    | 0.29                 | 0.90          | 8.40                | 2.12      | 2.46  |
| -5                         | (+23) | 362                        | 91       | 106 | 37                                    | 0.32                 | 1.15          | 9.68                | 2.44      | 2.84  |
| 0                          | (+32) | 453                        | 114      | 133 | 41                                    | 0.34                 | 1.44          | 11.19               | 2.82      | 3.28  |

| CONDICIONES DE PRUEBA:     |       | ASHRAE32                   |          |     | (Temp. de condensación 35°C (+95°F)) |                      |               |                     |           |       |
|----------------------------|-------|----------------------------|----------|-----|--------------------------------------|----------------------|---------------|---------------------|-----------|-------|
| @220V2000RPM               |       | Estática                   |          |     |                                      |                      |               |                     |           |       |
| Temperatura de evaporación |       | Capacidad de refrigeración |          |     | Consumo de potencia                  | Consumo de corriente | Flujo de masa | RANGO DE EFICIENCIA |           |       |
|                            |       | +/- 5%                     |          |     | +/- 5%                               | +/- 5%               | +/- 5%        | +/- 7%              |           |       |
| °C                         | (°F)  | [Btu/h]                    | [kcal/h] | [W] | [W]                                  | [A]                  | [kg/h]        | [Btu/Wh]            | [kcal/Wh] | [W/W] |
| -35                        | (-31) | 109                        | 28       | 32  | 19                                   | 0.18                 | 0.34          | 5.82                | 1.47      | 1.71  |
| -30                        | (-22) | 151                        | 38       | 44  | 22                                   | 0.21                 | 0.47          | 6.82                | 1.72      | 2.00  |
| -25                        | (-13) | 203                        | 51       | 59  | 26                                   | 0.24                 | 0.64          | 7.92                | 2.00      | 2.32  |
| -20                        | (- 4) | 265                        | 67       | 78  | 29                                   | 0.26                 | 0.83          | 9.16                | 2.31      | 2.68  |
| -15                        | (+ 5) | 339                        | 85       | 99  | 32                                   | 0.28                 | 1.07          | 10.61               | 2.67      | 3.11  |
| -10                        | (+14) | 427                        | 108      | 125 | 35                                   | 0.30                 | 1.35          | 12.30               | 3.10      | 3.61  |
| -5                         | (+23) | 531                        | 134      | 156 | 37                                   | 0.31                 | 1.68          | 14.30               | 3.60      | 4.19  |
| 0                          | (+32) | 653                        | 164      | 191 | 39                                   | 0.33                 | 2.07          | 16.66               | 4.20      | 4.88  |

### E - PERFORMANCE - CURVAS

| CONDICIONES DE PRUEBA:     |       | ASHRAE32                   |          |     | (Temp. de condensación 45°C (+113°F)) |                      |               |                     |           |       |
|----------------------------|-------|----------------------------|----------|-----|---------------------------------------|----------------------|---------------|---------------------|-----------|-------|
| @220V2000RPM               |       | Estática                   |          |     |                                       |                      |               |                     |           |       |
| Temperatura de evaporación |       | Capacidad de refrigeración |          |     | Consumo de potencia                   | Consumo de corriente | Flujo de masa | RANGO DE EFICIENCIA |           |       |
|                            |       | +/- 5%                     |          |     | +/- 5%                                | +/- 5%               | +/- 5%        | +/- 7%              |           |       |
| °C                         | (°F)  | [Btu/h]                    | [kcal/h] | [W] | [W]                                   | [A]                  | [kg/h]        | [Btu/Wh]            | [kcal/Wh] | [W/W] |
| -35                        | (-31) | 83                         | 21       | 24  | 18                                    | 0.19                 | 0.26          | 4.68                | 1.18      | 1.37  |
| -30                        | (-22) | 126                        | 32       | 37  | 22                                    | 0.22                 | 0.39          | 5.69                | 1.44      | 1.67  |
| -25                        | (-13) | 178                        | 45       | 52  | 26                                    | 0.24                 | 0.56          | 6.71                | 1.69      | 1.97  |
| -20                        | (- 4) | 240                        | 60       | 70  | 31                                    | 0.27                 | 0.75          | 7.78                | 1.96      | 2.28  |
| -15                        | (+ 5) | 314                        | 79       | 92  | 35                                    | 0.29                 | 0.99          | 8.95                | 2.26      | 2.62  |
| -10                        | (+14) | 402                        | 101      | 118 | 39                                    | 0.32                 | 1.27          | 10.29               | 2.59      | 3.01  |
| -5                         | (+23) | 505                        | 127      | 148 | 43                                    | 0.35                 | 1.60          | 11.83               | 2.98      | 3.47  |
| 0                          | (+32) | 625                        | 158      | 183 | 46                                    | 0.38                 | 1.98          | 13.63               | 3.43      | 3.99  |

| CONDICIONES DE PRUEBA:     |       | ASHRAE32                   |          |     | (Temp. de condensación 55°C (+131°F)) |                      |               |                     |           |       |
|----------------------------|-------|----------------------------|----------|-----|---------------------------------------|----------------------|---------------|---------------------|-----------|-------|
| @220V2000RPM               |       | Estática                   |          |     |                                       |                      |               |                     |           |       |
| Temperatura de evaporación |       | Capacidad de refrigeración |          |     | Consumo de potencia                   | Consumo de corriente | Flujo de masa | RANGO DE EFICIENCIA |           |       |
|                            |       | +/- 5%                     |          |     | +/- 5%                                | +/- 5%               | +/- 5%        | +/- 7%              |           |       |
| °C                         | (°F)  | [Btu/h]                    | [kcal/h] | [W] | [W]                                   | [A]                  | [kg/h]        | [Btu/Wh]            | [kcal/Wh] | [W/W] |
| -35                        | (-31) | 72                         | 18       | 21  | 18                                    | 0.19                 | 0.23          | 3.86                | 0.97      | 1.13  |
| -30                        | (-22) | 111                        | 28       | 32  | 23                                    | 0.22                 | 0.35          | 4.89                | 1.23      | 1.43  |
| -25                        | (-13) | 158                        | 40       | 46  | 27                                    | 0.25                 | 0.49          | 5.84                | 1.47      | 1.71  |
| -20                        | (- 4) | 214                        | 54       | 63  | 32                                    | 0.28                 | 0.67          | 6.74                | 1.70      | 1.97  |
| -15                        | (+ 5) | 283                        | 71       | 83  | 37                                    | 0.31                 | 0.89          | 7.66                | 1.93      | 2.24  |
| -10                        | (+14) | 365                        | 92       | 107 | 42                                    | 0.34                 | 1.15          | 8.63                | 2.18      | 2.53  |
| -5                         | (+23) | 462                        | 116      | 135 | 47                                    | 0.38                 | 1.46          | 9.73                | 2.45      | 2.85  |
| 0                          | (+32) | 575                        | 145      | 168 | 52                                    | 0.43                 | 1.82          | 10.99               | 2.77      | 3.22  |

| CONDICIONES DE PRUEBA:     |       | ASHRAE32                   |          |     | (Temp. de condensación 35°C (+95°F)) |                      |               |                     |           |       |
|----------------------------|-------|----------------------------|----------|-----|--------------------------------------|----------------------|---------------|---------------------|-----------|-------|
| @220V3000RPM               |       | Estática                   |          |     |                                      |                      |               |                     |           |       |
| Temperatura de evaporación |       | Capacidad de refrigeración |          |     | Consumo de potencia                  | Consumo de corriente | Flujo de masa | RANGO DE EFICIENCIA |           |       |
|                            |       | +/- 5%                     |          |     | +/- 5%                               | +/- 5%               | +/- 5%        | +/- 7%              |           |       |
| °C                         | (°F)  | [Btu/h]                    | [kcal/h] | [W] | [W]                                  | [A]                  | [kg/h]        | [Btu/Wh]            | [kcal/Wh] | [W/W] |
| -35                        | (-31) | 160                        | 40       | 47  | 29                                   | 0.24                 | 0.50          | 5.54                | 1.40      | 1.62  |
| -30                        | (-22) | 225                        | 57       | 66  | 34                                   | 0.28                 | 0.70          | 6.58                | 1.66      | 1.93  |
| -25                        | (-13) | 301                        | 76       | 88  | 39                                   | 0.32                 | 0.94          | 7.65                | 1.93      | 2.24  |
| -20                        | (- 4) | 391                        | 98       | 114 | 44                                   | 0.35                 | 1.23          | 8.79                | 2.22      | 2.58  |
| -15                        | (+ 5) | 498                        | 125      | 146 | 49                                   | 0.39                 | 1.57          | 10.07               | 2.54      | 2.95  |
| -10                        | (+14) | 627                        | 158      | 184 | 54                                   | 0.43                 | 1.98          | 11.55               | 2.91      | 3.39  |
| -5                         | (+23) | 780                        | 197      | 228 | 59                                   | 0.47                 | 2.47          | 13.28               | 3.35      | 3.89  |
| 0                          | (+32) | 961                        | 242      | 282 | 63                                   | 0.51                 | 3.05          | 15.33               | 3.86      | 4.49  |

### E - PERFORMANCE - CURVAS

| CONDICIONES DE PRUEBA:     |       | ASHRAE32                   |          |     | (Temp. de condensación 45°C (+113°F)) |                      |               |                     |           |       |
|----------------------------|-------|----------------------------|----------|-----|---------------------------------------|----------------------|---------------|---------------------|-----------|-------|
| @220V3000RPM               |       | Estática                   |          |     |                                       |                      |               |                     |           |       |
| Temperatura de evaporación |       | Capacidad de refrigeración |          |     | Consumo de potencia                   | Consumo de corriente | Flujo de masa | RANGO DE EFICIENCIA |           |       |
|                            |       | +/- 5%                     |          |     | +/- 5%                                | +/- 5%               | +/- 5%        | +/- 7%              |           |       |
| °C                         | (°F)  | [Btu/h]                    | [kcal/h] | [W] | [W]                                   | [A]                  | [kg/h]        | [Btu/Wh]            | [kcal/Wh] | [W/W] |
| -35                        | (-31) | 137                        | 34       | 40  | 29                                    | 0.25                 | 0.43          | 4.72                | 1.19      | 1.38  |
| -30                        | (-22) | 202                        | 51       | 59  | 35                                    | 0.29                 | 0.63          | 5.74                | 1.45      | 1.68  |
| -25                        | (-13) | 278                        | 70       | 81  | 41                                    | 0.33                 | 0.87          | 6.72                | 1.69      | 1.97  |
| -20                        | (- 4) | 367                        | 92       | 107 | 48                                    | 0.38                 | 1.15          | 7.73                | 1.95      | 2.27  |
| -15                        | (+ 5) | 473                        | 119      | 139 | 54                                    | 0.42                 | 1.49          | 8.82                | 2.22      | 2.58  |
| -10                        | (+14) | 600                        | 151      | 176 | 60                                    | 0.47                 | 1.89          | 10.04               | 2.53      | 2.94  |
| -5                         | (+23) | 752                        | 189      | 220 | 65                                    | 0.52                 | 2.38          | 11.46               | 2.89      | 3.36  |
| 0                          | (+32) | 931                        | 235      | 273 | 71                                    | 0.57                 | 2.95          | 13.13               | 3.31      | 3.85  |

| CONDICIONES DE PRUEBA:     |       | ASHRAE32                   |          |     | (Temp. de condensación 55°C (+131°F)) |                      |               |                     |           |       |
|----------------------------|-------|----------------------------|----------|-----|---------------------------------------|----------------------|---------------|---------------------|-----------|-------|
| @220V3000RPM               |       | Estática                   |          |     |                                       |                      |               |                     |           |       |
| Temperatura de evaporación |       | Capacidad de refrigeración |          |     | Consumo de potencia                   | Consumo de corriente | Flujo de masa | RANGO DE EFICIENCIA |           |       |
|                            |       | +/- 5%                     |          |     | +/- 5%                                | +/- 5%               | +/- 5%        | +/- 7%              |           |       |
| °C                         | (°F)  | [Btu/h]                    | [kcal/h] | [W] | [W]                                   | [A]                  | [kg/h]        | [Btu/Wh]            | [kcal/Wh] | [W/W] |
| -35                        | (-31) | 105                        | 26       | 31  | 28                                    | 0.25                 | 0.33          | 3.79                | 0.95      | 1.11  |
| -30                        | (-22) | 171                        | 43       | 50  | 35                                    | 0.29                 | 0.54          | 4.86                | 1.23      | 1.43  |
| -25                        | (-13) | 247                        | 62       | 72  | 42                                    | 0.34                 | 0.77          | 5.84                | 1.47      | 1.71  |
| -20                        | (- 4) | 336                        | 85       | 98  | 50                                    | 0.39                 | 1.06          | 6.79                | 1.71      | 1.99  |
| -15                        | (+ 5) | 442                        | 111      | 129 | 57                                    | 0.45                 | 1.39          | 7.75                | 1.95      | 2.27  |
| -10                        | (+14) | 568                        | 143      | 167 | 65                                    | 0.50                 | 1.79          | 8.80                | 2.22      | 2.58  |
| -5                         | (+23) | 718                        | 181      | 211 | 72                                    | 0.56                 | 2.27          | 9.97                | 2.51      | 2.92  |
| 0                          | (+32) | 896                        | 226      | 263 | 79                                    | 0.62                 | 2.84          | 11.35               | 2.86      | 3.32  |

| CONDICIONES DE PRUEBA:     |       | ASHRAE32                   |          |     | (Temp. de condensación 35°C (+95°F)) |                      |               |                     |           |       |
|----------------------------|-------|----------------------------|----------|-----|--------------------------------------|----------------------|---------------|---------------------|-----------|-------|
| @220V4500RPM               |       | Estática                   |          |     |                                      |                      |               |                     |           |       |
| Temperatura de evaporación |       | Capacidad de refrigeración |          |     | Consumo de potencia                  | Consumo de corriente | Flujo de masa | RANGO DE EFICIENCIA |           |       |
|                            |       | +/- 5%                     |          |     | +/- 5%                               | +/- 5%               | +/- 5%        | +/- 7%              |           |       |
| °C                         | (°F)  | [Btu/h]                    | [kcal/h] | [W] | [W]                                  | [A]                  | [kg/h]        | [Btu/Wh]            | [kcal/Wh] | [W/W] |
| -35                        | (-31) | 236                        | 59       | 69  | 47                                   | 0.38                 | 0.74          | 5.01                | 1.26      | 1.47  |
| -30                        | (-22) | 305                        | 77       | 89  | 52                                   | 0.40                 | 0.95          | 5.94                | 1.50      | 1.74  |
| -25                        | (-13) | 407                        | 103      | 119 | 59                                   | 0.45                 | 1.28          | 6.92                | 1.74      | 2.03  |
| -20                        | (- 4) | 542                        | 137      | 159 | 67                                   | 0.51                 | 1.70          | 8.01                | 2.02      | 2.35  |
| -15                        | (+ 5) | 711                        | 179      | 208 | 76                                   | 0.58                 | 2.24          | 9.25                | 2.33      | 2.71  |
| -10                        | (+14) | 912                        | 230      | 267 | 85                                   | 0.65                 | 2.88          | 10.70               | 2.70      | 3.13  |
| -5                         | (+23) | 1145                       | 289      | 336 | 93                                   | 0.70                 | 3.62          | 12.39               | 3.12      | 3.63  |
| 0                          | (+32) | 1411                       | 356      | 413 | 99                                   | 0.74                 | 4.47          | 14.39               | 3.63      | 4.22  |

### E - PERFORMANCE - CURVAS

| CONDICIONES DE PRUEBA:     |       | ASHRAE32                   |          |     | (Temp. de condensación 45°C (+113°F)) |                      |               |                     |           |       |
|----------------------------|-------|----------------------------|----------|-----|---------------------------------------|----------------------|---------------|---------------------|-----------|-------|
| @220V4500RPM               |       | Estática                   |          |     |                                       |                      |               |                     |           |       |
| Temperatura de evaporación |       | Capacidad de refrigeración |          |     | Consumo de potencia                   | Consumo de corriente | Flujo de masa | RANGO DE EFICIENCIA |           |       |
|                            |       | +/- 5%                     |          |     | +/- 5%                                | +/- 5%               | +/- 5%        | +/- 7%              |           |       |
| °C                         | (°F)  | [Btu/h]                    | [kcal/h] | [W] | [W]                                   | [A]                  | [kg/h]        | [Btu/Wh]            | [kcal/Wh] | [W/W] |
| -35                        | (-31) | 214                        | 54       | 63  | 47                                    | 0.38                 | 0.67          | 4.61                | 1.16      | 1.35  |
| -30                        | (-22) | 286                        | 72       | 84  | 53                                    | 0.41                 | 0.90          | 5.47                | 1.38      | 1.60  |
| -25                        | (-13) | 386                        | 97       | 113 | 62                                    | 0.47                 | 1.21          | 6.32                | 1.59      | 1.85  |
| -20                        | (- 4) | 513                        | 129      | 150 | 71                                    | 0.54                 | 1.61          | 7.22                | 1.82      | 2.12  |
| -15                        | (+ 5) | 667                        | 168      | 196 | 81                                    | 0.62                 | 2.10          | 8.21                | 2.07      | 2.41  |
| -10                        | (+14) | 848                        | 214      | 248 | 91                                    | 0.68                 | 2.67          | 9.35                | 2.36      | 2.74  |
| -5                         | (+23) | 1055                       | 266      | 309 | 98                                    | 0.74                 | 3.34          | 10.68               | 2.69      | 3.13  |
| 0                          | (+32) | 1288                       | 324      | 377 | 103                                   | 0.76                 | 4.08          | 12.25               | 3.09      | 3.59  |

| CONDICIONES DE PRUEBA:     |       | ASHRAE32                   |          |     | (Temp. de condensación 55°C (+131°F)) |                      |               |                     |           |       |
|----------------------------|-------|----------------------------|----------|-----|---------------------------------------|----------------------|---------------|---------------------|-----------|-------|
| @220V4500RPM               |       | Estática                   |          |     |                                       |                      |               |                     |           |       |
| Temperatura de evaporación |       | Capacidad de refrigeración |          |     | Consumo de potencia                   | Consumo de corriente | Flujo de masa | RANGO DE EFICIENCIA |           |       |
|                            |       | +/- 5%                     |          |     | +/- 5%                                | +/- 5%               | +/- 5%        | +/- 7%              |           |       |
| °C                         | (°F)  | [Btu/h]                    | [kcal/h] | [W] | [W]                                   | [A]                  | [kg/h]        | [Btu/Wh]            | [kcal/Wh] | [W/W] |
| -35                        | (-31) | 165                        | 42       | 48  | 43                                    | 0.35                 | 0.52          | 3.79                | 0.96      | 1.11  |
| -30                        | (-22) | 250                        | 63       | 73  | 52                                    | 0.41                 | 0.78          | 4.73                | 1.19      | 1.39  |
| -25                        | (-13) | 356                        | 90       | 104 | 63                                    | 0.48                 | 1.12          | 5.60                | 1.41      | 1.64  |
| -20                        | (- 4) | 483                        | 122      | 142 | 75                                    | 0.57                 | 1.52          | 6.46                | 1.63      | 1.89  |
| -15                        | (+ 5) | 631                        | 159      | 185 | 86                                    | 0.65                 | 1.99          | 7.36                | 1.85      | 2.16  |
| -10                        | (+14) | 799                        | 201      | 234 | 96                                    | 0.72                 | 2.52          | 8.34                | 2.10      | 2.44  |
| -5                         | (+23) | 988                        | 249      | 289 | 105                                   | 0.78                 | 3.12          | 9.46                | 2.38      | 2.77  |
| 0                          | (+32) | 1196                       | 301      | 351 | 110                                   | 0.81                 | 3.79          | 10.76               | 2.71      | 3.15  |



**F - CARACTERÍSTICAS EXTERNAS**

|                                      |                |      |           |
|--------------------------------------|----------------|------|-----------|
| 1 Placa base                         |                |      |           |
| 2 Soporte de badeja                  | Sí             |      |           |
| 3 Tubos                              |                |      |           |
| 3.1 SUCCIÓN                          | 6.1            | [mm] | (0.240" ) |
| 3.1.1 Material                       |                |      |           |
| 3.1.2 Forma                          |                |      |           |
| 3.2 DESCARGA                         | 4.9            | [mm] | (0.193" ) |
| 3.2.1 Material                       |                |      |           |
| 3.2.2 Forma                          |                |      |           |
| 3.3 PROCESO                          | 6              | [mm] | (0.236" ) |
| 3.3.1 Material                       |                |      |           |
| 3.3.2 Forma                          |                |      |           |
| 3.4 Tubo enfriador de aceite (Cobre) | No             | [mm] |           |
| 3.5 Sellado del tudo                 | Tampa de Gomma |      |           |