

DEFINICIÓN DEL COMPRESOR

| | |
|------------------------------|--------------------|
| Denominación | EM 2X3125U |
| Voltage / Frecuencia nominal | 220-240 V 50-60 Hz |
| Código de Ingeniería | 513304157 |

A - APLICACIÓN / CONDICIONES LÍMITES DE TRABAJO

| | | | |
|---|-------------------------------|-----------------------------------|----------------|
| 1 Tipo | Compresor recíproco | | |
| 2 Refrigerante | R-290 | | |
| 3 Voltaje y frecuencia nominal | 220-240 / 50-60 | [V / Hz] | |
| 4 Tipo de aplicación | | | |
| 4.1 Rango de temperatura de evaporación | -40°C para 0°C | (-40°F para 32°F) | |
| 5 Tipo de motor | RSCR | | |
| 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/Forzada | 198 para 255 V | 198 para 255 V |
| 8.2 LBP (43°C Temperatura ambiente) | Estática/Forzada | 198 para 255 V | 198 para 255 V |
| 8.3 HBP (32°C Temperatura ambiente) | - | - | - |
| 8.4 HBP (43°C Temperatura ambiente) | - | - | - |
| 9 Máxima temperatura de condensación | | | |
| 9.1 Operación | 18.4 | [kgf/cm ²] (262 psig) | / °C - °F |
| 9.2 Pico | 20.6 | [kgf/cm ²] (293 psig) | / °C - °F |
| 10 Máxima temperatura de las bobinas | 130 | [°C] | |

B - DATOS MECÁNICOS

| | | |
|--------------------------------|---------------|--|
| 1 Referencia Comercial | 1/3+ | [hp] |
| 2 Desplazamiento | 6.09 | [cm ³] (0.372 cu.in) |
| 2.1 Diametro [mm] | 21.000 | |
| 2.2 Curso [mm] | 17.600 | |
| 3 Carga de aceite | 180 | [ml] (6.09 fl.oz.) |
| 3.1 Aceites aprobados | | |
| 3.2 Tipo/Viscosidad del aceite | ESTER / ISO22 | |
| 4 Peso (com carga de aceite) | 7.84 | [kg] (17.28 lb.) |
| 5 Carga de nitrógeno | 0.2 para 0.3 | [kgf/cm ²] (2.84 para 4.27 psig) |

C - DATOS ELÉCTRICOS

| | | |
|--|--|---------------------------|
| 1 Voltaje nominal/Frecuencia/Numero de fases | 220-240 V 50-60 Hz 1 ~ (Monofásico) | |
| 2 Tipo de Dispositivo de Arranque | PTC | |
| 2.1 Dispositivo de Arranque | 8EA17C3/8EA17E61/8EA17E62/8EA17E63/QPS2-A22MD3 | |
| 3 Capacitor de Arranque | - | [µF(VAC minimo)] |
| 4 Capacitor de marcha | 5(450) | [µF(VAC minimo)] |
| 5 Protección del motor | 4TM283RFBYY-53 | |
| 6 Resistencia del motor - bobina arranque | 20.68 | [Ω en 25°C (77°F)] +/- 8% |
| 7 Resistencia del motor - bobina marcha | 14.06 | [Ω en 25°C (77°F)] +/- 8% |
| 8 LRA - Corriente com rotor trabado (50/60 Hz) | 8.10/7.50 | [A] - Medido según UL 984 |
| 9 FLA - Corriente a plena carga L/MBP (50/60 Hz) | 1.00/0.72 | [A] - Medido según UL 984 |
| 10 FLA - Corriente a plena carga HBP (50/60 Hz) | 1.29/0.98 | [A] - Medido según UL 984 |
| 11 Institutos de aprobación | CE - IRAM - TUV - UKCA - VDE | |

D - PERFORMANCE - DATOS CHECK POINT

| | | | | | | | | |
|--|----------|-----|---------------------------------------|--------------------------------|--|--|-----------|-------|
| CONDICIONES DE PRUEBA: @220V50Hz | | | ASHRAELBP32 Estática | | Temperatura de evaporación (Temp. de condensación | -23.3°C (-9.94°F) 54.4°C (129.92°F) | | |
| Capacidad de refrigeración +/- 5% | | | Consumo de potencia +/- 5% | Consumo de corriente +/- 5% | Flujo de masa +/- 5% | RANGO DE EFICIENCIA +/- 7% | | |
| [Btu/h] | [kcal/h] | [W] | [W] | [A] | [kg/h] | [Btu/Wh] | [kcal/Wh] | [W/W] |
| 1058 | 267 | 310 | 181 | 0.90 | 3.15 | 5.86 | 1.48 | 1.72 |

| | | | | | | | | |
|--|----------|-----|--------------------------------------|--------------------------------|--|--|-----------|-------|
| CONDICIONES DE PRUEBA: @220V50Hz | | | ASHRAELBP32 Forzada | | Temperatura de evaporación (Temp. de condensación | -23.3°C (-9.94°F) 54.4°C (129.92°F) | | |
| Capacidad de refrigeración +/- 5% | | | Consumo de potencia +/- 5% | Consumo de corriente +/- 5% | Flujo de masa +/- 5% | RANGO DE EFICIENCIA +/- 7% | | |
| [Btu/h] | [kcal/h] | [W] | [W] | [A] | [kg/h] | [Btu/Wh] | [kcal/Wh] | [W/W] |
| 1084 | 273 | 318 | 180 | 0.90 | 3.23 | 6.01 | 1.51 | 1.76 |

| | | | | | | | | |
|--|----------|-----|---------------------------------------|--------------------------------|--|--|-----------|-------|
| CONDICIONES DE PRUEBA: @220V60Hz | | | ASHRAELBP32 Estática | | Temperatura de evaporación (Temp. de condensación | -23.3°C (-9.94°F) 54.4°C (129.92°F) | | |
| Capacidad de refrigeración +/- 5% | | | Consumo de potencia +/- 5% | Consumo de corriente +/- 5% | Flujo de masa +/- 5% | RANGO DE EFICIENCIA +/- 7% | | |
| [Btu/h] | [kcal/h] | [W] | [W] | [A] | [kg/h] | [Btu/Wh] | [kcal/Wh] | [W/W] |
| 1306 | 329 | 383 | 217 | 0.99 | 3.89 | 6.03 | 1.52 | 1.77 |

| | | | | | | | | |
|--|----------|-----|--------------------------------------|--------------------------------|--|--|-----------|-------|
| CONDICIONES DE PRUEBA: @220V60Hz | | | ASHRAELBP32 Forzada | | Temperatura de evaporación (Temp. de condensación | -23.3°C (-9.94°F) 54.4°C (129.92°F) | | |
| Capacidad de refrigeración +/- 5% | | | Consumo de potencia +/- 5% | Consumo de corriente +/- 5% | Flujo de masa +/- 5% | RANGO DE EFICIENCIA +/- 7% | | |
| [Btu/h] | [kcal/h] | [W] | [W] | [A] | [kg/h] | [Btu/Wh] | [kcal/Wh] | [W/W] |
| 1334 | 336 | 391 | 217 | 0.99 | 3.97 | 6.15 | 1.55 | 1.80 |

E - PERFORMANCE - CURVAS

| | | | | | | | | | | |
|--|--------------------------------------|------|-----------------------------------|-------------------------------|--|-------------------------|-------------------------------|--------|----------|-----------|
| CONDICIONES DE PRUEBA: @220V50Hz | | | ASHRAE32 Forzada | | (Temp. de condensación 35°C (+95°F)) | | | | | |
| Temperatura de evaporación | Capacidad de refrigeración +/- 5% | | | Consumo de potencia +/- 5% | Consumo de corriente +/- 5% | Flujo de masa +/- 5% | RANGO DE EFICIENCIA +/- 7% | | | |
| | °C | (°F) | [Btu/h] | [kcal/h] | [W] | [W] | [A] | [kg/h] | [Btu/Wh] | [kcal/Wh] |
| -40 | (-40) | 605 | 152 | 177 | 118 | 0.65 | 1.79 | 5.13 | 1.29 | 1.50 |
| -35 | (-31) | 744 | 188 | 218 | 131 | 0.70 | 2.20 | 5.68 | 1.43 | 1.66 |
| -30 | (-22) | 921 | 232 | 270 | 145 | 0.76 | 2.73 | 6.36 | 1.60 | 1.86 |
| -25 | (-13) | 1139 | 287 | 334 | 159 | 0.81 | 3.39 | 7.18 | 1.81 | 2.10 |
| -20 | (- 4) | 1398 | 352 | 410 | 172 | 0.87 | 4.17 | 8.14 | 2.05 | 2.39 |
| -15 | (+ 5) | 1701 | 429 | 498 | 185 | 0.92 | 5.10 | 9.26 | 2.33 | 2.71 |
| -10 | (+14) | 2050 | 517 | 601 | 196 | 0.96 | 6.17 | 10.54 | 2.66 | 3.09 |
| -5 | (+23) | 2446 | 616 | 717 | 205 | 1.00 | 7.40 | 12.00 | 3.02 | 3.52 |
| 0 | (+32) | 2892 | 729 | 847 | 211 | 1.03 | 8.79 | 13.63 | 3.43 | 3.99 |

E - PERFORMANCE - CURVAS

| CONDICIONES DE PRUEBA: | | ASHRAE32 | | | (Temp. de condensación 45°C (+113°F)) | | | | | |
|----------------------------|-------|----------------------------|----------|-----|---------------------------------------|----------------------|---------------|---------------------|-----------|-------|
| @220V50Hz | | Forzada | | | | | | | | |
| 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] |
| -40 | (-40) | 559 | 141 | 164 | 120 | 0.66 | 1.65 | 4.66 | 1.18 | 1.37 |
| -35 | (-31) | 694 | 175 | 203 | 135 | 0.72 | 2.05 | 5.15 | 1.30 | 1.51 |
| -30 | (-22) | 866 | 218 | 254 | 150 | 0.78 | 2.57 | 5.73 | 1.44 | 1.68 |
| -25 | (-13) | 1077 | 271 | 316 | 167 | 0.85 | 3.20 | 6.40 | 1.61 | 1.88 |
| -20 | (- 4) | 1330 | 335 | 390 | 184 | 0.92 | 3.97 | 7.18 | 1.81 | 2.10 |
| -15 | (+ 5) | 1626 | 410 | 476 | 201 | 0.99 | 4.87 | 8.07 | 2.03 | 2.36 |
| -10 | (+14) | 1967 | 496 | 576 | 216 | 1.06 | 5.92 | 9.08 | 2.29 | 2.66 |
| -5 | (+23) | 2355 | 593 | 690 | 231 | 1.12 | 7.12 | 10.22 | 2.58 | 3.00 |
| 0 | (+32) | 2792 | 704 | 818 | 244 | 1.18 | 8.49 | 11.51 | 2.90 | 3.37 |

| CONDICIONES DE PRUEBA: | | ASHRAE32 | | | (Temp. de condensación 55°C (+131°F)) | | | | | |
|----------------------------|-------|----------------------------|----------|-----|---------------------------------------|----------------------|---------------|---------------------|-----------|-------|
| @220V50Hz | | Forzada | | | | | | | | |
| 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] |
| -40 | (-40) | 513 | 129 | 150 | 124 | 0.67 | 1.51 | 4.17 | 1.05 | 1.22 |
| -35 | (-31) | 641 | 162 | 188 | 139 | 0.73 | 1.90 | 4.65 | 1.17 | 1.36 |
| -30 | (-22) | 807 | 203 | 236 | 156 | 0.80 | 2.39 | 5.18 | 1.30 | 1.52 |
| -25 | (-13) | 1011 | 255 | 296 | 175 | 0.88 | 3.01 | 5.76 | 1.45 | 1.69 |
| -20 | (- 4) | 1256 | 316 | 368 | 195 | 0.96 | 3.75 | 6.41 | 1.61 | 1.88 |
| -15 | (+ 5) | 1544 | 389 | 452 | 215 | 1.05 | 4.62 | 7.13 | 1.80 | 2.09 |
| -10 | (+14) | 1876 | 473 | 550 | 236 | 1.14 | 5.64 | 7.93 | 2.00 | 2.32 |
| -5 | (+23) | 2254 | 568 | 661 | 255 | 1.23 | 6.82 | 8.82 | 2.22 | 2.58 |
| 0 | (+32) | 2681 | 676 | 786 | 274 | 1.31 | 8.15 | 9.80 | 2.47 | 2.87 |

| CONDICIONES DE PRUEBA: | | ASHRAE32 | | | (Temp. de condensación 65°C (+149°F)) | | | | | |
|----------------------------|-------|----------------------------|----------|-----|---------------------------------------|----------------------|---------------|---------------------|-----------|-------|
| @220V50Hz | | Forzada | | | | | | | | |
| 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] |
| -40 | (-40) | 467 | 118 | 137 | 128 | 0.69 | 1.38 | 3.60 | 0.91 | 1.05 |
| -35 | (-31) | 588 | 148 | 172 | 143 | 0.75 | 1.74 | 4.12 | 1.04 | 1.21 |
| -30 | (-22) | 745 | 188 | 218 | 162 | 0.82 | 2.21 | 4.65 | 1.17 | 1.36 |
| -25 | (-13) | 941 | 237 | 276 | 182 | 0.91 | 2.80 | 5.20 | 1.31 | 1.52 |
| -20 | (- 4) | 1177 | 297 | 345 | 205 | 1.01 | 3.51 | 5.77 | 1.45 | 1.69 |
| -15 | (+ 5) | 1455 | 367 | 426 | 229 | 1.11 | 4.36 | 6.37 | 1.61 | 1.87 |
| -10 | (+14) | 1777 | 448 | 521 | 253 | 1.22 | 5.35 | 7.02 | 1.77 | 2.06 |
| -5 | (+23) | 2145 | 540 | 628 | 278 | 1.33 | 6.48 | 7.71 | 1.94 | 2.26 |
| 0 | (+32) | 2560 | 645 | 750 | 302 | 1.44 | 7.78 | 8.46 | 2.13 | 2.48 |

E - PERFORMANCE - CURVAS

| CONDICIONES DE PRUEBA: | | ASHRAE32 | | | (Temp. de condensación 35°C (+95°F)) | | | | | |
|----------------------------|-------|----------------------------|----------|-----|--------------------------------------|----------------------|---------------|---------------------|-----------|-------|
| @220V60Hz | | Forzada | | | | | | | | |
| 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] |
| -40 | (-40) | 714 | 180 | 209 | 134 | 0.61 | 2.11 | 5.29 | 1.33 | 1.55 |
| -35 | (-31) | 884 | 223 | 259 | 152 | 0.69 | 2.62 | 5.84 | 1.47 | 1.71 |
| -30 | (-22) | 1095 | 276 | 321 | 169 | 0.77 | 3.25 | 6.50 | 1.64 | 1.90 |
| -25 | (-13) | 1348 | 340 | 395 | 186 | 0.85 | 4.01 | 7.27 | 1.83 | 2.13 |
| -20 | (- 4) | 1648 | 415 | 483 | 203 | 0.93 | 4.92 | 8.16 | 2.06 | 2.39 |
| -15 | (+ 5) | 1997 | 503 | 585 | 218 | 1.00 | 5.98 | 9.17 | 2.31 | 2.69 |
| -10 | (+14) | 2400 | 605 | 703 | 233 | 1.07 | 7.22 | 10.30 | 2.60 | 3.02 |
| -5 | (+23) | 2860 | 721 | 838 | 247 | 1.13 | 8.65 | 11.56 | 2.91 | 3.39 |
| 0 | (+32) | 3379 | 852 | 990 | 261 | 1.19 | 10.27 | 12.94 | 3.26 | 3.79 |

| CONDICIONES DE PRUEBA: | | ASHRAE32 | | | (Temp. de condensación 45°C (+113°F)) | | | | | |
|----------------------------|-------|----------------------------|----------|-----|---------------------------------------|----------------------|---------------|---------------------|-----------|-------|
| @220V60Hz | | Forzada | | | | | | | | |
| 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] |
| -40 | (-40) | 653 | 164 | 191 | 137 | 0.62 | 1.93 | 4.78 | 1.21 | 1.40 |
| -35 | (-31) | 830 | 209 | 243 | 157 | 0.71 | 2.46 | 5.29 | 1.33 | 1.55 |
| -30 | (-22) | 1043 | 263 | 306 | 177 | 0.81 | 3.09 | 5.87 | 1.48 | 1.72 |
| -25 | (-13) | 1297 | 327 | 380 | 198 | 0.90 | 3.86 | 6.53 | 1.64 | 1.91 |
| -20 | (- 4) | 1594 | 402 | 467 | 219 | 1.00 | 4.75 | 7.25 | 1.83 | 2.13 |
| -15 | (+ 5) | 1937 | 488 | 568 | 239 | 1.09 | 5.80 | 8.06 | 2.03 | 2.36 |
| -10 | (+14) | 2330 | 587 | 683 | 260 | 1.19 | 7.01 | 8.95 | 2.25 | 2.62 |
| -5 | (+23) | 2776 | 700 | 813 | 280 | 1.28 | 8.40 | 9.92 | 2.50 | 2.91 |
| 0 | (+32) | 3279 | 826 | 961 | 300 | 1.37 | 9.97 | 10.98 | 2.77 | 3.22 |

| CONDICIONES DE PRUEBA: | | ASHRAE32 | | | (Temp. de condensación 55°C (+131°F)) | | | | | |
|----------------------------|-------|----------------------------|----------|-----|---------------------------------------|----------------------|---------------|---------------------|-----------|-------|
| @220V60Hz | | Forzada | | | | | | | | |
| 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] |
| -40 | (-40) | 586 | 148 | 172 | 138 | 0.63 | 1.73 | 4.29 | 1.08 | 1.26 |
| -35 | (-31) | 769 | 194 | 225 | 160 | 0.73 | 2.28 | 4.80 | 1.21 | 1.41 |
| -30 | (-22) | 984 | 248 | 288 | 184 | 0.84 | 2.92 | 5.33 | 1.34 | 1.56 |
| -25 | (-13) | 1237 | 312 | 362 | 209 | 0.95 | 3.68 | 5.90 | 1.49 | 1.73 |
| -20 | (- 4) | 1528 | 385 | 448 | 234 | 1.07 | 4.56 | 6.50 | 1.64 | 1.91 |
| -15 | (+ 5) | 1863 | 470 | 546 | 260 | 1.19 | 5.58 | 7.14 | 1.80 | 2.09 |
| -10 | (+14) | 2245 | 566 | 658 | 286 | 1.31 | 6.75 | 7.83 | 1.97 | 2.29 |
| -5 | (+23) | 2676 | 674 | 784 | 313 | 1.44 | 8.09 | 8.55 | 2.16 | 2.51 |
| 0 | (+32) | 3161 | 797 | 926 | 340 | 1.56 | 9.61 | 9.32 | 2.35 | 2.73 |

E - PERFORMANCE - CURVAS

| CONDICIONES DE PRUEBA: @220V60Hz | | ASHRAE32 Forzada | | | (Temp. de condensación 65°C (+149°F)) | | | | | |
|-------------------------------------|-------|--------------------------------------|----------|-----|---------------------------------------|--------------------------------|-------------------------|-------------------------------|-----------|-------|
| Temperatura de evaporación | | Capacidad de refrigeración +/- 5% | | | Consumo de potencia +/- 5% | Consumo de corriente +/- 5% | Flujo de masa +/- 5% | RANGO DE EFICIENCIA +/- 7% | | |
| °C | (°F) | [Btu/h] | [kcal/h] | [W] | [W] | [A] | [kg/h] | [Btu/Wh] | [kcal/Wh] | [W/W] |
| -40 | (-40) | 514 | 130 | 151 | 136 | 0.63 | 1.52 | 3.75 | 0.95 | 1.10 |
| -35 | (-31) | 700 | 176 | 205 | 162 | 0.75 | 2.07 | 4.30 | 1.08 | 1.26 |
| -30 | (-22) | 916 | 231 | 268 | 190 | 0.87 | 2.72 | 4.82 | 1.22 | 1.41 |
| -25 | (-13) | 1165 | 294 | 341 | 219 | 1.00 | 3.46 | 5.35 | 1.35 | 1.57 |
| -20 | (- 4) | 1450 | 366 | 425 | 249 | 1.14 | 4.33 | 5.86 | 1.48 | 1.72 |
| -15 | (+ 5) | 1776 | 447 | 520 | 280 | 1.28 | 5.32 | 6.37 | 1.61 | 1.87 |
| -10 | (+14) | 2144 | 540 | 628 | 313 | 1.43 | 6.45 | 6.89 | 1.74 | 2.02 |
| -5 | (+23) | 2559 | 645 | 750 | 346 | 1.59 | 7.74 | 7.40 | 1.87 | 2.17 |
| 0 | (+32) | 3024 | 762 | 886 | 380 | 1.76 | 9.19 | 7.92 | 2.00 | 2.32 |

F - CARACTERÍSTICAS EXTERNAS

| | |
|--------------------------------------|--|
| 1 Placa base | Universal EUEM |
| 2 Soporte de bodega | No |
| 3 Tubos | |
| 3.1 SUCCIÓN | 6.5 +0.12/-0.08 [mm] (0.256" +0.005"/-0.003") |
| 3.1.1 Material | Cobre |
| 3.1.2 Forma | Curvo 42° arriba + 45° atrás |
| 3.2 DESCARGA | 4.94 +0.08/-0.08 [mm] (0.194" +0.003"/-0.003") |
| 3.2.1 Material | Cobre |
| 3.2.2 Forma | Curvo 30° arriba + 24° atrás |
| 3.3 PROCESO | 6.5 +0.12/-0.08 [mm] (0.256" +0.005"/-0.003") |
| 3.3.1 Material | Cobre |
| 3.3.2 Forma | Curvo 45° arriba + 45° atrás |
| 3.4 Tubo enfriador de aceite (Cobre) | No [mm] |
| 3.5 Sellado del tudo | Tampa de Gomma |