

DEFINICIÓN DEL COMPRESOR

| | |
|------------------------------|---------------------------|
| Denominación | EM 2U3115U |
| Voltage / Frecuencia nominal | 220-240 V 50-60 Hz |
| Código de Ingeniería | 513305591 |

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 | -35°C para 0°C | (-31°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 | 198 para 255 V | 198 para 255 V |
| 8.2 LBP (43°C Temperatura ambiente) | Estática | 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 | 1/4 | [hp] |
| 2 Desplazamiento | 3.97 | [cm ³] (0.242 cu.in) |
| 2.1 Diametro [mm] | 19.000 | |
| 2.2 Curso [mm] | 14.000 | |
| 3 Carga de aceite | 150 | [ml] (5.07 fl.oz.) |
| 3.1 Aceites aprobados | | |
| 3.2 Tipo/Viscosidad del aceite | ALQUILB / ISO22 | |
| 4 Peso (com carga de aceite) | 7.89 | [kg] (17.39 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(310) | [µF(VAC minimo)] |
| 5 Protección del motor | 4TM213KFBYY-53 | |
| 6 Resistencia del motor - bobina arranque | 18.10 | [Ω en 25°C (77°F)] +/- 8% |
| 7 Resistencia del motor - bobina marcha | 12.80 | [Ω en 25°C (77°F)] +/- 8% |
| 8 LRA - Corriente com rotor trabado (50/60 Hz) | 7.90/7.20 | [A] - Medido según UL 984 |
| 9 FLA - Corriente a plena carga L/MBP (50/60 Hz) | 1.80/1.50 | [A] - Medido según UL 984 |
| 10 FLA - Corriente a plena carga HBP (50/60 Hz) | 1.90/1.70 | [A] - Medido según UL 984 |
| 11 Institutos de aprobación | CE - IMTRO - 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] |
| 667 | 168 | 195 | 123 | 0.66 | 1.99 | 5.41 | 1.36 | 1.59 |

| | | | | | | | | |
|--|----------|-----|--------------------------------------|--------------------------------|---|--|-----------|-------|
| 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] |
| 685 | 173 | 201 | 124 | 0.67 | 2.04 | 5.52 | 1.39 | 1.62 |

| | | | | | | | | |
|--|----------|-----|---------------------------------------|--------------------------------|---|--|-----------|-------|
| 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] |
| 789 | 199 | 231 | 140 | 0.65 | 2.35 | 5.62 | 1.42 | 1.65 |

| | | | | | | | | |
|--|----------|-----|--------------------------------------|--------------------------------|---|--|-----------|-------|
| 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] |
| 815 | 205 | 239 | 143 | 0.66 | 2.43 | 5.72 | 1.44 | 1.68 |

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] |
| -35 | (-31) | 434 | 109 | 127 | 91 | 0.56 | 1.28 | 4.77 | 1.20 | 1.40 |
| -30 | (-22) | 563 | 142 | 165 | 100 | 0.59 | 1.67 | 5.62 | 1.42 | 1.65 |
| -25 | (-13) | 706 | 178 | 207 | 108 | 0.62 | 2.10 | 6.51 | 1.64 | 1.91 |
| -20 | (- 4) | 869 | 219 | 255 | 116 | 0.65 | 2.59 | 7.48 | 1.89 | 2.19 |
| -15 | (+ 5) | 1058 | 267 | 310 | 123 | 0.69 | 3.17 | 8.60 | 2.17 | 2.52 |
| -10 | (+14) | 1277 | 322 | 374 | 130 | 0.71 | 3.84 | 9.92 | 2.50 | 2.91 |
| -5 | (+23) | 1532 | 386 | 449 | 134 | 0.73 | 4.63 | 11.48 | 2.89 | 3.36 |
| 0 | (+32) | 1829 | 461 | 536 | 137 | 0.74 | 5.56 | 13.33 | 3.36 | 3.91 |

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] |
| -35 | (-31) | 410 | 103 | 120 | 95 | 0.57 | 1.21 | 4.34 | 1.09 | 1.27 |
| -30 | (-22) | 534 | 135 | 157 | 105 | 0.60 | 1.58 | 5.08 | 1.28 | 1.49 |
| -25 | (-13) | 673 | 170 | 197 | 115 | 0.64 | 2.00 | 5.83 | 1.47 | 1.71 |
| -20 | (- 4) | 832 | 210 | 244 | 125 | 0.68 | 2.48 | 6.62 | 1.67 | 1.94 |
| -15 | (+ 5) | 1015 | 256 | 297 | 135 | 0.72 | 3.04 | 7.51 | 1.89 | 2.20 |
| -10 | (+14) | 1229 | 310 | 360 | 144 | 0.76 | 3.70 | 8.55 | 2.15 | 2.50 |
| -5 | (+23) | 1478 | 372 | 433 | 151 | 0.80 | 4.47 | 9.79 | 2.47 | 2.87 |
| 0 | (+32) | 1768 | 446 | 518 | 157 | 0.82 | 5.37 | 11.29 | 2.84 | 3.31 |

| 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] |
| -35 | (-31) | 373 | 94 | 109 | 97 | 0.58 | 1.10 | 3.88 | 0.98 | 1.14 |
| -30 | (-22) | 494 | 125 | 145 | 108 | 0.62 | 1.47 | 4.58 | 1.16 | 1.34 |
| -25 | (-13) | 629 | 159 | 184 | 120 | 0.66 | 1.87 | 5.24 | 1.32 | 1.54 |
| -20 | (- 4) | 783 | 197 | 230 | 132 | 0.71 | 2.34 | 5.91 | 1.49 | 1.73 |
| -15 | (+ 5) | 962 | 242 | 282 | 145 | 0.76 | 2.88 | 6.63 | 1.67 | 1.94 |
| -10 | (+14) | 1170 | 295 | 343 | 156 | 0.81 | 3.52 | 7.46 | 1.88 | 2.19 |
| -5 | (+23) | 1414 | 356 | 414 | 167 | 0.86 | 4.28 | 8.45 | 2.13 | 2.48 |
| 0 | (+32) | 1698 | 428 | 498 | 176 | 0.90 | 5.16 | 9.65 | 2.43 | 2.83 |

| 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] |
| -35 | (-31) | 324 | 82 | 95 | 97 | 0.59 | 0.96 | 3.30 | 0.83 | 0.97 |
| -30 | (-22) | 442 | 111 | 129 | 110 | 0.63 | 1.31 | 4.03 | 1.01 | 1.18 |
| -25 | (-13) | 573 | 144 | 168 | 124 | 0.68 | 1.70 | 4.67 | 1.18 | 1.37 |
| -20 | (- 4) | 723 | 182 | 212 | 138 | 0.74 | 2.16 | 5.27 | 1.33 | 1.54 |
| -15 | (+ 5) | 897 | 226 | 263 | 153 | 0.80 | 2.69 | 5.88 | 1.48 | 1.72 |
| -10 | (+14) | 1101 | 277 | 323 | 167 | 0.86 | 3.31 | 6.57 | 1.66 | 1.92 |
| -5 | (+23) | 1339 | 337 | 392 | 181 | 0.92 | 4.05 | 7.37 | 1.86 | 2.16 |
| 0 | (+32) | 1617 | 408 | 474 | 194 | 0.98 | 4.91 | 8.34 | 2.10 | 2.44 |

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] | |
| -35 (-31) | 518 | 131 | 152 | 103 | 0.49 | 1.53 | 5.05 | 1.27 | 1.48 | |
| -30 (-22) | 657 | 166 | 193 | 113 | 0.53 | 1.95 | 5.83 | 1.47 | 1.71 | |
| -25 (-13) | 824 | 208 | 241 | 123 | 0.57 | 2.45 | 6.71 | 1.69 | 1.97 | |
| -20 (- 4) | 1022 | 257 | 299 | 133 | 0.62 | 3.05 | 7.70 | 1.94 | 2.26 | |
| -15 (+ 5) | 1254 | 316 | 368 | 142 | 0.66 | 3.76 | 8.84 | 2.23 | 2.59 | |
| -10 (+14) | 1526 | 385 | 447 | 151 | 0.70 | 4.59 | 10.13 | 2.55 | 2.97 | |
| -5 (+23) | 1841 | 464 | 539 | 159 | 0.74 | 5.57 | 11.62 | 2.93 | 3.40 | |
| 0 (+32) | 2202 | 555 | 645 | 165 | 0.77 | 6.70 | 13.31 | 3.36 | 3.90 | |

| 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] | |
| -35 (-31) | 494 | 124 | 145 | 107 | 0.50 | 1.46 | 4.63 | 1.17 | 1.36 | |
| -30 (-22) | 632 | 159 | 185 | 119 | 0.55 | 1.87 | 5.31 | 1.34 | 1.55 | |
| -25 (-13) | 794 | 200 | 233 | 131 | 0.61 | 2.36 | 6.04 | 1.52 | 1.77 | |
| -20 (- 4) | 985 | 248 | 289 | 143 | 0.66 | 2.94 | 6.85 | 1.73 | 2.01 | |
| -15 (+ 5) | 1208 | 304 | 354 | 155 | 0.72 | 3.62 | 7.76 | 1.96 | 2.27 | |
| -10 (+14) | 1467 | 370 | 430 | 167 | 0.77 | 4.41 | 8.79 | 2.22 | 2.58 | |
| -5 (+23) | 1766 | 445 | 518 | 177 | 0.82 | 5.34 | 9.98 | 2.51 | 2.92 | |
| 0 (+32) | 2110 | 532 | 618 | 186 | 0.87 | 6.41 | 11.33 | 2.86 | 3.32 | |

| 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] | |
| -35 (-31) | 454 | 114 | 133 | 109 | 0.51 | 1.34 | 4.17 | 1.05 | 1.22 | |
| -30 (-22) | 591 | 149 | 173 | 123 | 0.57 | 1.75 | 4.80 | 1.21 | 1.41 | |
| -25 (-13) | 750 | 189 | 220 | 138 | 0.64 | 2.23 | 5.44 | 1.37 | 1.59 | |
| -20 (- 4) | 935 | 236 | 274 | 153 | 0.70 | 2.79 | 6.12 | 1.54 | 1.79 | |
| -15 (+ 5) | 1149 | 290 | 337 | 167 | 0.77 | 3.44 | 6.87 | 1.73 | 2.01 | |
| -10 (+14) | 1396 | 352 | 409 | 181 | 0.84 | 4.20 | 7.70 | 1.94 | 2.26 | |
| -5 (+23) | 1681 | 424 | 493 | 194 | 0.90 | 5.08 | 8.64 | 2.18 | 2.53 | |
| 0 (+32) | 2008 | 506 | 588 | 207 | 0.96 | 6.10 | 9.71 | 2.45 | 2.85 | |

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] |
| -35 | (-31) | 398 | 100 | 117 | 110 | 0.52 | 1.18 | 3.61 | 0.91 | 1.06 |
| -30 | (-22) | 536 | 135 | 157 | 126 | 0.59 | 1.59 | 4.25 | 1.07 | 1.24 |
| -25 | (-13) | 692 | 174 | 203 | 143 | 0.67 | 2.06 | 4.85 | 1.22 | 1.42 |
| -20 | (- 4) | 872 | 220 | 255 | 160 | 0.74 | 2.60 | 5.46 | 1.38 | 1.60 |
| -15 | (+ 5) | 1078 | 272 | 316 | 177 | 0.83 | 3.23 | 6.10 | 1.54 | 1.79 |
| -10 | (+14) | 1315 | 331 | 385 | 194 | 0.91 | 3.95 | 6.78 | 1.71 | 1.99 |
| -5 | (+23) | 1586 | 400 | 465 | 211 | 0.98 | 4.79 | 7.53 | 1.90 | 2.21 |
| 0 | (+32) | 1896 | 478 | 556 | 226 | 1.06 | 5.76 | 8.38 | 2.11 | 2.45 |

F - CARACTERÍSTICAS EXTERNAS

| | | | |
|--------------------------------------|-------------------------------|------|--------------------------|
| 1 Placa base | Universal EG/F/AMEM version 2 | | |
| 2 Soporte de badeja | No | | |
| 3 Tubos | | | |
| 3.1 SUCCIÓN | 8.2 +0.12/-0.08 | [mm] | (0.323" +0.005"/-0.003") |
| 3.1.1 Material | Cobre | | |
| 3.1.2 Forma | Recto | | |
| 3.2 DESCARGA | 6.5 +0.12/-0.08 | [mm] | (0.256" +0.005"/-0.003") |
| 3.2.1 Material | Cobre | | |
| 3.2.2 Forma | Recto | | |
| 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 | Recto | | |
| 3.4 Tubo enfriador de aceite (Cobre) | No | [mm] | |
| 3.5 Sellado del tudo | Tampa de Gomma | | |