**COMPRESSOR DEFINITION**

| | |
|---|---|
| Designation | **NE U6210U** |
| Nominal Voltage/Frequency | **220-240 V 50 Hz** |
| Engineering Number | **862FA51** |

**A - APPLICATION / LIMIT WORKING CONDITIONS**

| | | | |
|---|---|---|---|
| 1 Type | Hermetic reciprocating compressor | | |
| 2 Refrigerant | R-290 | | |
| 3 Nominal voltage and frequency | 220-240 / 50 | [ V / Hz ] | |
| 4 Application type | Medium Back Pressure (Commercial Compressors) | | |
| 4.1 Evaporating temperature range | -20°C to 10°C | (-4°F to 50°F) | |
| 5 Motor type | CSIR | | |
| 6 Starting torque | HST - Hight starting torque | | |
| 7 Expantion device | Capillary tube or Expansion valve | | |
| 8 Compressor cooling | | Operating voltage range | |
| | | 50 Hz | 60 Hz |
| 8.1 LBP (32ºC Ambient temperature) | - | - | - |
| 8.2 LBP (43ºC Ambient temperature) | - | - | - |
| 8.3 HBP (32ºC Ambient temperature) | - | - | - |
| 8.4 HBP (43ºC Ambient temperature) | - | - | - |
| 9 Maximum condensing temperature | | | |
| 9.1 Operating | 18.4 | [kgf/cm²] (262 psig) | / ºC - ºF |
| 9.2 Peak | 20.6 | [kgf/cm²] (293 psig) | / ºC - ºF |
| 10 Maximum winding temperature | 130 | [ °C ] | |

**B - MECHANICAL DATA**

| | | |
|---|---|---|
| 1 Commercial designation | 1/3 | [hp] |
| 2 Displacement | 8.77 | [cm³] (0.535 cu.in) |
| 2.1 Bore [mm] | 26.497 | |
| 2.2 Stroke [mm] | 15.920 | |
| 3 Lubricant charge | 350 | [ml] (11.84 fl.oz.) |
| 3.1 Lubricants approved | | |
| 3.2 Lubricants type/viscosity | AB / ISO32 | |
| 4 Weight (with oil charge) | 10.6 | [kg] (23.37 lb.) |
| 5 Nitrogen charge | - | [kgf/cm²] |

**C - ELECTRICAL DATA**

| | | |
|---|---|---|
| 1 Nominal Voltage/Frequency/Number of Phases | 220-240 V 50 Hz 1 ~ (Single phase) | |
| 2 Starting device type | Current Relay | |
| 2.1 Starting device | MTRP-0030 | |
| 3 Start capacitor | 53-64(330) | [µF(VAC minimum)] |
| 4 Run capacitor | - | [µF(VAC minimum)] |
| 5 Motor protection | MST26ALK-3259 | |
| 6 Start winding resistance | 27.92 | [Ω at 25ºC (77ºF)] +/- 8% |
| 7 Run winding resistance | 4.53 | [Ω at 25ºC (77ºF)] +/- 8% |
| 8 LRA - Locked rotor amperage (50 Hz) | 20.00 | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (50 Hz) | 2.90 | [A] - Measured according to UL 984 |
| 10 FLA - Full Load Amperage HBP (50 Hz) | - | [A] - Measured according to UL 984 |
| 11 Approval boards certification | CCC - VDE | |

## D - PERFORMANCE - CHECK POINT DATA

| TEST CONDITIONS: **@220V50Hz** | | | **EN12900MBP** **Fan** | | Evaporating temperature (Condensing temperature | **-10°C (14°F)** **45°C (113°F))** | | |
|---|---|---|---|---|---|---|---|---|
| Cooling capacity (Qe) +/- 5% | | | Input power (We) +/- 5% | Electric current +/- 5% | Mass flow rate +/- 5% | Efficiency EER & COP +/- 7% | | |
| [Btu/h] | [kcal/h] | [W] | [W] | [A] | [kg/h] | [Btu/Wh] | [kcal/Wh] | [W/W] |
| 2201 | 555 | 645 | 358 | 3.12 | 7.38 | 6.15 | 1.55 | 1.80 |

## E - PERFORMANCE - CURVES

| TEST CONDITIONS: **@220V50Hz** | | **EN12900** **Fan** | | | | (Condensing temperature **35ºC (+95ºF) )** | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Evaporating temperature | | Cooling capacity (Qe) +/- 5% | | | Input power (We) +/- 5% | Electric current +/- 5% | Mass flow rate +/- 5% | Efficiency EER & COP +/- 7% | | |
| °C | (°F) | [Btu/h] | [kcal/h] | [W] | [W] | [A] | [kg/h] | [Btu/Wh] | [kcal/Wh] | [W/W] |
| **-20** | **(- 4)** | 1696 | 427 | 497 | 298 | 3.03 | 5.49 | 5.69 | 1.43 | 1.67 |
| **-15** | **(+ 5)** | 2099 | 529 | 615 | 316 | 3.06 | 6.84 | 6.64 | 1.67 | 1.95 |
| **-10** | **(+14)** | 2578 | 650 | 755 | 331 | 3.09 | 8.46 | 7.79 | 1.96 | 2.28 |
| **-5** | **(+23)** | 3134 | 790 | 918 | 344 | 3.11 | 10.35 | 9.13 | 2.30 | 2.68 |
| **0** | **(+32)** | 3767 | 949 | 1104 | 353 | 3.13 | 12.54 | 10.68 | 2.69 | 3.13 |
| **+5** | **(+41)** | 4476 | 1128 | 1312 | 360 | 3.15 | 15.05 | 12.44 | 3.13 | 3.64 |
| **+10** | **(+50)** | 5262 | 1326 | 1542 | 364 | 3.16 | 17.89 | 14.41 | 3.63 | 4.22 |

| TEST CONDITIONS: **@220V50Hz** | | **EN12900** **Fan** | | | | (Condensing temperature **45ºC (+113ºF) )** | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Evaporating temperature | | Cooling capacity (Qe) +/- 5% | | | Input power (We) +/- 5% | Electric current +/- 5% | Mass flow rate +/- 5% | Efficiency EER & COP +/- 7% | | |
| °C | (°F) | [Btu/h] | [kcal/h] | [W] | [W] | [A] | [kg/h] | [Btu/Wh] | [kcal/Wh] | [W/W] |
| **-20** | **(- 4)** | 1430 | 360 | 419 | 316 | 3.06 | 5.08 | 4.55 | 1.15 | 1.33 |
| **-15** | **(+ 5)** | 1785 | 450 | 523 | 339 | 3.10 | 6.38 | 5.26 | 1.33 | 1.54 |
| **-10** | **(+14)** | 2210 | 557 | 648 | 361 | 3.14 | 7.95 | 6.11 | 1.54 | 1.79 |
| **-5** | **(+23)** | 2704 | 681 | 792 | 379 | 3.18 | 9.80 | 7.10 | 1.79 | 2.08 |
| **0** | **(+32)** | 3268 | 823 | 957 | 396 | 3.22 | 11.96 | 8.24 | 2.08 | 2.41 |
| **+5** | **(+41)** | 3901 | 983 | 1143 | 410 | 3.26 | 14.43 | 9.52 | 2.40 | 2.79 |
| **+10** | **(+50)** | 4604 | 1160 | 1349 | 422 | 3.30 | 17.24 | 10.96 | 2.76 | 3.21 |

| TEST CONDITIONS: **@220V50Hz** | | **EN12900** **Fan** | | | | (Condensing temperature **55ºC (+131ºF) )** | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Evaporating temperature | | Cooling capacity (Qe) +/- 5% | | | Input power (We) +/- 5% | Electric current +/- 5% | Mass flow rate +/- 5% | Efficiency EER & COP +/- 7% | | |
| °C | (°F) | [Btu/h] | [kcal/h] | [W] | [W] | [A] | [kg/h] | [Btu/Wh] | [kcal/Wh] | [W/W] |
| **-20** | **(- 4)** | 1188 | 299 | 348 | 332 | 3.08 | 4.70 | 3.56 | 0.90 | 1.04 |
| **-15** | **(+ 5)** | 1490 | 375 | 437 | 360 | 3.12 | 5.93 | 4.15 | 1.05 | 1.22 |
| **-10** | **(+14)** | 1854 | 467 | 543 | 386 | 3.17 | 7.43 | 4.82 | 1.22 | 1.41 |
| **-5** | **(+23)** | 2281 | 575 | 668 | 410 | 3.22 | 9.22 | 5.58 | 1.41 | 1.63 |
| **0** | **(+32)** | 2770 | 698 | 812 | 432 | 3.27 | 11.32 | 6.41 | 1.62 | 1.88 |
| **+5** | **(+41)** | 3322 | 837 | 973 | 452 | 3.32 | 13.74 | 7.34 | 1.85 | 2.15 |
| **+10** | **(+50)** | 3937 | 992 | 1154 | 470 | 3.37 | 16.51 | 8.37 | 2.11 | 2.45 |

## F - EXTERNAL CHARACTERISTICS

| | | | |
|---|---|---|---|
| 1 Base plate | European Standard | | |
| 2 Tray holder | No | | |
| 3 Connectors | | | |
| 3.1 SUCTION | 8.1 +0.10/+0.00 | [mm] | (0.319" +0.004"/+0.000") |
| 3.1.1 Material | Copper | | |
| 3.1.2 Shape | Slanted 42° | | |
| 3.2 DISCHARGE | 6.1 +0.10/+0.00 | [mm] | (0.240" +0.004"/+0.000") |
| 3.2.1 Material | Copper | | |
| 3.2.2 Shape | Straight | | |
| 3.3 PROCESS | 6.1 +0.10/+0.00 | [mm] | (0.240" +0.004"/+0.000") |
| 3.3.1 Material | Copper | | |
| 3.3.2 Shape | Slanted 42° | | |
| 3.4 Oil cooler (Copper) | No | [mm] | |
| 3.5 Connector sealing | Rubber Plugs | | |