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|---|--|--|--|---|--|
| Classification : Specification for Compressor |  | Written By   |  | Noppadol Yomkaew  |  |
|   |  | Approved By  |  | Korakot Intraratat  |  |
| Subject : NH52VNHT                            |  | Issued Date  |  | 2009-05-21  |  |
|   |  | Document No.   |  | SPC99O440.02  |  |
|   |  |  |  | Revised<br>G  |  |
| 1.Compressor data                             |  |  |  |   |  |
| Type  |  | Rotary   |  |   |  |
| Displacement                                  |  | cm <sup>3</sup> /rev.                                    |  | 52.4  |  |
|   |  | in <sup>3</sup> /rev.                                    |  | 3.2   |  |
| 2.Motor data                                  |  |  |  |   |  |
| Motor type                                    |  | Single phase induction motor (Permanent Split Capacitor) |  |   |  |
| Motor protection                              |  | Internal   |  |   |  |
| Nominal output                                |  | W  |  | 2500  |  |
| Nominal revolution                            |  | rpm  |  | 2850/2880   |  |
| LRA   |  | A  |  | 85/93   |  |
| Insulation class                              |  | E  |  |   |  |
| Motor resistance (20 °C)                      |  |  |  |   |  |
| Main winding                                  |  | Ohm  |  | 0.66  |  |
| Aux winding                                   |  | Ohm  |  | 1.88  |  |
| 3.Refrigerant                                 |  |  |  |   |  |
| Type  |  | R-22   |  |   |  |
| 4.Oil   |  |  |  |   |  |
| Type  |  | NM56EP   |  |   |  |
| Charge amount                                 |  | L (in <sup>3</sup> )                                     |  | 1.30 (79.3)   |  |
| 5.Mass (include.oil)                          |  | kg (lbs)   |  | 31.2 (68.8)   |  |
| 6.Compressor power source                     |  |  |  |   |  |
| Rated voltage                                 |  | V  |  | 220-240 (within ±10%)                                     |  |
| Rated frequency                               |  | Hz   |  | 50  |  |
| Phase   |  | Ø  |  | 1   |  |
| 7.Performance                                 |  |  |  |   |  |
| Refrigerating capacity (±5%)                  |  | W  |  | 9674  |  |
|   |  | BTU/hr   |  | 33008   |  |
|   |  |  |  | 33325   |  |
| Motor input (±5%)                             |  | W  |  | 3100  |  |
|   |  |  |  | 3220  |  |
| COP   |  | W/W  |  | 3.12  |  |
|   |  |  |  | 3.03  |  |
| EER   |  | BTU/hr.W   |  | 10.65   |  |
|   |  |  |  | 10.35   |  |
| Current                                       |  | A  |  | 14.2  |  |
|   |  |  |  | 14.1  |  |
| Note: Conditions                              |  | ASRE-T   |  | ASRE-T  |  |
| Evaporating temp.                             |  | °C (°F)  |  | 7.2 (45.0)  |  |
|   |  |  |  | 7.2 (45.0)  |  |
| Condensing temp.                              |  | °C (°F)  |  | 54.4 (129.9)  |  |
|   |  |  |  | 54.4 (129.9)  |  |
| Return gas temp.                              |  | °C (°F)  |  | 35.0 (95.0)   |  |
|   |  |  |  | 35.0 (95.0)   |  |
| Ambient temp.                                 |  | °C (°F)  |  | 35.0 (95.0)   |  |
|   |  |  |  | 35.0 (95.0)   |  |
| Liquid temp.                                  |  | °C (°F)  |  | 46.1 (115.0)  |  |
|   |  |  |  | 46.1 (115.0)  |  |
| Power source                                  |  | V/Hz   |  | 220/50  |  |
|   |  |  |  | 240/50  |  |
| Cooling performance curve                     |  | PCS009A  |  |   |  |
| 8.Lowest starting voltage                     |  | V  |  | Drop 176 (at 10.3kg/cm <sup>2</sup> G balancing pressure) |  |

Please follow to the general specification for NH (NOKS-CF0156)



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| Outline drawing                               | SC01D134     |                |
| Wiring diagram                                | SC01D050     |                |
| Running capacitor                             | SC01D502H09  | 60 MFD 420 VAC |
| Crank case heater                             |              | 38 W           |
| Terminal parts accessories                    |              |                |
| Terminal parts assy                           | SC01D020     |                |
| Terminal cover                                | CR25C046H01  | 1 pce.         |
| Gasket  | SC26D054H01  | 1 pce.         |
| Clip  | CR38D179H01  | 1 pce.         |
| Mounting accessories (1)                      |              |                |
| Mounting parts                                | SC01D465     |                |
| Rubber mount                                  | SC31D009H01  | 4 pcs.         |
| Mounting accessories (2)                      |              |                |
| Mounting parts                                | CS01D371     |                |
| U. rubber                                     | CR31D176H01  | 4 pcs.         |
| Spring  | CR39D181H01  | 4 pcs.         |
| L. rubber                                     | CR31D175H01  | 4 pcs.         |
| Optional accessories [Use with (2)]           |              |                |
| Top support parts                             | SC01D019     |                |
| Rubber support                                | CR31D180H01  | 1 pce.         |
| Cap   | CS01D238H01  | 1 pce.         |



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| <b>Pressure</b>                               |  |              |
| Condensing                                    | 1.03 ~ 2.60 MPaG [149.3 ~ 377 psiG]  |              |
| Evaporating                                   | 0.26 ~ 0.69 MPaG [37.7 ~ 100 psiG]   |              |
| Compression ratio                             | 8 or less  |              |
| Abnormal rise in pressure                     | 3.92 MPaG [568.5 psiG] or less   |              |
| <b>Temperature</b>                            |  |              |
| Condensing                                    | 28 ~ 65 °C   |              |
| Evaporating temperature                       | -10 ~ 15 °C  |              |
| Discharge gas (max)                           | 120 °C (In case of Heat pump or De-humidifier, this limit is 115 °C)   |              |
| Suction gas superheat                         | Must be over 0 °C - No liquid-back   |              |
| Discharge gas superheat                       | 20 ° or more   |              |
| Outdoor ambient temp.                         | -Air Cond.: 20 °C ~ 43 °C<br>-Heat pump: -10 ~ 43 °C   |              |
| <b>Electrical</b>                             |  |              |
| Reverse phase (rotation)                      | Not possible   |              |
| <b>ON / OFF</b>                               |  |              |
| ON/OFF frequency                              | Less than 170,000 cycles   |              |
| ON/OFF cycle                                  | -The ON/OFF cycle shall be a maximum of 10 times/hour.<br>-OFF time shall be the time until the high side pressure reach to balance pressure (more than 3 minutes) |              |
| Piping stress                                 | 3.5 kg/mm <sup>2</sup> or less at start and stop condition (1.8 kg/mm <sup>2</sup> during operation)   |              |
| <b>Refrigerant circuit</b>                    |  |              |
| Maximum refrigerant charge                    | 3.0 kg<br>No accumulator <2.0 kg   |              |
| Piping vibration                              | Maximum 0.8 mm.  |              |
| Inclination of compressor                     | Within 5°  |              |