



**DUNNAIR**  
(Aust) Pty Ltd

**SH66**

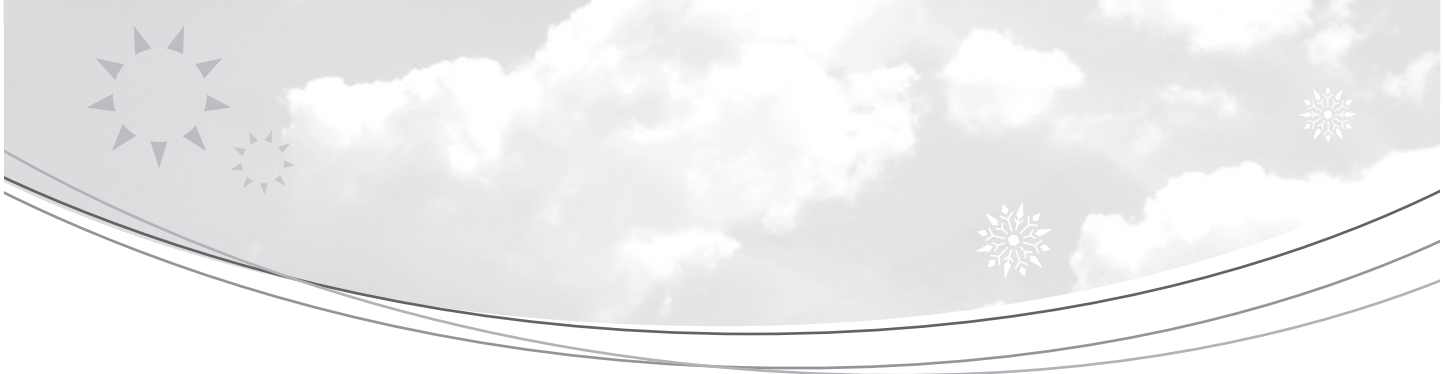
**Split Ducted Model**

R410a Refrigerant

Performance Data

| INDOOR COIL ENTERING AIR TEMP °C |       | OUTDOOR COIL ENTERING AIR TEMPERATURE °C |             |        |            |             |        |            |             |        |            |             |        |
|----------------------------------|-------|--|-------------|--------|------------|-------------|--------|------------|-------------|--------|------------|-------------|--------|
|                                  |       | 30°C                                     |             |        | 35°C       |             |        | 40°C       |             |        | 45°C       |             |        |
|                                  |       | Tot Cap KW                               | Sens Cap KW | LWB °C | Tot Cap KW | Sens Cap KW | LWB °C | Tot Cap KW | Sens Cap KW | LWB °C | Tot Cap KW | Sens Cap KW | LWB °C |
| DB °C                            | WB °C |  |             |        |            |             |        |            |             |        |            |             |        |
| 21                               | 17    | 64.5                                     | 39.1        | 10.1   | 61.0       | 37.6        | 10.5   | 57.5       | 36.0        | 11.0   | 54.6       | 36.0        | 11.3   |
|                                  | 18    | 66.7                                     | 35.3        | 10.9   | 63.1       | 33.8        | 11.7   | 59.5       | 32.2        | 12.1   | 56.7       | 31.0        | 12.4   |
|                                  | 19    | 69.0                                     | 31.7        | 12.4   | 65.4       | 30.2        | 12.9   | 61.6       | 28.6        | 13.3   | 58.9       | 27.5        | 13.7   |
|                                  | 20    | 71.5                                     | 27.4        | 13.4   | 67.8       | 25.8        | 13.9   | 63.9       | 24.2        | 14.3   | 61.2       | 23.1        | 14.6   |
| 23                               | 17    | 64.6                                     | 46.1        | 10.1   | 61.2       | 44.6        | 10.5   | 57.7       | 43.1        | 11.0   | 54.8       | 41.8        | 11.3   |
|                                  | 18    | 66.6                                     | 42.2        | 11.1   | 63.1       | 40.7        | 11.5   | 59.5       | 39.2        | 12.0   | 56.6       | 38.0        | 12.3   |
|                                  | 19    | 69.0                                     | 38.6        | 12.2   | 65.3       | 37.1        | 12.6   | 61.6       | 35.6        | 13.1   | 58.8       | 34.4        | 13.4   |
|                                  | 20    | 71.4                                     | 34.4        | 13.3   | 67.7       | 32.8        | 13.7   | 63.9       | 31.2        | 14.1   | 61.2       | 30.0        | 14.4   |
|                                  | 21    | 74.0                                     | 30.9        | 14.4   | 70.2       | 29.4        | 14.8   | 66.2       | 27.8        | 15.3   | 63.6       | 26.8        | 15.5   |
| 25                               | 17    | 65.1                                     | 52.7        | 10.1   | 61.7       | 51.1        | 10.5   | 58.2       | 49.5        | 10.9   | 55.4       | 48.2        | 11.2   |
|                                  | 18    | 66.8                                     | 50.8        | 11.1   | 63.3       | 47.9        | 11.5   | 59.6       | 46.4        | 11.9   | 56.8       | 45.2        | 12.3   |
|                                  | 19    | 68.9                                     | 48.4        | 12.2   | 65.3       | 44.2        | 12.6   | 61.6       | 42.6        | 13.1   | 58.8       | 41.4        | 13.4   |
|                                  | 20    | 71.3                                     | 45.7        | 13.3   | 67.7       | 39.8        | 13.7   | 63.8       | 38.2        | 14.1   | 61.1       | 37.0        | 14.4   |
|                                  | 21    | 73.9                                     | 42.7        | 14.4   | 70.2       | 36.4        | 14.8   | 66.2       | 34.8        | 15.3   | 63.6       | 33.8        | 15.6   |
| 27                               | 17    | 66.0                                     | 58.2        | 9.9    | 62.7       | 56.3        | 10.2   | 59.4       | 54.4        | 10.6   | 57.0       | 52.9        | 10.9   |
|                                  | 18    | 67.2                                     | 56.3        | 11.1   | 63.7       | 54.8        | 11.5   | 60.1       | 53.3        | 12.0   | 58.0       | 52.1        | 12.3   |
|                                  | 19    | 69.1                                     | 52.5        | 12.1   | 65.5       | 50.9        | 12.5   | 61.7       | 49.3        | 13.0   | 59.0       | 48.1        | 13.3   |
|                                  | 20    | 71.2                                     | 48.4        | 13.2   | 67.6       | 46.8        | 13.6   | 63.7       | 45.2        | 14.1   | 61.0       | 44.1        | 14.4   |
|                                  | 21    | 73.9                                     | 44.9        | 14.5   | 70.1       | 43.4        | 14.9   | 66.1       | 41.8        | 15.3   | 63.5       | 40.7        | 15.6   |
| 29                               | 17    | 67.2                                     | 63.2        | 9.7    | 64.1       | 61.1        | 10.1   | 60.8       | 58.8        | 10.5   | 58.3       | 58.3        | 10.8   |
|                                  | 18    | 68.2                                     | 61.5        | 10.9   | 64.8       | 59.8        | 11.3   | 61.3       | 58.0        | 11.7   | 58.3       | 58.3        | 12.0   |
|                                  | 19    | 69.4                                     | 59.5        | 12.1   | 65.9       | 57.9        | 12.6   | 62.1       | 56.3        | 13.0   | 58.3       | 55.6        | 13.3   |
|                                  | 20    | 71.4                                     | 55.9        | 13.1   | 67.7       | 54.4        | 13.6   | 63.9       | 52.9        | 14.0   | 61.2       | 51.8        | 14.3   |
|                                  | 21    | 73.8                                     | 51.9        | 14.2   | 70.1       | 50.4        | 14.6   | 66.1       | 48.8        | 15.0   | 63.5       | 47.7        | 15.3   |
| 31                               | 17    | 68.9                                     | 67.9        | 9.4    | 66.0       | 65.3        | 9.8    | 62.8       | 62.8        | 10.2   | 60.6       | 60.6        | 10.5   |
|                                  | 18    | 69.6                                     | 66.4        | 10.7   | 66.4       | 64.3        | 11.0   | 62.8       | 62.8        | 11.5   | 60.6       | 60.6        | 11.7   |
|                                  | 19    | 70.5                                     | 65.9        | 12.0   | 67.0       | 64.2        | 12.5   | 62.8       | 62.8        | 12.9   | 60.6       | 60.2        | 13.2   |
|                                  | 20    | 71.7                                     | 62.9        | 13.2   | 68.1       | 61.3        | 13.7   | 64.3       | 59.8        | 14.1   | 61.7       | 58.7        | 14.4   |
|                                  | 21    | 74.0                                     | 58.6        | 14.3   | 70.2       | 57.0        | 14.7   | 66.3       | 55.4        | 15.1   | 63.7       | 54.4        | 15.4   |

Capacity multipliers should be applied to the above capacities to adjust for reduced or increased air flow.



Technical Specification SH66 Split Ducted Model

|                                 |       |                                    |         |
|---------------------------------|-------|------------------------------------|---------|
| Indoor Unit Model Number        | SH66N | Nominal Evaporator Air Flow (l/s)  | 3500    |
| Outdoor Unit Model Number       | SH66W | Number of Compressors              | 2       |
| Total Cooling Capacity (kW)*    | 65.5  | Power Requirements (Volt / Phase)  | 415 / 3 |
| Sensible Cooling Capacity (kW)* | 50.9  | Normal Max. Current (Amps / Phase) | 46.3    |
| Heating Capacity (kW)**         | 60.7  |                                    |         |

\*Entering air @ 27/19°C and ambient 35°C      \*\* Entering air @ 21°C DB and 7°C ambient

Air Quantity Multiplying Factors

|          | % Rated Air Quantity-Nominal 3500 l/s |      |      |      |      |
|----------|---------------------------------------|------|------|------|------|
| Capacity | 80                                    | 90   | 100  | 110  | 120  |
| Total    | 0.95                                  | 0.98 | 1.00 | 1.02 | 1.04 |
| Sensible | 0.89                                  | 0.95 | 1.00 | 1.05 | 1.09 |

Heating Performance Data

|                     | Outdoor Coil Entering DB temp |      |      |      |       |
|---------------------|-------------------------------|------|------|------|-------|
|                     | 0                             | 4    | 8    | 12   | 18    |
| Heating Capacity kW | 64.5                          | 71.4 | 82.5 | 90.5 | 108.0 |

Heating Performance Correction

| % Rated Air Quality | Multiplier | Return Air Temp °C | Multiplier | Outdoor Air Temp °C | Approx. Defrost Factor |
|---------------------|------------|--------------------|------------|---------------------|------------------------|
| 80                  | 0.93       | 15                 | 1.05       | 0                   | 0.80                   |
| 90                  | 0.97       | 18                 | 1.03       | 2                   | 0.78                   |
| 100                 | 1.00       | 21                 | 1.00       | 4–6                 | 0.75                   |
| 110                 | 1.03       | 24                 | 0.97       | 7                   | 0.87                   |
| 120                 | 1.05       | 27                 | 0.95       | 8                   | 1.00                   |

Compressor

|                                     |          |
|-------------------------------------|----------|
| Number Per Unit                     | 2        |
| Type                                | Scroll   |
| RPM (Nom)                           | 2900     |
| Normal Max. Current (Amps / Phase)  | 2 × 17.1 |
| Locked Rotor Current (Amps / Phase) | 2 × 125  |
| Displacement (m³/h)                 | 2 × 34   |

Electrical Controls and Safeties

|                                    |          |                                  |    |
|------------------------------------|----------|----------------------------------|----|
| High Pressure Switch (Setting kPa) | 2800     | Defrost                          |    |
| Low Pressure Switch (Setting kPa)  | 100      | Initiation Temperature (°C)      | -4 |
| Indoor Fan Overload                | Internal | Termination Temperature (°C)     | 10 |
| Outdoor Fan Overload               | Internal | Min. Period Between De-Ice (min) | 33 |
| Compressor Delay Timer             | 300 sec  | Max. De-Ice Period (min)         | 4  |

Standard Features

|  |                                 |
|--|---------------------------------|
| Manual reset high pressure and auto reset low pressure cutouts |                                 |
| Thermal overload protection on all motors                      | Suction line accumulator        |
| Compressor crankcase heater                                    | Automatic de-ice system         |
| Limit start timer (anti short cycling)                         | Thermally insulated indoor unit |

Indoor Coil

|                    |                              |
|--------------------|------------------------------|
| Type               | Copper Tube / Aluminium Fins |
| Face Area (m)      | 1.6                          |
| Air Quantity (l/s) | 3500                         |

Indoor Fan

|                                   |              |
|-----------------------------------|--------------|
| Number of Fans                    | 1            |
| Type                              | Centrifugal  |
| Drive                             | Belt         |
| Motor Voltage / Phase / Frequency | 415 / 3 / 50 |
| Motor (kW) Standard               | 4.0          |
| Max. Fan Speed (rpm)              | 790          |

Electrical

|                                    |                       |
|------------------------------------|-----------------------|
| Power Requirements                 | 3 Phase / 415V / 50Hz |
| Normal Max. Current (Amps / Phase) | 46.3                  |

Outdoor Coil

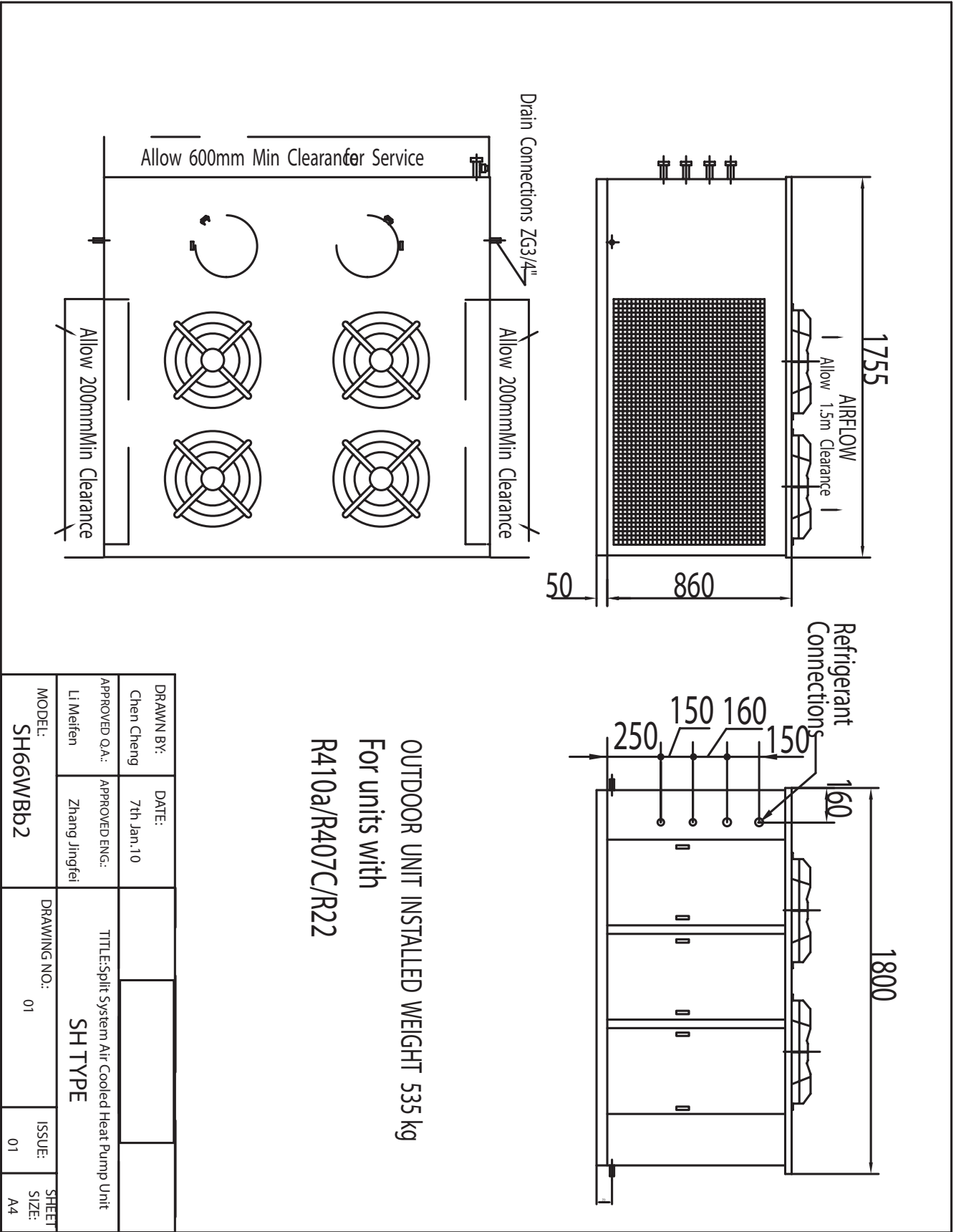
|           |                              |
|-----------|------------------------------|
| Type      | Copper Tube / Aluminium Fins |
| Face Area | 2 × 1.03                     |

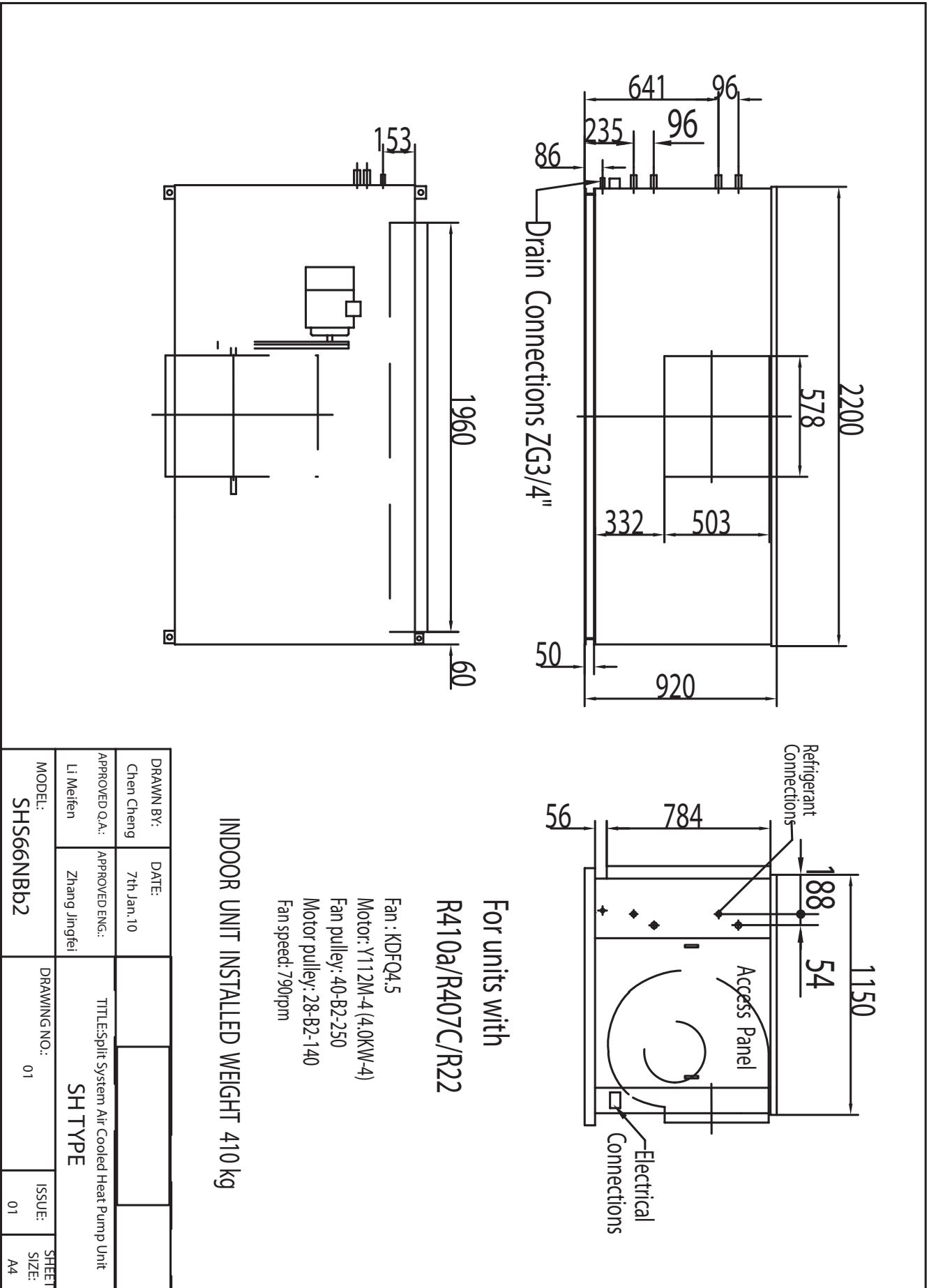
Outdoor Fan

|                                   |               |
|-----------------------------------|---------------|
| Number of Fans                    | 4             |
| Type                              | Axial         |
| Drive                             | Direct        |
| Motor Watts / rpm                 | 4 × 300 / 950 |
| Motor Voltage / Phase / Frequency | 415 / 3 / 50  |

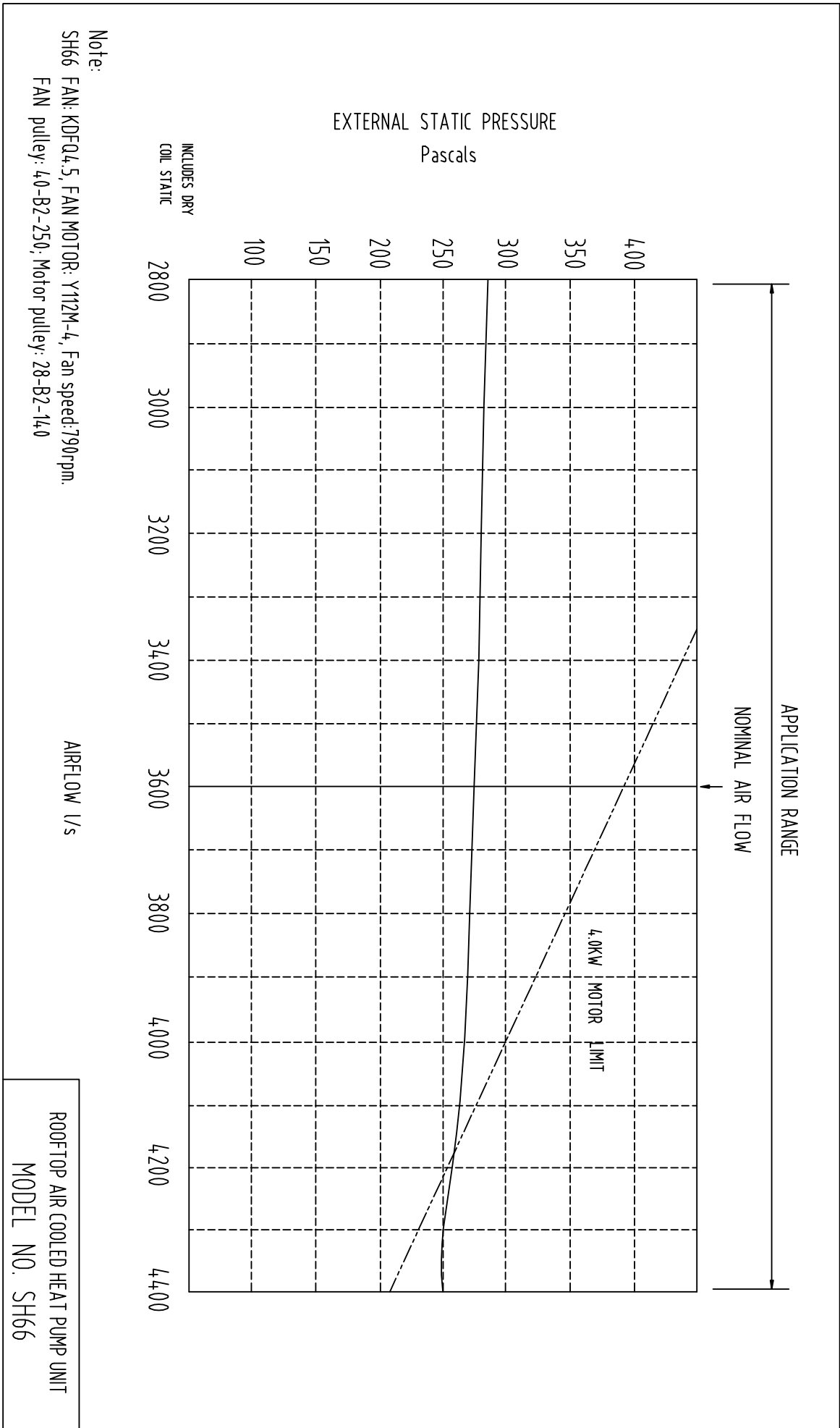
Refrigerant System

|                                     |                  |
|-------------------------------------|------------------|
| Refrigerant Type                    | R410a            |
| Charge (kg)                         | 2 × 9.4          |
| Line Size (mm)                      |                  |
| Liquid 0–15 metres                  | 19               |
| Gas 0–15 metres                     | 28               |
| Liquid 15–30 metres                 | 22               |
| Gas 15–30 metres                    | 32               |
| Service Connections                 | Rotor Lock Valve |
| Expansion Control – in outdoor unit | TX Valve         |







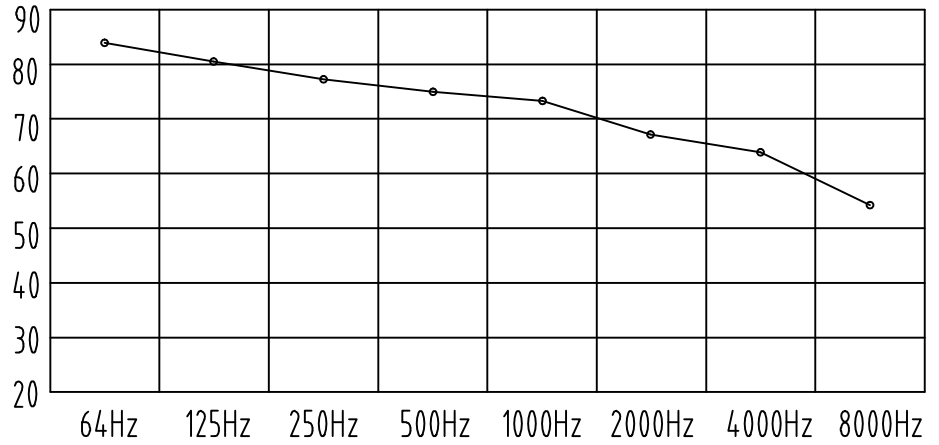


SH66W Noise rate analysing chart

A Class: 77.7dB

| Hz     | dB   |
|--------|------|
| 64Hz   | 83.3 |
| 125Hz  | 80.1 |
| 250Hz  | 76.8 |
| 500Hz  | 76.1 |
| 1000Hz | 72.8 |
| 2000Hz | 67.6 |
| 4000Hz | 64.0 |
| 8000Hz | 53.5 |

Noise rate analysing chart ( A Class: 77.7dB) dB



SH66N Noise rate analysing chart

A Class: 73.1dB

| Hz     | dB   |
|--------|------|
| 64Hz   | 81.0 |
| 125Hz  | 78.2 |
| 250Hz  | 73.0 |
| 500Hz  | 67.1 |
| 1000Hz | 69.1 |
| 2000Hz | 64.1 |
| 4000Hz | 62.0 |
| 8000Hz | 52.1 |

Noise rate analysing chart ( A Class: 73.1dB) dB

