RESIDENTIAL AIR-CONDITIONING
TECHNICAL MANUAL & PARTS LIST

WALL MOUNTED TYPE
RESIDENTIAL AIR-CONDITIONERS
(Split system, air to air heat pump type)

SRK63ZMA-S
SRK71ZMA-S
SRK80ZMA-S
SRK92ZMA-S
## 1. SPECIFICATIONS

<table>
<thead>
<tr>
<th>Item</th>
<th>Model</th>
<th>SRK63ZMA-S</th>
<th>SRC63ZMA-S</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Power source</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nominal cooling capacity</td>
<td>kW</td>
<td>6.3 (2.15 Min.)</td>
<td>7.1 (1.7 Min.)</td>
</tr>
<tr>
<td>(range)</td>
<td></td>
<td>7.1 (Min.)</td>
<td>9.5 (Max.)</td>
</tr>
<tr>
<td>Power consumption</td>
<td>Cooling kW</td>
<td>1.76 (0.54 - 2.30)</td>
<td>1.79 (0.37 - 3.30)</td>
</tr>
<tr>
<td></td>
<td>Heating kW</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Operation data</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Running current</td>
<td>Cooling A</td>
<td>8.3 / 8.0 / 7.6</td>
<td>8.5 / 8.1 / 7.8</td>
</tr>
<tr>
<td>Inrush current, max current</td>
<td></td>
<td>8.5 / 8.1 / 7.8</td>
<td>Max. 17</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(220 / 230 / 240 V)</td>
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</tr>
<tr>
<td>Power factor</td>
<td>Cooling %</td>
<td>96</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Heating</td>
<td>96</td>
<td></td>
</tr>
<tr>
<td>EER</td>
<td>Cooling</td>
<td>59</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Heating</td>
<td>60</td>
<td></td>
</tr>
<tr>
<td>Sound power level</td>
<td>Cooling dB(A)</td>
<td>59</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>Heating</td>
<td>60</td>
<td>50</td>
</tr>
<tr>
<td>Sound pressure level</td>
<td>Cooling</td>
<td>Hi: 47 Me: 43 Lo: 37 ULo: 26</td>
<td>Hi: 44 Me: 41 Lo: 32 ULo: 33</td>
</tr>
<tr>
<td></td>
<td>Heating</td>
<td>Hi: 47 Me: 43 Lo: 37 ULo: 26</td>
<td>Hi: 44 Me: 41 Lo: 32 ULo: 33</td>
</tr>
<tr>
<td>Exterior dimensions</td>
<td>(Height x Width x Depth) mm</td>
<td>318 x 1098 x 248</td>
<td>750 x 880(88) x 340</td>
</tr>
<tr>
<td>Exterior appearance</td>
<td></td>
<td>Fine snow</td>
<td>Stucco white</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(8.0Y 9.3/0.1)</td>
<td>(4.2Y 7.5/1.1)</td>
</tr>
<tr>
<td>Net weight</td>
<td>kg</td>
<td>16</td>
<td>57</td>
</tr>
<tr>
<td>Compressor type &amp; Q’ty</td>
<td></td>
<td>RMT5118MDE2 (Twin rotary type ) x 1</td>
<td></td>
</tr>
<tr>
<td>Compressor motor</td>
<td>kW</td>
<td>1.40 ( Inverter driven )</td>
<td></td>
</tr>
<tr>
<td>(Starting method)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Refrigerant oil (Amount, type)</td>
<td>l</td>
<td>0.675 (DIAMOND FREEZE MA68)</td>
<td></td>
</tr>
<tr>
<td>Refrigerant (Type, amount, pre-charge length)</td>
<td>kg</td>
<td>R410A 1.8 in outdoor unit (incl. the amount for the piping of 15m )</td>
<td></td>
</tr>
<tr>
<td>Heat exchanger</td>
<td></td>
<td>Louver fins &amp; inner grooved tubing</td>
<td>M fins &amp; inner grooved tubing</td>
</tr>
<tr>
<td>Refrigerant control</td>
<td></td>
<td>Capillary tubes + Electronic expansion valve</td>
<td></td>
</tr>
<tr>
<td>Fan type &amp; Q’ty</td>
<td></td>
<td>Tangential fan x 1</td>
<td>Propeller fan x 1</td>
</tr>
<tr>
<td>Fan motor (Starting method)</td>
<td>W</td>
<td>56 x1 (Direct drive)</td>
<td>86 x1 (Direct drive)</td>
</tr>
<tr>
<td>Air flow</td>
<td>Cooling m³/min</td>
<td>Hi: 18.5 Me: 16.0 Lo: 13.0 ULo: 8.0</td>
<td>48.5</td>
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<tr>
<td></td>
<td>Heating</td>
<td>Hi: 20.5 Me: 18.0 Lo: 14.5 ULo: 12.5</td>
<td>43.5</td>
</tr>
<tr>
<td>Available external static pressure</td>
<td>Pa</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Outside air intake</td>
<td></td>
<td>Not possible</td>
<td></td>
</tr>
<tr>
<td>Air filter, Quality / Quantity</td>
<td></td>
<td>Polypropylene net (washable ) x 2</td>
<td></td>
</tr>
<tr>
<td>Shock &amp; vibration absorber</td>
<td></td>
<td>Rubber sleeve (for fan motor)</td>
<td>Rubber sleeve (for fan motor &amp; compressor)</td>
</tr>
<tr>
<td>Electric heater</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operation control</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Remote control</td>
<td>Wireless remote control</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Room temperature control</td>
<td>Microcomputer thermostat</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Operation display</td>
<td>RUN: Green, TIMER: Yellow, HI POWER: Green, ECONO: Orange</td>
<td></td>
</tr>
<tr>
<td>Safety equipments</td>
<td></td>
<td>Compressor overheat protection, Overcurrent protection, Frost protection, Serial signal error protection, Indoor fan motor error protection, Heating overload protection (High pressure control), Cooling overload protection</td>
<td></td>
</tr>
<tr>
<td>Installation data</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Refrigerant piping size (O.D)</td>
<td>mm</td>
<td>Liquid line : ø 6.35 (1/4&quot;)</td>
<td>Gas line : ø 15.88 (5/8&quot;)</td>
</tr>
<tr>
<td>Connecting method</td>
<td></td>
<td>Flare connection</td>
<td>Flare connection</td>
</tr>
<tr>
<td>Attached length of piping</td>
<td>m</td>
<td>Liquid line : 0.70 / Gas line : 0.83</td>
<td></td>
</tr>
<tr>
<td>Insulation for piping</td>
<td></td>
<td>Necessary (Both sides), independent</td>
<td></td>
</tr>
<tr>
<td>Refrigerant line (one way) length m</td>
<td>Max. 30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vertical height diff. between O.U. and I.U.</td>
<td>m</td>
<td>Max. 20 (Outdoor unit is higher) / Max. 20 (Outdoor unit is lower)</td>
<td></td>
</tr>
<tr>
<td>Drain hose</td>
<td></td>
<td>Hose connectable (VP 16)</td>
<td>Holes ø 20 x 3 pcs</td>
</tr>
<tr>
<td>Drain pump, max lift height</td>
<td>mm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recommended breaker size A</td>
<td></td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Interconnecting wires</td>
<td>Size x Core number</td>
<td>1.5mm² x 4 cores (Including earth cable) / Terminal block (Screw fixing type)</td>
<td></td>
</tr>
<tr>
<td>IP number</td>
<td></td>
<td>IPX0</td>
<td>IPX4</td>
</tr>
<tr>
<td>Standard accessories</td>
<td></td>
<td>Mounting kit, Clean filter (Allergen clear filter x 1, Photocatalytic washable deodorizing filter x 1)</td>
<td></td>
</tr>
<tr>
<td>Option parts</td>
<td></td>
<td>Interface kit (SC-BIKN-E)</td>
<td></td>
</tr>
</tbody>
</table>

### Note (1)

The data are measured at the following conditions.

<table>
<thead>
<tr>
<th>Operation</th>
<th>Indoor air temperature</th>
<th>Outdoor air temperature</th>
<th>Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DB</td>
<td>WB</td>
<td></td>
</tr>
<tr>
<td>Cooling</td>
<td>27°C</td>
<td>19°C</td>
<td>35°C</td>
</tr>
<tr>
<td>Heating</td>
<td>20°C</td>
<td>—</td>
<td>7°C</td>
</tr>
</tbody>
</table>

(2) This air-conditioner is manufactured and tested in conformity with the ISO.
(3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
(4) Select the breaker size according to the own national standard.
(5) This air-conditioner is compliant with DRED (AS/NZS 4755.3.1), and can operate with DRM1,2 or 3, and is equipped with a terminal block for DRED.

The pipe length is 7.5m.
<table>
<thead>
<tr>
<th>Item</th>
<th>Indoor unit SRK71ZMA-S</th>
<th>Outdoor unit SRC71ZMA-S</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Nominal cooling capacity (range)</strong> kW</td>
<td>7.1 (2.15 (Min.) - 8.0 (Max.))</td>
<td>8.0 (1.6 (Min.) - 10.0 (Max.))</td>
</tr>
<tr>
<td><strong>Nominal heating capacity (range)</strong> kW</td>
<td>2.16 (0.54 - 2.80)</td>
<td>2.14 (0.37 - 3.40)</td>
</tr>
<tr>
<td><strong>Max power consumption</strong> kW</td>
<td>3.65</td>
<td>10.1 / 9.7 / 9.3 (220/ 230/ 240 V)</td>
</tr>
<tr>
<td><strong>Power factor</strong> %</td>
<td>97</td>
<td>96</td>
</tr>
<tr>
<td><strong>EER</strong></td>
<td>3.29</td>
<td>3.74</td>
</tr>
<tr>
<td><strong>Sound power level</strong> dB(A)</td>
<td>60</td>
<td>66</td>
</tr>
<tr>
<td><strong>Sound pressure level</strong> dB(A)</td>
<td>61</td>
<td>63</td>
</tr>
<tr>
<td><strong>Compressor type &amp; Q’ty</strong></td>
<td>RMT5118MDE2 (Twin rotary type) x 1</td>
<td></td>
</tr>
<tr>
<td><strong>Compressor motor (Starting method)</strong> kW</td>
<td>1.40 (Inverter driven)</td>
<td></td>
</tr>
<tr>
<td><strong>Refrigerant (Type, amount, pre-charge length)</strong> kg</td>
<td>R410A 1.8 in outdoor unit (incl. the amount for the piping of 15m)</td>
<td></td>
</tr>
<tr>
<td><strong>Heat exchanger</strong></td>
<td>M fins &amp; inner grooved tubing</td>
<td></td>
</tr>
<tr>
<td><strong>Fan type &amp; Q’ty</strong></td>
<td>Tangential fan x 1</td>
<td>Propeller fan x 1</td>
</tr>
<tr>
<td><strong>Air flow</strong> m³/min</td>
<td>Hi: 19.5 Me: 17.5 Lo: 14.0 UL: 8.0</td>
<td>Hi: 21.5 Me: 19.5 Lo: 15.5 UL: 14.0</td>
</tr>
<tr>
<td><strong>Available external static pressure</strong> Pa</td>
<td>0</td>
<td>45.3</td>
</tr>
<tr>
<td><strong>Outside air intake</strong></td>
<td>Not possible</td>
<td></td>
</tr>
<tr>
<td><strong>Air filter, Quality / Quantity</strong></td>
<td>Polypropylene net (washable) x 2</td>
<td>—</td>
</tr>
<tr>
<td><strong>Shock &amp; vibration absorber</strong></td>
<td>Rubber sleeve (for fan motor)</td>
<td>Rubber sleeve (for fan motor &amp; compressor)</td>
</tr>
<tr>
<td><strong>Operation control</strong></td>
<td>Remote control</td>
<td>Wireless remote control</td>
</tr>
<tr>
<td></td>
<td>Room temperature control</td>
<td>Microcomputer thermostat</td>
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<td></td>
<td>Operation display</td>
<td>RUN: Green, TIMER: Yellow, HI POWER: Green, ECONO: Orange</td>
</tr>
<tr>
<td><strong>Safety equipments</strong></td>
<td>Compressor overheat protection, Overcurrent protection, Frost protection, Serial signal error protection, Indoor fan motor error protection, Heating overload protection (High pressure control), Cooling overload protection</td>
<td></td>
</tr>
<tr>
<td><strong>Installation data</strong></td>
<td>Refrigerant piping size (O.D) mm</td>
<td>Liquid line : φ 6.35 (1/4&quot;) Gas line : φ 15.88 (5/8&quot;)</td>
</tr>
<tr>
<td></td>
<td>Connecting method</td>
<td>Flare connection Flare connection</td>
</tr>
<tr>
<td></td>
<td>Insulation for piping</td>
<td>Necessary (Both sides), independent</td>
</tr>
<tr>
<td></td>
<td>Refrigerant line (one way) length m</td>
<td>Max. 30</td>
</tr>
<tr>
<td></td>
<td>Vertical height diff. between O.U. and I.U. m</td>
<td>Max. 20 (Outdoor unit is higher) / Max. 20 (Outdoor unit is lower)</td>
</tr>
<tr>
<td></td>
<td>Drain hose</td>
<td>Hose connectable (VP 16) Listed 20 x 3 pcs</td>
</tr>
<tr>
<td></td>
<td>Drain pump, max lift height mm</td>
<td>— —</td>
</tr>
<tr>
<td></td>
<td>Recommended breaker size A</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Interconnecting wires</td>
<td>Size x Core number 1.5mm² x 4 cores (Including earth cable) Terminal block (Screw fixing type)</td>
</tr>
<tr>
<td></td>
<td>IP number</td>
<td>IPX0</td>
</tr>
<tr>
<td><strong>Option parts</strong></td>
<td>Mounting kit, Clean filter (Allergen clear filter x 1, Photocatalytic washable deodorizing filter x 1)</td>
<td>Interface kit (SC-BKNE-N)</td>
</tr>
</tbody>
</table>

**Note** (1) The data are measured at the following conditions. The pipe length is 7.5m.

<table>
<thead>
<tr>
<th>Operation</th>
<th>Indoor air temperature</th>
<th>Outdoor air temperature</th>
<th>Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cooling</td>
<td>DB 27°C WB 19°C</td>
<td>DB 35°C WB 24°C</td>
<td>ISO5151-T1</td>
</tr>
<tr>
<td>Heating</td>
<td>20°C</td>
<td>7°C</td>
<td>6°C</td>
</tr>
</tbody>
</table>

(2) This air-conditioner is manufactured and tested in conformity with the ISO.

(3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.

(4) Select the breaker size according to the own national standard.

(5) This air-conditioner is compliant with DRED (AS/NZS 4755.3.1), and can operate with DRM1,2 or 3, and is equipped with a terminal block for DRED.

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RWA000Z251

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### Operation data

<table>
<thead>
<tr>
<th>Item</th>
<th>SRK80ZMA-S</th>
<th>SRC80ZMA-S</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal cooling capacity (range) kW</td>
<td>8.0 (2.15 (Min.) - 9.0 (Max.))</td>
<td></td>
</tr>
<tr>
<td>Nominal heating capacity kW</td>
<td>9.0 (1.7 (Min.) - 10.5 (Max.))</td>
<td></td>
</tr>
<tr>
<td>Power consumption Cooling kW</td>
<td>2.35 (0.54 - 3.00)</td>
<td></td>
</tr>
<tr>
<td>Heating kW</td>
<td>2.57 (0.37 - 3.85)</td>
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</tr>
<tr>
<td>Max power consumption</td>
<td>3.65</td>
<td></td>
</tr>
<tr>
<td>Running current Cooling A</td>
<td>11.0 / 10.5 / 10.1 (220/ 230/ 240 V)</td>
<td>12.0 / 11.5 / 11.0 (220/ 230/ 240 V)</td>
</tr>
<tr>
<td>Heating</td>
<td>Max. 17</td>
<td></td>
</tr>
<tr>
<td>Power factor Cooling %</td>
<td>97</td>
<td></td>
</tr>
<tr>
<td>Heating</td>
<td>97</td>
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</tr>
<tr>
<td>EER Cooling</td>
<td>3.40</td>
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<tr>
<td>COP Heating</td>
<td>3.50</td>
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<tr>
<td>Sound power level Cooling dB(A)</td>
<td>65</td>
<td>69</td>
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<tr>
<td>Heating</td>
<td>63</td>
<td>70</td>
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<tr>
<td>Sound pressure level Cooling dB(A)</td>
<td>Hi: 51</td>
<td>Lo: 41</td>
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<tr>
<td>Heating</td>
<td>Me: 47</td>
<td>ULo: 26</td>
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<tr>
<td></td>
<td>56</td>
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<td>Silent mode sound pressure level</td>
<td>Hi: 48</td>
<td>Lo: 40</td>
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<tr>
<td></td>
<td>Me: 45</td>
<td>ULo: 37</td>
</tr>
<tr>
<td></td>
<td>57</td>
<td></td>
</tr>
<tr>
<td>Exterior dimensions (Height x Width x Depth) mm</td>
<td>318 x 1098 x 248</td>
<td>845 x 970 x 370</td>
</tr>
<tr>
<td>Net weight kg</td>
<td>16</td>
<td>63</td>
</tr>
<tr>
<td>Compressor type &amp; Q’ty</td>
<td>RMT5118MDE2 (Twin rotary type) x 1</td>
<td></td>
</tr>
<tr>
<td>Compressor motor (Starting method) kW</td>
<td>1.40 (Inverter driven)</td>
<td></td>
</tr>
<tr>
<td>Refrigerant oil (Amount, type) g</td>
<td>0.675 (DIAMOND FREEZE MA468)</td>
<td></td>
</tr>
<tr>
<td>Refrigerant (Type, amount, pre-charge length) kg</td>
<td>R410A 2.2 in outdoor unit (incl. the amount for the piping of 15m)</td>
<td></td>
</tr>
<tr>
<td>Heat exchanger</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Refrigerant control</td>
<td>Louver fins &amp; inner grooved tubing</td>
<td>M fins &amp; inner grooved tubing</td>
</tr>
<tr>
<td>Fan type &amp; Q’ty</td>
<td>Capillary tubes + Electronic expansion valve</td>
<td></td>
</tr>
<tr>
<td>Fan motor (Starting method) W</td>
<td>56 x 1 (Direct drive)</td>
<td>86 x 1 (Direct drive)</td>
</tr>
<tr>
<td>Air flow Cooling m³/min</td>
<td>Hi: 21.0</td>
<td>Me: 18.5</td>
</tr>
<tr>
<td>Heating</td>
<td>Lo: 15.0</td>
<td>ULo: 8.0</td>
</tr>
<tr>
<td>Available external static pressure Pa</td>
<td>75.0</td>
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<td>Outside air intake</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Air filter, Quality / Quantity</td>
<td>Polypropylene net (washable) x 2</td>
<td></td>
</tr>
<tr>
<td>Shock &amp; vibration absorber</td>
<td>Rubber sleeve (for fan motor)</td>
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<tr>
<td>Safety equipments</td>
<td>Compressor overheat protection, Overcurrent protection, Frost protection, Serial signal error protection, Indoor fan motor error protection, Heating overload protection (High pressure control), Cooling overload protection</td>
<td></td>
</tr>
<tr>
<td>Refrigerant piping size (O.D) mm</td>
<td>Liquid line : Φ 6.35 (1/4&quot;)</td>
<td>Gas line : Φ 15.88 (5/8&quot;)</td>
</tr>
<tr>
<td>Connecting method</td>
<td>Flare connection</td>
<td>Flare connection</td>
</tr>
<tr>
<td>Attatched length of piping m</td>
<td>Liquid line : 0.70 / Gas line : 0.63</td>
<td></td>
</tr>
<tr>
<td>Insuluation for piping</td>
<td>Necessary (Both sides), independent</td>
<td></td>
</tr>
<tr>
<td>Refrigerant line (one way) length m</td>
<td>Max. 30</td>
<td></td>
</tr>
<tr>
<td>Vertical height diff. between O.U. and I.U. m</td>
<td>Max. 20 (Outdoor unit is higher) / Max. 20 (Outdoor unit is lower)</td>
<td></td>
</tr>
<tr>
<td>Drain hose</td>
<td>Hose connectable (VP 16)</td>
<td></td>
</tr>
<tr>
<td>Drain pump, max lift height mm</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Recommended breaker size A</td>
<td>A</td>
<td>20</td>
</tr>
<tr>
<td>L.R.A. (Locked rotor ampare) A</td>
<td>12.0 / 11.5 / 11.0 (220/ 230/ 240 V)</td>
<td></td>
</tr>
<tr>
<td>Interconnecting wires Size x Core number</td>
<td>1.5mm2 x 4 cores (including earth cable) / Terminal block (Screw fixing type)</td>
<td></td>
</tr>
<tr>
<td>IP number</td>
<td>IPX0</td>
<td>IPX4</td>
</tr>
<tr>
<td>Standard accessories</td>
<td>Mounting kit, Clean filter (Allergen clear filter x 1, Photocatalytic washable deodorizing filter x 1)</td>
<td></td>
</tr>
<tr>
<td>Option parts</td>
<td>Interface kit (SC-BIKN-E)</td>
<td></td>
</tr>
</tbody>
</table>

Note (1) The data are measured at the following conditions. The pipe length is 7.5m.

(2) This air-conditioner is manufactured and tested in conformity with the ISO.

(3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.

(4) Select the breaker size according to the own national standard.

(5) This air-conditioner is compliant with DRED (AS/NZS 4755.3.1), and can operate with DRM1,2 or 3, and is equipped with a terminal block for DRED.
### Model SRK92ZMA-S

#### Indoor unit SRK92ZMA-S

- **Nominal cooling capacity (range)**: kW 9.2 (2.4 (Min.) - 10.0 (Max.))
- **Nominal heating capacity (range)**: kW 10.0 (2.2 (Min.) - 11.2 (Max.))
- **Power consumption**:
  - Cooling kW 2.54 (0.47 - 3.07)
  - Heating kW 2.84 (0.43 - 3.76)
- **Max power consumption**: 3.80 kW
- **Running current**:
  - Cooling A 11.9 / 11.4 / 10.9 (220/ 230/ 240 V)
  - Heating A 13.3 / 12.7 / 12.2 (220/ 230/ 240 V)
- **Inrush current, max current**: 13.3 / 12.7 / 12.2 (220/ 230/ 240 V) Max. 17.5 A
- **Power factor**:
  - Cooling % 97
  - Heating % 97
- **EER**:
  - Cooling 65
  - Heating 67
- **COP**:
  - Cooling 54
  - Heating 67
- **Sound power level**:
  - Cooling Hi: 65 dB(A) Me: 67 Lo: 64
  - Heating Hi: 65 dB(A) Me: 64 Lo: 62
- **Sound pressure level**:
  - Cooling Hi: 66 dB(A) Me: 67 Lo: 64
  - Heating Hi: 66 dB(A) Me: 65 Lo: 63
- **Silent mode sound pressure level**:
  - Cooling: 49 dB(A)
  - Heating: 50 dB(A)

#### Exterior dimensions (Height x Width x Depth) mm
- Cooling: 318 x 1098 x 248
- Heating: 1300 x 970 x 370

### Operation data

- **Power source**: Single phase, 220 - 240V, 50Hz
- **Operation data**:
  - **Nominal cooling capacity (range)**: kW 9.2 (2.4 (Min.) - 10.0 (Max.))
  - **Nominal heating capacity (range)**: kW 10.0 (2.2 (Min.) - 11.2 (Max.))
  - **Power consumption**:
    - Cooling kW 2.54 (0.47 - 3.07)
    - Heating kW 2.84 (0.43 - 3.76)
  - **Max power consumption**: 3.80 kW
  - **Running current**:
    - Cooling A 11.9 / 11.4 / 10.9 (220/ 230/ 240 V)
    - Heating A 13.3 / 12.7 / 12.2 (220/ 230/ 240 V)
  - **Inrush current, max current**: 13.3 / 12.7 / 12.2 (220/ 230/ 240 V) Max. 17.5 A
  - **Power factor**:
    - Cooling % 97
    - Heating % 97
  - **EER**:
    - Cooling 65
    - Heating 67
  - **COP**:
    - Cooling 54
    - Heating 67
  - **Sound power level**:
    - Cooling Hi: 65 dB(A) Me: 67 Lo: 64
    - Heating Hi: 65 dB(A) Me: 64 Lo: 62
  - **Sound pressure level**:
    - Cooling Hi: 66 dB(A) Me: 67 Lo: 64
    - Heating Hi: 66 dB(A) Me: 65 Lo: 63
  - **Silent mode sound pressure level**:
    - Cooling: 49 dB(A)
    - Heating: 50 dB(A)

### Exterior appearance (Munsell color)
- Fine snow (8.0Y 9.3/0.1) near equivalent
- Stucco white (4.2Y 7.5/1.1) near equivalent

### Operation control

- **Remote control**: Wireless remote control
- **Room temperature control**: Microcomputer thermostat
- **Operation display**: RUN: Green, TIMER: Yellow, HI POWER: Green, ECONO: Orange

### Safety equipments

- **Compressor overheat protection**, **Overcurrent protection**, **Frost protection**, **Serial signal error protection**, **Indoor fan motor error protection**, **Heating overload protection**, **Cooling overload protection**

### Installation data

#### Refrigerant piping size (O.D) mm
- **Liquid line**: φ 6.35 (1/4")
- **Gas line**: φ 15.88 (5/8")

#### Connecting method
- **Flare connection**

#### Attached length of piping m
- **Liquid line**: 0.70 / **Gas line**: 0.63

#### Insulation for piping
- **Necessary (Both sides)**
- **Max**: 30

#### Vertical height diff. between O.U. and I.U. m
- **Max**: 20 (Outdoor unit is higher) / **Max**: 20 (Outdoor unit is lower)

#### Drain hose
- **Hose connectable (VP 16)**
- **Holes**: φ 20 x 3 pcs

#### Drain pump, max lift height mm
- **A**
- **Recommended breaker size (A)**
  - **A**

#### Interconnecting wires
- **Size x Core number**
  - 1.5mm² x 4 cores (including earth cable) / Terminal block (Screw fixing type)

#### IP number
- **IPX0**
- **IPX4**

### Standard accessories

- **Mounting kit**, **Clean filter (Allergen clear filter x 1, Photocatalytic washable deodorizing filter x 1)**
- **Interface kit (SC-BK60-E)**

### Option parts

- **Remote control**, **Wireless remote control**, **Room temperature control**, **Microcomputer thermostat**, **Operation display**, **RUN: Green, TIMER: Yellow, HI POWER: Green, ECONO: Orange**

### Note

1. The data are measured at the following conditions.
2. This air-conditioner is manufactured and tested in conformity with the ISO.
3. The pipe length is 7.5m.
4. Select the breaker size according to the own national standard.
5. This air-conditioner is compliant with DRED (AS/NZS 4755.3.1), and can operate with DRM1,2 or 3, and is equipped with a terminal block for DRED.
2. EXTERIOR DIMENSIONS

(1) Indoor units

Models SRK63ZMA-S, 71ZMA-S, 80ZMA-S, 92ZMA-S
(2) Outdoor units
Models SRC63ZMA-S, 71ZMA-S

Note
(1) It must not be surrounded by walls on four sides.
(2) The unit must be fixed with anchor bolts. An anchor bolt must be used at each support point.
(3) Where the unit is subjected to strong winds, lay it in such a direction that the blower outlet faces perpendicularly to the dominant wind direction.
(4) Leave 1m or more space above the unit.
(5) A wall in front of the blower outlet must not be more than 1m.
(6) The model name label is attached on the rear panel.
Symbol | Content | Notes
---|---|---
A | Service valve connection (gas side) | 
B | Service valve connection (liquid side) | 
C | Pipe/cable draw-out hole | 
D | Drain discharge hole | 
E | Anchor bolt hole | 
F | Cable draw-out hole | 

Notes:
1. It must not be surrounded by walls on the four sides.
2. The unit must be fixed with anchor bolts. An anchor bolt must not project more than 15 mm.
3. Where the unit is subject to strong winds, it is to be fixed with four anchor bolts perpendicularly to the wind direction.
4. Leave 1 m or more space above the unit.
5. A wall in front of the blower outlet must not exceed the unit's height.
6. The model name label is attached on the rear panel.
3. ELECTRICAL WIRING

(1) Indoor units

Models SRK63ZMA-S, 71ZMA-S, 80ZMA-S, 92ZMA-S
Power cable, indoor-outdoor connecting wires

<table>
<thead>
<tr>
<th>Model</th>
<th>MAX running current (A)</th>
<th>Power cable size (mm²)</th>
<th>MAX power cable length (m)</th>
<th>Indoor-outdoor wire size (mm²)</th>
<th>Earth wire size (mm²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>63</td>
<td>17</td>
<td>2.5</td>
<td>30</td>
<td>1.5</td>
<td>1.5</td>
</tr>
<tr>
<td>71</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>80</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- The specifications shown in the above table are for units without heaters. For units with heaters, refer to the installation instructions or the construction instructions of the indoor unit.
- Switchgear of Circuit breaker capacity, which is calculated from MAX over current, should be chosen among the regulations in each country.
- The cable specifications are based on the assumption that a metal or plastic conduit is used with no more than three cables contained in a conduit, and a voltage drop is 2%. For an installation falling outside of these conditions, please follow the internal cabling regulations. Adapting to the regulation in effect in each country.

Item | Description
--- | ---
CM | Compressor motor
CN05 | Connector
CNTH | Connector
CNEV | Connector
CMRH | Connector
EEV | Electric expansion valve (cold)
EVA | Evaporator
R | Reactor
TB01,02 | Terminal block
THD | Heat exchanger sensor (outdoor unit)
THD | Outdoor air temp sensor
THD | Outdoor air temp sensor
THD | Discharge pipe temp sensor
BSL | Solenoid valve for 4-way valve

Mark | Color
--- | ---
BK | Black
BR | Brown
OR | Orange
RD | Red
WH | White
YE | Yellow
Y/G | Yellow/Green
8. APPLICATION DATA

(1) Installation of indoor unit

• Be sure to use only the original accessories and the specified components for installation.
• The precautionary items mentioned below are distinguished into two levels, electrician in accordance with "the norm for electrical work" and "national wiring regulation", and the system must be connected to the dedicated circuit.

- Use the prescribed pipes, flare nuts and tools for R410A.
- Use the specified refrigerant.
- Exhaust squirrel fans, replacing parts (for R410A)
- Use the specified oil.

- Do not process, splice the power cord, or share a socket with other power plugs.
- Do not process with a soldering iron, etc.
- Do not touch the refrigerant pipes directly by hand. It can cause electric shocks.
- Do not processing, splice the power cord, or share a socket with other power plugs.
- Do not touch the refrigerant pipes directly by hand. It can cause electric shocks.
- Do not touch the汨urary wires and power cord with wet hands.
- Do not plug and unplug the power plug of this appliance frequently. It can cause electric shocks.
- Do not mass the power cord. It can cause electric shocks.
- Do not disconnect the earth terminal to the refrigerator. It can cause electric shock.
BEFORE INSTALLATION

- Before installation check that the power supply matches the air conditioner.

### Accessories for indoor unit

<table>
<thead>
<tr>
<th>Description</th>
<th>Q'ty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Installation board (attached to the rear of the indoor unit)</td>
<td>1</td>
</tr>
<tr>
<td>Wireless remote control</td>
<td>1</td>
</tr>
<tr>
<td>Remote control holder</td>
<td>1</td>
</tr>
<tr>
<td>Tapping screws for installation board (ø4 x 25mm)</td>
<td>1</td>
</tr>
<tr>
<td>Wood screws</td>
<td>1</td>
</tr>
<tr>
<td>Installation board (attached to the rear of the indoor unit)</td>
<td>1</td>
</tr>
<tr>
<td>Wireless remote control</td>
<td>1</td>
</tr>
<tr>
<td>Remote control holder</td>
<td>1</td>
</tr>
<tr>
<td>Tapping screws for installation board (ø4 x 25mm)</td>
<td>10</td>
</tr>
<tr>
<td>Wood screws</td>
<td>2</td>
</tr>
<tr>
<td>Installation board (attached to the rear of the indoor unit)</td>
<td>2</td>
</tr>
<tr>
<td>Battery (R03 AAA Micro 1.5V)</td>
<td>2</td>
</tr>
<tr>
<td>Air cleaning filters</td>
<td>2</td>
</tr>
<tr>
<td>Filter holders</td>
<td>2</td>
</tr>
<tr>
<td>Insulation (446650 x 500) (Ø)</td>
<td>1</td>
</tr>
</tbody>
</table>

### Option parts

<table>
<thead>
<tr>
<th>Description</th>
<th>Q'ty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sealing plate</td>
<td>1</td>
</tr>
<tr>
<td>Sleeve</td>
<td>1</td>
</tr>
<tr>
<td>Induction plate</td>
<td>1</td>
</tr>
<tr>
<td>Putty</td>
<td>1</td>
</tr>
<tr>
<td>Drain hose (extension hose)</td>
<td>1</td>
</tr>
<tr>
<td>Piping cover (for insulation of connection piping)</td>
<td>1</td>
</tr>
</tbody>
</table>

### Necessary tools for the installation work

<table>
<thead>
<tr>
<th>Description</th>
<th>Q'ty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plus headed driver</td>
<td>1</td>
</tr>
<tr>
<td>Knife</td>
<td>1</td>
</tr>
<tr>
<td>Saw</td>
<td>1</td>
</tr>
<tr>
<td>Tape measure</td>
<td>1</td>
</tr>
<tr>
<td>Hammer</td>
<td>1</td>
</tr>
<tr>
<td>Spanner wrench</td>
<td>1</td>
</tr>
<tr>
<td>Torque wrench (140-180 N·m)</td>
<td>1</td>
</tr>
<tr>
<td>Hole core drill (ø8mm in diameter)</td>
<td>1</td>
</tr>
<tr>
<td>Wrench key (Hexagon) (ø4mm)</td>
<td>1</td>
</tr>
<tr>
<td>Flaring tool set</td>
<td>1</td>
</tr>
<tr>
<td>Gas leak detector</td>
<td>1</td>
</tr>
<tr>
<td>Gauge for projection adjustment (used when flare is made by using conventional flare tool)</td>
<td>1</td>
</tr>
<tr>
<td>Pipe bender</td>
<td>1</td>
</tr>
</tbody>
</table>

### Relation between setting plate and indoor unit

#### INSTALLATION SPACE (INDOOR UNIT)

- **Option parts**
  - Sealing plate
  - Sleeve
  - Induction plate
  - Putty
  - Drain hose (extension hose)
  - Piping cover (for insulation of connection piping)

- **Standard accessories (installation kit)**
  - **Q'ty**
    - Installation board: 1
    - Wireless remote control: 1
    - Remote control holder: 1
    - Tapping screws for installation board (ø4 x 25mm): 10
    - Wood screws: 2
    - Installation board (attached to the rear of the indoor unit): 2
    - Battery (R03 AAA Micro 1.5V): 2
    - Air cleaning filters: 2
    - Filter holders: 2
    - Insulation (446650 x 500) (Ø): 1

### INSTALLATION OF INDOOR UNIT

#### INSTALLATION OF INDOOR UNIT

- **Installation board**
  - Installation board (attached to the rear of the indoor unit)
  - Wireless remote control
  - Remote control holder
  - Tapping screws for installation board (ø4 x 25mm)
  - Wood screws

- **Installation of Installation board**
  - Use of nut anchor
  - Use of bolt anchor
  - Max. 10

- **Relation between setting plate and indoor unit**
  - Indoor unit
  - Installation board
  - Space

- **Adjustment of the installation board in the horizontal direction**
  - To be conducted with eight screws in a temporary tightened state.
  - Adjust so the board will be level by turning the board with the standard hole as the center.

- **Installing the support of piping**
  - In case of piping in the right rear direction
  - Right-hand-side piping
  - Piping in the right direction
  - Piping in the right rear direction

- **Drilling of holes and fixture of sleeve**
  - Optional parts
  - Sleeve
  - Option parts
  - Sealing plate

- **Necessary tools for the installation work**
  - Plus headed driver
  - Knife
  - Saw
  - Tape measure
  - Hammer
  - Spanner wrench
  - Torque wrench (140-180 N·m)
  - Hole core drill (ø8mm in diameter)
  - Wrench key (Hexagon) (ø4mm)
  - Flaring tool set
  - Gas leak detector
  - Gauge for projection adjustment
  - Pipe bender

- **Installing the support of piping**
  - In case of piping in the right rear direction

- **Matters of special notice when piping from left or central rear of the unit**
  - Left rear
  - Left downward
  - Left upward
  - Right rear
  - Right downward
  - Right upward

- **Installation board (option parts)**
  - Use of nut anchor
  - Use of bolt anchor

- **Installing the support of piping**
  - Piping in the right direction
  - Piping in the right rear direction

- **Installing the support of piping**
  - Piping in the left rear direction
  - Piping in the left direction

- **Installing the support of piping**
  - Tape only the portion that goes through the wall.
  - Always tape the wiring with the piping.

- **Insuring the drain hose**
  - Template for drain hose
  - Sleeve (sold separately)
  - Putty
  - Drain hose (extension hose)
  - Insulation (446650 x 100) (Ø)
  - 25

#### INSTALLATION OF INDOOR UNIT

- **Before installation**
  - Check that the power supply matches the air conditioner.

- **Installation board**
  - Attached to the rear of the indoor unit

- **Wireless remote control**
  - Remote control holder

- **Option parts**
  - Sealing plate
  - Sleeve
  - Induction plate
  - Putty
  - Drain hose (extension hose)
  - Piping cover (for insulation of connection piping)

- **Standard accessories (installation kit)**
  - **Q'ty**
    - Installation board: 1
    - Wireless remote control: 1
    - Remote control holder: 1
    - Tapping screws for installation board (ø4 x 25mm): 10
    - Wood screws: 2
    - Installation board (attached to the rear of the indoor unit): 2
    - Battery (R03 AAA Micro 1.5V): 2
    - Air cleaning filters: 2
    - Filter holders: 2
    - Insulation (446650 x 500) (Ø): 1

- **Installation of Installation board**
  - Use of nut anchor
  - Use of bolt anchor
  - Max. 10

- **Relation between setting plate and indoor unit**
  - Indoor unit
  - Installation board
  - Space

- **Adjustment of the installation board in the horizontal direction**
  - To be conducted with eight screws in a temporary tightened state.
  - Adjust so the board will be level by turning the board with the standard hole as the center.

- **Installing the support of piping**
  - In case of piping in the right rear direction

- **Matters of special notice when piping from left or central rear of the unit**
  - Left rear
  - Left downward
  - Left upward
  - Right rear
  - Right downward
  - Right upward

- **Installation board (option parts)**
  - Use of nut anchor
  - Use of bolt anchor

- **Installing the support of piping**
  - Piping in the right direction
  - Piping in the right rear direction

- **Installing the support of piping**
  - Piping in the left rear direction
  - Piping in the left direction

- **Installing the support of piping**
  - Tape only the portion that goes through the wall.
  - Always tape the wiring with the piping.

- **Insuring the drain hose**
  - Template for drain hose
  - Sleeve (sold separately)
  - Putty
  - Drain hose (extension hose)
  - Insulation (446650 x 100) (Ø)
  - 25
Since this air conditioner has been designed to collect dew drops on the rear surface to the drain pan, do not attach the power cord above the gutter.

**Installation Steps**

1. Pass the pipe through the hole in the wall, and hook the upper part of the indoor unit to the installation board. Gently push the lower part to secure the unit.

2. Push up the indoor unit upward. So the indoor unit will be removed from the installation board.

**Drainage**

- Arrange the drain hose in a downward angle.
- Go through all installation steps and check if the drainage is all right. Otherwise water leak may occur.

**CAUTION**

Avoid the following drain piping.

- Higher than specified
- The drain hose tip is in the gutter.
- The gap to the ground is 5 cm or less.
- The tip is in the gutter.

Pour water to the drain pan located under the heat exchanger, and ensure that the water is discharged outdoor.

When the extended drain hose is indoor, securely insulate it with a heat insulator available in the market.

**CONNECTION OF REFRIGERANT PIPINGS**

**Preparation**

Keep the openings of the pipes covered with tapes, etc. to prevent dust, sand, etc. from entering them.

**Flaring work**

Use a flare tool designed for R410A or a conventional flare tool. Please note that measurement B (protrusion from the flared surface) is very much depending on the type of a flares tool made.

A conventional flare tool is used, please use a gauge to check protrusion of the flared surface.

Insert the removed flare nuts to the pipes to be connected, then flare the pipes.

**Insulation of the connection portion**

Cover the coupling with insulation and then cover it with tapes.

**Finishing work and fixing**

Cover the exterior portion with outer tape and shape the piping so it will match the contours of the wall. Also fix the wiring and pipings to the wall with clamps.

**Open/close and detachment/attachment of the air inlet panel**

- To open, pull the panel at both ends of lower part and release latches, then pull up the panel until you feel resistance. (The panel stops at approx. 60° open position)
- To close, hold the panel at both ends of lower part to lower downward and push it slightly until the latches work.
- To remove, pull up the panel to the position shown in right illustration and pull it toward you.
- To install, insert the panel arm into the slot on the front panel, then remove the front panel from the unit.

**How to remove and install the front panel**

- To remove / To install
  1. Remove the air inlet panel.
  2. Remove the screw (A) 2pcs / screw (B) 3pcs fixing to the front panel.
  3. Remove the latch in the upper section of the front panel, and then remove the front panel from the unit.

- To install
  1. Install the air inlet panel.
  2. Cover the unit with the front panel.
  3. Tighten the screw (A) 2pcs / screw (B) 3pcs to be the front panel.
  4. Install the air filter.
  5. Install the air inlet panel.
ELECTRICAL WIRING WORK

Preparation of indoor unit

Mounting of connecting wires

1. Open the air inlet panel.
2. Remove the lid.
3. Remove the wiring clamp.
4. Connect the connecting wire securely to the terminal block.
   a) Connect the connecting wire securely to the terminal block.
   b) The wire is not twisted adequately, contact will be poor, and it is dangerous as the terminal block may heat up and catch fire.
5. Take care not to remove the terminal numbers for indoor and outdoor connections.
6. Fix the connecting wire by wiring clamp.
7. Attach the lid.
8. Close the air inlet panel.

Terminal block

Use cables for interconnection wiring to avoid loosening of the wire. CEE/D/E code for cables:
- Required field cables:
  - Harmonized cable type: H05RNR4G1.5 (example) or 245IEC57
  - Mounting of connecting wires:
    - H: Harmonized cable type
    - 1234567
    - Connect the connecting wire securely to the terminal block.
    - If the wire is not affixed completely, contact will be poor, and it is dangerous as the terminal block may heat up and catch fire.
    - 1) Connect the connection wire securely to the terminal block. If the wire is not affixed completely, contact will be poor, and it is dangerous as the terminal block may heat up and catch fire.
    - 2) Take care not to confuse the terminal numbers for indoor and outdoor connections.
    - Fix the connecting wire by wiring clamp.
    - Attach the lid.
    - Close the air inlet panel.

Antenna

- Earth wire shall be Yellow/Green (Y/G) in contrast longer than other AC wires for safety reason.

Installing the air-cleaning filters

1. Open the air inlet panel and remove the air filters.
2. Install the air-cleaning filter in the filter holders, and then install the filter holders in the air conditioner.
3. Install the air filters and close the inlet panel.

CAUTION

Preparation of indoor unit

- Each air-cleaning filter can be installed in the left or right filter holder.

INSTALLATION OF WIRELESS REMOTE CONTROL

Mounting method of battery

- Uncover the wireless remote control, and mount the batteries [R03 (AAA, Micro), 2 pieces] in the body regularly.
- (Fit the poles with the indication marks, + and - without tilt)
- Do not use new and old batteries together.

Fixing to pillar or wall

- Conventional, operate the wireless remote control by holding in your hand.
- Avoid installing it on a day wall etc.

Setting the wireless remote control

1) Turn off the power supply, and turn it on after 1 minute.
2) Point this wireless remote control at the indoor unit and send signal by pressing the ACL switch on the wireless remote control. The signal is sent in about 6 seconds after the ACL switch is pressed. Point this remote control at the indoor unit for some time.
3) Check that the exception buzzer sound "pip" is emitted from the indoor unit.
   - At completion of the setting, the indoor unit emits a buzzer sound "pip". (If no exception tone is emitted, start the setting from the beginning again)

Setting an indoor unit

1) Pull out the cover and take out batteries.
2) Disconnect the switching line next to the battery with wire cutters.
3) Insert batteries.
4) Close the cover.

HOW TO RELOCATE OR DISPOSE OF THE UNIT

1) In order to protect the environment, be sure to pump down (recovery of refrigerant).
2) Turn on the power supply again after a while after turn off the power supply. Then press continually the ON/OFF button 5 seconds or more.
3) Power cables and crossover wires are securely fixed to the terminal board.
4) The screw of the lid is tightened securely.

INSTALLATION TEST CHECK POINTS

- Check the following points again after completion of the installation, and before turning on the power. Conduct a test run again and ensure that the unit operates properly.
- At the same time, explain to the customer how to use the unit and how to take care of the unit following the user’s manual.

After installation

- The power supply voltage is correct as the rating.
- No gas leaks from the points of the operation valve.
- The operation valve is fully open.
- Operation valve is fully open.
- The pipe joints for indoor and outdoor pipes have been insulated.
- No abnormal noise.
- Water drains smoothly.
- Protective functions are not working.
- The wireless remote control is normal.
- The wireless remote control is normal.
- Operation of the unit has been explained to the customer. (Three-minutes restart prevents the power)
- Three-minutes restart prevents the power.
- The indoor unit will not start operating for approximately 3 minutes. This is to protect the unit and it is not a malfunction.
SAFETY PRECAUTIONS

- Read the "SAFETY PRECAUTIONS" carefully first of all and strictly follow it during the installation work in order to protect yourself.
- The precautionary items mentioned below are distinguished into two levels, WARNING and CAUTION.
  - WARNING: Wrong installation would cause serious consequences such as injuries or death.
  - CAUTION: Wrong installation might cause serious consequences depending on circumstances.
- Both mention the important items to protect your health and safety so strictly follow them by any means.
- Be sure to confirm no anomaly on the equipment by commissioning after completed installation and explain the operating methods as well as the maintenance methods of this equipment to the user according to the owner's manual.
- Keep the installation manual together with owner's manual at a place where any user can read at any time. Moreover if necessary, ask to hand them to a new user.
- For installing qualified personnel, take precautions in respect to themselves by using suitable protective clothing, glasses, etc., and then perform the installation work.
- Please pay attention not to fall down the tools, etc., when installing the unit at the high position.
- If unusual noise can be heard during operation, consult the dealer.
- The meanings of "Mark" used here are shown as follows:
  - Never do it under any circumstances.
  - Always do it according to the instruction.

WARNING

- **Installation must be carried out by the qualified installer.**
  - If you install the system by yourself, it may cause serious trouble such as water leaks, electric shocks, fire and personal injury as a result of a system malfunction. Do not carry out the installation and maintenance work except by qualified installer.
  - Install the system in full accordance with the installation manual. Incorrect installation may cause bruises, personal injury, water leaks, electric shocks and fire.
  - Be sure to use only for household and residence. If this appliance is installed in interior environment such as machine shop and etc., it can cause malfunction.
- **When installing in small rooms, take prevention measures not to exceed the density limit of refrigerant in the event of leakage.**
  - If the density of refrigerant exceeds the limit, please consult the dealer and install the ventilation system, otherwise lack of oxygen can occur, which can cause serious accident.
- **Use the original accessories and the specified components for installation.**
  - Parts other than those prescribed by the manufacturer may cause water leaks, electric shocks, fire and personal injury.
- **Install the unit in a location with good support.**
  - Unstable installation locations can cause the unit to fall and cause material damage and personal injury.
- **Ensure the unit is stable when installed, so that it can withstand earthquakes and strong winds.**
  - Unstable installation locations can cause the unit to fall and cause material damage and personal injury.

CAUTION

- **Ventilate the working area well in the event of refrigerant leakage during installation.**
  - If the refrigerant comes into contact with naked flames, poisonous gas is produced.
  - Use the prescribed pipes, flare nuts and tools for R410A, Using existing parts (for R22 or R407C) can cause the unit failure and serious accidents due to noise of the refrigerant circuit.
  - Tighten the flange not by torque wrench with specified method.
  - Loose connections or cable mountings can cause anomalous heat production or fire.
  - Do not bundle, wind or process for the power cord. Or, do not do anything that may cause fire or electric shock due to deforming, deforming the power plug due to tread it.
  - Do not open the operation valves for liquid line and gas line until completed refrigerant piping work, air tightness test and evacuation.
  - If air enters in the refrigerant circuit, the pressure in therefrigerant becomes too high, which can cause burst and personal injury due to abnormal high pressure in the refrigerant.
  - The electrical installation must be carried out by qualified electrician in accordance with the "norm for electrical work" and "national wiring regulation", and the system must be connected to the dedicated circuit. Power supply with insufficient capacity and incorrect function done by improper work can cause electric shocks and fire.
  - Be sure to shut off the power before starting electrical work.
  - Failure to shut off the power can cause electric shocks, unit failure or incorrect function of equipment.
  - Be sure to use the cables conformed to safety standard and cable capacity for power distribution work.
  - Unconformable cables can cause electric leak, anomalous heat production or fire.
  - This appliance must be connected to main power supply by means of a circuit breaker or switch (Fuse: 20A) with a contact separation of at least 3mm.
  - If the system is operated with the operation valve open, air would be mixed in the refrigeration circuit and it could cause explosion and injuries due to abnormal high pressure in the cooling cycle.
  - Only use prescribed optional parts. The installation must be carried out by the qualified installer.
  - If you install the system by yourself, it can cause malfunction.
  - Keep the installation manual together with owner's manual at a place where any user can read it at any time. Moreover if necessary, ask to hand them to a new user.
  - For installing qualified personnel, take precautions in respect to themselves by using suitable protective clothing, glasses, etc., and then perform the installation work.
  - Please pay attention not to fall down the tools, etc., when installing the unit at the high position.
  - If unusual noise can be heard during operation, consult the dealer.
  - The meanings of "Mark" used here are shown as follows:
    - Never do it under any circumstances.
    - Always do it according to the instruction.
  - Install the unit in a location with good support.
  - Unstable installation locations can cause the unit to fall and cause material damage and personal injury.
  - Do not bundle, winding or processing for the power cord. Or, do not do anything that may cause fire or electric shock due to deforming, deforming the power plug due to tread it.

- **Ensure that no air enters in the refrigerant circuit when the unit is installed and removed.**
  - If air enters in the refrigerant circuit, the pressure in the refrigerant circuit becomes too high, which can cause burst and personal injury.
  - Do not bundle, winding or processing for the power cord. Or, do not do anything that may cause fire or electric shock due to deforming, deforming the power plug due to tread it.
  - Do not run the unit with removed panels or protections.
  - Touching rotating equipments, but surfaces or high voltage parts can cause personal injury due to entrapment, burn or electric shocks.
  - Do not do anything that may cause fire or electric shock due to deforming, deforming the power plug due to tread it.
When performing the air conditioner operation (cooling or drying operation) in which ventilator is installed in the room. In this case, using the air conditioner in parallel with the ventilator, there is the possibility that drain water may backflow in accordance with the room lapse into the negative pressure status. Therefore, set up the opening port such as incorporate the air into the room that may appropriate to ventilation (For example; Open the door a little). In addition, just as above, so set up the opening port if the room lapse into negative pressure status due to register of the wind for the high rise apartment etc.

Insects and small animals can enter the electric parts and cause damage or fire. In addition, just as above, so set up the opening port if the room lapse into negative pressure status due to insufficient insulation can cause condensation, which can lead to moisture damage on the ceiling, floor, furniture and any other valuables.

Do not use any materials other than a fuse with the correct rating in the location where fuses are to be used. Do not use the unit for special purposes such as storing foods, cooling precision instruments and preservation of animals, plants or art. Do not clean up the unit with water.

Do not install the outdoor unit in a location where insects and small animals can inhabit.

• Do not install the unit in the locations listed below.
• Locations where any substances that affect the unit such as sulfide gas, chlorine gas, acid and alkaline can occur.
• Locations where corrosive gas (such as sulfuric acid gas etc.) or combustible gas (such as kerosene and petroleum gas) can accumulate or collect, or where volatile combustible substances are handled.
• Locations where evaporation and reaction sound generated by the outdoor unit can affect seriously in the wall or the place near bed room.
• Locations where an equipment affected by high harmonics is placed (TV set or radio receiver is placed within 3m).
• Locations where there is a chance of being exposed to moisture, extreme environment and cause a claim.

• Do not install the unit near where leakage of combustible gas can occur.
• Do not install the unit near which corrosion of heat exchanger, breakage of plastic parts and etc. and combustible gas can cause fire.
• Do not install the system near the equipment that generates electromagnetic fields or high frequency harmonics.
• Do not install the system near high frequency equipments and telecommunication equipments can affect the system, and cause malfunctions and breakers.
• Do not use any refrigerant other than R410A. R410A will rise to pressure about 1.6 times higher than that of a conventional refrigerant.

Check before installation work

• Model name and power source
• Refrigerant piping length
• Piping, wiring and miscellaneous small parts
• Indoor unit installation manual

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<table>
<thead>
<tr>
<th>Option parts</th>
<th>Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sealing plate</td>
<td>1</td>
</tr>
<tr>
<td>Sleeve</td>
<td>1</td>
</tr>
<tr>
<td>Installation plate</td>
<td>1</td>
</tr>
<tr>
<td>Flange</td>
<td>1</td>
</tr>
<tr>
<td>Clean hose (extension hose)</td>
<td>1</td>
</tr>
<tr>
<td>Piping cover</td>
<td>1</td>
</tr>
</tbody>
</table>

Necessary tools for the installation work

| Qty |
| 1 |
| 1 |
| 1 |
| 1 |
| 1 |
| 1 |

Wrench key (Hexagon) [4mm]

Vacuum pump

Vacuum pump adapter (Anti-reverse flow type) (Designed specifically for R410A)

Gauge for projection adjustment

Tongue wrench [1.0~92.0 mm (1.4~8.2 kgf·m)]

Hole drill (65mm diameter)

Check as a unit designed for R410A

• Do not use any refrigerant other than R410A. R410A will rise to pressure about 1.6 times higher than that of a conventional refrigerant.

A cylinder containing R410A has a pink indication mark on the top.

• A unit designed for R410A has adopted a different size indoor unit operation valve charge part and a different size check joint provided in the unit to prevent the charging of a wrong refrigerant by mistake.

• Do not use a change cylinder. The use of a change cylinder will cause the refrigerant composition to change, which results in performance degradation.

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The processed dimension of the flared part of a refrigerant pipe and a flare nut’s parallel side measurement have also been altered to raise strength against pressure.

Accordingly, you are required to arrange R410A tools listed in the table on the left before installing or servicing this unit.

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In charging refrigerant, always take it out from a cylinder in the liquid phase.

All indoor units must be models designed exclusively for R410A. Check connectable indoor unit models in a catalog, etc. (A wrong indoor unit, if connected into the system, will impair proper system operation)
1. HAULAGE AND INSTALLATION (Take particular care in carrying in or moving the unit, and always perform such an operation with two or more persons.)

1) Delivery
When a unit is handled with slings for haulage, take into consideration the effect of its gravity center position.

1. delivery
- When the unit is to be carried for installation, the length of the unit should be considered in the design of the installation point.
- The unit should be carried with both hands underneath the unit and not by grasping the unit around its sides.
- The unit should be tilted up at an angle of 45° in order to avoid damage to the unit. It is recommended to use a fork lift for installation.
- The delivery point should be selected in consideration of the size and weight of the unit.

2) Package
- The unit should be lifted by crane or other mechanical means, and never by hand when it is not possible to use a fork lift. When the unit is hoisted with slings for haulage, take into consideration the offset of its gravity center position. If not properly balanced, the unit can be thrown off balance and fall.

3) Selecting the installation location
- Where a unit is installed in an area where the snow will accumulate, following measures are required.
- The bottom plate of the unit and intake, outlet may be blocked by snow.
- Install the unit on the base so that the bottom is higher than the snow cover surface.
- Since drain water generated by defrost control may freeze, following measures are required.
- Do not install the unit under eaves. When a unit is installed under eaves, wind guard, according to the following guidelines, should be provided in order to protect the unit from the wind. These guidelines are not intended to prevent the unit from being affected by the wind.
- Install the unit under eaves or provide the unit with proper space for proper space, but be careful of the following conditions and choose an installation place.
- Where air is not trapped.
- Where the sunlight is not reflected back into the unit.
- Where strong winds will not blow against the outlet pipe.
- Where no TV set or radio receiver is placed within 1 m.
- If a operation is conducted when the outdoor air temperature is –5 C lower, the outdoor unit should be installed at a place where it is not influenced by natural wind.
- Where it is likely that the unit is subjected to strong winds, provide wind guards according to the following guidelines. Strong winds can cause performance degradation, an accidental stop due to a rise of high pressure, and a broken fan.

4) Caution about selection of installation location
- The right hand side of the unit as viewed from the front (diffuser side) is heavier.
- A person carrying the right hand side must take heed of this fact. A person carrying the left hand side must hold with his right hand the handle provided on the front panel of the unit and with his left hand the corner column section.

5) Installation space
- The height of the wall is 1200 mm or less.
- There must be a 0.44 m upper space, and a 0.2 m lower space in the area above.
- There must be a 1.5 m upper space in the area above the unit.

6) Installation
- Fasten with bolts (M10-12)
- Use a thicker block to anchor deeper. Use a long block to extend the width.
- Install the unit under eaves or provide the outdoor unit with proper space.

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- When the unit is carried for installation, the following guidelines should be followed.
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- The height of the wall is 1200 mm or less.
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- Fasten with bolts (M10-12)
- Use a thicker block to anchor deeper. Use a long block to extend the width.
- Install the unit under eaves or provide the outdoor unit with proper space.
2. REFRIGERANT PIPING WORK

1) Restrictions on unit installation and use

- Check the following points in light of the indoor unit specifications and the installation site.
- Observe the following restrictions on unit installation and use. Improper installation can result in a compressor failure or performance degradation.

<table>
<thead>
<tr>
<th>Restrictions</th>
<th>Dimensional restrictions</th>
<th>Marks appearing in the drawing on the right</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main pipe length</td>
<td>30m or less</td>
<td>L</td>
</tr>
<tr>
<td>Elevation difference between indoor and outdoor units</td>
<td>When the outdoor unit is positioned higher: 20m or less</td>
<td>H</td>
</tr>
<tr>
<td></td>
<td>When the outdoor unit is positioned lower: 20m or less</td>
<td>H</td>
</tr>
</tbody>
</table>

**CAUTION:** The use restrictions appearing in the table above are applicable to the standard pipe size combinations shown in the table below.

2) Determination of pipe size

Determine refrigerant pipe size pursuant to the following guidelines based on the indoor unit specifications.

When the outdoor unit is positioned higher,

- When the outdoor unit is positioned lower,

3) Refrigerant pipe wall thickness and material

- Select refrigerant pipes of the table shown on the right wall thickness and material as specified for each pipe size.

**NOTE:** Select pipes having a wall thickness larger than the specified minimum pipe thickness.

<table>
<thead>
<tr>
<th>Pipe diameter (mm)</th>
<th>6.35</th>
<th>9.1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum pipe wall thickness (mm)</td>
<td>0.8</td>
<td>1.0</td>
</tr>
</tbody>
</table>

- Pipe material:
  - O-type pipe
  - O-type pipe

**NOTE:** Phosphorus deoxidized seamless copper pipe ICS 23.040.15, ICS 77.150.30

4) On-site piping work

- Take care so that installed pipes may not touch components within a unit. If touching with an internal component, it will generate abnormal sounds and/or vibrations.

**IMPORTANT:**

**How to remove the side cover**

- Please remove the screw of a side cover and remove to the front.

**Carry out the on-site piping work with the operation valve fully closed.**
- Give sufficient protection to a pipe end (compressed and blazed, or with an adhesive tape) so that water or foreign matters may not enter the piping.
- Bend a pipe to a radius as large as practical (R100 ~ R150). Do not bend a pipe repeatedly to correct its form.
- Flare connection is used between the unit and refrigerant pipe. Flare a pipe after engaging a flare nut onto it. Flare dimensions for R410A are different from those for conventional R407C. Although we recommend the use of flaring tools designed specifically for R410A, conventional flaring tools can also be used by adjusting the measurement of protrusion B with a protrusion control gauge.
- The pipe should be anchored every 1.5m or less to isolate the vibration.
- Tighten a flare joint securely.
Fix both liquid and gas operation valves at the valve main bodies as illustrated on the right, and then fasten them, applying appropriate fastening torque.

<table>
<thead>
<tr>
<th>Operation valve size (mm)</th>
<th>Tightening torque (Nm)</th>
<th>Tightening angle (°)</th>
<th>Recommended length of a tool handle (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ø15.88 (5/8&quot;)</td>
<td>14 – 18</td>
<td>45 – 60</td>
<td>150</td>
</tr>
<tr>
<td>ø15.00 (1/2&quot;)</td>
<td>68 – 82</td>
<td>15 – 20</td>
<td>300</td>
</tr>
</tbody>
</table>

Do not apply force beyond proper fastening torque in tightening the flare nut.

5) Air tightness test

1) Although outdoor and indoor units themselves have been tested for air tightness at the factory, check the connecting pipes after the installation work for air tightness from the operation valve's check joint equipped on the outdoor unit side. While conducting a test, keep the operation valve shut all the time.

a) Raise the pressure to 0.5MPa, and then stop. Leave it for five minutes to see if the pressure drops.

b) Then raise the pressure to 1.5MPa, and stop. Leave it for five more minutes to see if the pressure drops.

c) Then raise the pressure to the specified level (4.19MPa), and record the ambient temperature and the pressure.

d) If no pressure drop is observed with an installation pressurized to the specified level and left for about one day, it is acceptable. When the ambient temperature falls 1°C, the pressure also falls approximately 0.01MPa. The pressure, if changed, should be compensated for.

e) If a pressure drop is observed in checking c) and d), a leak exists somewhere. First, look by supplying bubble test liquid to welded parts and flare joints and repair it. After repair, conduct an air tightness test again.

2) In conducting an air tightness test, use nitrogen gas and pressurize the system with nitrogen gas from the gas side. Do not use a medium other than nitrogen gas under any circumstances.

6) Evacuation

When the system has remaining moisture inside or a leaky point, the vacuum gauge indicator will rise. Check the system for a leaky point and then draw air to create a vacuum again.

Pay attention to the following points in addition to the above for the R410A and compatible machines.

- To prevent a different oil from entering, assign dedicated tools, etc. to each refrigerant type. Under no circumstances must a gauge manifold and a charge hose in particular be shared with other refrigerant types (R22, R407C, etc.).

- Use a counterflow prevention adapter to prevent vacuum pump oil from entering the refrigerant system.

7) Additional refrigerant charge

(1) Calculate a required refrigerant charge volume from the following table.

<table>
<thead>
<tr>
<th>Additional charge volume (kg)</th>
<th>Refrigerant volume charged for shipment at the factory (kg)</th>
<th>Installation's pipe length (m)</th>
<th>Refrigerant volume charged</th>
<th>Additional refrigerant charge</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.025</td>
<td>0.80</td>
<td>1.60</td>
<td>15</td>
<td>0.025</td>
</tr>
</tbody>
</table>

- This unit contains factory charged refrigerant covering 15m of refrigerant piping and additional refrigerant charge on the installation site is not required for an installation with up to 15m refrigerant piping.

- When refrigerant piping exceeds 15m, additionally charge an amount calculated from the pipe length and the above table for the portion in excess of 15m.

Formula to calculate the volume of additional refrigerant required

Add. chg vol (kg) = (Main length (m) – Factory charged volume 15 (m)) x 0.025 (kg/m)

- When an additional charge volume calculation result is negative, it is not necessary to charge refrigerant additionally.

- For an installation measuring 15m or shorter in pipe length, please charge the refrigerant volume charged for shipment at the factory, when you recharge refrigerant after servicing etc.

(2) Charging refrigerant

- Since R410A refrigerant must be charged in the liquid phase, you should charge it, keeping the container cylinder upside down or using a refrigerant cylinder equipped with a siphon tube.

- Charge refrigerant always from the liquid side service port with the operation valve shut. When you find it difficult to charge a required amount, fully open the outdoor unit valves on both liquid and gas sides and charge refrigerant from the gas (suction) side service port, while running the unit in the cooling mode. In doing so, care must be taken so that refrigerant may be discharged from the cylinder in the liquid phase all the time. When the cylinder valve is throttled down or a dedicated conversion tool to change liquid phase refrigerant into mist is used to protect the compressor, however, adjust charge conditions so that refrigerant will gradually enter the unit.

- In charging refrigerant, always charge a calculated volume by using a scale to measure the charge volume.

- When refrigerant is charged with the unit being run, complete a charge operation within 30minutes. Running the unit with an insufficient amount of refrigerant for a long time can cause a compressor failure.
8) Heating and condensation prevention

(1) Dress refrigerant pipes (both gas and liquid pipes) for heat insulation and prevention of dew condensation.
   - Improper heat insulation and anti-dew dressing can result in a water leak or dripping causing damage to household effects, etc.
(2) Use a heat insulating material that can withstand 120°C or a higher temperature. Poor heat insulating capacity can cause heat insulation problems or cable deterioration.
   - All gas pipes must be securely heat insulated in order to prevent damage from dripping water that comes from the condensation formed on them during a cooling operation or personal injury from burns because their surface can reach quite a high temperature due to discharged gas flowing inside during a heating operation.
   - Wrap indoor units’ flare joints with heat insulating parts (pipe cover) for heat insulation (both gas and liquid pipes).
   - Give heat insulation to both gas and liquid side pipes. Bundle a heat insulating material and a pipe tightly together so that no gaps may be left between them and wrap them together with a connecting cable by a dressing tape.
   - Both gas and liquid pipes need to be dressed with 20mm or thicker heat insulating materials above the ceiling where relative humidity exceeds 70%.

3. DRAIN PIPING WORK

- Execute drain piping by using a drain elbow and drain grommets supplied separately as accessories, where water drained from the outdoor unit is a problem.
- Water may drip where there is a larger amount of drain water. Seal around the drain elbow and drain grommets with putty or adequate caulking material.
- Condensed water may flow out from vicinity of operation valve or connected pipes.
- Where you are likely to have several days of sub-zero temperatures in a row, do not use a drain elbow and drain grommets. (There is a risk of drain water freezing inside and blocking the drain.)
- When condensed water needs to be led to a drain, etc., install the unit on a flat base (supplied separately as an optional part) or concrete blocks.
- Seal around the drain elbow and drain grommets with putty or adequate caulking material.
- Do not put a grommet on this hole. This is a supplementary drain hole to discharge drain water, when a large quantity of it is gathered.
- Do not turn on the power until the electrical work is completed.
- Do not use any supply cord lighter than one specified in parentheses for each type below.
   - Braided cord (code designation 60245 IEC 51)
   - Ordinary tough rubber sheathed cord (code designation 60245 IEC 53)
   - Flat tinned cord (code designation 60227 IEC 41)
   - Use polyethylene or semi-flexible cord (code designation 60228 IEC 63) for supply cords of parts of appliances for outdoor use.
   - Ground the unit. Do not connect the grounding wire to a gas pipe, water pipe, lightning rod or telephone grounding wire.
   - When a large quantity of drain water is gathered, do not turn on the power until the electrical work is completed.
   - Do not use a condenser capacitor for power factor improvement under any circumstances. (It does not improve power factor, while it can cause an abnormal overheating condition).
   - Fasten cables so that they may not touch the piping, etc.
   - When cables are connected, make sure that all electrical components within the electrical component box are free of loose connector coupling or terminal connection and then attach the cover securely. (Improper cover attachment can result in malfunctioning or a failure of the unit, if water penetrates into the box.)
   - Never use a shield cable.

4. ELECTRICAL WIRING WORK

For details of electrical cabling, refer to the indoor unit installation manual.

Electrical installation work must be performed by an electrical installation service provider qualified by a power provider of the country.

- Do not use any supply cord lighter than one specified in parentheses for each type below.
- Braided cord (code designation 60245 IEC 51)
- Ordinary tough rubber sheathed cord (code designation 60245 IEC 53)
- Flat tinned cord (code designation 60227 IEC 41)
- Use polyethylene or semi-flexible cord (code designation 60228 IEC 63) for supply cords of parts of appliances for outdoor use.
- Ground the unit. Do not connect the grounding wire to a gas pipe, water pipe, lightning rod or telephone grounding wire.
- When a large quantity of drain water is gathered, do not turn on the power until the electrical work is completed.
- Do not use a condenser capacitor for power factor improvement under any circumstances. (It does not improve power factor, while it can cause an abnormal overheating condition).
- Fasten cables so that they may not touch the piping, etc.
- When cables are connected, make sure that all electrical components within the electrical component box are free of loose connector coupling or terminal connection and then attach the cover securely. (Improper cover attachment can result in malfunctioning or a failure of the unit, if water penetrates into the box.)
- Never use a shield cable.

SRC-ZMA-6 and SRC-YMA-6 complies with the DRED (Demand Response Enabling Devices) standard AS/NZS5475.1 and supports demand response modes 1, 2, and 3 (DRM1, 2, and 3). Since the air conditioner limits the electric power or energy by receiving the DRED input signal, the sense of cooling operation or heating operation may deteriorate over time. The outdoor unit of this air conditioner is equipped with a terminal block for DRED input and supports ELV (Extra-Low Voltage) complying with AS/NZ60335.1.
CAUTION
Always use an earth leakage circuit breaker designed for inverter circuits to prevent a faulty operation.

Interconnecting and grounding wires
- Switch breaker Over current protector rated capacity
- Power source (minimum)
- 20A, 30mA, 0.1sec or less
- 30A
- 20A
- 2.5mm² wires.
- 1.5mm² wires.
- Earth leakage breaker

INSTALLATION TEST CHECK POINTS
Check the following points again after completion of the installation, and before turning on the power. Conduct a test run again and ensure that the unit operates properly. Explain to the customer how to use the unit and how to take care of the unit following the installation manual.

After installation
- Power cables and connecting wires are securely fixed to the terminal block.
- The power supply voltage is correct as the rating.
- The drain hose is fixed securely.
- Operation valves are fully open.
- No gas leaks from the joints of the operation valve.
- The pipe joints for indoor and outdoor pipes have been insulated.
- The reverse flow check cap is attached.
- The cover of the pipe cover (A) faces downward to prevent rain from entering.
- Gaps are properly sealed between the pipe covers (A) (B) and the wall surface / pipes.
- The screw of the side cover is tightened securely.

<table>
<thead>
<tr>
<th>Phase</th>
<th>Earth leakage breaker</th>
<th>Switchgear or Circuit Breaker</th>
<th>Over current protector rated capacity</th>
<th>Power source (minimum)</th>
<th>Interconnecting and grounding wires (minimum)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single</td>
<td>20A, 30mA, 0.1sec or less</td>
<td>30A</td>
<td>20A</td>
<td>2.5mm²</td>
<td>1.5mm² X 4</td>
</tr>
</tbody>
</table>

* Demand response enabling devices

SRC-ZM-S models
- SRC-ZMA-S models
- SRC-YMA-S models

Cable clamp
- SRC-ZM-S models: This clamp holds the power cable.
- SRC-ZMA-S and SRC-YMA-S models: This clamp holds the indoor-outdoor connecting wire and the DRED cable.

Cable clamp
- SRC-ZMA-S and SRC-YMA-S models: This clamp holds the cable in the outside diameter 9~15mm.
- Please adjust it when not suitable.
- SRC-ZM-S models: This clamp holds the power cable and the indoor-outdoor connecting wire.

Grounding terminal
- In case of SRC-ZM-S models, this clamp holds the power cable.
- In case of SRC-ZMA-S and SRC-YMA-S models, this clamp holds the indoor-outdoor connecting wire and the DRED cable.

Always perform grounding system installation work with the power cord unplugged.
- Connects a pair bearing a common terminal number with an indoor-outdoor connecting wire.
- In cabling, fasten cables securely with cable clamps so that no external force may work on terminal connections.
- Grounding terminals are provided in the control box.

Always use an earth leakage circuit breaker designed for inverter circuits to prevent a faulty operation.

Connecting cable between outdoor unit and DRED* shall be double insulation, wire, polyethylene sheathed (CE marking) with a x 4 x 0.5mm² to 2.5mm² cable or flexible cord, where the maximum allowable length is 30m.
SAFETY PRECAUTIONS

**WARNING**
- Installation must be carried out by qualified personnel.
- Take care when servicing the unit by hand.
- Ensure that the wiring in the control box is secure and the unit is connected to the power supply.
- Do not install the unit in a location where children can reach it.
- Do not connect the gas line to the gas pipe or other equipment.
- Do not connect the unit to the electrical supply until the work is complete.
- Do not operate the unit if any part of it is damaged.
- Do not use the unit in a location where it can cause injury or damage to others.
- Do not use the unit in a location where it can cause damage to the building.
- Do not use the unit in a location where it can cause damage to the environment.
- Do not use the unit in a location where it can cause damage to the electrical system.
- Do not use the unit in a location where it can cause damage to the water supply system.
- Do not use the unit in a location where it can cause damage to the sewage system.
- Do not use the unit in a location where it can cause damage to the gas supply system.
- Do not use the unit in a location where it can cause damage to the electrical system.
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- Do not use the unit in a location where it can cause damage to the gas supply system.
- Do not use the unit in a location where it can cause damage to the sewage system.
1. HAULAGE AND INSTALLATION

(Take particular care in carrying in or moving the unit, and always perform such an operation with two or more persons.)

1. Delivery
   - When a unit is carried in on the truck, take into consideration the peak of its gravity center position.
   - To properly balance, the unit can be moved off balance and fall.

2. Portage
   - The right hand side of the unit as viewed from the front (left hand side) is facing. A person carrying the right hand side must take care of this fact.

3. Selecting the installation location
   - Be careful of the following conditions and choose an installation place.
     - Where air is not trapped.
     - Where the installation facilities can be firmly installed.
     - Where unit does not hinder the window or room layout.
     - Out of the hot spot of other hot sources.
     - A place where the thermostat to be installed is accessible.
     - A place where the drain water is to be discharged.
     - A place where snow and frost will not blow against the outlet pipe.
     - A place where the air does not blow against the outlet pipe.

4. Caution about selection of installation location
   - If the unit is installed in the case where the snow will accumulate, following measures are required.
     - Do not install the unit in a position where the snow will accumulate.
     - The bottom plate of unit and indoor, outdoor unit may be blocked by snow.

5. Installation space
   - Walls surrounding the unit in the four sides are not complete.
   - There must be a 1-meter or larger space in the above.
   - More than one unit are installed side by side, provide a 300mm or wider interval between them or as a service space.

6. Installation
   - Anchor point fixed position
   - Outdoor unit fixed position

2. REFRIGERANT PIPING WORK

1) Restrictions on unit installation and use
   - Check the following points in light of the indoor unit specifications and the installation site.
   - Observe the following restrictions on unit installation and use. Improper installation can result in a compressor failure or performance degradation.

2) Determination of pipe size
   - Determine refrigerant pipe size pursuant to the following guidelines based on the indoor unit specifications.

Notabilia as a unit designed for R410A

- Do not use any refrigerant other than R410A, R410A will rise to pressure about 1.6 times higher than that of a conventional refrigerant.
- A cylinder containing R410A has a pin indicator mark on the top.
- All indoor units are designed for R410A and include the necessary control devices.
- The precise components of the indoor unit will be determined by the manufacturer of each model.
- All indoor units are designed exclusively for R410A. Check compatible indoor unit models in a catalog, etc. (A wrong indoor unit, if connected into the system, will impair proper system operation.)
3) Refrigerant pipe wall thickness and material
• Select refrigerant pipe of the table shown on the right wall thickness and material as specified for each pipe size.
• Select refrigerant pipe having a wall thickness larger than the specified refrigerant pipe thickness.

![Pipe Diameter (mm)]
- Ø 10
- Ø 12
- Ø 16
- Ø 19

- Minimum pipe wall thickness (mm)
- Ø 10
- Ø 12
- Ø 16
- Ø 19

4) On-site piping work

**CAUTION**
Do not leave the pipe exposed to direct sunlight, rain, or other weather conditions that may cause deformation, aging, or deterioration. Use the pipe within the specified temperature range.

To prevent pipe deformation, keep the pipe within the specified temperature range. Use the pipe within the specified temperature range.

5) Air tightness test

- When the system has been commissioned, the air tightness of the system should be tested.
- If the air tightness test is not performed, the system may not function properly.
- When the system has been commissioned, the air tightness of the system should be tested.
- If the air tightness test is not performed, the system may not function properly.

6) Evacuation

- Check the system for leaks using a suitable method.
- If leaks are found, repair them immediately.

7) Additional refrigerant charge

(1) Calculate the required refrigerant charge volume from the following table.

<table>
<thead>
<tr>
<th>Additional charge volume (kg)</th>
<th>Refrigerant volume charged in system (kg)</th>
<th>Installation of a pipe length (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ER651 (16 x 10)</td>
<td>0.025</td>
<td>2.15</td>
</tr>
<tr>
<td>ER652 (16 x 12)</td>
<td>0.035</td>
<td>3.15</td>
</tr>
<tr>
<td>ER653 (16 x 19)</td>
<td>0.025</td>
<td>2.15</td>
</tr>
<tr>
<td>ER654 (16 x 19)</td>
<td>0.035</td>
<td>3.15</td>
</tr>
</tbody>
</table>

- This unit combines factory charged refrigerant including 10% and additional refrigerant charge on the installation site is not required for an installation with up to 10% additional refrigerant.
- When additional refrigerant is added, it is necessary to calculate the pipe length and the above table for the portion in excess of 10%.

8) Heating and condensation prevention

(1) When the air thermostat is set to a temperature lower than the dew point, condensation may occur on the inside of the evaporator coils, which may result in ice formation. To prevent ice formation, use a heater to maintain a temperature above the dew point.

- Use a heater to maintain a temperature above the dew point to prevent ice formation.

- Use a heater to maintain a temperature above the dew point to prevent ice formation.

- Use a heater to maintain a temperature above the dew point to prevent ice formation.

- Use a heater to maintain a temperature above the dew point to prevent ice formation.
3. DRAIN PIPING WORK

- Ensure drain piping by using a drain elbow and drain grommets supplied separately so as not to become water dripping from the drain outlet into the problem.
- When water drops from there is a larger amount of drain water. Seal around the drain elbow and drain grommets with putty or adequate caulking material.
- Condensate water may flow out from vicinity of operation valve of connected piece or connected piece.
- When you are likely to have several days of sub-zero temperatures it is a raw, do not use a drain elbow and drain grommets. (There is a risk of drain water freezing inside and blocking the drain.)

4. ELECTRICAL WIRING WORK

For details of electrical cabling, refer to the indoor unit installation manual.

![Diagram of wiring connections]

**Power supply terminal block**

- Cable clamp
- It holds a cable in place and protect the terminal connection from external force.
- This clamp is for the cable in the outside diameter 8~15mm. Please adjust if it is not suitable.
- This clamp holds the power cable and the indoor-outdoor connecting wire.

- Cable clamp
- This clamp holds the 20AWG cable. (Wiring diagram)
- It has a lock for the end of a control box.
- Grounding terminal
- Please be sure to carry out grounding work.

**EARTHING WORK**

- Earth work shall be carried out without fail in order to prevent electric shock and noise generation.
- The connection of the earth cable to the following external cause dangerous failures, therefore it shall never be done.
  - City water pipe, Town gas pipe, TV antenna, lightning conductor, telecommunication, etc.

**INSTALLATION TEST CHECK POINTS**

Check the following points after completion of the installation, and before turning on the power. Conduct a load run again and ensure that the unit operates properly. Explain to the customer how to use the unit and how to take care of the unit following the installation manual.

- Power cables and connecting wires are securely fixed to the terminal block.
- The power supply voltage is never free from check or inspection.
- The drain hose is fixed securely.
- Operation valve is fully open.
- No gas leaks from the joints of the operation valve.
This air conditioner complies with the DRED (Demand Response Enabling Devices) standard AS/NZS4755.3.1 and supports below demand response modes 1, 2, and 3 (DRM1, 2, and 3). Since the air conditioner limits the electric power or energy by receiving the DRED input signal, the feeling of cooling operation or heating operation may deteriorate during that time. The outdoor unit of this air conditioner is equipped with a terminal block for DRED input and supports ELV (Extra-Low Voltage) complying with AS/NZS60335.1.

Under DRED mode, RUN light and TIMER light blink alternately as shown. When the Defrost function becomes effective during DRED operation, the TIMER light blinks quickly.

<table>
<thead>
<tr>
<th>Demand response mode (DRM)</th>
<th>Description of operation in this mode</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRM1</td>
<td>Compressor off</td>
<td>The air conditioner continues to cool or heat during the demand response event, but the electrical energy consumed by the air conditioner in a half hour period is not more than 50% of the total electrical energy that would be consumed if operating at the rated capacity in a half hour period.</td>
</tr>
<tr>
<td>DRM2</td>
<td>Compressor speed control</td>
<td>The air conditioner continues to cool or heat during the demand response event, but the electrical energy consumed by the air conditioner in a half hour period is not more than 75% of the total electrical energy that would be consumed if operating at the rated capacity in a half hour period.</td>
</tr>
<tr>
<td>DRM3</td>
<td>Compressor speed control</td>
<td>The air conditioner continues to cool or heat during the demand response event, but the electrical energy consumed by the air conditioner in a half hour period is not more than 75% of the total electrical energy that would be consumed if operating at the rated capacity in a half hour period.</td>
</tr>
</tbody>
</table>

**Display in DRED mode**

<table>
<thead>
<tr>
<th>Light</th>
<th>ON</th>
<th>OFF</th>
</tr>
</thead>
<tbody>
<tr>
<td>RUN</td>
<td>2 sec.</td>
<td>2 sec.</td>
</tr>
<tr>
<td>TIMER</td>
<td>2 sec.</td>
<td>2 sec.</td>
</tr>
</tbody>
</table>

**Display in DRED mode during Defrost operation**

<table>
<thead>
<tr>
<th>Light</th>
<th>ON</th>
<th>OFF</th>
</tr>
</thead>
<tbody>
<tr>
<td>RUN</td>
<td>2 sec.</td>
<td>2 sec.</td>
</tr>
<tr>
<td>TIMER</td>
<td>0.5 sec.</td>
<td>0.5 sec.</td>
</tr>
</tbody>
</table>