

TECHNICAL
CATALOGUE
RESIDENTIAL
AIR CONDITIONING
2019-2020

- WALL MOUNTED AC
- UNI SPLIT SERIES
- MULTI VARIABLE SERIES
- HIGH POWER MULTI SYSTEM
- HIGH STATIC PRESSURE DUCT UNIT
- PORTABLE DEVICES



SINCLAIR
AIR CONDITIONING

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WALL MOUNTED SPLIT AIR CONDITIONING

RAY SERIES

| MODEL | | | ASH-09BIR | ASH-12BIR | | | |
|---|-------------------|-----------------------------------|---|-------------------------------|----|--|--|
| Capacity cooling/heating 1) | Nominal (min-max) | kW | 2,5 (0,5-3,4) / 2,8 (0,5-3,5) | 3,2 (0,6-3,6) / 3,4 (0,6-4,4) | | | |
| Power supply | | Hz / V | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | | | |
| Power supply | | - | outdoor | outdoor | | | |
| Power input cooling/heating 1) | | W | 781 / 777 | 997 / 941 | | | |
| Maximal power input 2) | | W | 1500 | 1500 | | | |
| Power current cooling/heating | | A | 4,0 / 3,7 | 4,5 / 4,4 | | | |
| Maximal power current 2) | | A | 6,3 | 7,2 | | | |
| Energy class cooling 3) | | - | A++ | A++ | | | |
| Pdesign cooling | | kW | 2,5 | 3,2 | | | |
| SEER | | - | 6,1 | 6,1 | | | |
| Annual power consumption | | kWh / annum | 143 | 184 | | | |
| Energy class heating 3) | Aver./Warm./Cool. | - | A+ / A+++/B | A+ / A+++/B | | | |
| Pdesign heating | Average climate | kW | 2,6 | 3,2 | | | |
| SCOP | Average climate | - | 4,0 | 4,0 | | | |
| Annual power consumption | Average climate | kWh / annum | 910 | 1120 | | | |
| Air flow of ID | SH/H/M/L | m³ / h | 550/500/430/300 | 550/480/410/290 | | | |
| Airflow of OD | H | m³ / h | 1600 | 2200 | | | |
| Sound pressure level of ID at 1m 4) | SH/H/M/L | dB(A) | 40/37/35/28 | 42/37/35/28 | | | |
| Sound pressure level of OD at 1m 4) | H | dB(A) | 52 | 52 | | | |
| Sound power of ID 4) | SH/H/M/L | dB(A) | 55/49/47/40 | 55/49/46/40 | | | |
| Sound power of OD 4) | H | dB(A) | 60 | 62 | | | |
| Dehumidifying volume | | l / h | 0,8 | 1,4 | | | |
| Refrigerant type/charge | | Type / kg / t eq. CO ₂ | R32 / 0,60 / 0,41 | R32 / 0,65 / 0,44 | | | |
| Additional refrigerant | | g / m | 20 | 20 | | | |
| Pipe diameter - liquid side 5) | | inch / mm | ¼ / 6,0 | ¼ / 6,0 | | | |
| Pipe diameter - gas side 5) | | inch / mm | ¾ / 9,5 | ¾ / 9,5 | | | |
| Max pipe length without additional refrigerant 6) | | m | 5 | 5 | | | |
| Allowed pipe length 7) | min./max. | m | 3 / 15 | 3 / 20 | | | |
| Max. elevation/ Drop height | | m | 10 | 10 | | | |
| Dimension of ID | w x h x d | mm | 773x250x185 | 773x250x185 | | | |
| Dimensions of outdoor unit | w x h x d | mm | 782x540x320 | 842x596x320 | | | |
| Package dimension of ID | w x h x d | mm | 822x322x255 | 822x322x255 | | | |
| Package dimensions of outdoor unit | w x h x d | mm | 823x358x595 | 881x363x645 | | | |
| Weight of ID | netto / brutto | kg | 8,5 / 9,5 | 8,5 / 9,5 | | | |
| Weight of OD | netto / brutto | kg | 29,0 / 31,5 | 31,0 / 34,0 | | | |
| Set temperature range | | °C | 16 ~ 30 | 16 ~ 30 | | | |
| Operating temperature range cooling 8) | | °C | -15 ~ 43 | -15 ~ 43 | | | |
| Operating temperature range heating 8) | | °C | -15 ~ 24 | -15 ~ 24 | | | |
| ADDITIONAL TECHNICAL INFORMATION | | | | | | | |
| Screw holes distance of OD | w x d | mm | 510x286 | 540x286 | | | |
| Communication cable | | mm ² | 4 x 0,75 (5m included) | | | | |
| Recommended power cable | | mm ² | 3x1,5 | 3x1,5 | | | |
| Recommended air switch | | A | 10 | 13 | | | |
| EQUIPMENT | | | | | | | |
| Plasma generator | indoor | | no | no | | | |
| Wifi module | | | no | no | | | |
| Drain pump | | | no | no | | | |
| Max. lift (from bottom of ID unit) | | mm | - | - | | | |
| Dry contact (ON/OFF) | | | | no | no | | |
| Alarm contact | | | | no | no | | |
| Fresh air inlet | outdoor | | no | no | | | |
| Throttling method | | | Capillary | Capillary | | | |
| Bottom chassis heater | | | no | no | | | |
| Crankcase heater | | | Preheating | Preheating | | | |
| Bottom plugs for OD | | | yes | yes | | | |
| Drain pipe connector | | | yes | yes | | | |
| STANDARD ACCESSORIES | | | | | | | |
| Standard health filter | | | no | no | | | |
| Remote controller (IR) | | | YAW1F5 (wifi) | YAW1F5 (wifi) | | | |
| Wired controller | | | no | no | | | |
| OPTIONAL ACCESSORIES | | | | | | | |
| Optional health filters | | | SAF-OPWA4, SAF-OPWB4, SAF-OPWC4, SAF-OPWK4, SAF-OPWM4, SAF-OPWP4, SAF-OPWS4 | | | | |
| Wired controller | | | no | no | | | |
| Central controller | | | no | no | | | |
| Other | | | G2S | G2S | | | |

The specification of products is subject to change based on further development of the units by the producer and can be changed without prior notice. Refer to rating label.

R32 (single component refrigerant HFC), GWP of refrigerant used: 675.

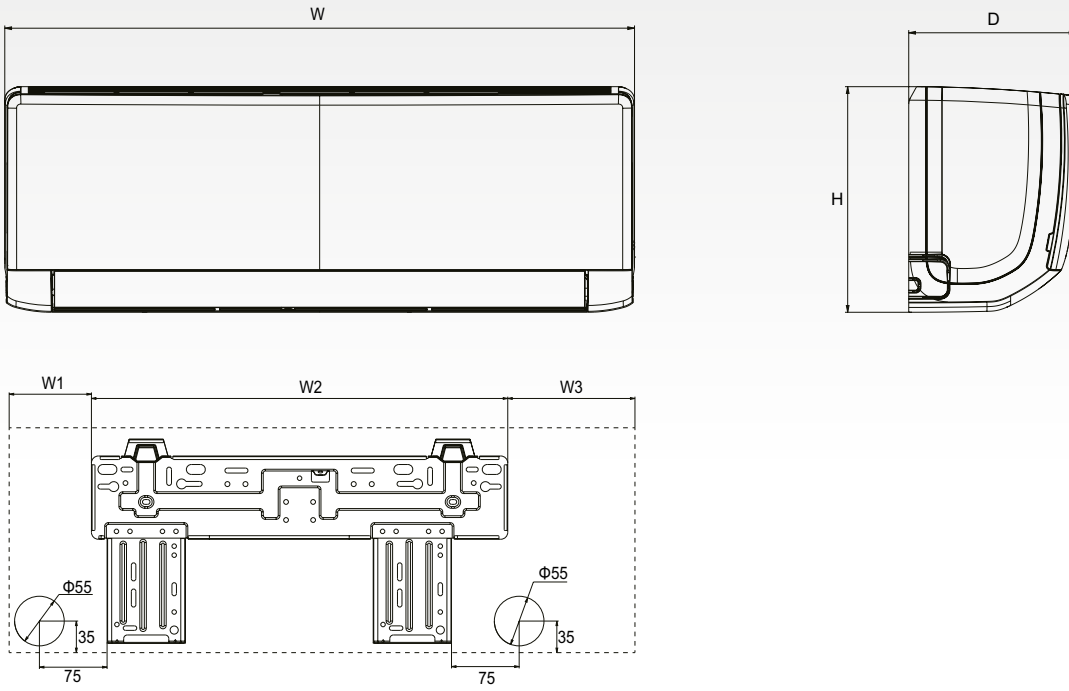
Contains fluorinated greenhouse gases covered by the Kyoto Protocol.

Explanatory notes on the very last page of the catalogue.

The device is being sold as a set (indoor + outdoor unit).

APPEARANCE AND DIMENSIONS OF INDOOR UNIT

RAY SERIES

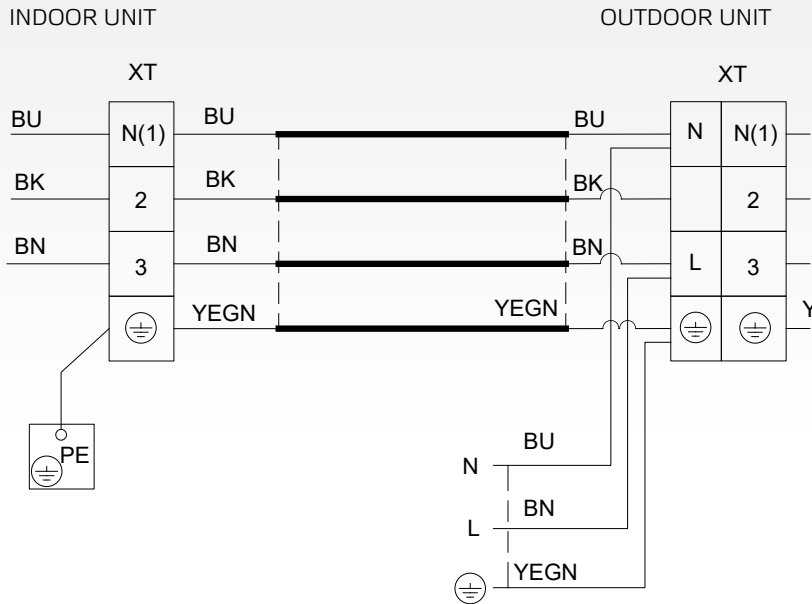


| Model: | W | H | D | W1 | W2 | W3 |
|--------|-----|-----|-----|-----|-----|-----|
| 09/12K | 773 | 250 | 185 | 131 | 462 | 180 |

units: mm

ELECTRICAL WIRING DIAGRAM

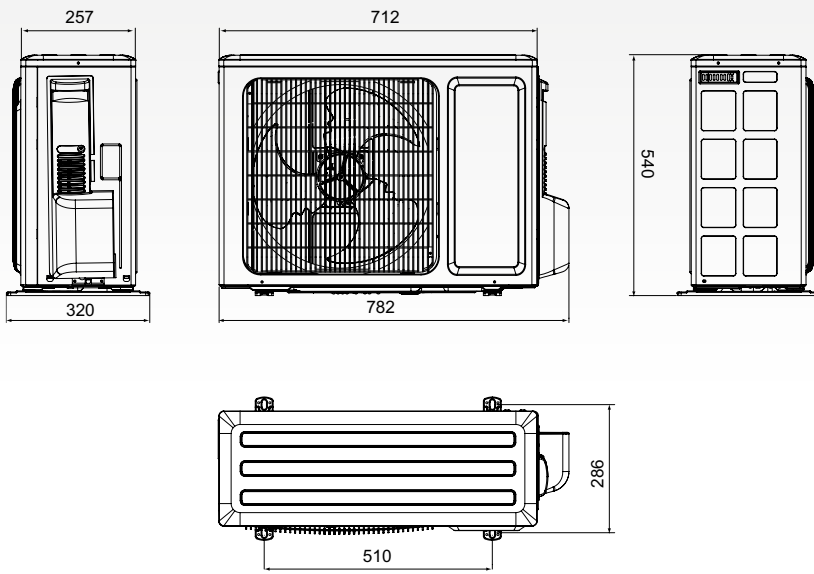
RAY SERIES



APPEARANCE AND DIMENSIONS OF OUTDOOR UNIT

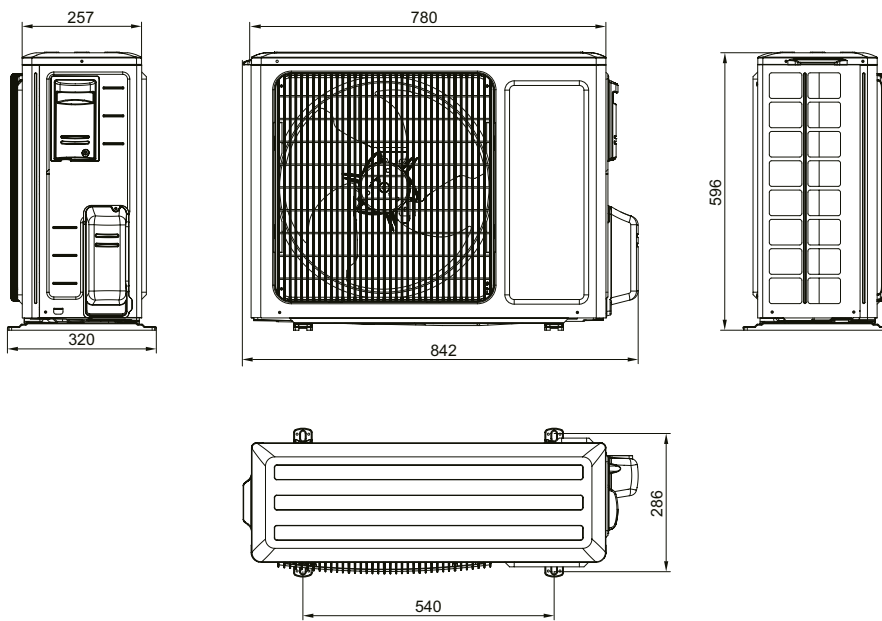
RAY SERIES

ASH-09BIR



units: mm

ASH-12BIR



units: mm

WALL MOUNTED SPLIT AIR CONDITIONING

VISION SERIES

| MODEL | | | ASH-09BIV | ASH-12BIV | ASH-18BIV | ASH-24BIV | |
|---|-------------------|-----------------------------------|---|-------------------------------|-------------------------------|-------------------------------|--|
| Capacity cooling/heating 1) | Nominal (min-max) | kW | 2,5 (0,5-3,4) / 2,8 (0,5-3,5) | 3,2 (0,6-3,6) / 3,5 (0,6-3,8) | 4,6 (0,7-5,2) / 5,2 (0,7-5,4) | 6,2 (1,8-6,4) / 6,5 (1,6-6,6) | |
| Power supply | | Hz / V | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | |
| Power supply | | - | outdoor | outdoor | outdoor | outdoor | |
| Power input cooling/heating 1) | | W | 805 / 755 | 997 / 970 | 1430 / 1400 | 1760 / 1860 | |
| Maximal power input 2) | | W | 1500 | 1500 | 1700 | 2600 | |
| Power current cooling/heating | | A | 3,9 / 3,4 | 4,4 / 4,3 | 6,3 / 6,2 | 7,7 / 8,1 | |
| Maximal power current 2) | | A | 6,3 | 6,7 | 8,0 | 10,9 | |
| Energy class cooling 3) | | - | A++ | A++ | A++ | A++ | |
| Pdesign cooling | | kW | 2,5 | 3,2 | 4,6 | 6,1 | |
| SEER | | - | 6,1 | 6,1 | 6,1 | 6,1 | |
| Annual power consumption | | kWh / annum | 143 | 184 | 264 | 350 | |
| Energy class heating 3) | Aver./Warm./Cool. | - | A+ / A+++ / B | A+ / A+++ / - | A+ / A+++ / - | A+ / A+++ / - | |
| Pdesign heating | Average climate | kW | 2,6 | 3,2 | 3,6 | 4,7 | |
| SCOP | Average climate | - | 4,0 | 4,0 | 4,0 | 4,0 | |
| Annual power consumption | Average climate | kWh / annum | 910 | 1120 | 1260 | 1645 | |
| Air flow of ID | SH/H/M/L | m³ / h | 560/490/430/330 | 560/480/410/290 | 850/720/610/520 | 850/720/610/520 | |
| Airflow of OD | H | m³ / h | 1600 | 2200 | 2200 | 3200 | |
| Sound pressure level of ID at 1m 4) | SH/H/M/L | dB(A) | 39/36/32/28 | 42/37/34/28 | 49/45/41/36 | 48/44/40/34 | |
| Sound pressure level of OD at 1m 4) | H | dB(A) | 52 | 52 | 54 | 57 | |
| Sound power of ID 4) | SH/H/M/L | dB(A) | 55/52/44/38 | 55/47/44/38 | 58/54/49/44 | 59/54/50/44 | |
| Sound power of OD 4) | H | dB(A) | 61 | 62 | 63 | 67 | |
| Dehumidifying volume | | l / h | 0,8 | 1,4 | 1,8 | 1,8 | |
| Refrigerant type/charge | | Type / kg / t eq. CO ₂ | R32 / 0,60 / 0,41 | R32 / 0,59 / 0,41 | R32 / 0,77 / 0,54 | R32 / 1,30 / 0,88 | |
| Additional refrigerant | | g / m | 20 | 20 | 20 | 40 | |
| Pipe diameter - liquid side 5) | | inch / mm | ¼ / 6,0 | ¼ / 6,0 | ¼ / 6,0 | ¼ / 6,0 | |
| Pipe diameter - gas side 5) | | inch / mm | ¾ / 9,5 | ¾ / 9,5 | ¾ / 9,5 | ¾ / 16,0 | |
| Max pipe length without additional refrigerant 6) | | m | 5 | 5 | 5 | 5 | |
| Allowed pipe length 7) | min./max. | m | 3 / 15 | 3 / 20 | 3 / 20 | 3 / 25 | |
| Max. elevation/ Drop height | | m | 10 | 10 | 10 | 10 | |
| Dimension of ID | w x h x d | mm | 790x275x200 | 790x275x200 | 970x300x224 | 1078x325x246 | |
| Dimensions of outdoor unit | w x h x d | mm | 782x540x320 | 848x596x320 | 848x596x320 | 963x700x396 | |
| Package dimension of ID | w x h x d | mm | 866x271x367 | 866x271x367 | 1041x383x320 | 1041x383x320 | |
| Package dimensions of outdoor unit | w x h x d | mm | 823x595x358 | 881x645x363 | 881x645x363 | 1029x750x458 | |
| Weight of ID | netto / brutto | kg | 9,0 / 11,0 | 9,0 / 11,0 | 13,5 / 16,5 | 13,5 / 16,5 | |
| Weight of OD | netto / brutto | kg | 29,5 / 32,0 | 31,0 / 34,0 | 34 / 37 | 46 / 50,5 | |
| Set temperature range | | °C | 16 ~ 30 | 16 ~ 30 | 16 ~ 30 | 16 ~ 30 | |
| Operating temperature range cooling 8) | | °C | -15 ~ 43 | -15 ~ 43 | -15 ~ 43 | -15 ~ 43 | |
| Operating temperature range heating 8) | | °C | -15 ~ 24 | -15 ~ 24 | -15 ~ 24 | -15 ~ 24 | |
| ADDITIONAL TECHNICAL INFORMATION | | | | | | | |
| Screw holes distance of OD | w x d | mm | 510x286 | 540x286 | 540x286 | 560x364 | |
| Communication cable | | mm² | 4 x 0,75 (5m included) | 4 x 0,75 (5m included) | 4 x 0,75 (5m included) | 4 x 0,75 (5m included) | |
| Recommended power cable | | mm² | 3x1,5 | 3x1,5 | 3x2,5 | 3x2,5 | |
| Recommended air switch | | A | 10 | 10 | 16 | 16 | |
| EQUIPMENT | | | | | | | |
| Plasma generator | indoor | | yes | yes | yes | yes | |
| Wifi module | | | yes | yes | yes | yes | |
| Drain pump | | | no | no | no | no | |
| Max. lift (from bottom of ID unit) | | mm | - | - | - | - | |
| Dry contact (ON/OFF) | | | no | no | no | no | |
| Alarm contact | | | no | no | no | no | |
| Fresh air inlet | | | no | no | no | no | |
| Throttling method | outdoor | | Capillary | Capillary | Capillary | EXV | |
| Bottom chassis heater | | | no | no | no | no | |
| Crankcase heater | | | Preheating | Preheating | Preheating | Preheating | |
| Bottom plugs for OD | | | yes | yes | yes | yes | |
| Drain pipe connector | | | yes | yes | yes | yes | |
| STANDARD ACCESSORIES | | | | | | | |
| Standard health filter | | | SAF-OPWA4, SAF-OPWC4 | | | | |
| Remote controller (IR) | | | YAN1F6 (wifi) | YAN1F6 (wifi) | YAN1F6 (wifi) | YAN1F6 (wifi) | |
| Wired controller | | | no | no | no | no | |
| OPTIONAL ACCESSORIES | | | | | | | |
| Optional health filters | | | SAF-OPWB4, SAF-OPWK4, SAF-OPWM4, SAF-OPWP4, SAF-OPWS4 | | | | |
| Wired controller | | | no | no | no | no | |
| Central controller | | | no | no | no | no | |
| Other | | | G25 | G25 | G25 | G25 | |

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R32 (single component refrigerant HFC), GWP of refrigerant used: 675.

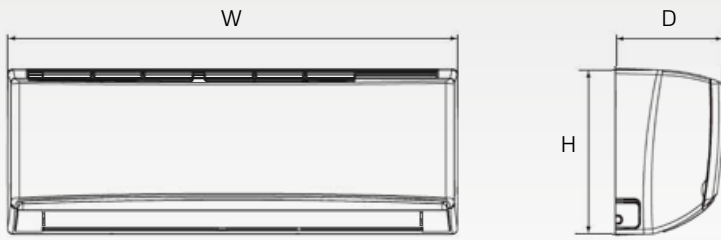
Contains fluorinated greenhouse gases covered by the Kyoto Protocol.

Explanatory notes on the very last page of the catalogue.

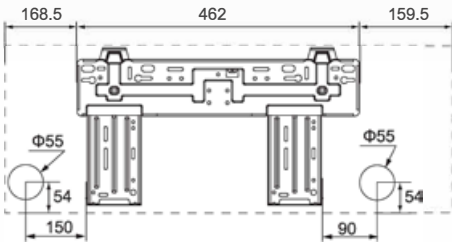
The device is being sold as a set (indoor + outdoor unit).

APPEARANCE AND DIMENSIONS OF INDOOR UNIT

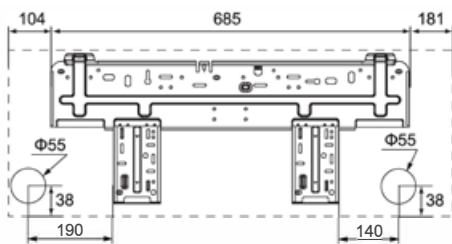
VISION SERIES



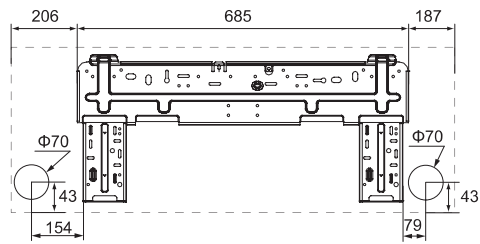
ASH-09BIV, ASH-12BIV



ASH-18BIV



ASH-24BIV

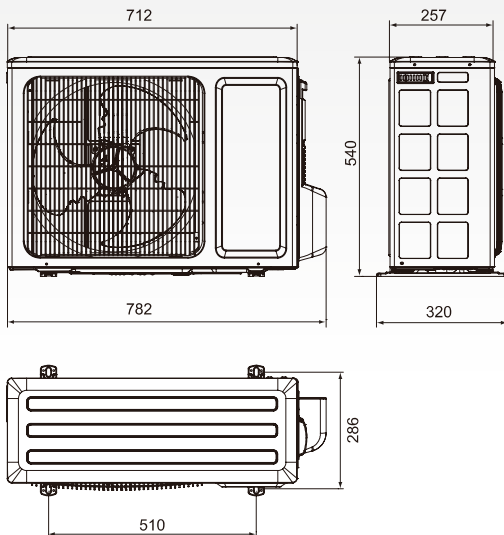


units: mm

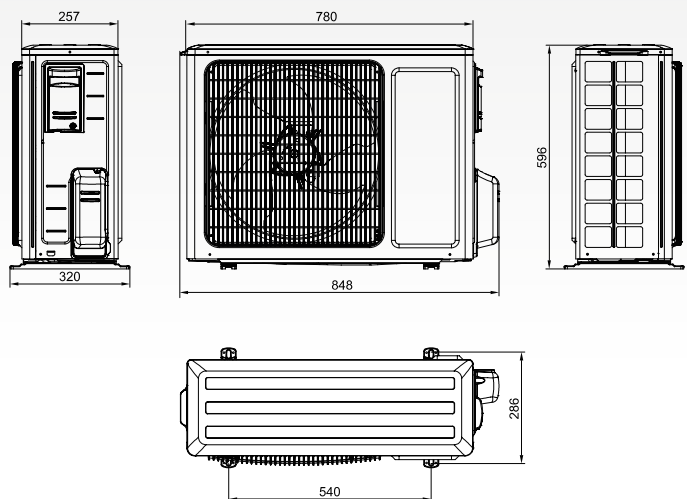
APPEARANCE AND DIMENSIONS OF OUTDOOR UNIT

VISION SERIES

ASH-09BIV

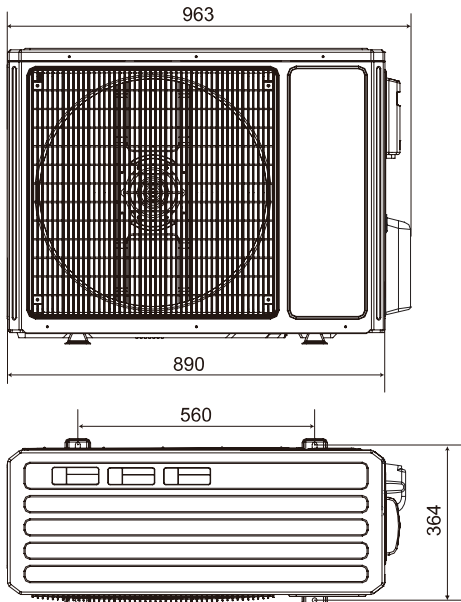


ASH-12BIV, ASH-18BIV



units: mm

ASH-24BIV



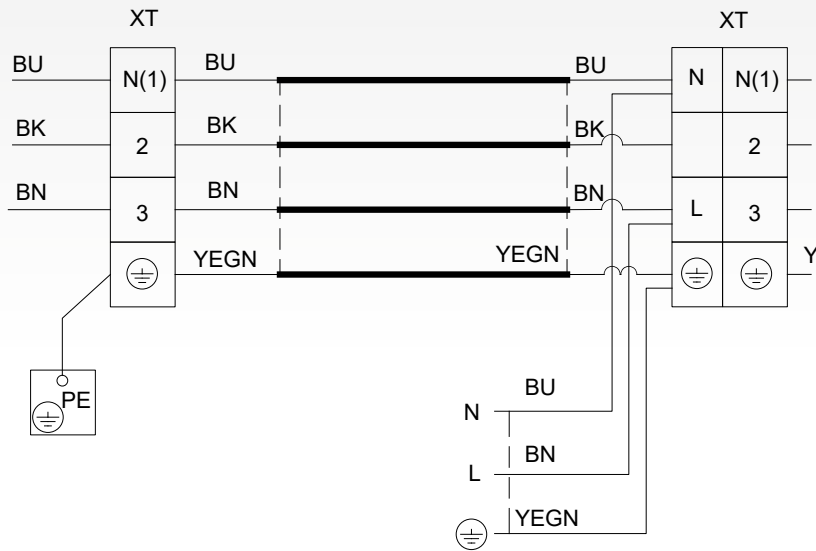
units: mm

ELECTRICAL WIRING DIAGRAM

VISION SERIES

INDOOR UNIT

OUTDOOR UNIT



WALL MOUNTED SPLIT AIR CONDITIONING

FOCUS PLUS SERIES

| MODEL | | | ASH-09BIF2 | ASH-13BIF2 | ASH-18BIF2 | ASH-24BIF2 | |
|---|-------------------|-----------------------------------|---|-------------------------------|-------------------------------|--------------------------------|--|
| Capacity cooling/heating 1) | Nominal (min-max) | kW | 2,7 (0,5-3,5) / 2,8 (0,5-4,2) | 3,5 (0,7-4,0) / 3,7 (0,8-4,5) | 5,2 (1,3-6,6) / 5,3 (1,2-6,8) | 7,0 (2,0-8,9) / 7,4 (1,8-10,7) | |
| Power supply | | Hz / V | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | |
| Power supply | | - | outdoor | outdoor | outdoor | outdoor | |
| Power input cooling/heating 1) | | W | 820 / 755 | 1085 / 990 | 1528 / 1410 | 1900 / 1897 | |
| Maximal power input 2) | | W | 1500 | 1500 | 2600 | 3750 | |
| Power current cooling/heating | | A | 3,8 / 3,5 | 5,0 / 4,5 | 6,8 / 6,3 | 8,8 / 8,9 | |
| Maximal power current 2) | | A | 6,3 | 6,6 | 10,9 | 17,5 | |
| Energy class cooling 3) | | - | A++ | A++ | A++ | A++ | |
| Pdesign cooling | | kW | 2,7 | 3,5 | 5,2 | 7,0 | |
| SEER | | - | 6,8 | 7,0 | 7,0 | 6,5 | |
| Annual power consumption | | kWh / annum | 139 | 175 | 260 | 377 | |
| Energy class heating 3) | Aver./Warm./Cool. | - | A+ / A+++ / B | A+ / A+++ / B | A+ / A+++ / A | A+ / A+++ / B | |
| Pdesign heating | Average climate | kW | 2,6 | 3,0 | 4,2 | 6,4 | |
| SCOP | Average climate | - | 4,0 | 4,0 | 4,0 | 4,0 | |
| Annual power consumption | Average climate | kWh / annum | 910 | 1050 | 1470 | 2240 | |
| Air flow of ID | SH/MH/H/ML/ML/SL | m³ / h | 560/490/460/430/380/330/290 | 680/620/560/490/450/420/390 | 800/720/650/610/570/520/470 | 660/590/540/490/450/420/390 | |
| Airflow of OD | H | m³ / h | 1600 | 2200 | 3200 | 3200 | |
| Sound pressure level of ID at 1m 4) | SH/MH/H/ML/ML/SL | dB(A) | 41/37/35/32/29/26/24 | 42/38/35/32/30/28/26 | 45/43/41/38/35/34/31 | 48/45/42/39/37/36/33 | |
| Sound pressure level of OD at 1m 4) | H | dB(A) | 50 | 52 | 57 | 57 | |
| Sound power of ID 4) | SH/MH/H/ML/ML/SL | dB(A) | 55/48/46/44/40/37/35 | 57/50/47/44/42/40/38 | 55/53/51/48/45/44/41 | 58/55/52/49/47/46/43 | |
| Sound power of OD 4) | H | dB(A) | 59 | 62 | 64 | 67 | |
| Dehumidifying volume | | l / h | 0,8 | 1,4 | 1,8 | 2,4 | |
| Refrigerant type/charge | | Type / kg / t eq. CO ₂ | R32 / 0,55 / 0,37 | R32 / 0,70 / 0,47 | R32 / 1,00 / 0,68 | R32 / 1,70 / 1,15 | |
| Additional refrigerant | | g / m | 16 | 16 | 16 | 16 | |
| Pipe diameter - liquid side 5) | | inch / mm | ¼ / 6,0 | ¼ / 6,0 | ¼ / 6,0 | ¼ / 6,0 | |
| Pipe diameter - gas side 5) | | inch / mm | ¾ / 9,5 | ¾ / 9,5 | ¾ / 12,0 | ¾ / 16,0 | |
| Max pipe length without additional refrigerant 6) | | m | 5 | 5 | 5 | 5 | |
| Allowed pipe length 7) | min./max. | m | 3 / 15 | 3 / 20 | 3 / 25 | 3 / 20 | |
| Max. elevation/ Drop height | | m | 10 | 10 | 10 | 10 | |
| Dimension of ID | w x h x d | mm | 790x275x200 | 845x289x209 | 970x300x224 | 1078x325x246 | |
| Dimensions of outdoor unit | w x h x d | mm | 782x540x320 | 848x596x320 | 963x700x396 | 963x700x396 | |
| Package dimension of ID | w x h x d | mm | 866x367x271 | 921x379x281 | 1041x320x383 | 1145x335x410 | |
| Package dimensions of outdoor unit | w x h x d | mm | 823x595x358 | 881x645x363 | 1029x750x458 | 1029x750x458 | |
| Weight of ID | netto / brutto | kg | 9,0 / 11,0 | 10,5 / 12,5 | 13,5 / 16,5 | 16,5 / 20 | |
| Weight of OD | netto / brutto | kg | 27,5 / 30,0 | 31,0 / 34,0 | 45 / 49,5 | 53,5 / 58 | |
| Set temperature range | | °C | 16 ~ 30 | 16 ~ 30 | 16 ~ 30 | 16 ~ 30 | |
| Operating temperature range cooling 8) | | °C | -15 ~ 43 | -15 ~ 43 | -15 ~ 43 | -15 ~ 43 | |
| Operating temperature range heating 8) | | °C | -22 ~ 24 | -22 ~ 24 | -22 ~ 24 | -22 ~ 24 | |
| ADDITIONAL TECHNICAL INFORMATION | | | | | | | |
| Screw holes distance of OD | w x d | mm | 510x286 | 540x286 | 560x364 | 560x364 | |
| Communication cable | | mm ² | 4 x 0,75 (5m included) | | | | |
| Recommended power cable | | mm ² | 3x1,5 | 3x1,5 | 3x2,5 | 3x4,0 | |
| Recommended air switch | | A | 10 | 10 | 16 | 20 | |
| EQUIPMENT | | | | | | | |
| Plasma generator | indoor | | yes | yes | yes | yes | |
| Wifi module | | | yes | yes | yes | yes | |
| Drain pump | | | no | no | no | no | |
| Max. lift (from bottom of ID unit) | | mm | - | - | - | - | |
| Dry contact (ON/OFF) | | | yes | yes | yes | yes | |
| Alarm contact | | | no | no | no | no | |
| Fresh air inlet | | | no | no | no | no | |
| Throttling method | outdoor | | Capillary | EXV | EXV | EXV | |
| Bottom chassis heater | | | Heating belt | Heating belt | Heating belt | Heating belt | |
| Crankcase heater | | | Preheating | Preheating | Preheating | Preheating | |
| Bottom plugs for OD | | | no | no | yes | yes | |
| Drain pipe connector | | | yes | yes | yes | yes | |
| STANDARD ACCESSORIES | | | | | | | |
| Standard health filter | | | SAF-OPWC4, SAF-OPWB4 | | | | |
| Remote controller (IR) | | | YAC1FB9 | YAC1FB9 | YAC1FB9 | YAC1FB9 | |
| Wired controller | | | no | no | no | no | |
| OPTIONAL ACCESSORIES | | | | | | | |
| Optional health filters | | | SAF-OPWC4, SAF-OPWK4, SAF-OPWM4, SAF-OPWP4, SAF-OPWS4 | | | | |
| Wired controller | | | SWC-02, XK19 | | | | |
| Central controller | | | SCC-16, SCC-36 | | | | |
| Other | | | G2S | | | | |

The specification of products is subject to change based on further development of the units by the producer and can be changed without prior notice. Refer to rating label.

R32 (single component refrigerant HFC), GWP of refrigerant used: 675.

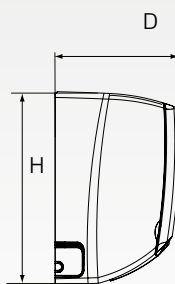
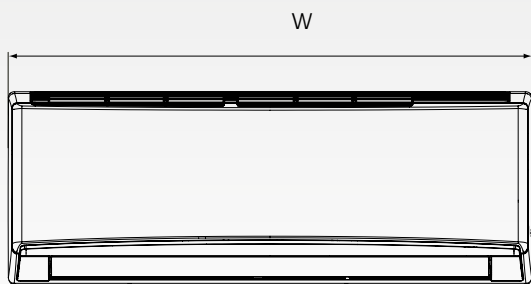
Contains fluorinated greenhouse gases covered by the Kyoto Protocol.

Explanatory notes on the very last page of the catalogue.

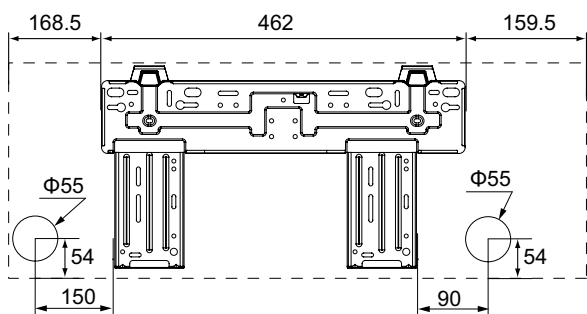
The device is being sold as a set (indoor + outdoor unit).

APPEARANCE AND DIMENSIONS OF INDOOR UNIT

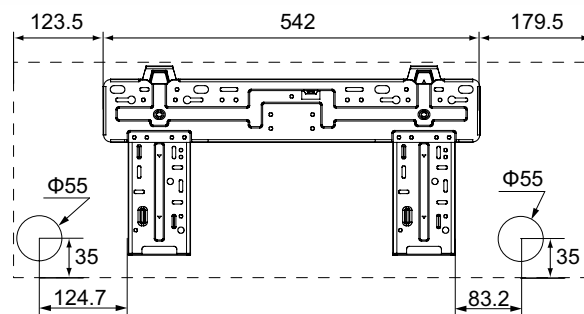
FOCUS PLUS SERIES



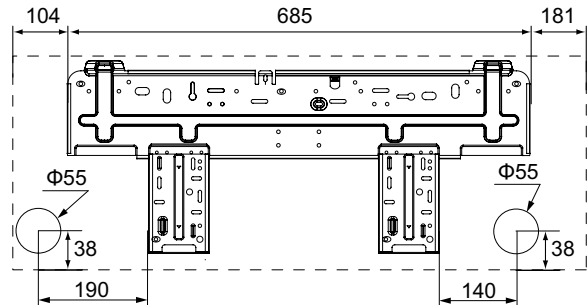
ASH-09BIF2



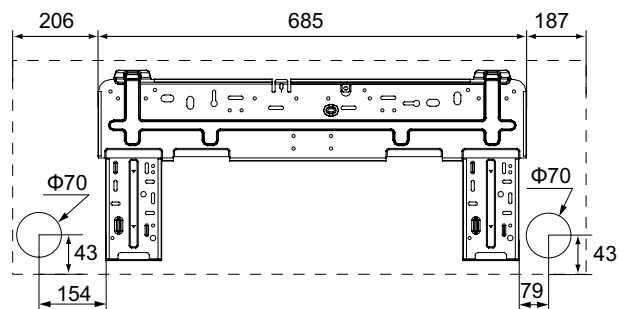
ASH-13BIF2



ASH-18BIF2



ASH-24BIF2

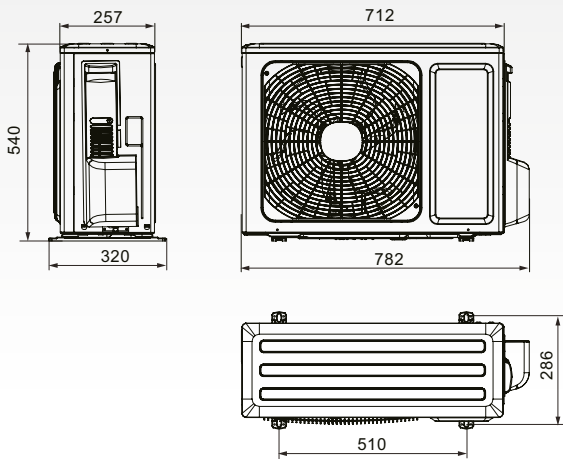


units: mm

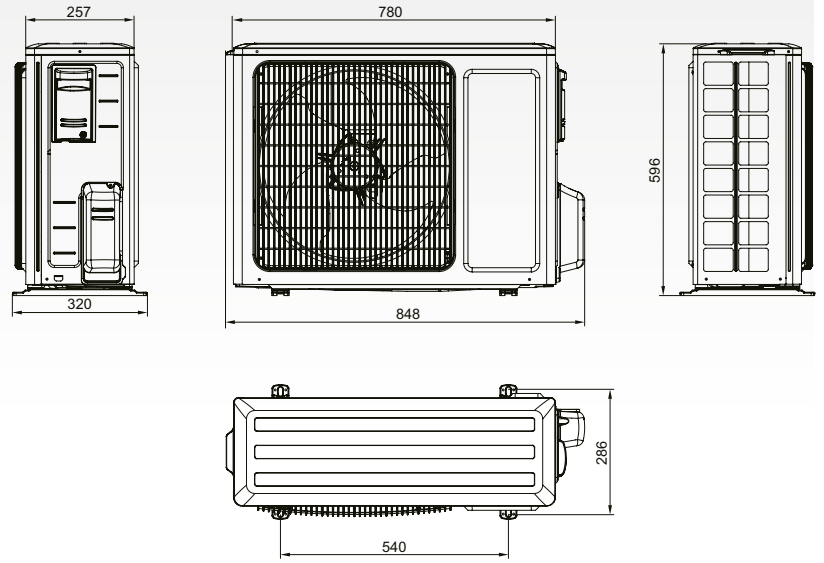
DIMENSIONS OF OUTDOOR UNIT

FOCUS PLUS SERIES

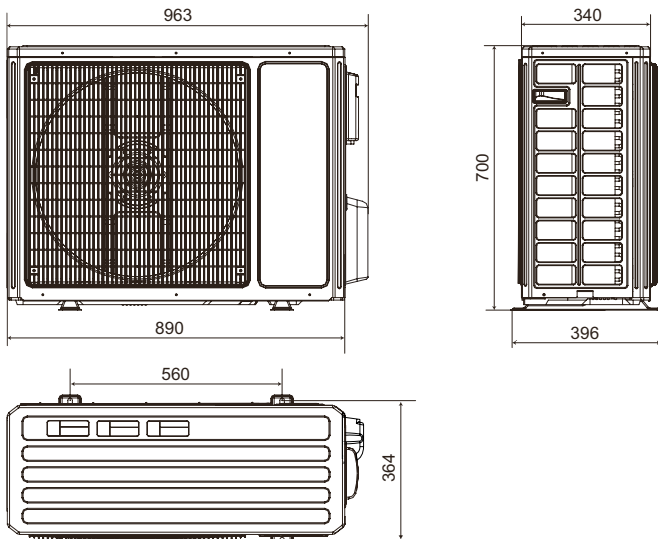
ASH-09BIF2



ASH-13BIF2



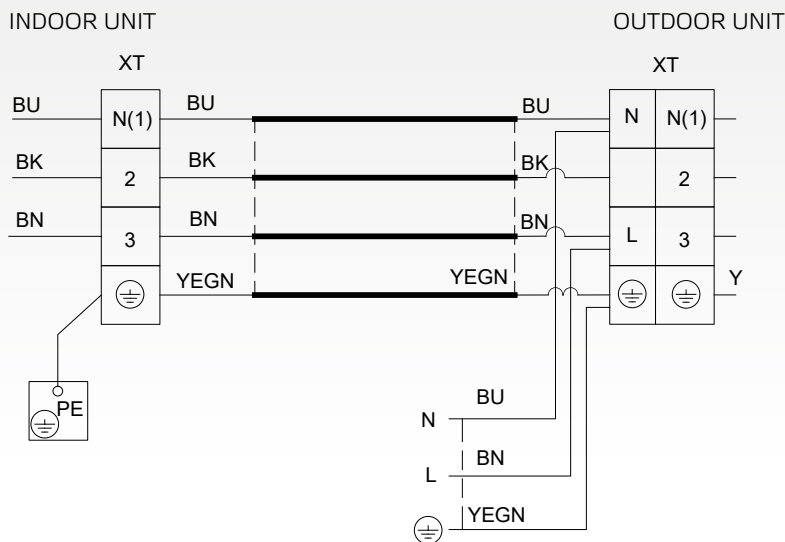
ASH-18BIF2, ASH-24BIF2



units: mm

ELECTRICAL WIRING DIAGRAM

FOCUS PLUS SERIES



WALL MOUNTED SPLIT AIR CONDITIONING

SPECTRUM SERIES

| MODEL | | | ASH-09BIS/W, ASH-09BIS/B | ASH-13BIS/W, ASH-13BIS/B | ASH-18BIS/W, ASH-18BIS/B | ASH-24BIS/W, ASH-24BIS/B |
|---|-------------------|-----------------------------------|---|-------------------------------|-------------------------------|--------------------------------|
| Capacity cooling/heating 1) | Nominal (min-max) | kW | 2,7 (0,9-3,8) / 3,0 (0,7-4,4) | 3,5 (1,0-3,8) / 3,8 (1,2-4,4) | 5,3 (1,3-6,6) / 5,6 (1,2-6,8) | 7,0 (1,1-9,1) / 7,2 (1,7-10,1) |
| Power supply | | Hz / V | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 |
| Power supply | | - | outdoor | outdoor | outdoor | outdoor |
| Power input cooling/heating 1) | | W | 585 / 650 | 950 / 975 | 1550 / 1428 | 2000 / 1845 |
| Maximal power input 2) | | W | 1650 | 1650 | 2600 | 3800 |
| Power current cooling/heating | | A | 2,6 / 2,9 | 4,0 / 4,5 | 6,9 / 6,3 | 9,2 / 8,5 |
| Maximal power current 2) | | A | 6,4 | 6,4 | 10,9 | 16,5 |
| Energy class cooling 3) | | - | A+++ | A+++ | A++ | A++ |
| Pdesign cooling | | kW | 2,7 | 3,5 | 5,3 | 7,0 |
| SEER | | - | 8,5 | 8,5 | 7,6 | 7,0 |
| Annual power consumption | | kWh / annum | 111 | 144 | 244 | 350 |
| Energy class heating 3) | Aver./Warm./Cool. | - | A++ / A+++ / A | A+ / A+++ / A | A+ / A+++ / A | A+ / A+++ / A |
| Pdesign heating | Average climate | kW | 2,8 | 3,2 | 4,5 | 6,4 |
| SCOP | Average climate | - | 4,6 | 4,4 | 4,1 | 4,0 |
| Annual power consumption | Average climate | kWh / annum | 852 | 1018 | 1537 | 2240 |
| Air flow of ID | SH/MH/H/ML/ML/SL | m³ / h | 660/590/540/490/450/420/390 | 680/590/540/490/450/420/390 | 850/750/610/520 | 1250/1100/1000/950/900/850/750 |
| Airflow of OD | H | m³ / h | 2200 | 2200 | 3200 | 3200 |
| Sound pressure level of ID at 1m 4) | SH/MH/H/ML/ML/SL | dB(A) | 41/39/37/35/33/31/24 | 43/39/37/35/34/32/25 | 49/45/43/41/39/37/34 | 49/47/44/42/40/38/36 |
| Sound pressure level of OD at 1m 4) | H | dB(A) | 52 | 53 | 57 | 60 |
| Sound power of ID 4) | SH/MH/H/ML/ML/SL | dB(A) | 56/53/52/50/48/46/39 | 58/53/52/50/48/46/40 | 58/55/53/51/49/47/44 | 65/61/58/56/54/52/50 |
| Sound power of OD 4) | H | dB(A) | 60 | 62 | 65 | 70 |
| Dehumidifying volume | | l / h | 0,8 | 1,4 | 1,8 | 2,4 |
| Refrigerant type/charge | | Type / kg / t eq. CO ₂ | R32 / 0,70 / 0,47 | R32 / 0,75 / 0,54 | R32 / 1,00 / 0,67 | R32 / 1,70 / 1,15 |
| Additional refrigerant | | g / m | 16 | 16 | 16 | 50 |
| Pipe diameter - liquid side 5) | | inch / mm | ¼ / 6,0 | ¼ / 6,0 | ¼ / 6,0 | ¼ / 6,0 |
| Pipe diameter - gas side 5) | | inch / mm | ¾ / 9,5 | ¾ / 9,5 | ¾ / 12,0 | ¾ / 16,0 |
| Max pipe length without additional refrigerant 6) | | m | 5 | 5 | 5 | 5 |
| Allowed pipe length 7) | min./max. | m | 3 / 15 | 3 / 20 | 3 / 25 | 3 / 25 |
| Max. elevation / Drop height | | m | 10 | 10 | 10 | 10 |
| Dimension of ID | w x h x d | mm | 865x290x210 | 865x290x210 | 996x301x225 | 1101x327x249 |
| Dimensions of outdoor unit | w x h x d | mm | 848x596x320 | 848x596x320 | 965x700x396 | 963x700x396 |
| Package dimension of ID | w x h x d | mm | 931x281x379 | 931x281x379 | 1060x380x322 | 1167x405x354 |
| Package dimensions of outdoor unit | w x h x d | mm | 881x645x363 | 881x645x363 | 1029x750x458 | 1029x750x458 |
| Weight of ID | netto / brutto | kg | 10,5 / 12,5 | 11,0 / 13,0 | 13,5 / 16,5 | 16,5 / 20 |
| Weight of OD | netto / brutto | kg | 33,5 / 36,5 | 33,5 / 36,5 | 45,0 / 49,5 | 53,0 / 57,5 |
| Set temperature range | | °C | 16 ~ 30 | 16 ~ 30 | 16 ~ 30 | 16 ~ 30 |
| Operating temperature range cooling 8) | | °C | -15 ~ 43 | -15 ~ 43 | -15 ~ 43 | -15 ~ 43 |
| Operating temperature range heating 8) | | °C | -22 ~ 24 | -22 ~ 24 | -22 ~ 24 | -22 ~ 24 |
| ADDITIONAL TECHNICAL INFORMATION | | | | | | |
| Screw holes distance of OD | w x d | mm | 540x286 | 540x286 | 560x364 | 560x396 |
| Communication cable | | mm² | 4 x 0,75 (5m included) | | | |
| Recommended power cable | | mm² | 3x1,5 | 3x1,5 | 3x2,5 | 3x4,0 |
| Recommended air switch | | A | 10 | 10 | 16 | 20 |
| EQUIPMENT | | | | | | |
| Plasma generator | indoor | | yes | yes | yes | yes |
| Wifi module | | | yes | yes | yes | yes |
| Drain pump | | | no | no | no | no |
| Max. lift (from bottom of ID unit) | | mm | - | - | - | - |
| Dry contact (ON/OFF) | | | yes | yes | yes | yes |
| Alarm contact | | | no | no | no | no |
| Fresh air inlet | outdoor | | no | no | no | no |
| Throttling method | | | EXV | EXV | EXV | EXV |
| Bottom chassis heater | | | Heating belt | Heating belt | Heating belt | Heating belt |
| Crankcase heater | | | Heating belt | Heating belt | Preheating | Preheating |
| Bottom plugs for OD | | | yes | yes | yes | yes |
| Drain pipe connector | | | yes | yes | yes | yes |
| STANDARD ACCESSORIES | | | | | | |
| Standard health filter | | | SAF-OPWC4, SAF-OPWS4 | | | |
| Remote controller (IR) | | | YAG1FB | YAG1FB | YAG1FB | YAG1FB |
| Wired controller | | | no | no | no | no |
| OPTIONAL ACCESSORIES | | | | | | |
| Optional health filters | | | SAF-OPWA4, SAF-OPWB4, SAF-OPWK4, SAF-OPWM4, SAF-OPWP4 | | | |
| Wired controller | | | SWC-02, XK19 | | | |
| Central controller | | | SCC-16, SCC-36 | | | |
| Other | | | G2S | | | |

The specification of products is subject to change based on further development of the units by the producer and can be changed without prior notice. Refer to rating label.

R32 (single component refrigerant HFC), GWP of refrigerant used: 675.

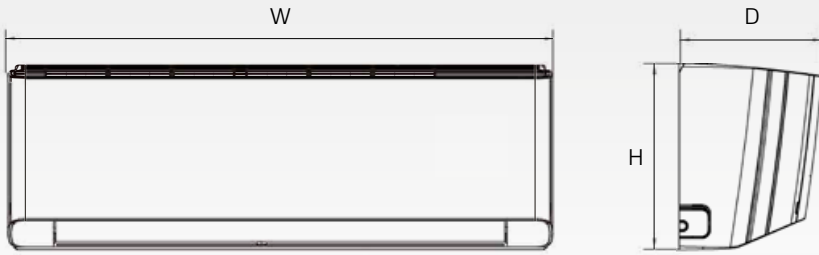
Contains fluorinated greenhouse gases covered by the Kyoto Protocol.

Explanatory notes on the very last page of the catalogue.

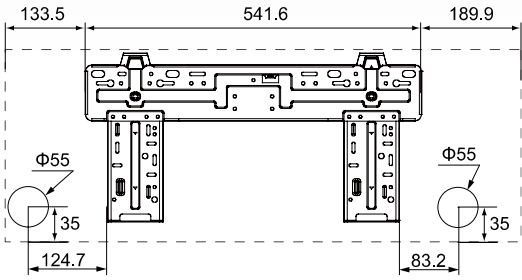
The device is being sold as a set (indoor + outdoor unit).

APPEARANCE AND DIMENSIONS OF INDOOR UNIT

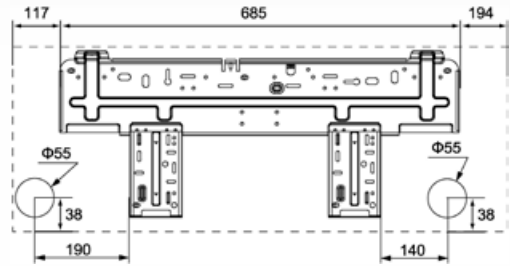
SPECTRUM SERIES



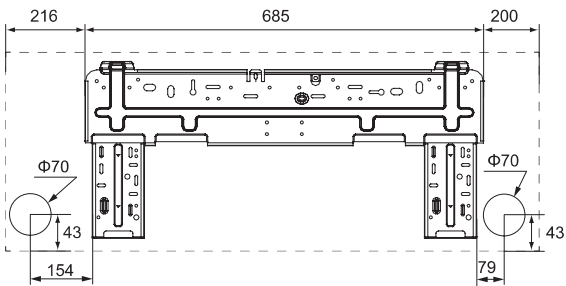
ASH-09BIS/W, ASH-09BIS/B, ASH-13BIS/W, ASH-13BIS/B



ASH-18BIS/W, ASH-18BIS/B



ASH-24BIS/W, ASH-24BIS/B

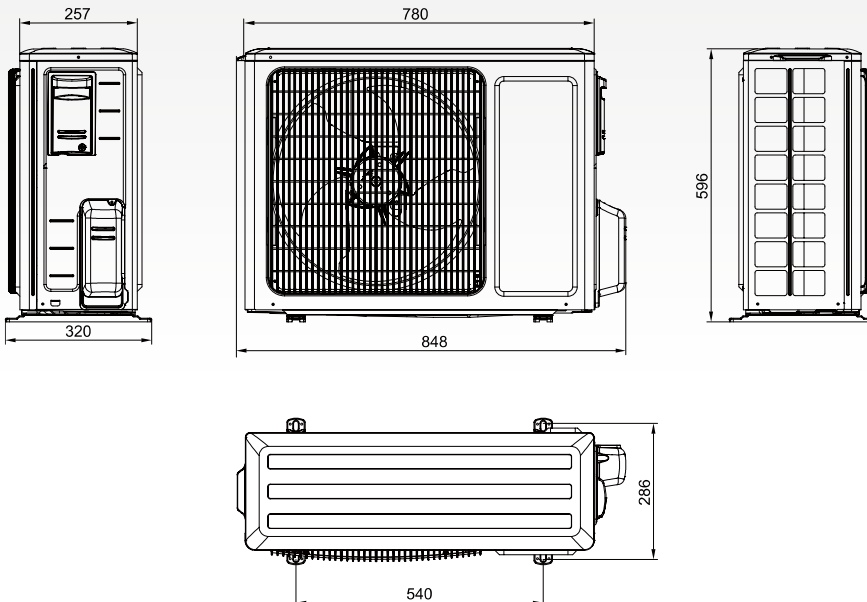


units: mm

APPEARANCE AND DIMENSIONS OF OUTDOOR UNIT

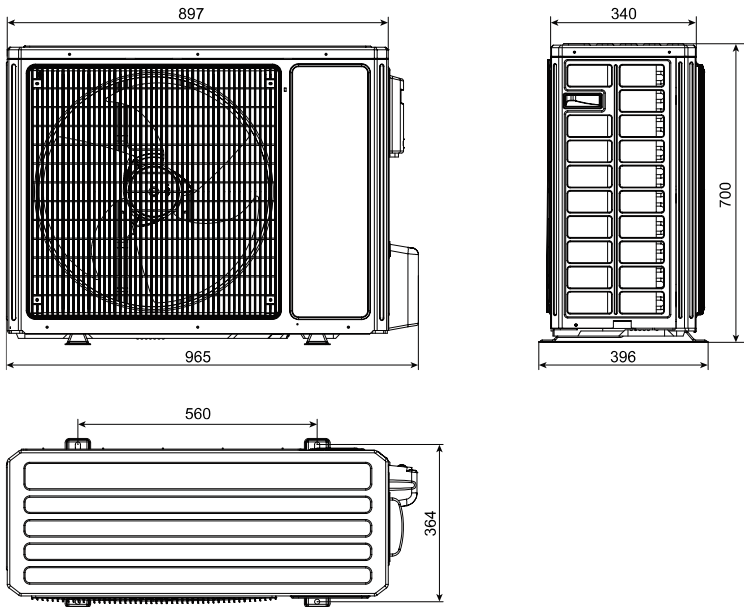
SPECTRUM SERIES

ASH-09BIS/W, ASH-09BIS/B, ASH-13BIS/W, ASH-13BIS/B

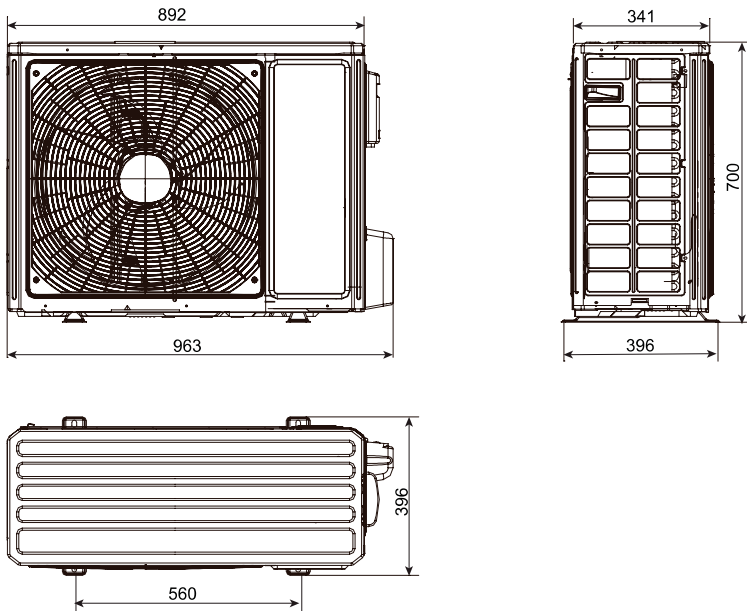


units: mm

ASH-18BIS/W, ASH-18BIS/B



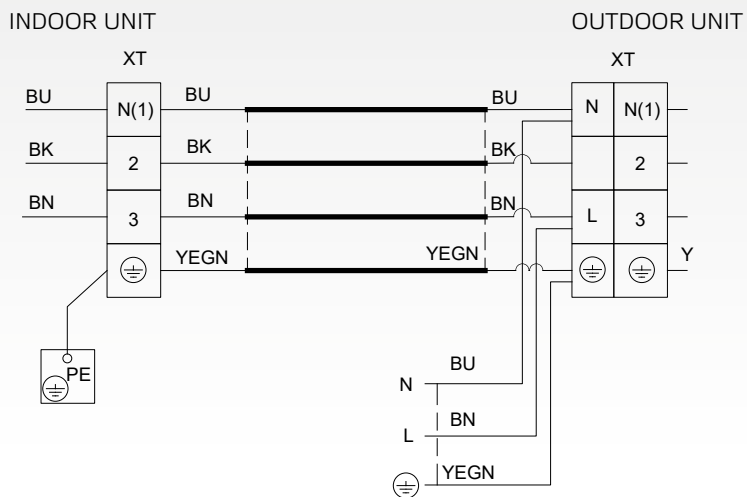
ASH-24BIS/W, ASH-24BIS/B



units: mm

ELECTRICAL WIRING DIAGRAM

SPECTRUM SERIES



WALL MOUNTED SPLIT AIR CONDITIONING

SPECTRUM PLUS SERIES

| MODEL | | | ASH-09BIS2/W | ASH-13BIS2/W | ASH-18BIS2/W | ASH-24BIS2/W | |
|---|-------------------|-----------------------------------|---|-------------------------------|--------------------------------|-------------------------------|--|
| Capacity cooling/heating 1) | Nominal (min-max) | kW | 2,7 (0,7-5,0) / 3,5 (0,7-5,5) | 3,6 (0,9-5,0) / 4,2 (0,9-7,2) | 5,3 (1,2-7,2) / 5,6 (1,2-9,2) | 7,1 (2,0-9,0) / 7,1 (2,0-9,5) | |
| Power supply | | Hz / V | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | |
| Power supply | | - | outdoor | outdoor | outdoor | outdoor | |
| Power input cooling/heating 1) | | W | 550 / 745 | 840 / 950 | 1320 / 1320 | 1850 / 1750 | |
| Maximal power input 2) | | W | 2400 | 2600 | 3300 | 3800 | |
| Power current cooling/heating | | A | 3,6 / 4,7 | 5,1 / 5,7 | 5,9 / 5,9 | 11,0 / 11,0 | |
| Maximal power current 2) | | A | 8,0 | 8,2 | 13,0 | 16,4 | |
| Energy class cooling 3) | | - | A+++ | A+++ | A++ | A++ | |
| Pdesign cooling | | kW | 2,7 | 3,5 | - | 7,0 | |
| SEER | | - | 8,5 | 8,5 | 6,6 | 6,5 | |
| Annual power consumption | | kWh / annum | 111 | 144 | 281 | 377 | |
| Energy class heating 3) | Aver. Warm./Cool. | - | A+++ / A+++ / A | A+++ / A+++ / A+ | A+ / A+++ / A | A+ / A+++ / A | |
| Pdesign heating | Average climate | kW | 3,5 | 3,5 | 6,3 | 7,0 | |
| SCOP | Average climate | - | 5,1 | 5,1 | 4,4 | 4,1 | |
| Annual power consumption | Average climate | kWh / annum | 961 | 961 | 1877 | 2390 | |
| Air flow of ID | SH/MH/H/ML/ML/SL | m³ / h | 800/720/570/620/560/500/450 | 800/730/680/630/580/530/430 | 1200/1150/1050/950/850/780/600 | 1200/1050/950/900/850/800/750 | |
| Airflow of OD | H | m³ / h | 2400 | 2400 | 4000 | 4000 | |
| Sound pressure level of ID at 1m 4) | SH/MH/H/ML/ML/SL | dB(A) | 43/41/38/36/33/31/18 | 46/43/41/38/36/34/21 | 48/45/43/40/37/35/33 | 50/46/43/41/39/37/35 | |
| Sound pressure level of OD at 1m 4) | H | dB(A) | 53 | 54 | 56 | 58 | |
| Sound power of ID 4) | SH/MH/H/ML/ML/SL | dB(A) | 58/51/48/46/43/41/28 | 58/55/53/50/48/46/33 | 60/57/55/52/49/47/45 | 64/60/57/55/53/51/49 | |
| Sound power of OD 4) | H | dB(A) | 62 | 62 | 63 | 69 | |
| Dehumidifying volume | | l / h | 0,8 | 1,4 | 1,8 | 2,0 | |
| Refrigerant type/charge | | Type / kg / t eq. CO ₂ | R32 / 1,00 / 0,67 | R32 / 1,00 / 0,67 | R32 / 1,50 / 1,01 | R32 / 2,00 / 1,35 | |
| Additional refrigerant | | g / m | 16 | 20 | 40 | 50 | |
| Pipe diameter - liquid side 5) | | inch / mm | ¼ / 6,0 | ¼ / 6,0 | ¼ / 6,0 | ¼ / 6,0 | |
| Pipe diameter - gas side 5) | | inch / mm | ¾ / 9,5 | ¾ / 9,5 | ¾ / 16 | ¾ / 16 | |
| Max pipe length without additional refrigerant 6) | | m | 5 | 5 | 5 | 7,5 | |
| Allowed pipe length 7) | min./max. | m | 3 / 15 | 3 / 40 | 3 / 40 | 3 / 50 | |
| Max. elevation/ Drop height | | m | 10 | 20 | 20 | 30 | |
| Dimension of ID | w x h x d | mm | 996x301x225 | 996x301x225 | 1101x327x249 | 1101x327x249 | |
| Dimensions of outdoor unit | w x h x d | mm | 899x596x378 | 899x596x378 | 1003x790x427 | 1003x790x427 | |
| Package dimension of ID | w x h x d | mm | 1060x380x322 | 1060x380x322 | 1167x405x354 | 1167x405x354 | |
| Package dimensions of outdoor unit | w x h x d | mm | 948x645x420 | 948x645x420 | 1083x855x488 | 1083x855x488 | |
| Weight of ID | netto / brutto | kg | 13,0 / 16,0 | 13,5 / 16,5 | 16,5 / 20,0 | 16,5 / 20,0 | |
| Weight of OD | netto / brutto | kg | 44,5 / 47,5 | 45,5 / 48,5 | 62,5 / 67,5 | 65,0 / 70,0 | |
| Set temperature range | | °C | 16 ~ 30 | 16 ~ 30 | 16 ~ 30 | 16 ~ 30 | |
| Operating temperature range cooling 8) | | °C | -18 ~ 54 | -18 ~ 54 | -18 ~ 52 | -18 ~ 52 | |
| Operating temperature range heating 8) | | °C | -30 ~ 24 | -30 ~ 24 | -30 ~ 24 | -30 ~ 24 | |
| ADDITIONAL TECHNICAL INFORMATION | | | | | | | |
| Screw holes distance of OD | w x d | mm | 550x354 | 550x354 | 610x395 | 610x395 | |
| Communication cable | | mm² | 4 x 0,75 (5m included) | | | | |
| Recommended power cable | | mm² | 3x1,5 | 3x1,5 | 3x2,5 | 3x4,0 | |
| Recommended air switch | | A | 13 | 13 | 16 | 20 | |
| EQUIPMENT | | | | | | | |
| Plasma generator | indoor | | yes | yes | yes | yes | |
| Wifi module | | | yes | yes | yes | yes | |
| Drain pump | | | no | no | no | no | |
| Max. lift (from bottom of ID unit) | | mm | - | - | - | - | |
| Dry contact (ON/OFF) | | | yes | yes | yes | yes | |
| Alarm contact | | | no | no | no | no | |
| Fresh air inlet | | | no | no | no | no | |
| Throttling method | outdoor | | EXV | EXV | EXV | EXV | |
| Bottom chassis heater | | | Heating belt | Heating belt | Heating belt | Heating belt | |
| Crankcase heater | | | Preheating | Preheating | Preheating | Preheating | |
| Bottom plugs for OD | | | yes | yes | yes | yes | |
| Drain pipe connector | | | yes | yes | yes | yes | |
| STANDARD ACCESSORIES | | | | | | | |
| Standard health filter | | | SAF-OPWC4, SAF-OPWS4 | | | | |
| Remote controller (IR) | | | YAG1FB2 | YAG1FB2 | YAG1FB2 | YAG1FB2 | |
| Wired controller | | | no | no | no | no | |
| OPTIONAL ACCESSORIES | | | | | | | |
| Optional health filters | | | SAF-OPWA4, SAF-OPWB4, SAF-OPWK4, SAF-OPWM4, SAF-OPWP4 | | | | |
| Wired controller | | | SWC-02, XK19 | SWC-02, XK19 | SWC-02, XK19 | SWC-02, XK19 | |
| Central controller | | | SCC-16, SCC-36 | SCC-16, SCC-36 | SCC-16, SCC-36 | SCC-16, SCC-36 | |
| Other | | | G25 | G25 | G25 | G25 | |

The specification of products is subject to change based on further development of the units by the producer and can be changed without prior notice. Refer to rating label.

R32 (single component refrigerant HFC), GWP of refrigerant used: 675.

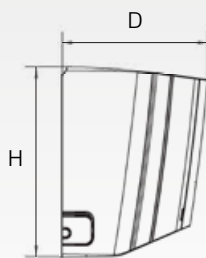
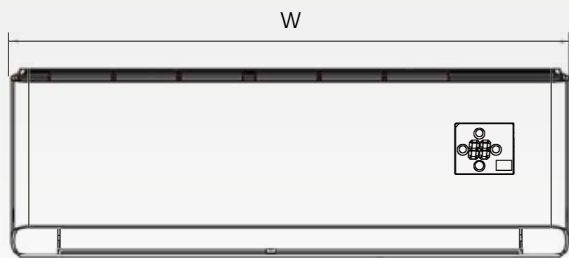
Contains fluorinated greenhouse gases covered by the Kyoto Protocol.

Explanatory notes on the very last page of the catalogue.

The device is being sold as a set (indoor + outdoor unit).

APPEARANCE AND DIMENSIONS OF INDOOR UNIT

SPECTRUM PLUS SERIES

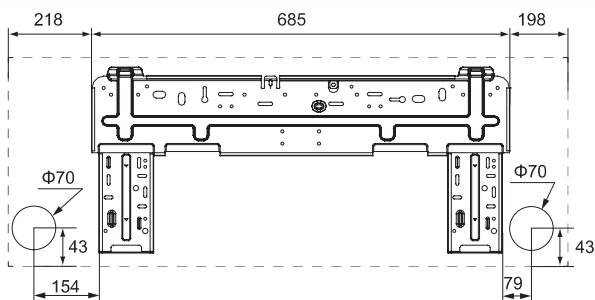
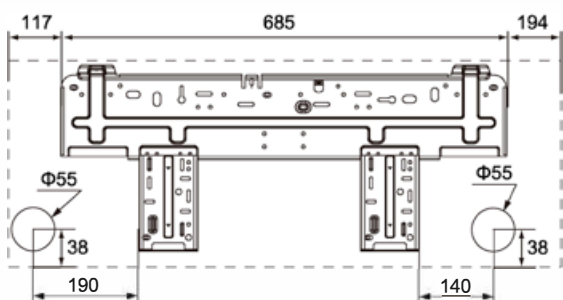


ASH-09BIS2/W

ASH-13BIS2/W

ASH-18BIS2/W

ASH-24BIS2/W



units: mm

APPEARANCE AND DIMENSIONS OF OUTDOOR UNIT

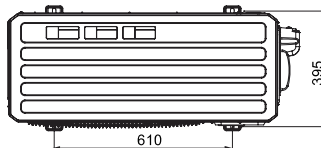
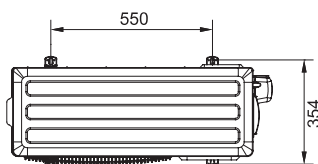
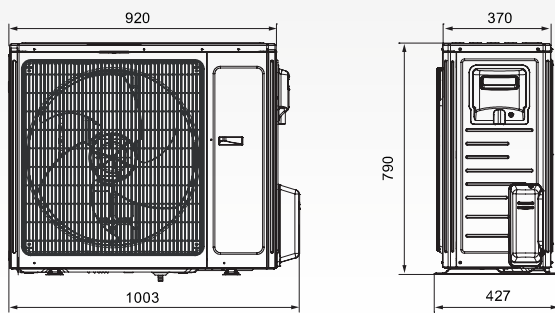
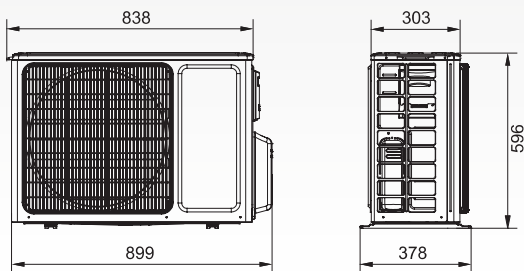
SPECTRUM PLUS SERIES

ASH-09BIS2/W

ASH-13BIS2/W

ASH-18BIS2/W

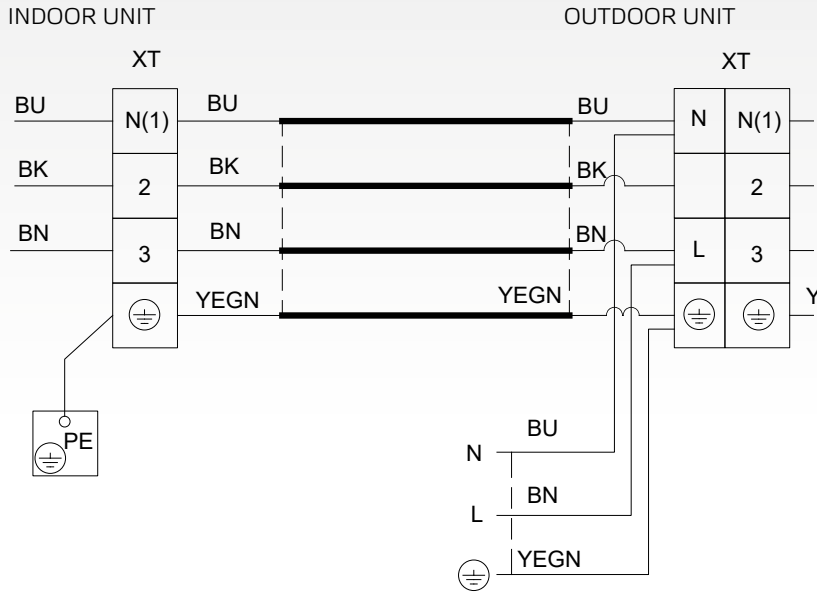
ASH-24BIS2/W



units: mm

ELECTRICAL WIRING DIAGRAM

SPECTRUM PLUS SERIES



CONSOLE SPLIT AIR CONDITIONING

CONSOLE SERIES

| MODEL | | | ASP-09BI | ASP-12BI | ASP-18BI | | |
|---|-------------------|-----------------------------------|---|-----------------------------|-----------------------------|--|--|
| Capacity cooling/heating 1) | Nominal (min-max) | kW | 2,7 (0,7-3,4) / 2,9(0,6-3,5) | 3,5(0,8-4,4) / 3,8(1,1-4,4) | 5,2(1,3-6,6) / 5,3(1,1-6,8) | | |
| Power supply | | Hz / V | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | | |
| Power supply | | - | outdoor | outdoor | outdoor | | |
| Power input cooling/heating 1) | | W | 720 / 730 | 1000/ 960 | 1550 / 1500 | | |
| Maximal power input 2) | | W | 1350 | 1500 | 2500 | | |
| Power current cooling/heating | | A | 3,50 / 3,60 | 4,48 / 4,30 | 7,1 / 6,7 | | |
| Maximal power current 2) | | A | 6,00 | 6,72 | 10,9 | | |
| Energy class cooling 3) | | - | A++ | A++ | A++ | | |
| Pdesign cooling | | kW | 2,7 | 3,5 | 5,2 | | |
| SEER | | - | 7,2 | 7,0 | 6,6 | | |
| Annual power consumption | | kWh / annum | 131 | 175 | 276 | | |
| Energy class heating 3) | Aver./Warm./Cool. | - | A+ / A+++ / - | A+ / A+++ / - | A+ / A+++ / - | | |
| Pdesign heating | Average climate | kW | 2,6 | 3,2 | 5,0 | | |
| SCOP | Average climate | - | 4,0 | 4,1 | 4,1 | | |
| Annual power consumption | Average climate | kWh / annum | 910 | 1093 | 1707 | | |
| Air flow of ID | SH/MH/H/ML/ML/SL | m³ / h | 500/430/410/370/330/280/250 | 600/520/480/440/400/360/280 | 700/650/580/520/460/410/320 | | |
| Airflow of OD | H | m³ / h | 1600 | 2200 | 3200 | | |
| Sound pressure level of ID at 1m 4) | SH/MH/H/ML/ML/SL | dB(A) | 39/36/33/31/29/26/23 | 42/40/38/36/34/31/25 | 47/45/43/41/38/37/32 | | |
| Sound pressure level of OD at 1m 4) | H | dB(A) | 49 | 52 | 57 | | |
| Sound power of ID 4) | SH/MH/H/ML/ML/SL | dB(A) | 50/48/45/44/42/38/34 | 52/50/48/46/43/39/35 | 57/55/53/51/48/47/42 | | |
| Sound power of OD 4) | H | dB(A) | 60 | 62 | 65 | | |
| Dehumidifying volume | | l / h | 0,8 | 1,2 | 1,8 | | |
| Refrigerant type/charge | | Type / kg / t eq. CO ₂ | R32 / 0,55 / 0,37 | R32 / 0,75 / 0,51 | R32 / 0,95 / 0,64 | | |
| Additional refrigerant | | g / m | 16 | 16 | 16 | | |
| Pipe diameter - liquid side 5) | | inch / mm | ¼ / 6,0 | ¼ / 6,0 | ¼ / 6,0 | | |
| Pipe diameter - gas side 5) | | inch / mm | ¾ / 9,5 | ¾ / 9,5 | ¾ / 12,0 | | |
| Max pipe length without additional refrigerant 6) | | m | 5 | 5 | 5 | | |
| Allowed pipe length 7) | Min/Max | m | 3 / 20 | 3 / 20 | 3 / 25 | | |
| Max. elevation/ Drop height | | m | 10 | 10 | 10 | | |
| Dimension of ID | w x h x d | mm | 700x600x215 | 700x600x215 | 700x600x215 | | |
| Dimensions of outdoor unit | w x h x d | mm | 782x540x320 | 848x596x320 | 965x700x396 | | |
| Package dimension of ID | w x h x d | mm | 785x682x280 | 785x682x280 | 785x682x280 | | |
| Package dimensions of outdoor unit | w x h x d | mm | 823x595x358 | 881x645x363 | 1026x455x735 | | |
| Weight of ID | netto / brutto | kg | 15,5 / 18,5 | 15,5 / 18,5 | 15,5 / 18,5 | | |
| Weight of OD | netto / brutto | kg | 27,5 / 30,0 | 30,5 / 33,5 | 46,0 / 50,5 | | |
| Set temperature range | | °C | 16-30 | 16-30 | 16-30 | | |
| Operating temperature range cooling 8) | | °C | -15-43 | -15-43 | -15-43 | | |
| Operating temperature range heating 8) | | °C | -22-24 | -22-24 | -22-24 | | |
| ADDITIONAL TECHNICAL INFORMATION | | | | | | | |
| Screw holes distance of OD | w x d | mm | 510x286 | 540x286 | 560x364 | | |
| Communication cable | | mm ² | 4 x 0,75 (5m included) | | | | |
| Recommended power cable | | mm ² | 3x1,5 | 3x1,5 | 3x2,5 | | |
| Recommended air switch | | A | 10 | 13 | 16 | | |
| EQUIPMENT | | | | | | | |
| Plasma generator | indoor | | yes | yes | yes | | |
| Wifi module | | | yes | yes | yes | | |
| Drain pump | | | no | no | no | | |
| Max. lift (from bottom of ID unit) | | mm | - | - | - | | |
| Dry contact (ON/OFF) | | | no | no | no | | |
| Alarm contact | | | no | no | no | | |
| Fresh air inlet | | | no | no | no | | |
| Throttling method | outdoor | | EXV | EXV | EXV | | |
| Bottom chassis heater | | | Heating belt | Heating belt | Heating belt | | |
| Crankcase heater | | | Preheating | Preheating | Preheating | | |
| Bottom plugs for OD | | | yes | yes | yes | | |
| Drain pipe connector | | | yes | yes | yes | | |
| STANDARD ACCESSORIES | | | | | | | |
| Standard health filter | | | SAF-OPWA4, SAF-OPWC4 | | | | |
| Remote controller (IR) | | | YAA1FB8 | YAA1FB8 | YAA1FB8 | | |
| Wired controller | | | no | no | no | | |
| OPTIONAL ACCESSORIES | | | | | | | |
| Optional health filters | | | SAF-OPWB4, SAF-OPWK4, SAF-OPWM4, SAF-OPWP4, SAF-OPWS4 | | | | |
| Wired controller | | | SWC-02, XK19 | | | | |
| Central controller | | | SCC-16, SCC-36 | | | | |
| Other | | | G25 | | | | |

The specification of products is subject to change based on further development of the units by the producer and can be changed without prior notice. Refer to rating label.

R32 (single component refrigerant HFC), GWP of refrigerant used: 675.

Contains fluorinated greenhouse gases covered by the Kyoto Protocol.

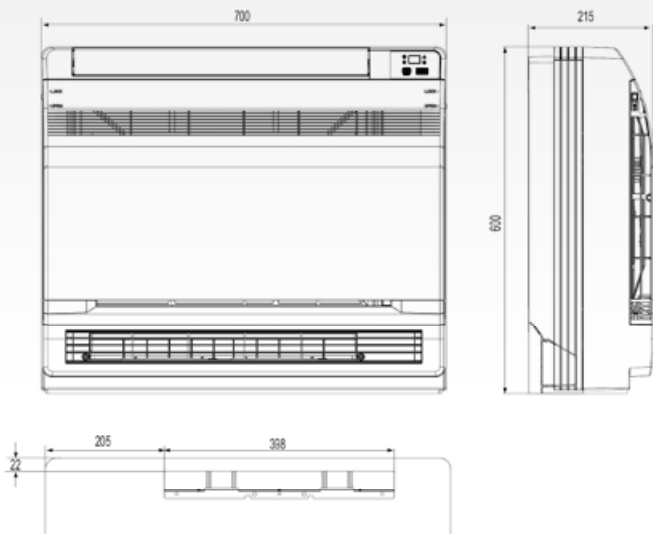
Explanatory notes on the very last page of the catalogue.

The device is being sold as a set (indoor + outdoor unit).

APPEARANCE AND DIMENSIONS OF INDOOR UNIT

CONSOLE SERIES

ASP-09BI, ASP-12BI, ASP-18BI

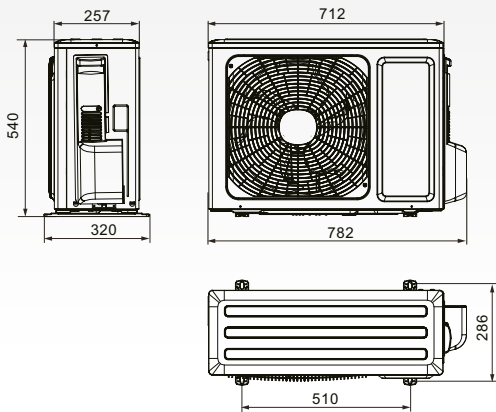


units: mm

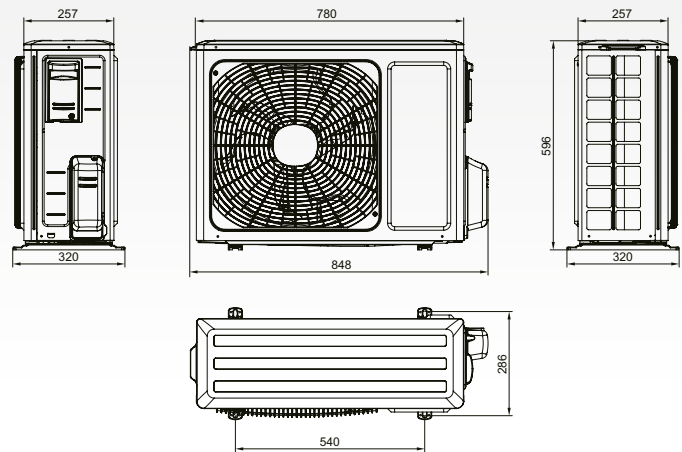
DIMENSIONS OF OUTDOOR UNIT

CONSOLE SERIES

ASP-09BI

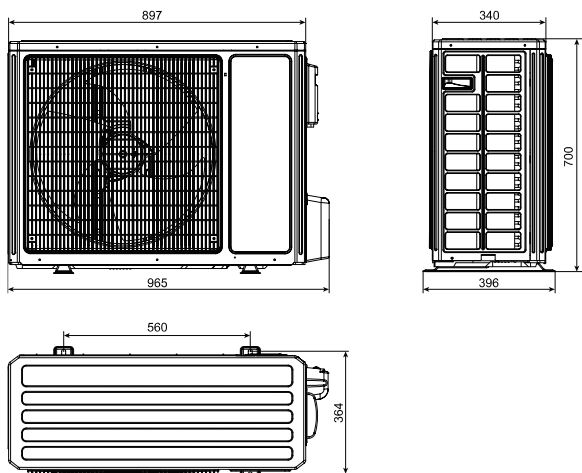


ASP-12BI



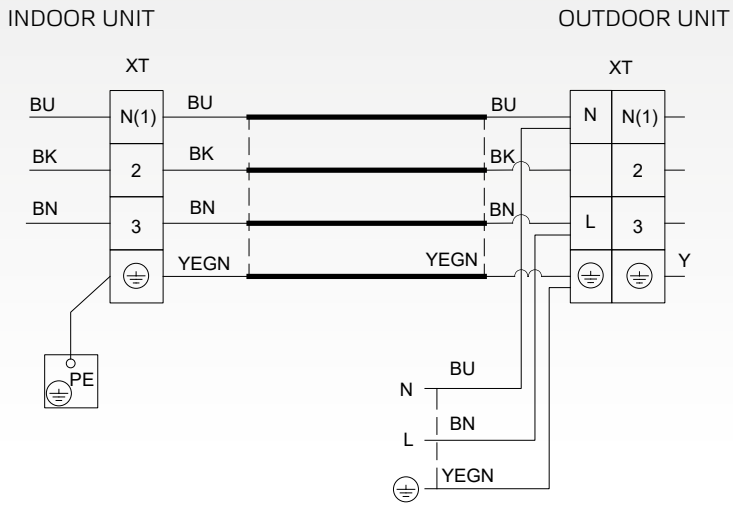
units: mm

ASP-18BI



ELECTRICAL WIRING DIAGRAM

CONSOLE SERIES



FLOOR-CEILING INDOOR UNITS

UNI SPLIT SERIES

| MODEL | | | ASF-12BI / ASGE-12BI | ASF-18BI / ASGE-18BI | ASF-24BI / ASGE-24BI | ASF-30BI / ASGE-30BI | ASF-36BI / ASGE-36BI |
|---|-----------------|--------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-----------------------------------|
| Capacity cooling/heating 1) | Nominal | kW | 3,5 (0,3-3,7) / 4,0 (0,7-4,1) | 5,0 (0,6-5,3) / 5,5 (1,2-5,7) | 7,0 (0,7-7,4) / 8,0 (1,8-8,3) | 8,5 (1,0-8,9) / 8,8 (2,0-9,1) | 10,0 (1,2-10,5) / 12,0 (2,5-12,4) |
| Power supply | | Hz / V | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 |
| Energy class cooling 3) | | - | A++ | A++ | A++ | A++ | A++ |
| Pdesign cooling | | kW | 3,5 | 5,0 | 7,0 | 8,5 | 10,0 |
| SEER | | - | 6,7 | 6,1 | 6,8 | 6,1 | 6,1 |
| Annual power consumption | | kWh / annum | 177 | 284 | 359 | 477 | 573 |
| Energy class heating 3) | Average climate | - | A+ | A+ | A | A+ | A+ |
| Pdesign heating | Average climate | kW | 3,1 | 4,0 | 6,4 | 7,2 | 9,0 |
| SCOP | Average climate | - | 4,0 | 4,0 | 3,9 | 4,0 | 4,0 |
| Annual power consumption | Average climate | kWh / annum | 1040 | 1394 | 2295 | 2577 | 3149 |
| Air flow of ID | H | m ³ / h | 650 | 850 | 1300 | 1500 | 1600 |
| Sound pressure of ID at 1m 4) | SH/H/M/L | dB(A) | 39/36/32/28 | 44/42/39/36 | 45/44/41/38 | 49/47/45/43 | 49/47/45/43 |
| Sound power of ID 4) | H | dB(A) | 51 | 57 | 57 | 65 | 61 |
| External static pressure | nom/min-max | Pa | - | - | - | - | - |
| Dehumidifying volume | | l / h | - | - | - | - | - |
| Refrigerant type | Type | | R32 | R32 | R32 | R32 | R32 |
| Pipe diameter - liquid side 5) | inch / mm | | ¼ / 6,4 | ¼ / 6,4 | ¾ / 9,5 | ¾ / 9,5 | ¾ / 9,5 |
| Pipe diameter - gas side 5) | inch / mm | | ¾ / 9,5 | ¾ / 12,7 | ¾ / 15,9 | ¾ / 15,9 | ¾ / 15,9 |
| Dimension of ID | w x h x d | mm | 870x665x235 | 870x665x235 | 1200x665x235 | 1200x665x235 | 1200x665x235 |
| Dimension of panel | w x h x d | mm | - | - | - | - | - |
| Package dimension of ID | w x h x d | mm | 1033x770x300 | 1033x770x300 | 1363x770x300 | 1363x770x300 | 1363x770x300 |
| Package dimension of panel | w x h x d | mm | - | - | - | - | - |
| Weight of ID | netto / brutto | kg | 25/30 | 26/31 | 31/37 | 31/37 | 32/38 |
| Weight of panel | netto / brutto | kg | - | - | - | - | - |
| Set temperature range | | °C | 16-30 | 16-30 | 16-30 | 16-30 | 16-30 |
| ADDITIONAL TECHNICAL INFORMATION | | | | | | | |
| Screw holes distance | w x d | mm | 812x318 | 812x318 | 1142x318 | 1142x318 | 1142x318 |
| Communication cable | | mm ² | 2x0,75 | 2x0,75 | 2x0,75 | 2x0,75 | 2x0,75 |
| Recommended power cable | | mm ² | 3x1,5 | 3x1,5 | 3x1,5 | 3x1,5 | 3x1,5 |
| Recommended air switch | | A | 6 | 6 | 6 | 6 | 6 |
| EQUIPMENT | | | | | | | |
| Plasma generator | | | no | no | no | no | no |
| Wifi module | | | optional (SWM-03) | | | | |
| Drain pump | | | no | no | no | no | no |
| Max. lift (from bottom of ID unit) | | mm | - | - | - | - | - |
| Dry contact (ON/OFF) | | | yes | yes | yes | yes | yes |
| Alarm contact | | | no | no | no | no | no |
| Fresh air inlet | | | no | no | no | no | no |
| STANDARD ACCESSORIES | | | | | | | |
| Standard health filter | | | - | - | - | - | - |
| Remote controller (IR) | | | YAP1F6 | YAP1F6 | YAP1F6 | YAP1F6 | YAP1F6 |
| Wired controller | | | XK117 | XK117 | XK117 | XK117 | XK117 |
| OPTIONAL ACCESSORIES | | | | | | | |
| Optional health filters | | | - | - | - | - | - |
| Wired controller with weekly timer | | | SWC-03 | SWC-03 | SWC-03 | SWC-03 | SWC-03 |
| Central controller | | | SCC-16, SCC-36 | SCC-16, SCC-36 | SCC-16, SCC-36 | SCC-16, SCC-36 | SCC-16, SCC-36 |
| MODBUS gateway | | | SMG-01 | SMG-01 | SMG-01 | SMG-01 | SMG-01 |
| Dry contact gateway | | | SDG-01 | SDG-01 | SDG-01 | SDG-01 | SDG-01 |

The specification of products is subject to change based on further development of the units by the producer and can be changed without prior notice. Refer to rating label.

R32 (single component refrigerant HFC), GWP of refrigerant used: 675.

Contains fluorinated greenhouse gases covered by the Kyoto Protocol.

Explanatory notes on the very last page of the catalogue.

It is necessary to combine with an appropriate outdoor unit from UNI SPLIT series (ASGE-xxBI, ASGE-xxBI-3).

FLOOR-CEILING INDOOR UNITS

UNI SPLIT SERIES

| MODEL | | | ASF-36BI / ASGE-36BI-3 | ASF-42BI / ASGE-42BI-3 | ASF-48BI / ASGE-48BI-3 | ASF-60BI / ASGE-60BI-3 | |
|---|-----------------|--------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|--|
| Capacity cooling/heating 1) | Nominal | kW | 10,0 (1,2-10,5) / 12,0 (2,5-12,4) | 12,1 (1,6-12,7) / 13,5 (3,0-14,0) | 13,4 (1,6-14,1) / 15,5 (3,4-16,0) | 16,0 (2,0-16,8) / 17,0 (3,7-17,6) | |
| Power supply | | Hz / V | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | |
| Energy class cooling 3) | | - | A++ | A++ | A++ | A++ | |
| Pdesign cooling | | kW | 10,0 | - | - | - | |
| SEER | | - | 6,1 | 6,1 | 6,1 | 6,1 | |
| Annual power consumption | | kWh / annum | 561 | - | - | - | |
| Energy class heating 3) | Average climate | - | A+ | A | A+ | A+ | |
| Pdesign heating | Average climate | kW | 9,0 | - | - | - | |
| SCOP | Average climate | - | 4,0 | 3,8 | 4,0 | 4,0 | |
| Annual power consumption | Average climate | kWh / annum | 3146 | - | - | - | |
| Air flow of ID | H | m ³ / h | 1600 | 1800 | 2100 | 2300 | |
| Sound pressure of ID at 1m 4) | SH/H/M/L | dB(A) | 49/47/45/43 | 49/47/44/42 | 52/50/48/44 | 54/53/49/45 | |
| Sound power of ID 4) | H | dB(A) | 61 | 61 | 65 | 67 | |
| External static pressure | nom/min-max | Pa | - | - | - | - | |
| Dehumidifying volume | | l / h | - | - | - | - | |
| Refrigerant type | Type | | R32 | R32 | R32 | R32 | |
| Pipe diameter - liquid side 5) | | inch / mm | ¾ / 9,5 | ¾ / 9,5 | ¾ / 9,5 | ¾ / 9,5 | |
| Pipe diameter - gas side 5) | | inch / mm | ¾ / 15,9 | ¾ / 15,9 | ¾ / 15,9 | ¾ / 15,9 | |
| Dimension of ID | w x h x d | mm | 1200x665x235 | 1570x665x235 | 1570x665x235 | 1570x665x235 | |
| Dimension of panel | w x h x d | mm | - | - | - | - | |
| Package dimension of ID | w x h x d | mm | 1363x770x300 | 1729x770x300 | 1729x770x300 | 1729x770x300 | |
| Package dimension of panel | w x h x d | mm | - | - | - | - | |
| Weight of ID | netto / brutto | kg | 32/38 | 40/47 | 42/49 | 42/49 | |
| Weight of panel | netto / brutto | kg | - | - | - | - | |
| Set temperature range | | °C | 16-30 | 16-30 | 16-30 | 16-30 | |
| ADDITIONAL TECHNICAL INFORMATION | | | | | | | |
| Screw holes distance | w x d | mm | 114x318 | 1512x318 | 1512x318 | 1512x318 | |
| Communication cable | | mm ² | 2x0,75 | 2x0,75 | 2x0,75 | 2x0,75 | |
| Recommended power cable | | mm ² | 3x1,5 | 3x1,5 | 3x1,5 | 3x1,5 | |
| Recommended air switch | | A | 6 | 6 | 6 | 6 | |
| EQUIPMENT | | | | | | | |
| Plasma generator | | | no | no | no | no | |
| Wifi module | | | optional (SWM-03) | | | | |
| Drain pump | | | no | no | no | no | |
| Max. lift (from bottom of ID unit) | | mm | - | - | - | - | |
| Dry contact (ON/OFF) | | | yes | yes | yes | yes | |
| Alarm contact | | | no | no | no | no | |
| Fresh air inlet | | | no | no | no | no | |
| STANDARD ACCESSORIES | | | | | | | |
| Standard health filter | | | - | - | - | - | |
| Remote controller (IR) | | | YAP1F6 | YAP1F6 | YAP1F6 | YAP1F6 | |
| Wired controller | | | XK117 | XK117 | XK117 | XK117 | |
| OPTIONAL ACCESSORIES | | | | | | | |
| Optional health filters | | | - | - | - | - | |
| Wired controller with weekly timer | | | SWC-03 | SWC-03 | SWC-03 | SWC-03 | |
| Central controller | | | SCC-16, SCC-36 | SCC-16, SCC-36 | SCC-16, SCC-36 | SCC-16, SCC-36 | |
| MODBUS gateway | | | SMG-01 | SMG-01 | SMG-01 | SMG-01 | |
| Dry contact gateway | | | SDG-01 | SDG-01 | SDG-01 | SDG-01 | |

The specification of products is subject to change based on further development of the units by the producer and can be changed without prior notice. Refer to rating label.

R32 (single component refrigerant HFC), GWP of refrigerant used: 675.

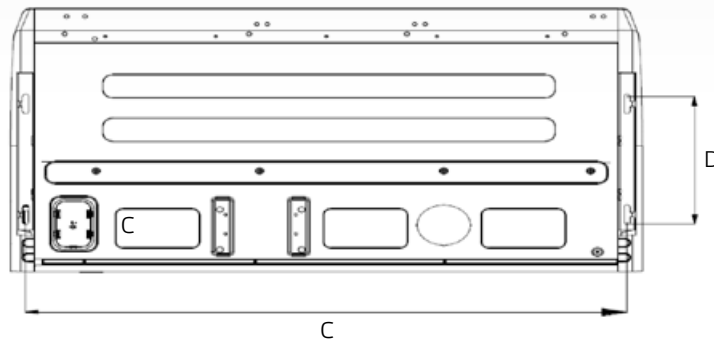
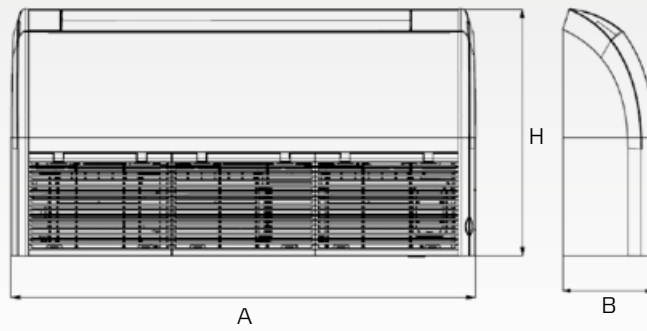
Contains fluorinated greenhouse gases covered by the Kyoto Protocol.

Explanatory notes on the very last page of the catalogue.

It is necessary to combine with an appropriate outdoor unit from UNI SPLIT series (ASGE-xxBI, ASGE-xxBI-3).

APPEARANCE AND DIMENSIONS OF FLOOR-CEILING INDOOR UNITS

UNI SPLIT SERIES



units: mm

| | A | B | C | D | H |
|----------|------|-----|------|-----|-----|
| ASF-12BI | 870 | 235 | 812 | 318 | 665 |
| ASF-18BI | 870 | 235 | 812 | 318 | 665 |
| ASF-24BI | 1200 | 235 | 1142 | 318 | 665 |
| ASF-30BI | 1200 | 235 | 1142 | 318 | 665 |
| ASF-36BI | 1200 | 235 | 1142 | 318 | 665 |
| ASF-42BI | 1570 | 235 | 1512 | 318 | 665 |
| ASF-48BI | 1570 | 235 | 1512 | 318 | 665 |
| ASF-60BI | 1570 | 235 | 1512 | 318 | 665 |

CASSETTE INDOOR UNITS

UNI SPLIT SERIES

| MODEL | | | ASC-12BI / ASGE-12BI | ASC-18BI / ASGE-18BI | ASC-24BI / ASGE-24BI | ASC-30BI / ASGE-30BI | ASC-36BI / ASGE-36BI |
|---|-----------------|--------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-----------------------------------|
| Capacity cooling/heating 1) | Nominal | kW | 3,5 (0,4-3,7) / 4,0 (0,8-4,1) | 5,0 (0,6-5,3) / 5,5 (1,2-5,7) | 7,0 (0,8-7,3) / 8,0 (1,6-8,4) | 8,5 (1,0-8,9) / 8,8 (2,0-9,1) | 10,0 (1,2-10,6) / 12,0 (2,6-12,4) |
| Power supply | | Hz / V | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 |
| Energy class cooling 3) | | - | A+ | A+ | A++ | A++ | A++ |
| Pdesign cooling | | kW | 3,5 | 5,0 | 7,0 | 8,5 | 10,0 |
| SEER | | - | 5,9 | 5,9 | 7,2 | 6,1 | 6,1 |
| Annual power consumption | | kWh / annum | 213 | 296 | 340 | 472 | 566 |
| Energy class heating 3) | Average climate | - | A+ | A+ | A | A+ | A+ |
| Pdesign heating | Average climate | kW | 3,1 | 4,0 | 6,4 | 7,2 | 9,0 |
| SCOP | Average climate | - | 4,0 | 4,0 | 3,9 | 4,0 | 4,0 |
| Annual power consumption | Average climate | kWh / annum | 1069 | 1405 | 2297 | 2616 | 3139 |
| Air flow of ID | SH/H/M/L | m ³ / h | 650/580/480/400 | 700/580/480/400 | 1100/1050/960/870 | 1400/1310/1180/1040 | 1500/1470/1380/1220 |
| Sound pressure of ID at 1,4m 4) | SH/H/M/L | dB(A) | 39/36/33 | 44/39/36/33 | 43/42/40/39 | 49/47/44/41 | 50/48/46/42 |
| Sound power of ID 4) | H | dB(A) | 57 | 53 | 52 | 58 | 59 |
| External static pressure | nom/min-max | Pa | - | - | - | - | - |
| Dehumidifying volume | | l / h | - | - | - | - | - |
| Refrigerant type | Type | | R32 | R32 | R32 | R32 | R32 |
| Pipe diameter - liquid side 5) | inch / mm | | ¼ / 6,4 | ¼ / 6,4 | ¾ / 9,5 | ¾ / 9,5 | ¾ / 9,5 |
| Pipe diameter - gas side 5) | inch / mm | | ¾ / 9,5 | ¾ / 12,7 | ¾ / 15,9 | ¾ / 15,9 | ¾ / 15,9 |
| Dimension of ID | w x h x d | mm | 570x265x570 | 570x265x570 | 840x240x840 | 840x240x840 | 840x240x840 |
| Dimension of panel | w x h x d | mm | 620x47,5x620 | 620x47,5x620 | 950x52x950 | 950x52x950 | 950x52x950 |
| Package dimension of ID | w x h x d | mm | 698x295x653 | 698x295x653 | 963x325x963 | 963x325x963 | 963x325x963 |
| Package dimension of panel | w x h x d | mm | 701x125x701 | 701x125x701 | 1033x112x1038 | 1033x112x1038 | 1033x112x1038 |
| Weight of ID | netto / brutto | kg | 17 / 22 | 17/22 | 29/36 | 29/36 | 31/38 |
| Weight of panel | netto / brutto | kg | 3,0/4,5 | 3,0/4,5 | 6,0/9,5 | 6,0/9,5 | 6,0/9,5 |
| Set temperature range | | °C | 16-30 | 16-30 | 16-30 | 16-30 | 16-30 |
| ADDITIONAL TECHNICAL INFORMATION | | | | | | | |
| Screw holes distance | w x d | mm | 520x560 | 520x560 | 660x790 | 660x790 | 660x790 |
| Communication cable | | mm ² | 2 x 0,75 | 2x0,75 | 2x0,75 | 2x0,75 | 2x0,75 |
| Recommended power cable | | mm ² | 3 x 1,5 | 3x1,5 | 3x1,5 | 3x1,5 | 3x1,5 |
| Recommended air switch | | A | 6 | 6 | 6 | 6 | 6 |
| EQUIPMENT | | | | | | | |
| Plasma generator | | | no | no | no | no | no |
| Wifi module | | | | | optional (SWM-03) | | |
| Drain pump | | | yes | yes | yes | yes | yes |
| Max. lift (from bottom of ID unit) | | mm | 1000 | 1000 | 1000 | 1000 | 1000 |
| Dry contact (ON/OFF) | | | yes | yes | yes | yes | yes |
| Alarm contact | | | no | no | no | no | no |
| Fresh air inlet | | | yes | yes | yes | yes | yes |
| STANDARD ACCESSORIES | | | | | | | |
| Standard health filter | | | - | - | - | - | - |
| Remote controller (IR) | | | YAP1F6 | YAP1F6 | YAP1F6 | YAP1F6 | YAP1F6 |
| Wired controller | | | XK117 | XK117 | XK117 | XK117 | XK117 |
| OPTIONAL ACCESSORIES | | | | | | | |
| Optional health filters | | | - | - | - | - | - |
| Wired controller with weekly timer | | | SWC-03 | SWC-03 | SWC-03 | SWC-03 | SWC-03 |
| Central controller | | | SCC-16, SCC-36 | SCC-16, SCC-36 | SCC-16, SCC-36 | SCC-16, SCC-36 | SCC-16, SCC-36 |
| MODBUS gateway | | | SMG-01 | SMG-01 | SMG-01 | SMG-01 | SMG-01 |
| Dry contact gateway | | | SDG-01 | SDG-01 | SDG-01 | SDG-01 | SDG-01 |

The specification of products is subject to change based on further development of the units by the producer and can be changed without prior notice. Refer to rating label.

R32 (single component refrigerant HFC), GWP of refrigerant used: 675.

Contains fluorinated greenhouse gases covered by the Kyoto Protocol.

Explanatory notes on the very last page of the catalogue.

It is necessary to combine with an appropriate outdoor unit from UNI SPLIT series (ASGE-xxBI, ASGE-xxBI-3).

CASSETTE INDOOR UNITS

UNI SPLIT SERIES

| MODEL | | | ASC-36BI / ASGE-36BI-3 | ASC-42BI / ASGE-42BI-3 | ASC-48BI / ASGE-48BI-3 | ASC-60BI / ASGE-60BI-3 |
|---|-----------------|-------------|---------------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| Capacity cooling/heating 1) | Nominal | kW | 10,0 (1,17-10,59) / 12,0 (2,61-12,42) | 12,1 (1,5-12,7) / 13,5 (3,1-14,0) | 13,4 (1,7-14,1) / 15,5 (3,2-16,0) | 16,0 (2,0-15,2) / 17,0 (3,5-17,6) |
| Power supply | | Hz / V | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 |
| Energy class cooling 3) | | - | A++ | A++ | A++ | A++ |
| Pdesign cooling | | kW | 10,0 | - | - | - |
| SEER | | - | 6,1 | 6,1 | 6,1 | 6,1 |
| Annual power consumption | | kWh / annum | 533 | - | - | - |
| Energy class heating 3) | Average climate | - | A+ | A | A+ | A |
| Pdesign heating | Average climate | kW | 9,0 | - | - | - |
| SCOP | Average climate | - | 4,0 | 3,8 | 4,0 | 3,8 |
| Annual power consumption | Average climate | kWh / annum | 3168 | - | - | - |
| Air flow of ID | SH/H/M/L | m³ / h | 1500/1470/1380/1220 | 1800/1690/1470/1260 | 1900/1690/1480/1140 | 2000/1880/1620/1430 |
| Sound pressure of ID at 1,4m 4) | SH/H/M/L | dB(A) | 50/48/46/42 | 51/49/46/42 | 52/51/48/45 | 54/52/50/48 |
| Sound power of ID 4) | H | dB(A) | 59 | 60 | 61 | 63 |
| External static pressure | nom/min-max | Pa | - | - | - | - |
| Dehumidifying volume | | l / h | - | - | - | - |
| Refrigerant type | Type | | R32 | R32 | R32 | R32 |
| Pipe diameter - liquid side 5) | inch / mm | | ¾ / 9,5 | ¾ / 9,5 | ¾ / 9,5 | ¾ / 9,5 |
| Pipe diameter - gas side 5) | inch / mm | | ¾ / 15,9 | ¾ / 15,9 | ¾ / 15,9 | ¾ / 15,9 |
| Dimension of ID | w x h x d | mm | 840x240x840 | 840x290x840 | 840x290x840 | 840x290x840 |
| Dimension of panel | w x h x d | mm | 950x52x950 | 950x52x950 | 950x52x950 | 950x52x950 |
| Package dimension of ID | w x h x d | mm | 963x325x963 | 963x379x963 | 963x379x963 | 963x379x963 |
| Package dimension of panel | w x h x d | mm | 1033x112x1038 | 1033x112x1038 | 1033x112x1038 | 1033x112x1038 |
| Weight of ID | netto / brutto | kg | 31/38 | 33/41 | 36/44 | 36/44 |
| Weight of panel | netto / brutto | kg | 6,0/9,5 | 6,0/9,5 | 6,0/9,5 | 6,0/9,5 |
| Set temperature range | | °C | 16-30 | 16-30 | 16-30 | 16-30 |
| ADDITIONAL TECHNICAL INFORMATION | | | | | | |
| Screw holes distance | w x d | mm | 660x790 | 660x790 | 660x790 | 660x790 |
| Communication cable | | mm² | 2x0,75 | 2x0,75 | 2x0,75 | 2x0,75 |
| Recommended power cable | | mm² | 3x1,5 | 3x1,5 | 3x1,5 | 3x1,5 |
| Recommended air switch | | A | 6 | 6 | 6 | 6 |
| EQUIPMENT | | | | | | |
| Plasma generator | | | no | no | no | no |
| Wifi module | | | optional (SWM-03) | | | |
| Drain pump | | | yes | yes | yes | yes |
| Max. lift (from bottom of ID unit) | | mm | 1000 | 1000 | 1000 | 1000 |
| Dry contact (ON/OFF) | | | yes | yes | yes | yes |
| Alarm contact | | | no | no | no | no |
| Fresh air inlet | | | yes | yes | yes | yes |
| STANDARD ACCESSORIES | | | | | | |
| Standard health filter | | | - | - | - | - |
| Remote controller (IR) | | | YAP1F6 | YAP1F6 | YAP1F6 | YAP1F6 |
| Wired controller | | | XK117 | XK117 | XK117 | XK117 |
| OPTIONAL ACCESSORIES | | | | | | |
| Optional health filters | | | - | - | - | - |
| Wired controller with weekly timer | | | SWC-03 | SWC-03 | SWC-03 | SWC-03 |
| Central controller | | | SCC-16, SCC-36 | SCC-16, SCC-36 | SCC-16, SCC-36 | SCC-16, SCC-36 |
| MODBUS gateway | | | SMG-01 | SMG-01 | SMG-01 | SMG-01 |
| Dry contact gateway | | | SDG-01 | SDG-01 | SDG-01 | SDG-01 |

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R32 (single component refrigerant HFC), GWP of refrigerant used: 675.

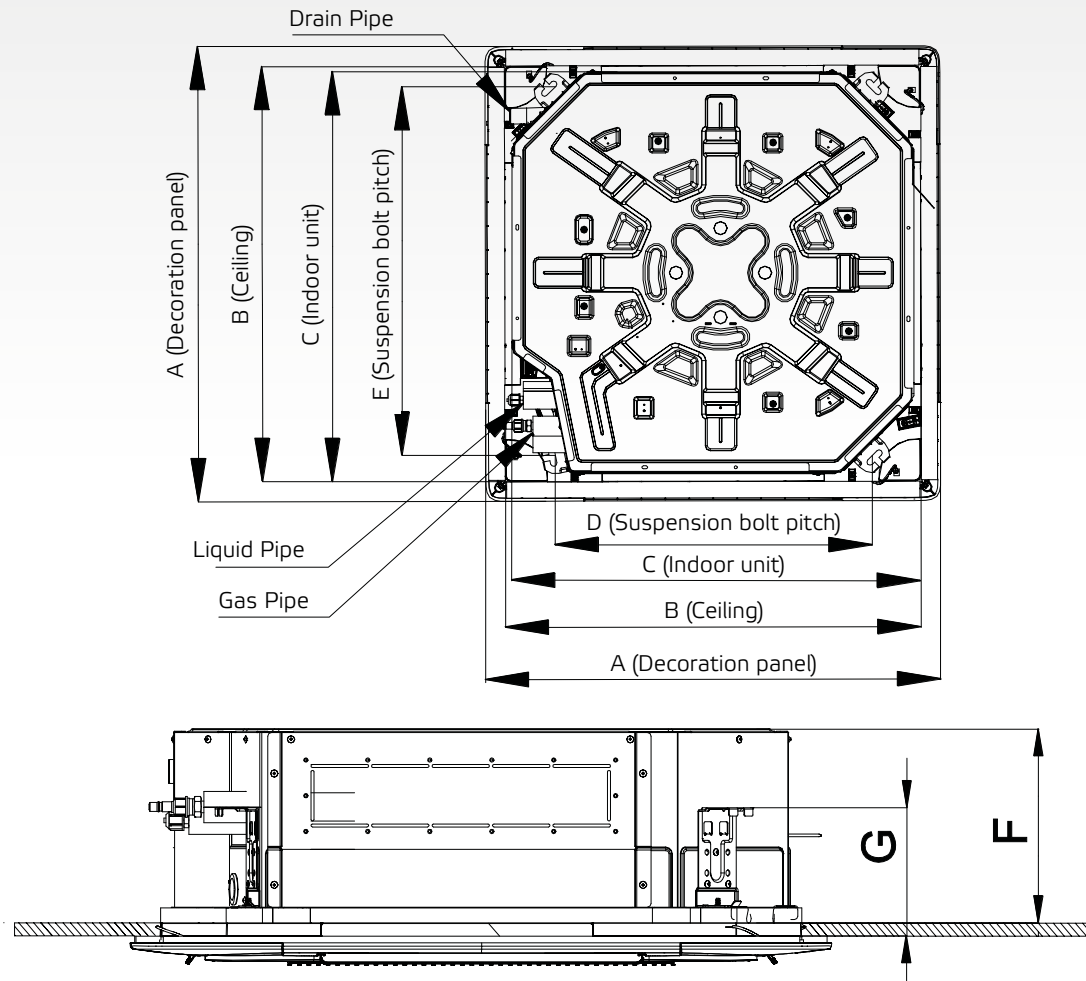
Contains fluorinated greenhouse gases covered by the Kyoto Protocol.

Explanatory notes on the very last page of the catalogue.

It is necessary to combine with an appropriate outdoor unit from UNI SPLIT series (ASGE-xxBI, ASGE-xxBI-3).

APPEARANCE AND DIMENSIONS OF CASSETTE INDOOR UNITS

UNI SPLIT SERIES



| Dimensions Model | A | B | C | D | E | F | G |
|---------------------|-----|-----|-----|-----|-----|-----|-----|
| ASC-12BI | 620 | 580 | 570 | 520 | 560 | 265 | 140 |
| ASC-18BI | 620 | 580 | 570 | 520 | 560 | 265 | 140 |
| ASC-24BI | 950 | 870 | 840 | 660 | 790 | 240 | 134 |
| ASC-30BI | 950 | 870 | 840 | 660 | 790 | 240 | 134 |
| ASC-36BI | 950 | 870 | 840 | 660 | 790 | 240 | 134 |
| ASC-42BI | 950 | 870 | 840 | 660 | 790 | 290 | 134 |
| ASC-48BI | 950 | 870 | 840 | 660 | 790 | 290 | 134 |
| ASC-60BI | 950 | 870 | 840 | 660 | 790 | 290 | 134 |

units: mm

DUCT INDOOR UNITS

UNI SPLIT SERIES

| MODEL | | | ASD-12BI / ASGE-12BI | ASD-18BI / ASGE-18BI | ASD-24BI / ASGE-24BI | ASD-30BI / ASGE-30BI | ASD-36BI / ASGE-36BI |
|---|-----------------|--------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-----------------------------------|
| Capacity cooling/heating 1) | Nominal | kW | 3,5 (0,7-3,7) / 4,0 (0,8-4,1) | 5,0 (0,6-5,3) / 5,5 (1,1-5,7) | 7,0 (0,8-7,6) / 8,0 (1,7-8,3) | 8,5 (1,0-8,9) / 8,8 (2,0-9,1) | 10,0 (1,2-10,6) / 12,0 (2,5-12,4) |
| Power supply | | Hz / V | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 |
| Energy class cooling 3) | | - | A++ | A++ | A++ | A++ | A++ |
| Pdesign cooling | | kW | 3,5 | 5,0 | 7,0 | 8,5 | 10,0 |
| SEER | | - | 6,1 | 6,1 | 6,8 | 6,1 | 6,1 |
| Annual power consumption | | kWh / annum | 200 | 277 | 357 | 480 | 571 |
| Energy class heating 3) | Average climate | - | A+ | A+ | A+ | A+ | A+ |
| Pdesign heating | Average climate | kW | 3,1 | 4,2 | 6,4 | 7,2 | 9,0 |
| SCOP | Average climate | - | 4,0 | 4,0 | 4,0 | 4,0 | 4,0 |
| Annual power consumption | Average climate | kWh / annum | 1110 | 1469 | 2238 | 2576 | 3147 |
| Air flow of ID | H | m ³ / h | 650 | 950 | 1200 | 1500 | 1800 |
| Sound pressure of ID at 1,4m 4) | SH/H/M/L | dB(A) | 41/38/36/34 | 43/42/39/36 | 40/39/37/36 | 42/40/37/35 | 46/44/42/40 |
| Sound power of ID 4) | H | dB(A) | 59 | 58 | 62 | 65 | 65 |
| External static pressure | nom/min-max | Pa | 25 (0-50) | 25 (0-50) | 25 (0-75) | 37 (0-75) | 37 (0-100) |
| Dehumidifying volume | | l / h | - | - | - | - | - |
| Refrigerant type | Type | | R32 | R32 | R32 | R32 | R32 |
| Pipe diameter - liquid side 5) | inch / mm | | ¼ / 6,4 | ¼ / 6,4 | ¾ / 9,5 | ¾ / 9,5 | ¾ / 9,5 |
| Pipe diameter - gas side 5) | inch / mm | | ¾ / 9,5 | ¾ / 12,7 | ¾ / 15,9 | ¾ / 15,9 | ¾ / 15,9 |
| Dimension of ID | w x h x d | mm | 700x200x450 | 1000x200x450 | 1300x220x450 | 1300x220x450 | 1000x300x700 |
| Dimension of panel | w x h x d | mm | - | - | - | - | - |
| Package dimension of ID | w x h x d | mm | 1008x275x568 | 1308x275x568 | 1570x283x545 | 1570x283x545 | 1205x360x813 |
| Package dimension of panel | w x h x d | mm | - | - | - | - | - |
| Weight of ID | netto / brutto | kg | 20/24 | 26/31 | 31/36 | 31/36 | 41/47 |
| Weight of panel | netto / brutto | kg | - | - | - | - | - |
| Set temperature range | | °C | 16-30 | 16-30 | 16-30 | 16-30 | 16-30 |
| ADDITIONAL TECHNICAL INFORMATION | | | | | | | |
| Screw holes distance | w x d | mm | 760x415 | 1060x415 | 1360x415 | 1360x415 | 1040x500 |
| Communication cable | | mm ² | 2x0,75 | 2x0,75 | 2x0,75 | 2x0,75 | 2x0,75 |
| Recommended power cable | | mm ² | 3x1,5 | 3x1,5 | 3x1,5 | 3x1,5 | 3x1,5 |
| Recommended air switch | | A | 6 | 6 | 6 | 6 | 6 |
| EQUIPMENT | | | | | | | |
| Plasma generator | | | no | no | no | no | no |
| Wifi module | | | optional (SWM-03) | | | | |
| Drain pump | | | yes | yes | yes | yes | yes |
| Max. lift (from bottom of ID unit) | | mm | 1000 | 1000 | 1000 | 1000 | 1000 |
| Dry contact (ON/OFF) | | | yes | yes | yes | yes | yes |
| Alarm contact | | | no | no | no | no | no |
| Fresh air inlet | | | yes | yes | yes | yes | yes |
| STANDARD ACCESSORIES | | | | | | | |
| Standard health filter | | | - | - | - | - | - |
| Remote controller (IR) | | | YAP1F6 | YAP1F6 | YAP1F6 | YAP1F6 | YAP1F6 |
| Wired controller | | | XK117 | XK117 | XK117 | XK117 | XK117 |
| OPTIONAL ACCESSORIES | | | | | | | |
| Optional health filters | | | - | - | - | - | - |
| Wired controller with weekly timer | | | SWC-03 | SWC-03 | SWC-03 | SWC-03 | SWC-03 |
| Central controller | | | SCC-16, SCC-36 | SCC-16, SCC-36 | SCC-16, SCC-36 | SCC-16, SCC-36 | SCC-16, SCC-36 |
| MODBUS gateway | | | SMG-01 | SMG-01 | SMG-01 | SMG-01 | SMG-01 |
| Dry contact gateway | | | SDG-01 | SDG-01 | SDG-01 | SDG-01 | SDG-01 |

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R32 (single component refrigerant HFC), GWP of refrigerant used: 675.

Contains fluorinated greenhouse gases covered by the Kyoto Protocol.

Explanatory notes on the very last page of the catalogue.

It is necessary to combine with an appropriate outdoor unit from UNI SPLIT series (ASGE-xxBI, ASGE-xxBI-3).

DUCT INDOOR UNITS

UNI SPLIT SERIES

| MODEL | | | ASD-36BI / ASGE-36BI-3 | ASD-42BI / ASGE-42BI-3 | ASD-48BI / ASGE-48BI-3 | ASD-60BI / ASGE-60BI-3 | |
|---|-----------------|--------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|--|
| Capacity cooling/heating 1) | Nominal | kW | 10,0 (1,2-10,6) / 12,0 (2,5-12,4) | 12,1 (1,6-12,7) / 13,5 (3,0-14,0) | 13,4 (1,6-14,1) / 15,5 (3,4-16,0) | 16,0 (2,0-16,8) / 17,0 (3,7-17,6) | |
| Power supply | | Hz / V | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | |
| Energy class cooling 3) | | - | A++ | A+ | A+ | A++ | |
| Pdesign cooling | | kW | 10,0 | - | - | - | |
| SEER | | - | 6,1 | 5,8 | 5,4 | 6,1 | |
| Annual power consumption | | kWh / annum | 577 | - | - | - | |
| Energy class heating 3) | Average climate | - | A+ | A | A | A+ | |
| Pdesign heating | Average climate | kW | 9,0 | - | - | - | |
| SCOP | Average climate | - | 4,0 | 3,8 | 3,7 | 4,0 | |
| Annual power consumption | Average climate | kWh / annum | 3218 | - | - | - | |
| Air flow of ID | H | m ³ / h | 1800 | 2000 | 2200 | 2400 | |
| Sound pressure of ID at 1,4m 4) | SH/H/M/L | dB(A) | 46/44/42/40 | 42/40/39/37 | 43/41/40/38 | 44/41/39/38 | |
| Sound power of ID 4) | H | dB(A) | 65 | 66 | 65 | 66 | |
| External static pressure | nom/min-max | Pa | 37 (0-100) | 50 (0-150) | 50 (0-150) | 50 (0-200) | |
| Dehumidifying volume | | l / h | - | - | - | - | |
| Refrigerant type | | Type | R32 | R32 | R32 | R32 | |
| Pipe diameter - liquid side 5) | | inch / mm | ¾ / 9,5 | ¾ / 9,5 | ¾ / 9,5 | ¾ / 9,5 | |
| Pipe diameter - gas side 5) | | inch / mm | ¾ / 15,9 | ¾ / 15,9 | ¾ / 15,9 | ¾ / 15,9 | |
| Dimension of ID | w x h x d | mm | 1000x300x700 | 1400x300x700 | 1400x300x700 | 1400x300x700 | |
| Dimension of panel | w x h x d | mm | - | - | - | - | |
| Package dimension of ID | w x h x d | mm | 1205x360x813 | 1601x365x813 | 1601x365x813 | 1678x365x808 | |
| Package dimension of panel | w x h x d | mm | - | - | - | - | |
| Weight of ID | netto / brutto | kg | 41/47 | 50/56 | 50/56 | 57/64 | |
| Weight of panel | netto / brutto | kg | - | - | - | - | |
| Set temperature range | | °C | 16-30 | 16-30 | 16-30 | 16-30 | |
| ADDITIONAL TECHNICAL INFORMATION | | | | | | | |
| Screw holes distance | w x d | mm | 1040x500 | 1440x500 | 1440x500 | 1440x500 | |
| Communication cable | | mm ² | 2x0,75 | 2x0,75 | 2x0,75 | 2x0,75 | |
| Recommended power cable | | mm ² | 3x1,5 | 3x1,5 | 3x1,5 | 3x1,5 | |
| Recommended air switch | | A | 6 | 6 | 6 | 6 | |
| EQUIPMENT | | | | | | | |
| Plasma generator | | | no | no | no | no | |
| Wifi module | | | optional (SWM-03) | | | | |
| Drain pump | | | yes | yes | yes | yes | |
| Max. lift (from bottom of ID unit) | | mm | 1000 | 1000 | 1000 | 1000 | |
| Dry contact (ON/OFF) | | | yes | yes | yes | yes | |
| Alarm contact | | | no | no | no | no | |
| Fresh air inlet | | | yes | yes | yes | yes | |
| STANDARD ACCESSORIES | | | | | | | |
| Standard health filter | | | - | - | - | - | |
| Remote controller (IR) | | | YAP1F6 | YAP1F6 | YAP1F6 | YAP1F6 | |
| Wired controller | | | XK117 | XK117 | XK117 | XK117 | |
| OPTIONAL ACCESSORIES | | | | | | | |
| Optional health filters | | | - | - | - | - | |
| Wired controller with weekly timer | | | SWC-03 | SWC-03 | SWC-03 | SWC-03 | |
| Central controller | | | SCC-16, SCC-36 | SCC-16, SCC-36 | SCC-16, SCC-36 | SCC-16, SCC-36 | |
| MODBUS gateway | | | SMG-01 | SMG-01 | SMG-01 | SMG-01 | |
| Dry contact gateway | | | SDG-01 | SDG-01 | SDG-01 | SDG-01 | |

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R32 (single component refrigerant HFC), GWP of refrigerant used: 675.

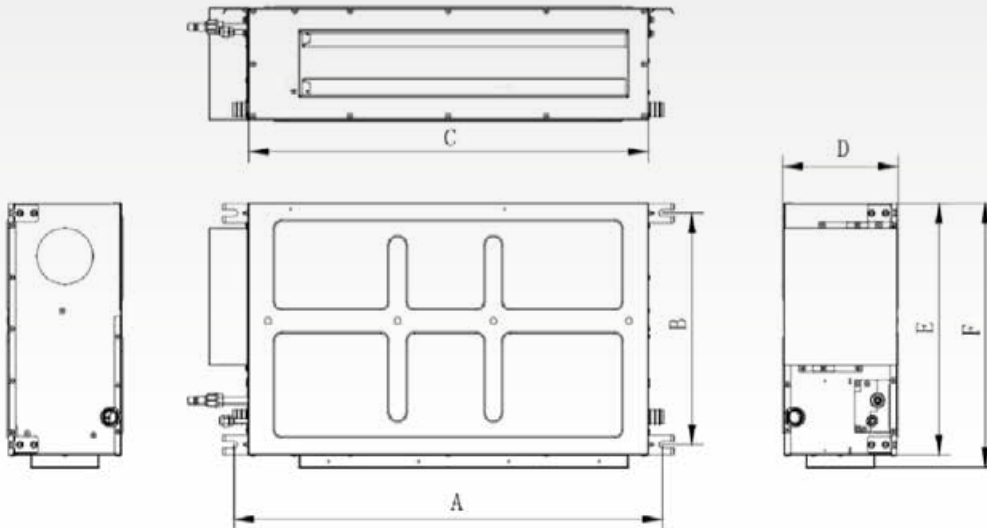
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APPEARANCE AND DIMENSIONS OF DUCT INDOOR UNITS

UNI SPLIT SERIES

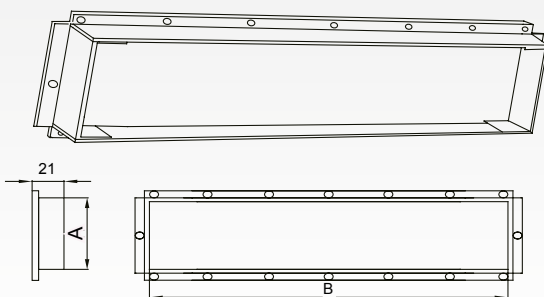


| Dimensions Model | A | B | C | D | E | F |
|---------------------|------|-----|------|-----|-----|-----|
| ASD-12BI | 760 | 415 | 700 | 200 | 450 | 474 |
| ASD-18BI | 1060 | 415 | 1000 | 200 | 450 | 474 |
| ASD-24BI | 1360 | 415 | 1300 | 220 | 450 | 474 |
| ASD-30BI | | | | | | |
| ASD-36BI | 1040 | 500 | 1000 | 300 | 700 | 754 |
| ASD-42BI | 1440 | 500 | 1400 | 300 | 700 | 754 |
| ASD-48BI | | | | | | |
| ASD-60BI | | | | | | |

DIMENSIONS OF AIR INLET AND OUTLET

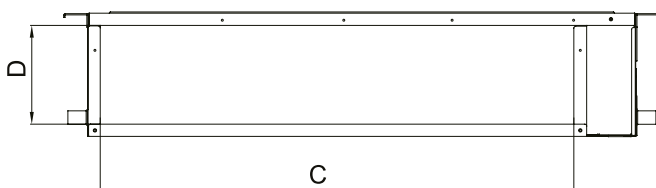
UNI SPLIT SERIES

Air outlet



| Dimensions | Air outlet | | Air inlet | |
|------------|------------|------|-----------|-----|
| | A | B | C | D |
| ASD-12BI | 122 | 585 | 700 | 200 |
| ASD-18BI | 122 | 885 | 1000 | 200 |
| ASD-24BI | 142 | 1185 | 1300 | 220 |
| ASD-30BI | | | | |
| ASD-36BI | 195 | 746 | 960 | 264 |
| ASD-42BI | 195 | 1150 | 1360 | 264 |
| ASD-48BI | | | | |
| ASD-60BI | | | | |

Air inlet



OUTDOOR UNITS

UNI SPLIT SERIES

| MODEL | | | ASGE-12BI | ASGE-18BI | ASGE-24BI | ASGE-30BI | ASGE-36BI |
|---|-------------------|-----------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Capacity cooling/heating 1) | Nominal (min-max) | kW | 3,5/4,0 | 5,0/5,5 | 7,0/8,0 | 8,5/8,8 | 10,0/12,0 |
| Power supply | | Hz / V | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 |
| Power input cooling/heating 1) | | W | 950/1050 | 1550/1450 | 2100/2450 | 2800/2650 | 3300/3600 |
| Maximal power input 2) | | W | 1350 | 1750 | 3500 | 3950 | 4050 |
| Power current cooling/heating | | A | 4,18/4,70 | 6,50/6,90 | 8,80/10,50 | 12,7/11,7 | 14,5/15,9 |
| Maximal power current 2) | | A | 6,0 | 8,0 | 16,0 | 18,0 | 18,5 |
| Air flow of ID | H | m ³ / h | 3000 | 3000 | 3600 | 4000 | 5900 |
| Sound pressure of ID at 1m 4) | H | dB(A) | 50 | 50 | 52 | 53 | 55 |
| Sound power of ID 4) | H | dB(A) | 64 | 65 | 67 | 69 | 70 |
| Refrigerant type/charge | | Type / kg / t eq. CO ₂ | R32/0,78/0,53 | R32/1,00/0,68 | R32/1,60/1,08 | R32/1,80/1,22 | R32/2,50/1,69 |
| Additional refrigerant | | g / m | 16 | 16 | 40 | 40 | 40 |
| Pipe diameter - liquid side 5) | | inch / mm | ¼ / 6,4 | ¼ / 6,4 | ¾ / 9,5 | ¾ / 9,5 | ¾ / 9,5 |
| Pipe diameter - gas side 5) | | inch / mm | ¾ / 9,5 | ¾ / 12,7 | ¾ / 15,9 | ¾ / 15,9 | ¾ / 15,9 |
| Max pipe length without additional refrigerant 6) | | m | 5 | 5 | 5 | 5 | 5 |
| Maximal allowed pipe length 7) | | m | 30 | 35 | 50 | 50 | 65 |
| Max. elevation/ Drop height | | m | 15 | 20 | 25 | 25 | 30 |
| Dimension of ID | w x h x d | mm | 818x596x378 | 818x596x378 | 892x698x396 | 920x790x427 | 940x820x530 |
| Package dimension of ID | w x h x d | mm | 948x645x420 | 948x645x420 | 1029x750x458 | 1083x855x488 | 1073x868x563 |
| Weight of ID | netto / brutto | kg | 37/40 | 39/42 | 53/57 | 60/65 | 83/95 |
| Operating temperature range cooling 8) | | °C | -20-48 | -20-48 | -20-48 | -20-48 | -20-48 |
| Operating temperature range heating 8) | | °C | -20-24 | -20-24 | -20-24 | -20-24 | -20-24 |
| ADDITIONAL TECHNICAL INFORMATION | | | | | | | |
| Screw holes distance of OD | w x d | mm | 550x348 | 550x348 | 560x364 | 610x395 | 610x486 |
| Communication cable | | mm ² | 2x0,75 | 2x0,75 | 2x0,75 | 2x0,75 | 2x0,75 |
| Recommended power cable | | mm ² | 3x1,5 | 3x2,5 | 3x2,5 | 3x4,0 | 3x4,0 |
| Recommended air switch | | A | 13 | 16 | 16 | 20 | 25 |
| EQUIPMENT | | | | | | | |
| Throttling method | | | EXV | EXV | EXV | EXV | EXV |
| Bottom chassis heater | | | no | | | | |
| Crankcase heater | | | Preheating | | | | |
| Bottom plugs for OD | | | yes | yes | yes | yes | yes |
| Drain pipe connector | | | yes | yes | yes | yes | yes |

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R32 (single component refrigerant HFC), GWP of refrigerant used: 675.

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It is necessary to combine with an appropriate indoor unit from UNI SPLIT series (ASC-xxBI, ASD-xxBI, ASF-xxBI).

OUTDOOR UNITS

UNI SPLIT SERIES

| MODEL | | | ASGE-36BI-3 | ASGE-42BI-3 | ASGE-48BI-3 | ASGE-60BI-3 |
|---|-------------------|-----------------------------------|-------------------|-------------------|-------------------|-------------------|
| Capacity cooling/heating 1) | Nominal (min-max) | kW | 10,0/12,0 | 12,1/13,5 | 13,4/15,5 | 16,0/17,0 |
| Power supply | | Hz / V | 3~ / 50 / 380-415 | 3~ / 50 / 380-415 | 3~ / 50 / 380-415 | 3~ / 50 / 380-415 |
| Power input cooling/heating 1) | | W | 3300/3500 | 4050/4150 | 4700/4450 | 5450/5400 |
| Maximal power input 2) | | W | 4650 | 5300 | 5950 | 5950 |
| Power current cooling/heating | | A | 5,1/5,6 | 5,9/6,1 | 7,2/6,7 | 7,7/7,6 |
| Maximal power current 2) | | A | 7 | 8 | 9 | 9 |
| Air flow of ID | H | m ³ / h | 5900 | 5900 | 5900 | 6600 |
| Sound pressure of ID at 1m 4) | H | dB(A) | 55 | 56 | 57 | 57 |
| Sound power of ID 4) | H | dB(A) | 70 | 71 | 72 | 72 |
| Refrigerant type/charge | | Type / kg / t eq. CO ₂ | R32/2,5/1,69 | R32/2,65/1,79 | R32/2,8/1,89 | R32/3,6/2,43 |
| Additional refrigerant | | g / m | 40 | 40 | 40 | 40 |
| Pipe diameter - liquid side 5) | | inch / mm | ¾ / 9,5 | ¾ / 9,5 | ¾ / 9,5 | ¾ / 9,5 |
| Pipe diameter - gas side 5) | | inch / mm | ¾ / 15,9 | ¾ / 15,9 | ¾ / 15,9 | ¾ / 15,9 |
| Max pipe length without additional refrigerant 6) | | m | 5 | 5 | 7,5 | 7,5 |
| Maximal allowed pipe length 7) | | m | 65 | 75 | 75 | 75 |
| Max. elevation/ Drop height | | m | 30 | 30 | 30 | 30 |
| Dimension of ID | w x h x d | mm | 940x820x530 | 940x820x530 | 940x820x530 | 900x1345x412 |
| Package dimension of ID | w x h x d | mm | 1073x868x563 | 1073x868x563 | 1073x868x563 | 1033x1395x443 |
| Weight of ID | netto / brutto | kg | 89/101 | 95/107 | 99/111 | 112/122 |
| Operating temperature range cooling 8) | | °C | -20~48 | -20~48 | -20~48 | -20~48 |
| Operating temperature range heating 8) | | °C | -20~24 | -20~24 | -20~24 | -20~24 |
| ADDITIONAL TECHNICAL INFORMATION | | | | | | |
| Screw holes distance of OD | w x d | mm | 610x486 | 610x486 | 610x486 | 572x378 |
| Communication cable | | mm ² | 2x0,75 | 2x0,75 | 2x0,75 | 2x0,75 |
| Recommended power cable | | mm ² | 5x2,5 | 5x2,5 | 5x2,5 | 5x2,5 |
| Recommended air switch | | A | 16 | 16 | 16 | 16 |
| EQUIPMENT | | | | | | |
| Throttling method | | | EXV | EXV | EXV | EXV |
| Bottom chassis heater | | | no | | | |
| Crankcase heater | | | Heating belt | | | |
| Bottom plugs for OD | | | yes | yes | yes | yes |
| Drain pipe connector | | | yes | yes | yes | yes |

The specification of products is subject to change based on further development of the units by the producer and can be changed without prior notice. Refer to rating label.

R32 (single component refrigerant HFC), GWP of refrigerant used: 675.

Contains fluorinated greenhouse gases covered by the Kyoto Protocol.

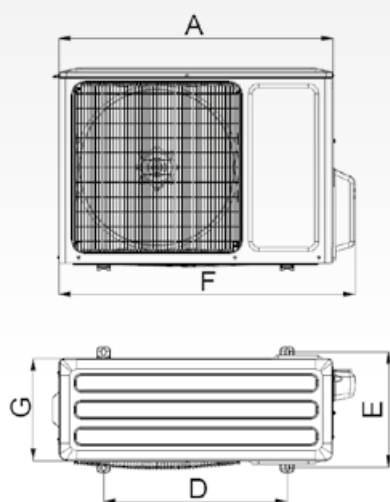
Explanatory notes on the very last page of the catalogue.

It is necessary to combine with an appropriate indoor unit from UNI SPLIT series (ASC-xxBI, ASD-xxBI, ASF-xxBI).

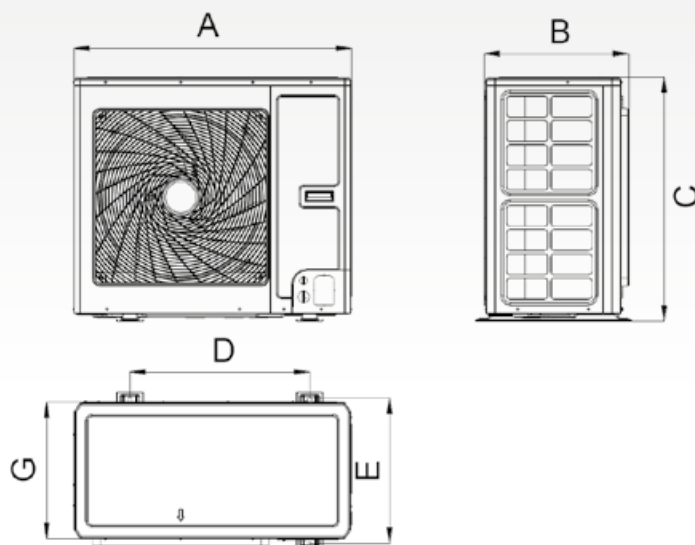
APPEARANCE AND DIMENSIONS OF OUTDOOR UNIT

UNI SPLIT SERIES

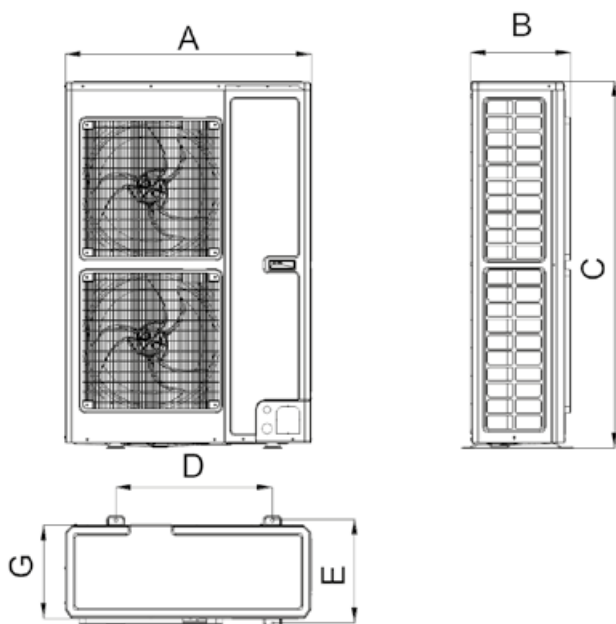
ASGE-12BI, ASGE-18BI, ASGE-24BI, ASGE-30BI



ASGE-36BI, ASGE-36BI-3, ASGE-42BI-3, ASGE-48BI-3



ASGE-60BI-3



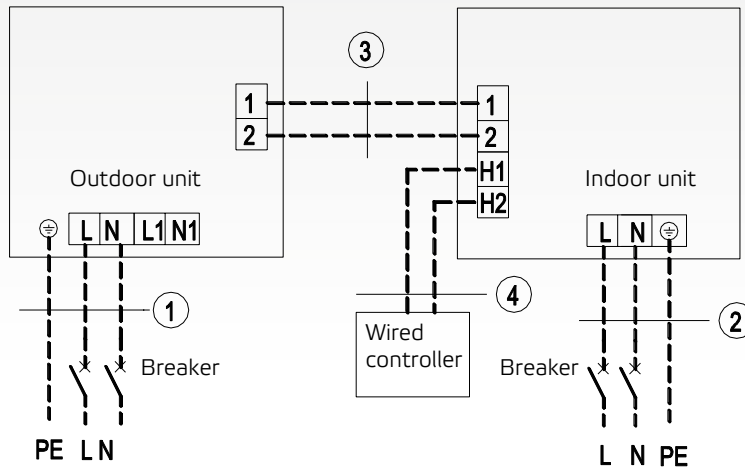
| Model \ Dimensions | A | B | C | D | E | F | G |
|--------------------|-----|-----|------|-----|-----|------|-----|
| ASGE-12BI | 818 | 378 | 596 | 550 | 348 | 887 | 302 |
| ASGE-18BI | 818 | 378 | 596 | 550 | 348 | 887 | 302 |
| ASGE-24BI | 892 | 396 | 698 | 560 | 364 | 952 | 340 |
| ASGE-30BI | 920 | 427 | 790 | 610 | 395 | 1002 | 370 |
| ASGE-36BI | 940 | 530 | 820 | 610 | 486 | / | 460 |
| ASGE-36BI-3 | 940 | 530 | 820 | 610 | 486 | / | 460 |
| ASGE-42BI-3 | 940 | 530 | 820 | 610 | 486 | / | 460 |
| ASGE-48BI-3 | 940 | 530 | 820 | 610 | 486 | / | 460 |
| ASGE-60BI-3 | 900 | 412 | 1345 | 572 | 378 | / | 340 |

units: mm

ELECTRICAL WIRING DIAGRAM

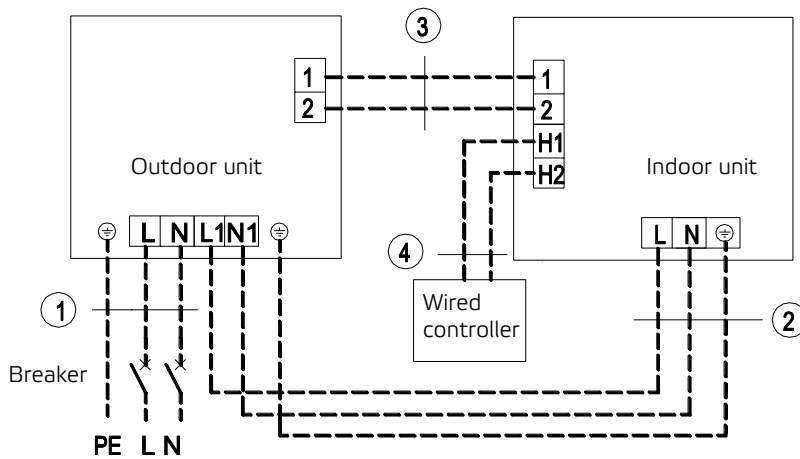
UNI SPLIT SERIES

ASGE-12BI, ASGE-18BI, ASGE-24BI, ASGE-30BI



Power: 220–240 V~, 50 Hz / 208–230 V~, 60 Hz

Power: 220–240 V~, 50 Hz / 208–230 V~, 60 Hz



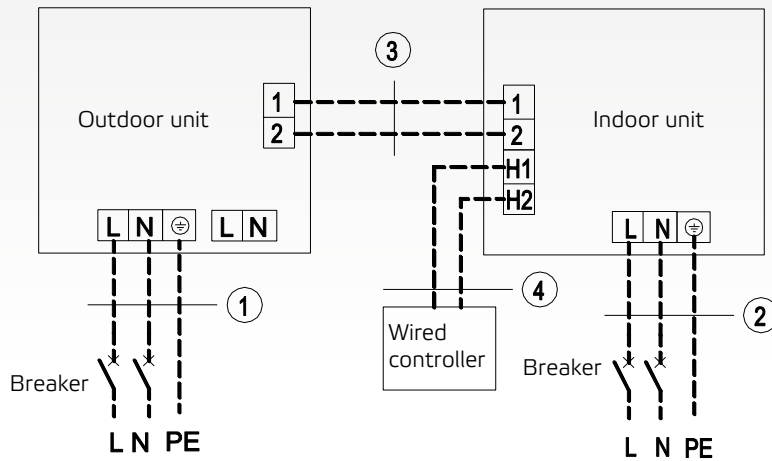
Power: 220–240 V~, 50 Hz / 208–230 V~, 60 Hz

Power: 220–240 V~, 50 Hz / 208–230 V~, 60 Hz

1 Outdoor unit power supply **2** Indoor unit power supply **3** Communication cable **4** Communication cable

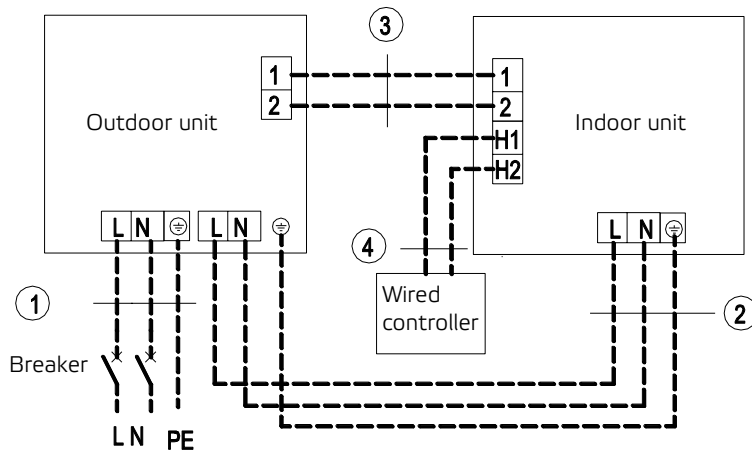
UNI SPLIT SERIES

ASGE-36BI



Power: 220–240 V~, 50 Hz / 208–230 V~, 60 Hz

Power: 220–240 V~, 50 Hz / 208–230 V~, 60 Hz



Power: 220–240 V~, 50 Hz / 208–230 V~, 60 Hz

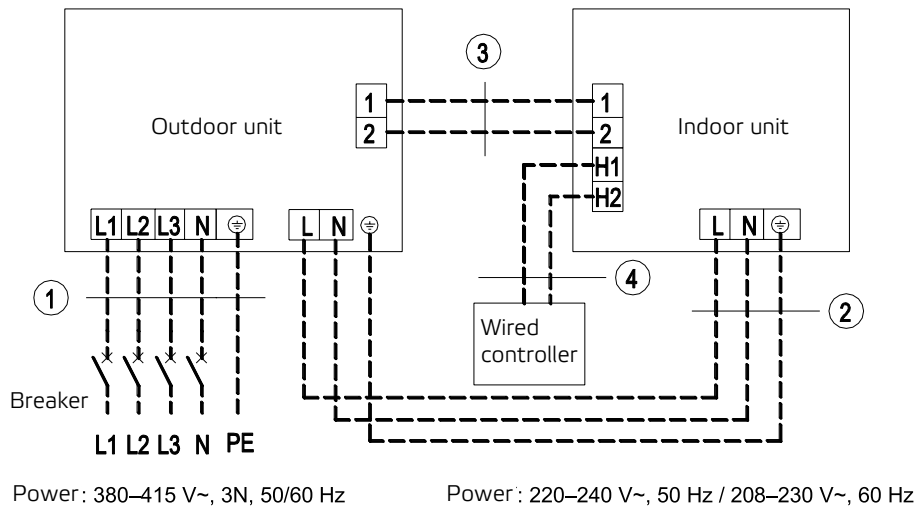
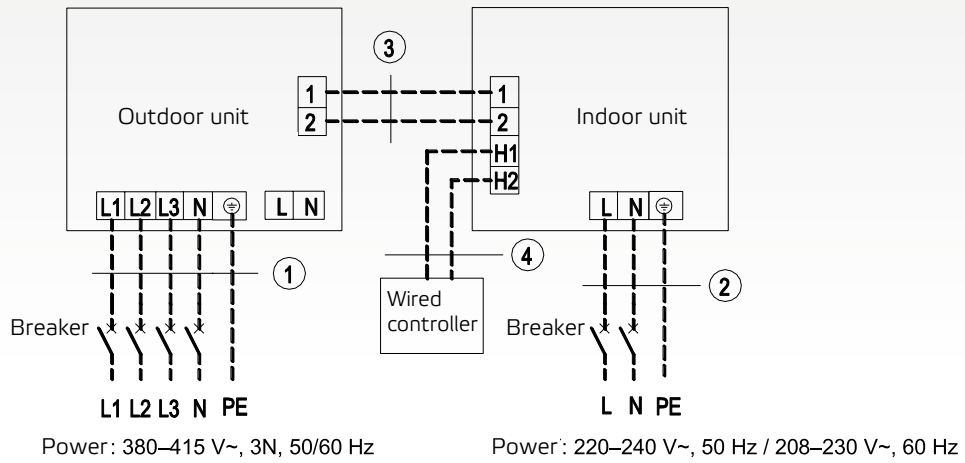
Power: 220–240 V~, 50 Hz / 208–230 V~, 60 Hz

1 Outdoor unit power supply **2** Indoor unit power supply **3** Communication cable **4** Communication cable

ELECTRICAL WIRING DIAGRAM

UNI SPLIT SERIES

ASGE-36BI-3, ASGE-42BI-3, ASGE-48BI-3, ASGE-60BI-3



1 Outdoor unit power supply **2** Indoor unit power supply **3** Communication cable **4** Communication cable

MULTI VARIABLE SERIES

| MODEL | | | MV-H07BIF | MV-H09BIF | MV-H12BIF | MV-H18BIF | MV-H24BIF | |
|---|----------------|--------------------|---|----------------------|----------------------|----------------------|----------------------|--|
| Capacity cooling/heating 1) | Nominal | kW | 2,1/2,6 | 2,6/2,8 | 3,5/3,6 | 5,1/5,2 | 6,4/6,4 | |
| Power supply | | Hz / V | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | |
| Air flow of ID | SH/H/M/L | m ³ / h | 560 / 490 / 430 / 330 | 560/490/430/330 | 680/590/490/420 | 800/720/610/520 | 1250/1050/950/850 | |
| Sound pressure level of ID at 1m 4) | SH/H/M/L | dB(A) | 39/36/32/28 | 41/37/35/32/29/26/24 | 42/38/35/32/30/28/26 | 45/43/41/38/35/34/31 | 48/45/42/39/37/36/33 | |
| Sound power of ID 4) | SH/H/M/L | dB(A) | 55/52/44/38 | 55/52/44/38 | 56/52/48/45 | 59/54/49/44 | 63/59/56/53 | |
| External static pressure | nom/min-max | Pa | - | - | - | - | - | |
| Dehumidifying volume | | l / h | 0,6 | 0,8 | 1,4 | 1,8 | 2,0 | |
| Refrigerant type | | Type | R32 | R32 | R32 | R32 | R32 | |
| Pipe diameter - liquid side 5) | | inch / mm | ¼ / 6,0 | ¼ / 6,0 | ¼ / 6,0 | ¼ / 6,0 | ¼ / 6,0 | |
| Pipe diameter - gas side 5) | | inch / mm | ¾ / 9,5 | ¾ / 9,5 | ¾ / 9,5 | ¾ / 12,0 | ¾ / 16,0 | |
| Dimension of ID | w x h x d | mm | 790x275x200 | 790x275x200 | 845x289x209 | 970x300x224 | 1078x325x246 | |
| Dimension of panel | w x h x d | mm | - | - | - | - | - | |
| Package dimension of ID | w x h x d | mm | 866x271x367 | 866x271x367 | 921x281x379 | 1041x383x320 | 1148x413x350 | |
| Package dimension of panel | w x h x d | mm | - | - | - | - | - | |
| Weight of ID | netto / brutto | kg | 9/11 | 9/11 | 10,5/12,5 | 13,5/16,5 | 16,5/20 | |
| Weight of panel | netto / brutto | kg | - | - | - | - | - | |
| Set temperature range | | °C | 16 ~ 30 | 16 ~ 30 | 16 ~ 30 | 16 ~ 30 | 16 ~ 30 | |
| ADDITIONAL TECHNICAL INFORMATION | | | | | | | | |
| Screw holes distance | w x d | mm | See service manual | | | | | |
| Communication cable | | mm ² | 4x1,0 | 4x1,0 | 4x1,0 | 4x1,0 | 4x1,5 | |
| Recommended power cable 11) | | mm ² | Outdoor unit power supplied | | | | | |
| Recommended air switch | | A | Outdoor unit power supplied | | | | | |
| EQUIPMENT | | | | | | | | |
| Plasma generator | | | yes | yes | yes | yes | yes | |
| Wifi module | | | yes | yes | yes | yes | yes | |
| Drain pump | | | no | no | no | no | no | |
| Max. lift (from bottom of ID unit) | | mm | - | - | - | - | - | |
| Dry contact (ON/OFF) | | | yes | yes | yes | yes | yes | |
| Alarm contact | | | no | no | no | no | no | |
| Fresh air inlet | | | no | no | no | no | no | |
| STANDARD ACCESSORIES | | | | | | | | |
| Standard health filter | | | SAF-OPWC4, SAF-OPWA4 | | | | | |
| Remote controller (IR) | | | YAC1FB7 | YAC1FB9 | YAC1FB9 | YAC1FB9 | YAC1FB9 | |
| Wired controller | | | no | no | no | no | no | |
| OPTIONAL ACCESSORIES | | | | | | | | |
| Optional health filters | | | SAF-OPWB4, SAF-OPWK4, SAF-OPWM4, SAF-OPWP4, SAF-OPWS4 | | | | | |
| Wired controller | | | SWC-02, XK19 | SWC-02, XK19 | SWC-02, XK19 | SWC-02, XK19 | SWC-02, XK19 | |
| Central controller | | | SCC-16, SCC-36 | SCC-16, SCC-36 | SCC-16, SCC-36 | SCC-16, SCC-36 | SCC-16, SCC-36 | |
| Other | | | G2S | G2S | G2S | G2S | G2S | |

The specification of products is subject to change based on further development of the units by the producer and can be changed without prior notice. Refer to rating label.

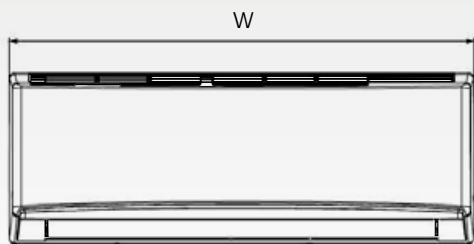
R32 (single component refrigerant HFC), GWP of refrigerant used: 675.

Contains fluorinated greenhouse gases covered by the Kyoto Protocol.

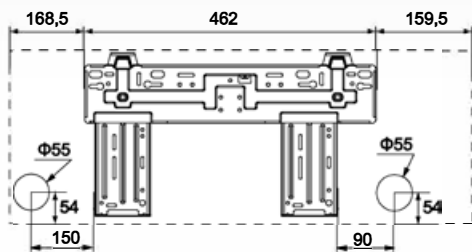
Explanatory notes on the very last page of the catalogue.

These indoor units may be combined with other indoor units from MULTI VARIABLE series, it is essential to follow combinations recommended in the combination table.

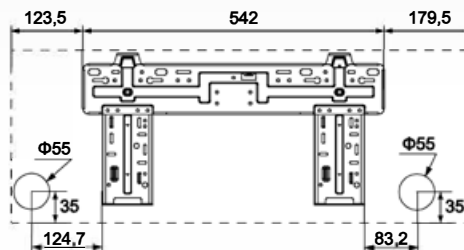
APPEARANCE AND DIMENSIONS OF WALL MOUNTED INDOOR UNITS FOCUS
MULTI VARIABLE SERIES



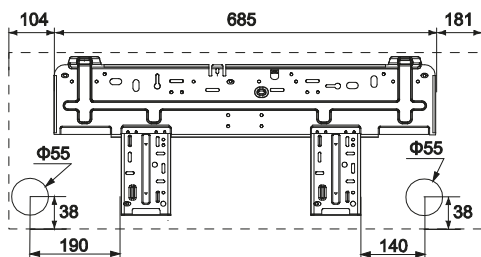
MV-H07BIF, MV-H09BIF



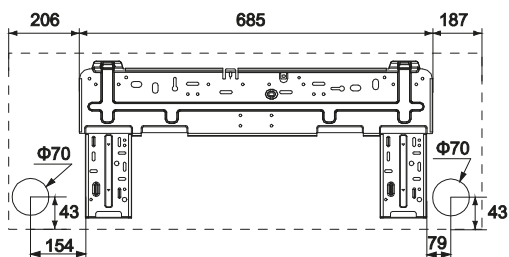
MV-H12BIF



MV-H18BIF



MV-H24BIF



units: mm

MULTI VARIABLE SERIES

| MODEL | | | MV-H09BIS/W MV-H09BIS/B | MV-H13BIS/W MV-H13BIS/B | MV-H18BIS/W MV-H18BIS/B | MV-H24BIS/W MV-H24BIS/B | | |
|---|------------------|--------------------|---|-------------------------------|-------------------------------|--------------------------------|--|--|
| Capacity cooling/heating 1) | Nominal | kW | 2,7 (0,9-3,8) / 3,0 (0,7-4,4) | 3,5 (1,0-3,8) / 3,8 (1,2-4,4) | 5,3 (1,3-6,6) / 5,6 (1,2-6,8) | 7,0 (1,1-9,1) / 7,2 (1,7-10,1) | | |
| Power supply | | Hz / V | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | | |
| Air flow of ID | SH/MH/H/ML/ML/SL | m ³ / h | 660/590/540/490/450/420/390 | 680/590/540/490/450/420/390 | 850/750/610/520 | 1250/1100/1000/950/900/850/750 | | |
| Sound pressure level of ID at 1m 4) | SH/MH/H/ML/ML/SL | dB(A) | 41/39/37/35/33/31/24 | 43/39/37/35/34/32/25 | 49/45/43/41/39/37/34 | 49/47/44/42/40/38/36 | | |
| Sound power of ID 4) | SH/MH/H/ML/ML/SL | dB(A) | 56/53/52/50/48/46/39 | 58/53/52/50/48/46/40 | 58/55/53/51/49/47/44 | 65/61/58/56/54/52/50 | | |
| External static pressure | nom/min-max | Pa | - | - | - | - | | |
| Dehumidifying volume | | l / h | 0,8 | 1,4 | 1,8 | 2,4 | | |
| Refrigerant type | | Type | R32 | R32 | R32 | R32 | | |
| Pipe diameter - liquid side 5) | | inch / mm | ¼ / 6,0 | ¼ / 6,0 | ¼ / 6,0 | ¼ / 6,0 | | |
| Pipe diameter - gas side 5) | | inch / mm | ¾ / 9,5 | ¾ / 9,5 | ¾ / 12,0 | ¾ / 16,0 | | |
| Dimension of ID | w x h x d | mm | 865x290x210 | 865x290x210 | 996x301x225 | 1101x327x249 | | |
| Dimension of panel | w x h x d | mm | - | - | - | - | | |
| Package dimension of ID | w x h x d | mm | 931x281x379 | 931x281x379 | 1060x380x322 | 1167x405x354 | | |
| Package dimension of panel | w x h x d | mm | - | - | - | - | | |
| Weight of ID | netto / brutto | kg | 10,5 / 12,5 | 11,0 / 13,0 | 13,5 / 16,5 | 16,5 / 20 | | |
| Weight of panel | netto / brutto | kg | - | - | - | - | | |
| Set temperature range | | °C | 16 ~ 30 | 16 ~ 30 | 16 ~ 30 | 16 ~ 30 | | |
| ADDITIONAL TECHNICAL INFORMATION | | | | | | | | |
| Screw holes distance | w x d | mm | See service manual | | | | | |
| Communication cable | | mm ² | 4x1,0 | 4x1,0 | 4x1,0 | 4x1,0 | | |
| Recommended power cable 11) | | mm ² | Outdoor unit power supplied | | | | | |
| Recommended air switch | | A | Outdoor unit power supplied | | | | | |
| EQUIPMENT | | | | | | | | |
| Plasma generator | | | yes | yes | yes | yes | | |
| Wifi module | | | yes | yes | yes | yes | | |
| Drain pump | | | no | no | no | no | | |
| Max. lift (from bottom of ID unit) | | mm | - | - | - | - | | |
| Dry contact (ON/OFF) | | | yes | yes | yes | yes | | |
| Alarm contact | | | no | no | no | no | | |
| Fresh air inlet | | | no | no | no | no | | |
| STANDARD ACCESSORIES | | | | | | | | |
| Standard health filter | | | SAF-OPWC4, SAF-OPWA4 | | | | | |
| Remote controller (IR) | | | YAG1FB2 | YAG1FB2 | YAG1FB2 | YAG1FB2 | | |
| Wired controller | | | no | no | no | no | | |
| OPTIONAL ACCESSORIES | | | | | | | | |
| Optional health filters | | | SAF-OPWB4, SAF-OPWK4, SAF-OPWM4, SAF-OPWP4, SAF-OPWS4 | | | | | |
| Wired controller | | | SWC-02, XK19 | | | | | |
| Central controller | | | SCC-16, SCC-36 | | | | | |
| Other | | | G25 | | | | | |

The specification of products is subject to change based on further development of the units by the producer and can be changed without prior notice. Refer to rating label.

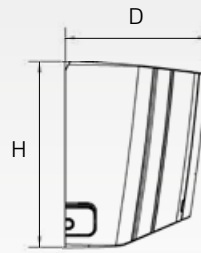
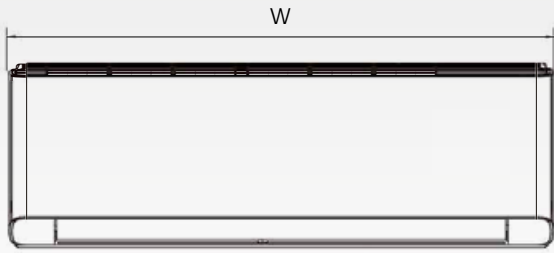
R32 (single component refrigerant HFC), GWP of refrigerant used: 675.

Contains fluorinated greenhouse gases covered by the Kyoto Protocol.

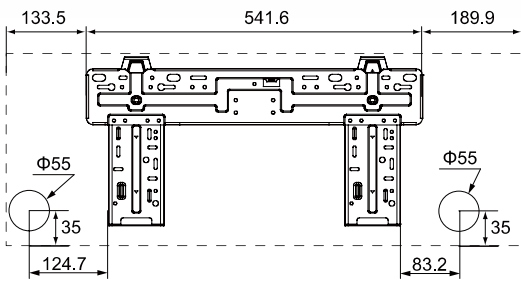
Explanatory notes on the very last page of the catalogue.

These indoor units may be combined with other indoor units from MULTI VARIABLE series, it is essential to follow combinations recommended in the combination table.

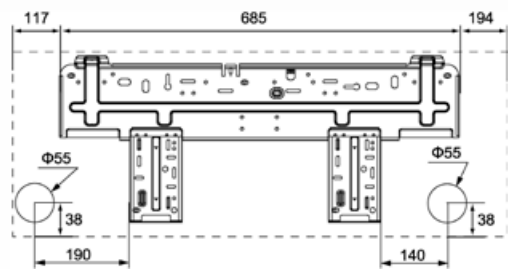
APPEARANCE AND DIMENSIONS OF WALL MOUNTED INDOOR UNITS SPECTRUM
MULTI VARIABLE SERIES



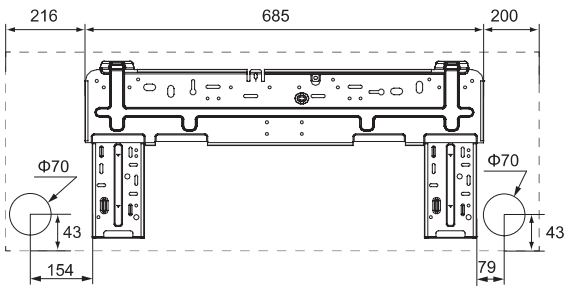
MV-H09BIS/W, MV-H09BIS/B, MV-H13BIS/W, MV-H13BIS/B



MV-H18BIS/W, MV-H18BIS/B



MV-H24BIS/W, MV-H24BIS/B



units: mm

CONSOLE INDOOR UNITS

MULTI VARIABLE SERIES

| MODEL | | | MV-P09BI | MV-P12BI | MV-P18BI | | |
|---|------------------|--------------------|---|-----------------------------|-----------------------------|--|--|
| Capacity cooling/heating 1) | Nominal | kW | 2,7/2,8 | 3,5/3,75 | 5,2/5,33 | | |
| Power supply | | Hz / V | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | | |
| Air flow of ID | SH/MH/H/ML/ML/SL | m ³ / h | 500/430/410/370/330/280/250 | 600/520/480/440/400/360/280 | 700/650/580/520/460/410/320 | | |
| Sound pressure level of ID at 1m 4) | SH/MH/H/ML/ML/SL | dB(A) | 40/36/34/32/30/26/23 | 42/40/38/36/34/31/25 | 47/45/42/40/37/35/31 | | |
| Sound power of ID 4) | SH/MH/H/ML/ML/SL | dB(A) | 52/48/46/44/42/38/34 | 52/50/48/46/44/41/35 | 57/55/52/50/47/45/41 | | |
| External static pressure | nom/min-max | Pa | - | - | - | | |
| Dehumidifying volume | | l / h | 0,8 | 1,2 | 3,8 | | |
| Refrigerant type | | Type | R32 | R32 | R32 | | |
| Pipe diameter - liquid side 5) | | inch / mm | ¼ / 6,0 | ¼ / 6,0 | ¼ / 6,0 | | |
| Pipe diameter - gas side 5) | | inch / mm | ¾ / 9,5 | ¾ / 9,5 | ¾ / 12,0 | | |
| Dimension of ID | w x h x d | mm | 700x600x215 | 700x600x215 | 700x600x215 | | |
| Dimension of panel | w x h x d | mm | - | - | - | | |
| Package dimension of ID | w x h x d | mm | 788x697x283 | 788x697x283 | 788x697x283 | | |
| Package dimension of panel | w x h x d | mm | - | - | - | | |
| Weight of ID | netto / brutto | kg | 15,5/18,5 | 15,5/18,5 | 15,5/18,5 | | |
| Weight of panel | netto / brutto | kg | - | - | - | | |
| Set temperature range | | °C | 16 ~ 30 | 16 ~ 30 | 16 ~ 30 | | |
| ADDITIONAL TECHNICAL INFORMATION | | | | | | | |
| Screw holes distance | w x d | mm | See service manual | | | | |
| Communication cable | | mm ² | 4 x 0,75 | | | | |
| Recommended power cable 11) | | mm ² | Outdoor unit power supplied | | | | |
| Recommended air switch | | A | Outdoor unit power supplied | | | | |
| EQUIPMENT | | | | | | | |
| Plasma generator | | | yes | yes | yes | | |
| Wifi module | | | yes | yes | yes | | |
| Drain pump | | | no | no | no | | |
| Max. lift (from bottom of ID unit) | | mm | - | - | - | | |
| Dry contact (ON/OFF) | | | no | no | no | | |
| Alarm contact | | | no | no | no | | |
| Fresh air inlet | | | no | no | no | | |
| STANDARD ACCESSORIES | | | | | | | |
| Standard health filter | | | SAF-OPWC1, SAF-OPWA1 | | | | |
| Remote controller (IR) | | | YAA1FB8 | YAA1FB8 | YAA1FB8 | | |
| Wired controller | | | no | no | no | | |
| OPTIONAL ACCESSORIES | | | | | | | |
| Optional health filters | | | SAF-OPWB4, SAF-OPWK4, SAF-OPWM4, SAF-OPWP4, SAF-OPWS4 | | | | |
| Wired controller | | | SWC-02, XK19 | | | | |
| Central controller | | | SCC-16, SCC-36 | | | | |
| Other | | | G2S | | | | |

The specification of products is subject to change based on further development of the units by the producer and can be changed without prior notice. Refer to rating label.

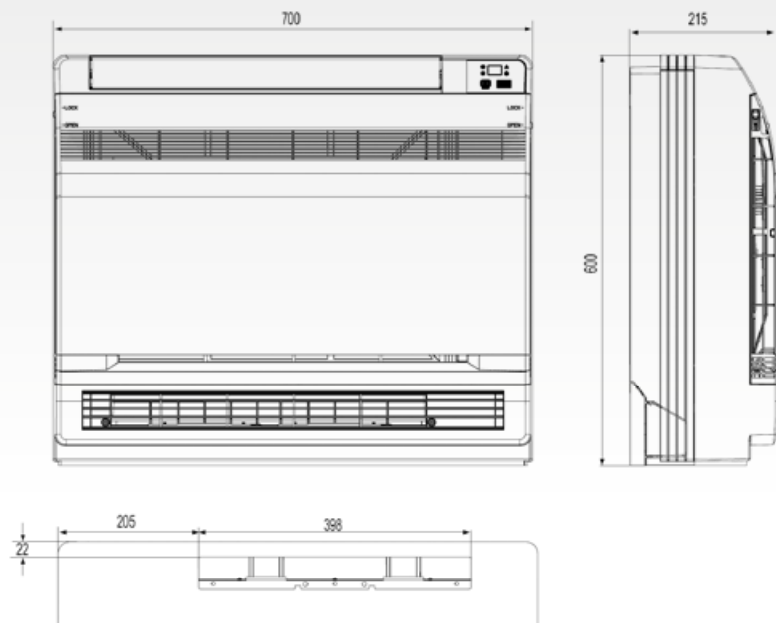
R32 (single component refrigerant HFC), GWP of refrigerant used: 675.

Contains fluorinated greenhouse gases covered by the Kyoto Protocol.

Explanatory notes on the very last page of the catalogue.

These indoor units may be combined with other indoor units from MULTI VARIABLE series, it is essential to follow combinations recommended in the combination table.

APPEARANCE AND DIMENSIONS OF INDOOR UNIT



units: mm

CASSETTE INDOOR UNITS

MULTI VARIABLE SERIES

| MODEL | | | MV-C12BI | MV-C18BI | MV-C24BI | | |
|---|----------------|--------------------|-----------------------------|-------------------|--------------------|--|--|
| Capacity cooling/heating 1) | Nominal | kW | 3,5/4,0 | 4,5/5 | 7,1/8 | | |
| Power supply | | Hz / V | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | | |
| Air flow of ID | SH/H/M/L | m ³ / h | 650/560/520/450 | 710/670/590/450 | 1280/1220/1100/880 | | |
| Sound pressure level of ID at 1,4m 4) | SH/H/M/L | dB(A) | 44/41/38/34 | 47/45/41/35 | 47/45/41/36 | | |
| Sound power of ID 4) | SH/H/M/L | dB(A) | 55/52/49/45 | 58/56/52/46 | 58/56/52/47 | | |
| External static pressure | nom/min-max | Pa | - | - | - | | |
| Dehumidifying volume | | l / h | 1,4 | 1,8 | 2,5 | | |
| Refrigerant type | | Type | R32 | R32 | R32 | | |
| Pipe diameter - liquid side 5) | | inch / mm | ¼ / 6,0 | ¼ / 6,0 | ¾ / 9,5 | | |
| Pipe diameter - gas side 5) | | inch / mm | ¾ / 9,5 | ¾ / 12,0 | ¾ / 16,0 | | |
| Dimension of ID | w x h x d | mm | 596x240x596 | 596x240x596 | 840x240x840 | | |
| Dimension of panel | w x h x d | mm | 670x50x670 | 670x50x670 | 950x60x950 | | |
| Package dimension of ID | w x h x d | mm | 778x300x778 | 778x300x778 | 963x325x963 | | |
| Package dimension of panel | w x h x d | mm | 763x105x763 | 763x105x763 | 1033x133x1038 | | |
| Weight of ID | netto / brutto | kg | 20/24 | 20/24 | 26/32 | | |
| Weight of panel | netto / brutto | kg | 3,5 / 5,0 | 3,5 / 5,0 | 7,0 / 11,0 | | |
| Set temperature range | | °C | 16 - 30 | 16 - 30 | 16 - 30 | | |
| ADDITIONAL TECHNICAL INFORMATION | | | | | | | |
| Screw holes distance | w x d | mm | See service manual | | | | |
| Communication cable | | mm ² | 4x1,0 | 4x1,0 | 4x1,0 | | |
| Recommended power cable 11) | | mm ² | Outdoor unit power supplied | | | | |
| Recommended air switch | | A | Outdoor unit power supplied | | | | |
| EQUIPMENT | | | | | | | |
| Plasma generator | | | no | no | no | | |
| Wifi module | | | no | no | no | | |
| Drain pump | | | yes | yes | yes | | |
| Max. lift (from bottom of ID unit) | | mm | 500 | 500 | 500 | | |
| Dry contact (ON/OFF) | | | yes | yes | yes | | |
| Alarm contact | | | no | no | no | | |
| Fresh air inlet | | | yes | yes | yes | | |
| STANDARD ACCESSORIES | | | | | | | |
| Standard health filter | | | - | - | - | | |
| Remote controller (IR) | | | YT1F | YT1F | YT1F | | |
| Wired controller | | | yes | yes | yes | | |
| OPTIONAL ACCESSORIES | | | | | | | |
| Optional health filters | | | | | | | |
| Wired controller | | | | SWC-02 | | | |
| Central controller | | | | SCC-16, SCC-36 | | | |
| Other | | | | G2S | | | |

The specification of products is subject to change based on further development of the units by the producer and can be changed without prior notice. Refer to rating label.

R32 (single component refrigerant HFC), GWP of refrigerant used: 675.

Contains fluorinated greenhouse gases covered by the Kyoto Protocol.

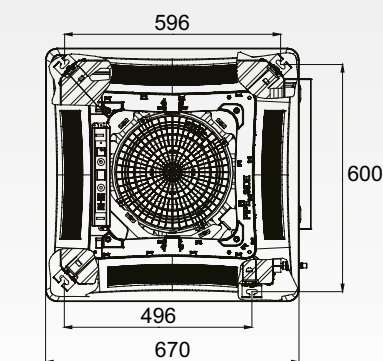
Explanatory notes on the very last page of the catalogue.

These indoor units may be combined with other indoor units from MULTI VARIABLE series, it is essential to follow combinations recommended in the combination table.

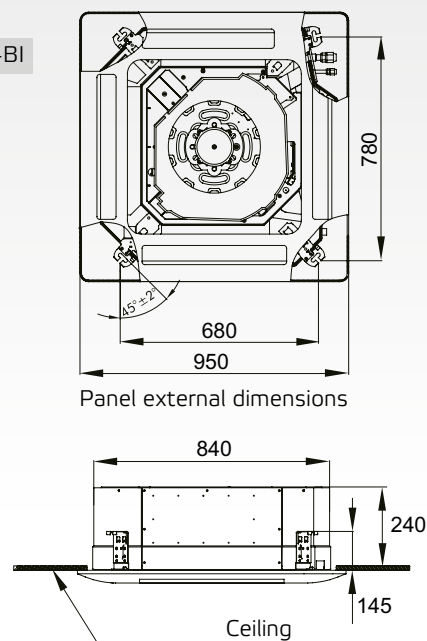
APPEARANCE AND DIMENSIONS OF INDOOR UNIT

MV-C12BI

MV-C18BI



MV-C24BI



units: mm

MULTI VARIABLE SERIES

| MODEL | | | MV-D09BI | MV-D12BI | MV-D18BI | MV-D24BI | |
|---|----------------|-----------|-----------------------------|-------------------|-------------------|-------------------|--|
| Capacity cooling/heating 1) | Nominal | kW | 2,5/2,8 | 3,5/3,85 | 5/5,5 | 7,1/8 | |
| Power supply | | Hz / V | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | |
| Air flow of ID | SH/H/M/L | m³ / h | 450/350/280 | 550/400/300 | 700/600/500 | 1000/750/550 | |
| Sound pressure level of ID at 1,4m 4) | SH/H/M/L | dB(A) | 47/41/37/34/31 | 49/42/39/35/32 | 51/43/41/33/- | 52/44/42/34/- | |
| Sound power of ID 4) | SH/H/M/L | dB(A) | 57/51/47/44/41 | 59/52/49/45/42 | 61/53/51/43/- | 62/55/52/44/- | |
| External static pressure | nom/min-max | Pa | 25/0-50 | 25/0-50 | 25/0-50 | 25/0-50 | |
| Dehumidifying volume | | l / h | 0,8 | 1,4 | 1,8 | 2,5 | |
| Refrigerant type | | Type | R32 | R32 | R32 | R32 | |
| Pipe diameter - liquid side 5) | | inch / mm | ¼ / 6,0 | ¼ / 6,0 | ¼ / 6,0 | ¾ / 9,5 | |
| Pipe diameter - gas side 5) | | inch / mm | ¾ / 9,5 | ¾ / 9,5 | ¾ / 12,0 | ¾ / 16,0 | |
| Dimension of ID | w x h x d | mm | 700x200x615 | 700x200x615 | 900x200x615 | 1100x200x615 | |
| Dimension of panel | w x h x d | mm | - | - | - | - | |
| Package dimension of ID | w x h x d | mm | 893x305x743 | 893x305x743 | 1123x305x743 | 1323x305x743 | |
| Package dimension of panel | w x h x d | mm | - | - | - | - | |
| Weight of ID | netto / brutto | kg | 21/26 | 22/28 | 26/32 | 30/40 | |
| Weight of panel | netto / brutto | kg | - | - | - | - | |
| Set temperature range | | °C | 16 ~ 30 | 16 ~ 30 | 16 ~ 30 | 16 ~ 30 | |
| ADDITIONAL TECHNICAL INFORMATION | | | | | | | |
| Screw holes distance | w x d | mm | 742x491 | 742x491 | 942x491 | 1142x491 | |
| Communication cable | | mm² | 4x1,0 | 4x1,0 | 4x1,0 | 4x1,0 | |
| Recommended power cable 11) | | mm² | Outdoor unit power supplied | | | | |
| Recommended air switch | | A | Outdoor unit power supplied | | | | |
| EQUIPMENT | | | | | | | |
| Plasma generator | | | no | no | no | no | |
| Wifi module | | | no | no | no | no | |
| Drain pump | | | yes | yes | yes | yes | |
| Max. lift (from bottom of ID unit) | | mm | 1000 | 1000 | 1000 | 1000 | |
| Dry contact (ON/OFF) | | | no | no | no | no | |
| Alarm contact | | | no | no | no | no | |
| Fresh air inlet | | | no | no | no | no | |
| STANDARD ACCESSORIES | | | | | | | |
| Standard health filter | | | - | - | - | - | |
| Remote controller (IR) | | | YT1F | YT1F | YT1F | YT1F | |
| Wired controller | | | yes | yes | yes | yes | |
| OPTIONAL ACCESSORIES | | | | | | | |
| Optional health filters | | | - | | | | |
| Wired controller | | | SWC-02 | | | | |
| Central controller | | | SCC-16, SCC-36 | | | | |
| Other | | | G2S | | | | |

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R32 (single component refrigerant HFC), GWP of refrigerant used: 675.

Contains fluorinated greenhouse gases covered by the Kyoto Protocol.

Explanatory notes on the very last page of the catalogue.

These indoor units may be combined with other indoor units from MULTI VARIABLE series, it is essential to follow combinations recommended in the combination table.

APPEARANCE AND DIMENSIONS OF INDOOR UNIT

| | A | B | C | D | E | F | G | H | I | J |
|------------------------|----------|----------|----------|----------|------|-----|------|-----|-----|-----|
| MV-D09BI | 742 | 491 | 662 | 620 | 700 | 615 | 782 | 156 | 200 | 635 |
| MV-D12BI | 942 | 491 | 862 | 820 | 900 | 615 | 982 | 156 | 200 | 635 |
| MV-D18BI | 1142 | 491 | 1062 | 1020 | 1100 | 615 | 1182 | 156 | 200 | 635 |
| AIR OUTLET / AIR INLET | A | B | C | D | | | | | | |
| MV-D09BI | 156 | 662 | 580 | 162 | | | | | | |
| MV-D12BI | 156 | 662 | 580 | 162 | | | | | | |
| MV-D18BI | 156 | 862 | 780 | 162 | | | | | | |
| MV-D24BI | 156 | 1062 | 980 | 162 | | | | | | |

units: mm

FLOOR CEILING INDOOR UNITS

MULTI VARIABLE SERIES

| MODEL | | | MV-F09BI | MV-F12BI | MV-F18BI | MV-F24BI | | |
|---|----------------|--------------------|-----------------------------|-------------------|-------------------|-------------------|--|--|
| Capacity cooling/heating 1) | Nominal | kW | 2,6/2,7 | 3,5/4 | 4,5/5 | 7,1/8 | | |
| Power supply | | Hz / V | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | | |
| Air flow of ID | SH/H/M/L | m ³ / h | 700/610/540/420 | 700/610/540/420 | 680/590/520/410 | 950/870/800/720 | | |
| Sound pressure level of ID at 1m 4) | SH/H/M/L | dB(A) | 38/35/30/26 | 38/35/30/26 | 38/35/30/26 | 38/35/30/26 | | |
| Sound power of ID 4) | SH/H/M/L | dB(A) | 52/49/44/40 | 52/49/44/40 | 52/49/44/40 | 52/49/44/41 | | |
| External static pressure | nom/min-max | Pa | - | - | - | - | | |
| Dehumidifying volume | | l / h | 0,8 | 1,4 | 1,8 | 2,5 | | |
| Refrigerant type | | Type | R32 | R32 | R32 | R32 | | |
| Pipe diameter - liquid side 5) | | inch / mm | ¼ / 6,0 | ¼ / 6,0 | ¼ / 6,0 | ¼ / 9,5 | | |
| Pipe diameter - gas side 5) | | inch / mm | ¾ / 9,5 | ¾ / 12,0 | ¾ / 12,0 | ¾ / 16,0 | | |
| Dimension of ID | w x h x d | mm | 870x665x235 | 870x665x235 | 870x665x235 | 1200x665x235 | | |
| Dimension of panel | w x h x d | mm | - | - | - | - | | |
| Package dimension of ID | w x h x d | mm | 1033x770x300 | 1033x770x300 | 1033x770x300 | 1363x770x300 | | |
| Package dimension of panel | w x h x d | mm | - | - | - | - | | |
| Weight of ID | netto / brutto | kg | 25/30 | 25/30 | 25,5/30,5 | 33/40 | | |
| Weight of panel | netto / brutto | kg | - | - | - | - | | |
| Set temperature range | | °C | 16 ~ 30 | 16 ~ 30 | 16 ~ 30 | 16 ~ 30 | | |
| ADDITIONAL TECHNICAL INFORMATION | | | | | | | | |
| Screw holes distance | w x d | mm | See service manual | | | | | |
| Communication cable | | mm ² | 4x1,0 | 4x1,0 | 4x1,0 | 4x1,0 | | |
| Recommended power cable 11) | | mm ² | Outdoor unit power supplied | | | | | |
| Recommended air switch | | A | Outdoor unit power supplied | | | | | |
| EQUIPMENT | | | | | | | | |
| Plasma generator | | | no | no | no | no | | |
| Wifi module | | | no | no | no | no | | |
| Drain pump | | | no | no | no | no | | |
| Max. lift (from bottom of ID unit) | | mm | - | - | - | - | | |
| Dry contact (ON/OFF) | | | yes | yes | yes | yes | | |
| Alarm contact | | | no | no | no | no | | |
| Fresh air inlet | | | no | no | no | no | | |
| STANDARD ACCESSORIES | | | | | | | | |
| Standard health filter | | | - | - | - | - | | |
| Remote controller (IR) | | | YT1F | YT1F | YT1F | YT1F | | |
| Wired controller | | | yes | yes | yes | yes | | |
| OPTIONAL ACCESSORIES | | | | | | | | |
| Optional health filters | | | - | | | | | |
| Wired controller | | | SWC-02 | | | | | |
| Central controller | | | SCC-16, SCC-36 | | | | | |
| Other | | | G2S | | | | | |

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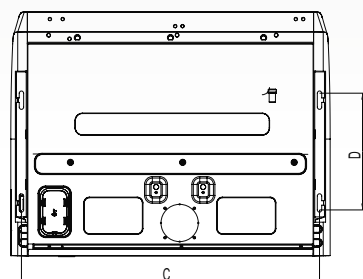
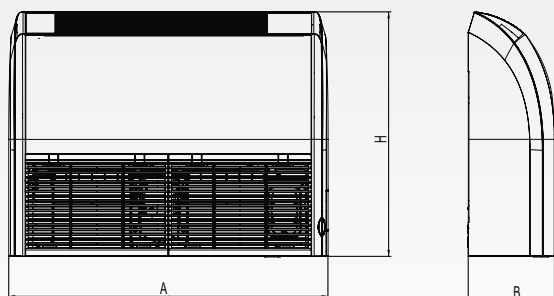
R32 (single component refrigerant HFC), GWP of refrigerant used: 675.

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Explanatory notes on the very last page of the catalogue.

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APPEARANCE AND DIMENSIONS OF INDOOR UNIT



| | A | B | C | D | H |
|----------|------|-----|------|-----|-----|
| MV-F09BI | | | | | |
| MV-F12BI | 870 | 235 | 812 | 318 | 665 |
| MV-F18BI | | | | | |
| MV-F24BI | 1200 | 235 | 1142 | 318 | 665 |

units: mm

OUTDOOR UNITS

MULTI VARIABLE SERIES

| MODEL | | | MV-E14BI | MV-E18BI | MV-E21BI | MV-E24BI | |
|---|-------------------|-----------------------------------|------------------------------|-------------------------------|-------------------------------|-------------------------------|--|
| Qty of connectable indoor units | | | 1-2 | 1-2 | 2-3 | 2-3 | |
| Capacity cooling/heating 1) | Nominal (min-max) | kW | 4,1 (2,1-4,4) / 4,4(2,5-5,4) | 5,2 (2,1-5,8) / 5,4 (2,6-5,9) | 6,1 (2,2-7,3) / 6,5 (3,6-8,5) | 7,1 (2,3-8,5) / 8,5 (3,7-8,8) | |
| Power supply | | Hz / V | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | |
| Power input cooling/heating 1) | | W | 1200/1180 | 1450/1300 | 1740/1600 | 2180 / 2280 | |
| Maximal power input 2) | | W | 1780 | 1780 | 2870 | 2870 | |
| Power current cooling/heating | | A | 5,32/4,53 | 6,43/5,77 | 7,72/7,10 | 9,67 / 10,12 | |
| Maximal power current 2) | | A | 7,9 | 7,9 | 12,7 | 12,7 | |
| Energy class cooling 3) | | - | See table below | See table below | See table below | See table below | |
| Air flow of OD | H | m ³ / h | 2600 | 2600 | 3200 | 4000 | |
| Sound pressure level of OD at 1m 4) | H | dB(A) | 55 | 55 | 58 | 58 | |
| Sound power of OD 4) | H | dB(A) | 65 | 65 | 68 | 68 | |
| Refrigerant type/charge | | Type / kg / t eq. CO ₂ | R32 / 1,05 / 0,71 | R32 / 1,05 / 0,71 | R32 / 1,60 / 1,08 | R32 / 1,80 / 1,22 | |
| Additional refrigerant | | g / m | 20 | 20 | 20 | 20 | |
| Pipe diameter - liquid side 5) | | qty x mm | 2x6,0 | 2x6,0 | 3x6,0 | 3x6,0 | |
| Pipe diameter - gas side 5) | | qty x mm | 2x9,5 | 2x9,5 | 3x9,5 | 3x9,5 | |
| Max pipe length without additional refrigerant 6) | | m | 10 | 10 | 30 | 30 | |
| Maximal pipe length to 1 indoor unit 9) | | m | 10 | 10 | 20 | 20 | |
| Maximal total pipe length 7) | | m | 20 | 20 | 60 | 60 | |
| Max. elevation/ Drop height | | m | 5 | 5 | 10 | 10 | |
| Dimension of OD | w x h x d | mm | 899x596x378 | 899x596x378 | 955x700x396 | 980x790x427 | |
| Package dimension of OD | w x h x d | mm | 948x645x420 | 948x645x420 | 1029x750x458 | 1038x855x488 | |
| Weight of OD | netto / brutto | kg | 43,0 / 46,0 | 43,0 / 46,0 | 55,0 / 59,5 | 68,0 / 73,0 | |
| Operating temperature range 8) | Cooling | °C | - 15 ~ 43 | - 15 ~ 43 | - 15 ~ 43 | - 15 ~ 43 | |
| | Heating | °C | - 20 ~ 24 | - 20 ~ 24 | - 20 ~ 24 | - 20 ~ 24 | |
| ADDITIONAL TECHNICAL INFORMATION | | | | | | | |
| Screw holes distance of OD | w x d | mm | 550x354 | 550x354 | 560x368 | 610x399 | |
| Communication cable | | mm ² | 4 x 1,5 | | | | |
| Recommended power cable | | mm ² | 3x1,5 | 3x1,5 | 3x2,5 | 3x2,5 | |
| Recommended air switch | | A | 13 | 13 | 16 | 16 | |
| EQUIPMENT | | | | | | | |
| Throttling method | | | EXV | EXV | EXV | EXV | |
| Bottom chassis heater | | | Heating belt | Heating belt | Heating belt | Heating belt | |
| Crankcase heater | | | yes | yes | yes | yes | |
| Bottom plugs for OD | | | yes | yes | yes | yes | |
| Drain pipe connector | | | yes | yes | yes | yes | |
| Pipe reduction | | | yes | yes | yes | yes | |

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R32 (single component refrigerant HFC), GWP of refrigerant used: 675.

Contains fluorinated greenhouse gases covered by the Kyoto Protocol.

Explanatory notes on the very last page of the catalogue.

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OUTDOOR UNITS

MULTI VARIABLE SERIES

| MODEL | | | MV-E28BI | MV-E36BI | MV-E42BI | | |
|---|-------------------|-----------------------------------|---------------------------------|-----------------------------------|-----------------------------------|--|--|
| Qty of connectable indoor units | | | 2-4 | 2-4 | 2-5 | | |
| Capacity cooling/heating 1) | Nominal (min-max) | kW | 8,0 (2,3-10,3) / 9,5 (3,7-10,3) | 10,5 (2,1-11,0) / 12,0 (2,6-13,0) | 12,1 (2,1-13,6) / 13,0 (2,6-14,0) | | |
| Power supply | | Hz / V | 1~ / 50 / 220-240 | 1~ / 50 / 220-241 | 1~ / 50 / 220-242 | | |
| Power input cooling/heating 1) | | W | 2540 / 2490 | 3500 / 3750 | 3590 / 3550 | | |
| Maximal power input 2) | | W | 3580 | 4880 | 5300 | | |
| Power current cooling/heating | | A | 15,71 / 11,05 | 15,42 / 15,20 | 16,43 / 16,22 | | |
| Maximal power current 2) | | A | 15,9 | 20,0 | 20,0 | | |
| Energy class cooling 3) | | - | See table below | See table below | See table below | | |
| Air flow of OD | H | m ³ / h | 4000 | 7200 | 7200 | | |
| Sound pressure level of OD at 1m 4) | H | dB(A) | 58 | 60 | 60 | | |
| Sound power of OD 4) | H | dB(A) | 68 | 70 | 70 | | |
| Refrigerant type/charge | | Type / kg / t eq. CO ₂ | R32 / 2,00 / 1,35 | R32 / 2,75 / 1,86 | R32 / 2,75 / 1,86 | | |
| Additional refrigerant | | g / m | 20 | 20 | 20 | | |
| Pipe diameter - liquid side 5) | | qty x mm | 4x6,0 | 4x6,0 | 5x6,0 | | |
| Pipe diameter - gas side 5) | | qty x mm | 4x9,5 | 4x9,5 | 5x9,5 | | |
| Max pipe length without additional refrigerant 6) | | m | 40 | 40 | 40 | | |
| Maximal pipe length to 1 indoor unit 9) | | m | 20 | 25 | 25 | | |
| Maximal total pipe length 7) | | m | 70 | 75 | 75 | | |
| Max. elevation/ Drop height | | m | 10 | 15 | 15 | | |
| Dimension of OD | w x h x d | mm | 980x790x427 | 1087x1103x440 | 1087x1103x440 | | |
| Package dimension of OD | w x h x d | mm | 1083x855x488 | 1158x1235x493 | 1158x1235x493 | | |
| Weight of OD | netto / brutto | kg | 69,0 / 74,0 | 90,0 / 98,0 | 90,0 / 98,0 | | |
| Operating temperature range 8) | Cooling | °C | - 15 ~ 43 | - 15 ~ 43 | - 15 ~ 43 | | |
| | Heating | °C | - 20 ~ 24 | - 20 ~ 24 | - 20 ~ 24 | | |
| ADDITIONAL TECHNICAL INFORMATION | | | | | | | |
| Screw holes distance of OD | w x d | mm | 610x399 | 631x401 | 631x401 | | |
| Communication cable | | mm ² | 4 x 1,5 | | | | |
| Recommended power cable | | mm ² | 3x4,0 | 3x4,0 | 3x4,0 | | |
| Recommended air switch | | A | 20 | 25 | 25 | | |
| EQUIPMENT | | | | | | | |
| Throttling method | | | EXV | EXV | EXV | | |
| Bottom chassis heater | | | Heating belt | Heating belt | Heating belt | | |
| Crankcase heater | | | yes | yes | yes | | |
| Bottom plugs for OD | | | yes | yes | yes | | |
| Drain pipe connector | | | yes | yes | yes | | |
| Pipe reduction | | | yes | yes | yes | | |

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OUTDOOR UNITS

MULTI VARIABLE SERIES

ENERGY CLASS INFORMATION

| COOLING | | | | | | |
|-------------------------|-------------------------|--------------|----------------------|------|----------------------------------|--|
| Outdoor unit | Indoor unit | Energy class | Pdesign cooling (kW) | SEER | Annual power consumption (kWh/a) | |
| MV-E14BI | 2x MV-H07BIF | A++ | 4,1 | 6,1 | 235 | |
| MV-E18BI | 2x MV-H09BIF | A++ | 5,2 | 6,1 | 298 | |
| MV-E21BI | 3x MV-H07BIF | A++ | 6,1 | 6,1 | 350 | |
| MV-E24BI | 2x MV-H09BIF, MV-H07BIF | A++ | 7,1 | 6,1 | 407 | |
| MV-E28BI | 4x MV-H07BIF | A++ | 8,0 | 6,1 | 459 | |
| MV-E36BI | 4x MV-H09BIF | A++ | 10,5 | 6,1 | 602 | |
| MV-E42BI | 4x MV-H09BIF, MV-H07BIF | A++ | 12,0 | 6,1 | 689 | |
| HEATING-AVERAGE CLIMATE | | | | | | |
| Outdoor unit | Indoor unit | Energy class | Pdesign heating (kW) | SCOP | Annual power consumption (kWh/a) | |
| MV-E14BI | 2x MV-H07BIF | A+ | 3,8 | 4,0 | 1330 | |
| MV-E18BI | 2x MV-H09BIF | A+ | 3,8 | 4,0 | 1330 | |
| MV-E21BI | 3x MV-H07BIF | A+ | 6,1 | 4,0 | 2135 | |
| MV-E24BI | 2x MV-H09BIF, MV-H07BIF | A+ | 6,1 | 4,0 | 2135 | |
| MV-E28BI | 4x MV-H07BIF | A+ | 7,2 | 4,0 | 2520 | |
| MV-E36BI | 4x MV-H09BIF | A+ | 10,5 | 4,0 | 3675 | |
| MV-E42BI | 4x MV-H09BIF, MV-H07BIF | A+ | 11,8 | 4,0 | 4130 | |

OUTDOOR UNITS

MULTI VARIABLE SERIES

COMBINATION TABLES

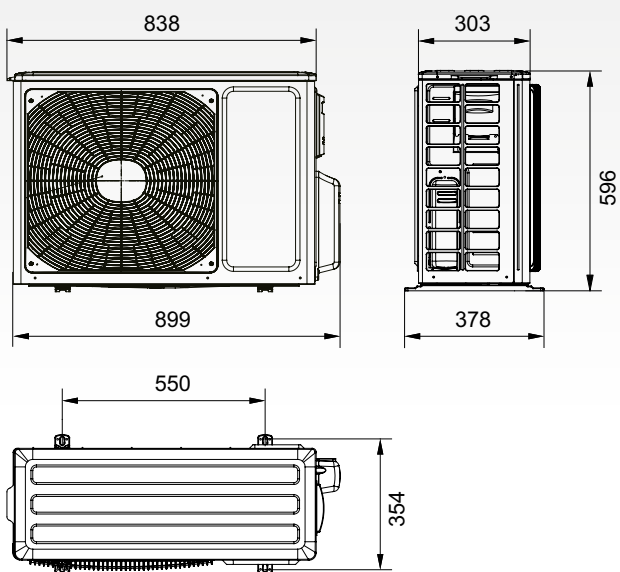
(unit: x1000Btu/h)

| MV-E14BI | | MV-E21BI | | MV-E24BI | | | MV-E28BI |
|-----------|------------|-------------|-------------|-------------|--------------|---------------|----------------|
| 1 UNIT | 2 UNITS | 2 UNITS | 3 UNITS | 2 UNITS | 3 UNITS | | 2 UNITS |
| 7 | 7+7 | 7+7 | 7+7+7 | 7+7 | 7+7+7 | 7+7+18 | 7+7 |
| 9 | 7+12 | 7+12 | 7+7+12 | 7+12 | 9+9+12 | 7+9+18 | 7+12 |
| 12 | 7+9 | 9+9 | 7+7+9 | 9+9 | 7+7+9 | 12+12+12* | 9+9 |
| | 9+9 | 7+9 | 7+9+9 | 9+18 | 7+9+9 | 7+12+12 | 9+18 |
| | 9+12 | 7+18 | 9+9+9 | 12+18 | 7+7+12 | 9+9+18* | 12+18 |
| | | 9+12 | 7+9+12 | 7+9 | 7+9+12 | 9+12+12* | 7+9 |
| MV-E18BI | | | | | | | |
| 1 UNIT | 2 UNITS | 9+18 | 7+12+12 | 7+18 | 9+9+9 | | 7+18 |
| 7 | 7+7 | 12+12 | 9+9+12 | 9+12 | | | 9+12 |
| 9 | 7+12 | 12+18 | 12+12+12* | 12+12 | | | 12+12 |
| 12 | 9+12 | | | 18+18 | | | 18+18 |
| | 7+9 | | | | | | |
| | 9+9 | | | | | | |
| MV-E28BI | | MV-E36BI | | | | | |
| 3 UNITS | | 4 UNITS | 2 UNITS | | 3 UNITS | | |
| 7+7+7 | 7+12+18 | 7+7+7+7 | 7+7 | 9+24 | 7+7+7 | 7+12+18 | 9+12+18 |
| 7+7+9 | 9+9+9 | 7+7+7+9 | 7+9 | 12+12 | 7+7+9 | 7+12+24 | 9+12+24 |
| 7+7+12 | 9+9+12 | 7+7+9+9 | 7+12 | 12+18 | 7+7+12 | 7+18+18 | 9+18+18 |
| 7+7+18 | 9+9+18 | 9+9+9+9 | 7+18 | 12+24 | 7+7+18 | 7+18+24* | 9+18+24* |
| 7+9+9 | 9+12+18 | 7+7+7+12 | 7+24 | 18+18 | 7+7+24 | 9+9+9 | 12+12+12 |
| 7+9+12 | 9+12+12 | 7+7+9+12 | 9+9 | 18+24 | 7+9+9 | 9+9+12 | 12+12+18 |
| 7+9+18 | 12+12+12 | 7+9+9+9 | 9+12 | 24+24* | 7+9+12 | 9+9+18 | 12+12+24 |
| 7+12+12 | 12+12+18 | 7+7+7+18 | 9+18 | | 7+9+18 | 9+9+24 | 12+18+18 |
| | | 7+7+9+18 | | | 7+9+24 | 9+12+12 | 18+18+18* |
| | | 7+9+9+12 | | | 7+12+12 | | |
| | | 9+9+12+12 | | | | | |
| | | 7+7+12+12 | | | | | |
| | | 9+9+9+12 | | | | | |
| MV-E36BI | | MV-E42BI | | | | | |
| 4 UNITS | | 2 UNITS | | 3 UNITS | | | |
| 7+7+7+7 | 7+7+18+18* | 9+9+9+9 | 7+7 | 9+24 | 7+7+7 | 7+12+24 | 9+18+18 |
| 7+7+7+9 | 7+9+9+9 | 9+9+9+12 | 7+9 | 12+12 | 7+7+9 | 7+18+18 | 9+18+24 |
| 7+7+7+12 | 7+9+9+12 | 9+9+9+18 | 7+12 | 12+18 | 7+7+12 | 7+18+24 | 9+24+24 |
| 7+7+7+18 | 7+9+9+18 | 9+9+12+12 | 7+18 | 12+24 | 7+7+18 | 7+24+24 | 12+12+12 |
| 7+7+7+24 | 7+9+9+24* | 9+12+12+12 | 7+24 | 18+18 | 7+7+24 | 9+9+9 | 12+12+18 |
| 7+7+9+9 | 7+9+12+12 | 9+9+9+24* | 9+9 | 18+24 | 7+9+9 | 9+9+12 | 12+12+24 |
| 7+7+9+12 | 7+9+12+18 | 9+9+12+18 | 9+12 | 24+24 | 7+9+12 | 9+9+18 | 12+18+18 |
| 7+7+9+18 | 7+9+18+18* | 9+9+18+18* | 9+18 | | 7+9+18 | 9+9+24 | 12+18+24 |
| 7+7+9+24 | 7+12+12+12 | 9+12+12+18* | | | 7+9+24 | 9+12+12 | 18+18+18 |
| 7+7+12+12 | 7+12+12+18 | 12+12+12+12 | | | 7+12+12 | 9+12+18 | 12+24+24* |
| 7+7+12+18 | | | | | 7+12+18 | 9+12+24 | 18+18+24 |
| 7+7+12+24 | | | | | | | |
| MV-E42BI | | MV-E48BI | | | | | |
| 4 UNITS | | 5 UNITS | | | | | |
| 7+7+7+7 | 7+7+18+18 | 9+9+9+12 | 7+9+18+24 | 7+7+7+7+7 | 7+7+9+9+12 | 9+9+9+9+18 | 7+9+9+12+18 |
| 7+7+7+9 | 7+9+9+9 | 9+9+9+18 | 7+12+12+24 | 7+7+7+7+9 | 7+7+9+9+18 | 9+9+9+12+12 | 7+9+9+12+24* |
| 7+7+7+12 | 7+9+9+12 | 9+9+9+24 | 7+12+18+18 | 7+7+7+7+12 | 7+7+9+12+12 | 9+9+12+12+12 | 7+9+9+18+18 |
| 7+7+7+18 | 7+9+9+18 | 9+9+12+12 | 7+12+18+24 | 7+7+7+7+18 | 7+7+9+12+18 | 9+9+12+12+18* | 7+9+12+12+18 |
| 7+7+7+24 | 7+9+9+24 | 9+9+12+18 | 7+18+18+18 | 7+7+7+7+24 | 7+7+12+12+12 | 7+7+7+12+24 | 7+12+12+12+12 |
| 7+7+9+9 | 7+9+12+12 | 9+9+12+24 | 9+9+18+24 | 7+7+7+9+9 | 7+9+9+9+9 | 7+7+7+18+18 | 7+12+12+12+18 |
| 7+7+9+12 | 7+9+12+18 | 9+9+18+18 | 9+12+12+24 | 7+7+7+9+12 | 7+9+9+9+12 | 7+7+9+9+24 | 9+9+9+9+24 |
| 7+7+9+18 | 7+9+12+24* | 9+12+12+12* | 9+12+18+18 | 7+7+7+9+18 | 7+9+9+9+18 | 7+7+9+12+24 | 9+9+9+12+18 |
| 7+7+9+24 | 7+9+18+18 | 9+12+12+18 | 9+18+18+18 | 7+7+7+9+24 | 7+9+9+12+12 | 7+7+9+18+18 | 9+9+9+18+18* |
| 7+7+12+12 | 7+12+12+12 | 12+12+12+12 | 12+12+18+18 | 7+7+7+12+12 | 7+9+12+12+12 | 7+7+12+12+18 | 9+12+12+12+12 |
| 7+7+12+18 | 7+12+12+18 | 12+12+12+18 | 12+12+12+24 | 7+7+7+12+18 | 9+9+9+9+9 | 7+7+12+18+18 | 9+12+12+12+18* |
| 7+7+12+24 | 9+9+9+9 | 7+7+18+24 | | 7+7+9+9+9 | 9+9+9+9+12 | 7+9+9+9+24 | 12+12+12+12+12 |

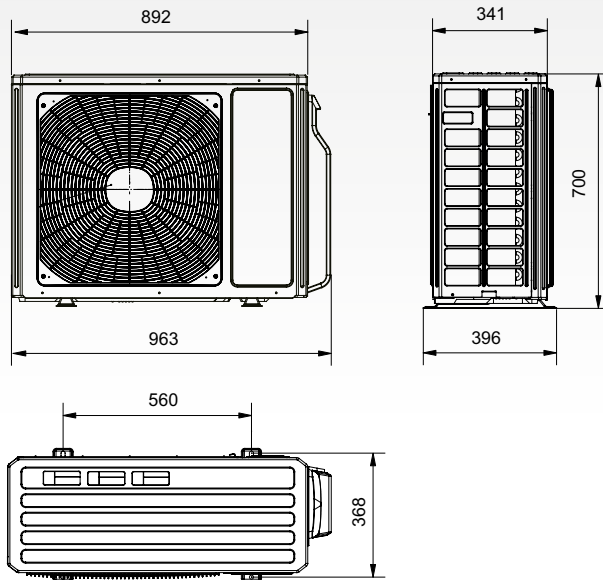
*This combinations of indoor units capacities exceed 130% of maximum capacity of the outdoor unit.

APPEARANCE AND DIMENSIONS OF OUTDOOR UNIT

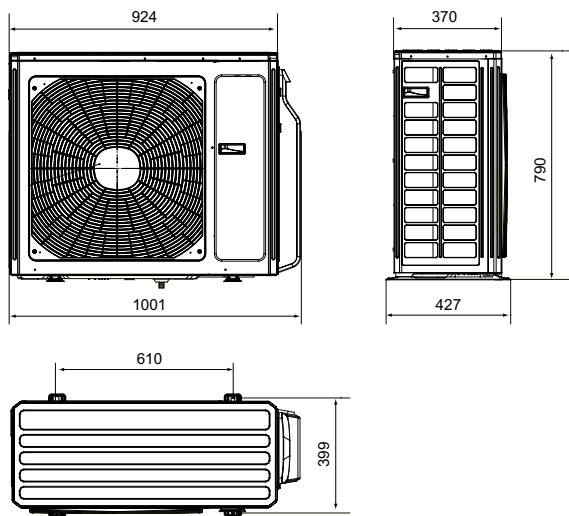
MV-E14BI, MV-E18BI



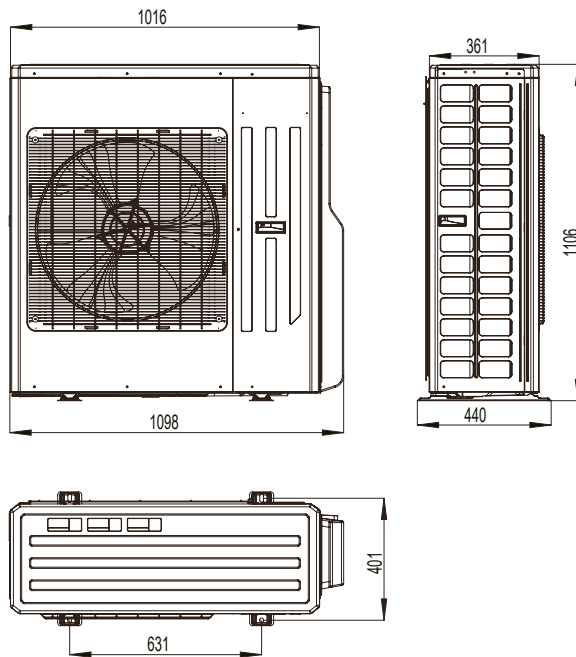
MV-E21BI



MV-E24BI, MV-E28BI



MV-E36BI, MV-E42BI

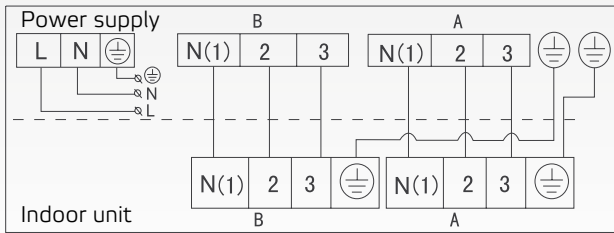


units: mm

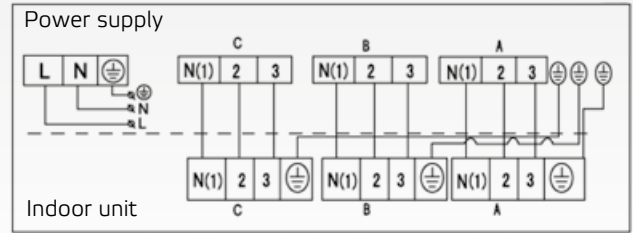
ELECTRICAL WIRING DIAGRAM

MULTI VARIABLE SERIES

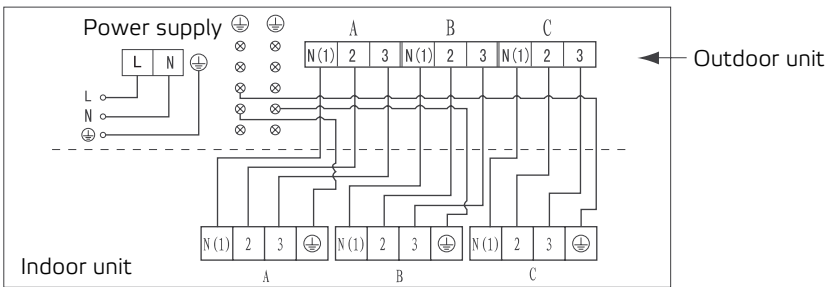
MV-E14BI, MV-E18BI



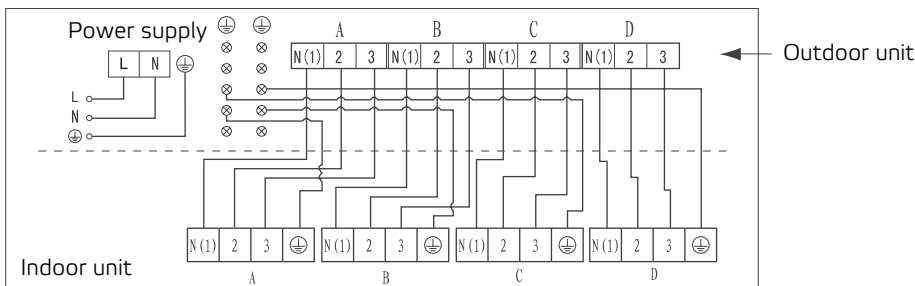
MV-E21BI



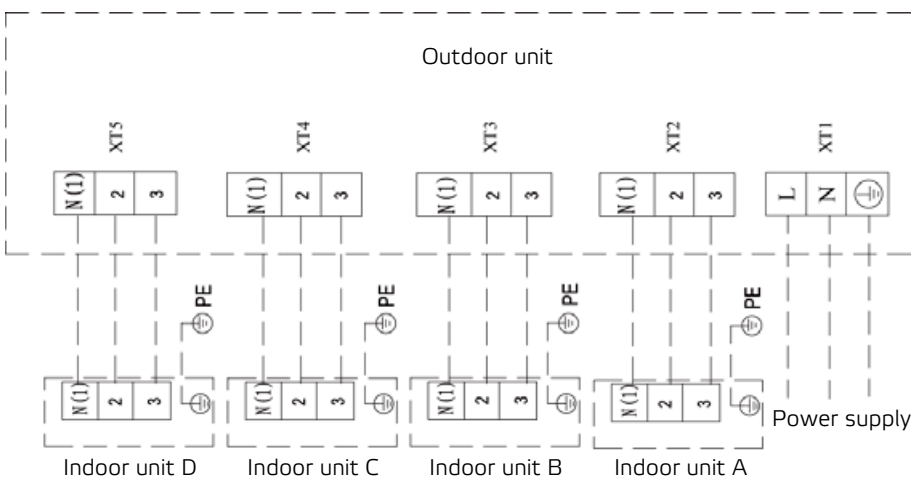
MV-E24BI

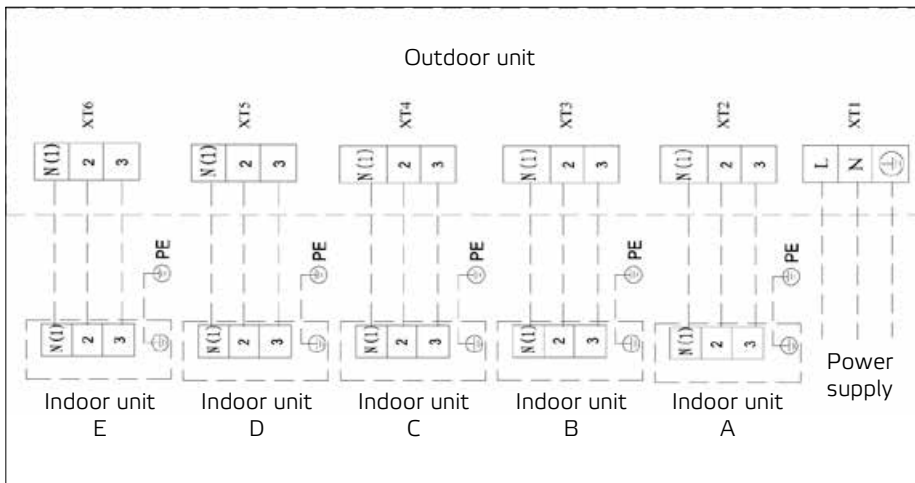


MV-E28BI



MV-E36BI





HIGH POWER MULTI SYSTEM SERIES

| MODEL | | | MS-H07AIZ | MS-H09AIZ | MS-H12AIZ | MS-H18AIZ | MS-H24AIZ | |
|---|-------------------|--------------------|---|-------------------|-------------------|-------------------|-------------------|--|
| Capacity cooling/heating 1) | Nominal (min-max) | kW | 2,1/2,6 | 2,6/2,8 | 3,5/3,7 | 5,1/5,3 | 6,7/7,3 | |
| Power supply | | Hz / V | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | |
| Air flow of ID | SH/H/M/L | m ³ / h | 550/490/420/330 | 560/490/430/330 | 660/540/460/330 | 800/720/610/520 | 1150/1000/900/800 | |
| Sound pressure of ID 4) | SH/H/M/L | dB(A) | 38/36/32/26 | 39/36/32/26 | 42/39/33/26 | 46/42/39/36 | 48/45/42/39 | |
| Sound power of ID 4) | SH/H/M/L | dB(A) | 48/46/42/36 | 49/46/42/36 | 52/49/43/36 | 56/52/49/46 | 58/55/52/49 | |
| External static pressure | | Pa | - | - | - | - | - | |
| Dehumidifying volume | | l / h | 0,6 | 0,8 | 1,4 | 1,8 | 2,1 | |
| Refrigerant type | | Type | R410A | R410A | R410A | R410A | R410A | |
| Pipe diameter - liquid side 5) | | inch / mm | ¼ / 6,4 | ¼ / 6,4 | ¼ / 6,4 | ¼ / 6,4 | ¼ / 6,4 | |
| Pipe diameter - gas side 5) | | inch / mm | ¾ / 19,5 | ¾ / 19,5 | ¾ / 19,5 | ¾ / 12,7 | ¾ / 15,9 | |
| Dimension of ID | w x h x d | mm | 790x275x200 | 790x275x200 | 845x289x209 | 970x300x224 | 1078x325x246 | |
| Dimension of panel | w x h x d | mm | - | - | - | - | - | |
| Package dimension of ID | w x h x d | mm | 866x271x367 | 866x271x367 | 921x281x379 | 1041x383x320 | 1148x413x350 | |
| Package dimension of panel | w x h x d | mm | - | - | - | - | - | |
| Weight of ID | netto / brutto | kg | 9,0 / 11,0 | 9,0 / 11,0 | 10,0 / 12,0 | 13,5 / 16,5 | 17,0 / 20,5 | |
| Set temperature range | | °C | 16 ~ 30 | 16 ~ 30 | 16 ~ 30 | 16 ~ 30 | 16 ~ 30 | |
| ADDITIONAL TECHNICAL INFORMATION | | | | | | | | |
| Screw holes distance | w x d | mm | See service manual | | | | | |
| Communication cable | | mm ² | 4x1,0 | 4x1,0 | 4x1,0 | 4x1,0 | 4x1,0 | |
| Recommended power cable 11) | | mm ² | Outdoor unit power supplied | | | | | |
| Recommended air switch | | A | Outdoor unit power supplied | | | | | |
| EQUIPMENT | | | | | | | | |
| Plasma generator | | | yes | yes | yes | yes | yes | |
| Wifi module | | | no | yes | yes | yes | yes | |
| Drain pump | | | no | no | no | no | no | |
| Max. lift (from bottom of ID unit) | | mm | - | - | - | - | - | |
| Dry contact (ON/OFF) | | | no | no | no | no | no | |
| Alarm contact | | | no | no | no | no | no | |
| Fresh air inlet | | | no | no | no | no | no | |
| STANDARD ACCESSORIES | | | | | | | | |
| Standard health filter | | | SAF-OPWA1, SAF-OPWC1 | | | | | |
| Remote controller (IR) | | | YAA1FB | YAA1FB | YAA1FB | YAA1FB | YAA1FB | |
| Wired controller | | | - | - | - | - | - | |
| OPTIONAL ACCESSORIES | | | | | | | | |
| Optional health filters | | | SAF-OPWB1, SAF-OPWC1, SAF-OPWE1, SAF-OPWS1, SAF-OPWP1 | | | | | |
| Wired controller | | | - | - | - | - | - | |
| Central controller | | | - | - | - | - | - | |
| Other | | | G25 | | | | | |

These indoor units may be combined with other indoor units from HIGH POWER MULTI SYSTEM series, it is essential to follow combinations recommended in the combination table.

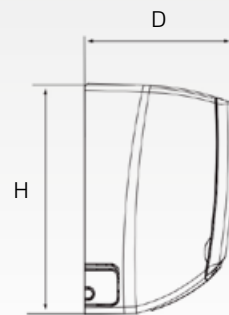
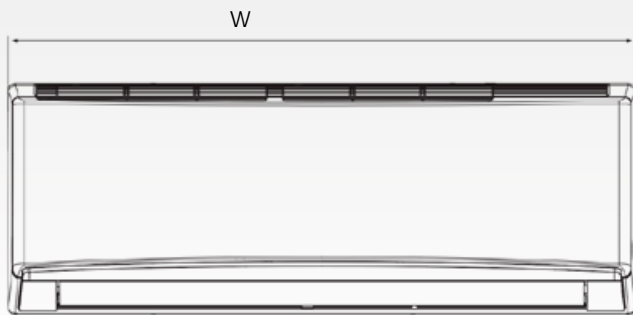
The specification of products is subject to change based on further development of the units by the producer and can be changed without prior notice. Refer to rating label.

R410A (50% HFC-32, 50% HFC-125), GWP 2088

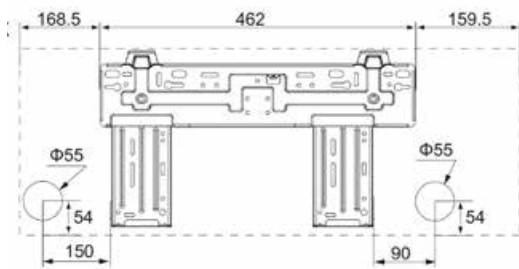
Contains fluorinated greenhouse gases covered by the Kyoto Protocol.

Explanatory notes on the very last page of the catalogue.

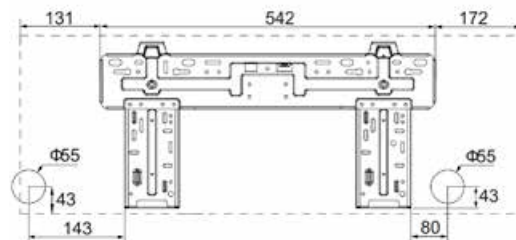
APPEARANCE AND DIMENSIONS OF WALL MOUNTED INDOOR UNITS ZOOM
HIGH POWER MULTI SYSTEM SERIES



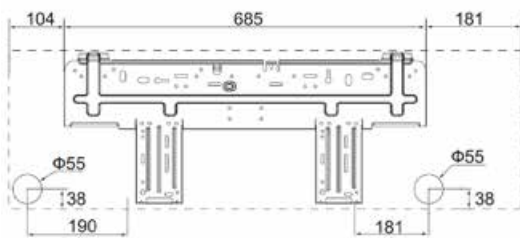
MS-H07AIZ, MS-H09AIZ



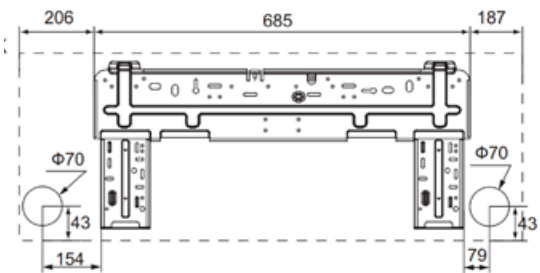
MS-H12AIZ



MS-H18AIZ



MS-H24AIZ



units: mm

WALL MOUNTED INDOOR UNITS SYMPHONY

HIGH POWER MULTI SYSTEM SERIES

| MODEL | | | MS-H09AISW PT | MS-H12AISW PT |
|---|-------------------|--------------------|---|----------------------|
| Capacity cooling/heating 1) | Nominal (min-max) | kW | 2,6 / 2,8 | 3,5 / 3,8 |
| Power supply | | Hz / V | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 |
| Air flow of ID | max-min | m ³ / h | 450-260 | 560-280 |
| Sound pressure of ID 4) | SH/MH/H/ML/ML/SL | dB(A) | 38/35/32/30/28/26/25 | 39/36/34/31/28/27/26 |
| Sound power of ID 4) | SH/MH/H/ML/ML/SL | dB(A) | 48/45/42/40/38/36/35 | 49/46/44/41/38/37/36 |
| External static pressure | | Pa | - | - |
| Dehumidifying volume | | l / h | 0,8 | 1,4 |
| Refrigerant type | | Type | R410A | R410A |
| Pipe diameter - liquid side 5) | | inch / mm | ¼ / 6,4 | ¼ / 6,4 |
| Pipe diameter - gas side 5) | | inch / mm | ¾ / 9,5 | ¾ / 9,5 |
| Dimension of ID | w x h x d | mm | 860x299x153 | 896x320x159 |
| Dimension of panel | w x h x d | mm | - | - |
| Package dimension of ID | w x h x d | mm | 944x386x247 | 973x403x255 |
| Package dimension of panel | w x h x d | mm | - | - |
| Weight of ID | netto / brutto | kg | 9,5 / 12,5 | 11,5 / 14,5 |
| Set temperature range | | °C | 16 ~ 30 | 16 ~ 30 |
| ADDITIONAL TECHNICAL INFORMATION | | | | |
| Screw holes distance | w x d | mm | See service manual | |
| Communication cable | | mm ² | 4x1,0 | 4x1,0 |
| Recommended power cable 11) | | mm ² | Outdoor unit power supplied | |
| Recommended air switch | | A | Outdoor unit power supplied | |
| EQUIPMENT | | | | |
| Plasma generator | | | yes | yes |
| Wifi module | | | no | no |
| Drain pump | | | no | no |
| Max. lift (from bottom of ID unit) | | mm | - | - |
| Dry contact (ON/OFF) | | | no | no |
| Alarm contact | | | no | no |
| Fresh air inlet | | | no | no |
| STANDARD ACCESSORIES | | | | |
| Standard health filter | | | SAF-OPWA1, SAF-OPWC1 | |
| Remote controller (IR) | | | YAA1FB1 | YAA1FB1 |
| Wired controller | | | - | - |
| OPTIONAL ACCESSORIES | | | | |
| Optional health filters | | | SAF-OPWB1, SAF-OPWC1, SAF-OPWE1, SAF-OPWS1, SAF-OPWP1 | |
| Wired controller | | | - | - |
| Central controller | | | - | - |
| Other | | | G2S | |

These indoor units may be combined with other indoor units from HIGH POWER MULTI SYSTEM series, it is essential to follow combinations recommended in the combination table.

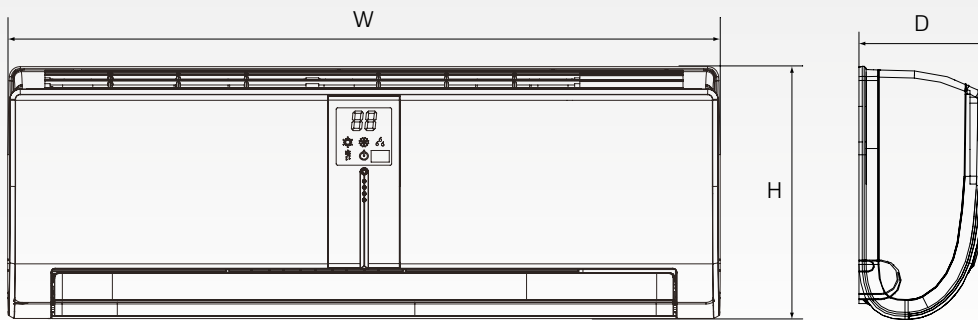
The specification of products is subject to change based on further development of the units by the producer and can be changed without prior notice. Refer to rating label.

R410A (50% HFC-32, 50% HFC-125), GWP 2088

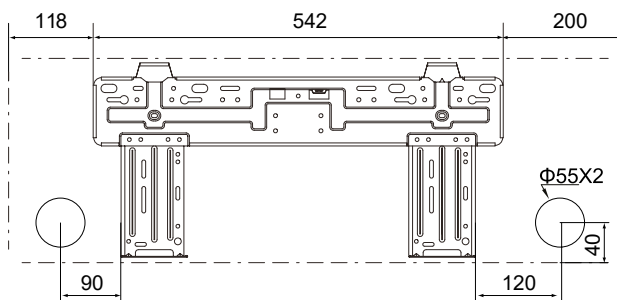
Contains fluorinated greenhouse gases covered by the Kyoto Protocol.

Explanatory notes on the very last page of the catalogue.

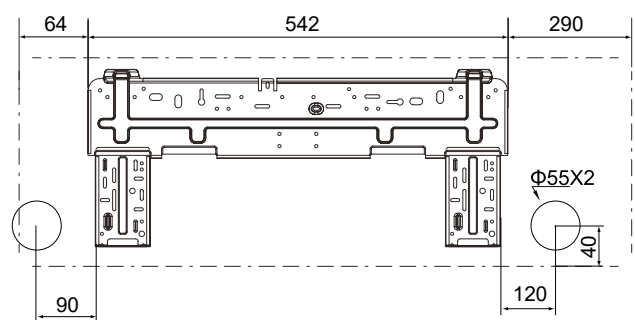
APPEARANCE AND DIMENSIONS OF WALL MOUNTED INDOOR UNITS SYMPHONY
HIGH POWER MULTI SYSTEM SERIES



MS-H09AISW PT



MS-H12AISW PT



units: mm

CONSOLE INDOOR UNITS

HIGH POWER MULTI SYSTEM SERIES

| MODEL | | | MS-P09AI | MS-P12AI | MS-P18AI | | |
|---|-------------------|--------------------|-----------------------------|-------------------|-------------------|--|--|
| Capacity cooling/heating 1) | Nominal (min-max) | kW | 2,6 / 2,8 | 3,5 / 3,8 | 5,3 / 5,8 | | |
| Power supply | | Hz / V | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | | |
| Air flow of ID | max-min | m ³ / h | 650-480 | 750-550 | 840-650 | | |
| Sound pressure of ID 4) | SH/H/M/L | dB(A) | 40/38/33/26 | 42/40/37/32 | 48/46/41/35 | | |
| Sound power of ID 4) | SH/H/M/L | dB(A) | 50/48/43/36 | 52/50/47/42 | 58/56/51/45 | | |
| External static pressure | | Pa | - | - | - | | |
| Dehumidifying volume | | l / h | 0,8 | 1,4 | 1,8 | | |
| Refrigerant type | | Type | R410A | R410A | R410A | | |
| Pipe diameter - liquid side 5) | | inch / mm | ¼ / 6,4 | ¼ / 6,4 | ¼ / 6,4 | | |
| Pipe diameter - gas side 5) | | inch / mm | ¾ / 19,5 | ¾ / 19,5 | ¾ / 12,7 | | |
| Dimension of ID | w x h x d | mm | 700x600x215 | 700x600x215 | 700x600x215 | | |
| Dimension of panel | w x h x d | mm | - | - | - | | |
| Package dimension of ID | w x h x d | mm | 791x710x286 | 791x710x286 | 791x710x286 | | |
| Package dimension of panel | w x h x d | mm | - | - | - | | |
| Weight of ID | netto / brutto | kg | 15,0 / 18,0 | 15,0 / 18,0 | 15,0 / 18,0 | | |
| Set temperature range | | °C | 16 ~ 30 | 16 ~ 30 | 16 ~ 30 | | |
| ADDITIONAL TECHNICAL INFORMATION | | | | | | | |
| Screw holes distance | w x d | mm | See service manual | | | | |
| Communication cable | | mm ² | 4x0,75 | 4x0,75 | 4x0,75 | | |
| Recommended power cable 11) | | mm ² | Outdoor unit power supplied | | | | |
| Recommended air switch | | A | Outdoor unit power supplied | | | | |
| EQUIPMENT | | | | | | | |
| Plasma generator | | | yes | yes | yes | | |
| Wifi module | | | yes | yes | yes | | |
| Drain pump | | | no | no | no | | |
| Max. lift (from bottom of ID unit) | | mm | - | - | - | | |
| Dry contact (ON/OFF) | | | no | no | no | | |
| Alarm contact | | | no | no | no | | |
| Fresh air inlet | | | no | no | no | | |
| STANDARD ACCESSORIES | | | | | | | |
| Standard health filter | | | - | - | - | | |
| Remote controller (IR) | | | YAA1FB1 | YAA1FB1 | YAA1FB1 | | |
| Wired controller | | | | | | | |
| OPTIONAL ACCESSORIES | | | | | | | |
| Optional health filters | | | no | no | no | | |
| Wired controller | | | no | no | no | | |
| Central controller | | | no | no | no | | |
| Other | | | G25 | | | | |

These indoor units may be combined with other indoor units from HIGH POWER MULTI SYSTEM series, it is essential to follow combinations recommended in the combination table.

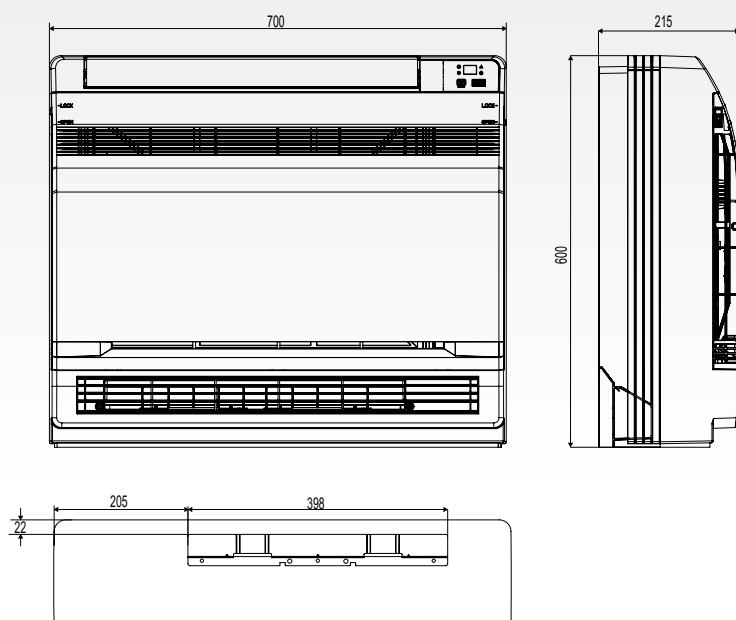
The specification of products is subject to change based on further development of the units by the producer and can be changed without prior notice. Refer to rating label.

R410A (50% HFC-32, 50% HFC-125), GWP 2088

Contains fluorinated greenhouse gases covered by the Kyoto Protocol.

Explanatory notes on the very last page of the catalogue.

APPEARANCE AND DIMENSIONS OF INDOOR UNIT



units: mm

HIGH POWER MULTI SYSTEM SERIES

| MODEL | | | MC-C12AI | MC-C18AI | MC-C24AI | | |
|---|-------------------|--------------------|-------------------------|-----------------------------|--------------------------|--|--|
| Capacity cooling/heating 1) | Nominal (min-max) | kW | 3,5 / 4,0 | 4,5 / 5,0 | 7,1 / 8,0 | | |
| Power supply | | Hz / V | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | | |
| Air flow of ID | H | m ³ / h | 600 | 600 | 1180 | | |
| Sound pressure of ID 4) | H/M/L | dB(A) | 46 / 44 / 42 | 46 / 44 / 42 | 39 / 37 / 35 | | |
| Sound power of ID 4) | H/M/L | dB(A) | 56 / 54 / 52 | 56 / 54 / 52 | 49 / 47 / 45 | | |
| External static pressure | | Pa | - | - | - | | |
| Dehumidifying volume | | l / h | 1,4 | 1,8 | 2,5 | | |
| Refrigerant type | | Type | R410A | R410A | R410A | | |
| Pipe diameter - liquid side 5) | | inch / mm | ¼ / 6,4 | ¼ / 6,4 | ¾ / 9,5 | | |
| Pipe diameter - gas side 5) | | inch / mm | ¾ / 9,5 | ¾ / 12,7 | ¾ / 15,9 | | |
| Dimension of ID | w x h x d | mm | 570x230x570 | 570x230x570 | 840x240x840 | | |
| Dimension of panel | w x h x d | mm | 851x325x731 | 851x325x731 | 963x310x963 | | |
| Package dimension of ID | w x h x d | mm | 650x50x650 | 650x50x650 | 950x60x950 | | |
| Package dimension of panel | w x h x d | mm | 733x673x117 | 733x673x117 | 1043x130x1028 | | |
| Weight of ID jednotky (panelu) | netto / brutto | kg | 18,0 / 23,0 (2,5 / 3,5) | 18,0 / 23,0 (2,5 / 3,5) | 30,0 / 38,0 (6,5 / 10,0) | | |
| Set temperature range | | °C | 16 ~ 30 | 16 ~ 30 | 16 ~ 30 | | |
| ADDITIONAL TECHNICAL INFORMATION | | | | | | | |
| Screw holes distance | w x d | mm | 400x570 | 400x570 | 680x780 | | |
| Communication cable | | mm ² | 4x1,0 | 4x1,0 | 4x1,0 | | |
| Recommended power cable 11) | | mm ² | | Outdoor unit power supplied | | | |
| Recommended air switch | | A | | Outdoor unit power supplied | | | |
| EQUIPMENT | | | | | | | |
| Plasma generator | | | no | no | no | | |
| Wifi module | | | no | no | no | | |
| Drain pump | | | yes | yes | yes | | |
| Max. lift (from bottom of ID unit) | | mm | 500 | 500 | 500 | | |
| Dry contact (ON/OFF) | | | no | no | no | | |
| Alarm contact | | | no | no | no | | |
| Fresh air inlet | | | yes | yes | yes | | |
| STANDARD ACCESSORIES | | | | | | | |
| Standard health filter | | | - | - | - | | |
| Remote controller (IR) | | | YT1F | YT1F | YT1F | | |
| Wired controller | | | XK19 | XK19 | XK19 | | |
| OPTIONAL ACCESSORIES | | | | | | | |
| Optional health filters | | | - | - | - | | |
| Wired controller | | | - | - | - | | |
| Central controller | | | SCC-16 | SCC-16 | SCC-16 | | |
| Other | | | | G25 | | | |

These indoor units may be combined with other indoor units from HIGH POWER MULTI SYSTEM series, it is essential to follow combinations recommended in the combination table.

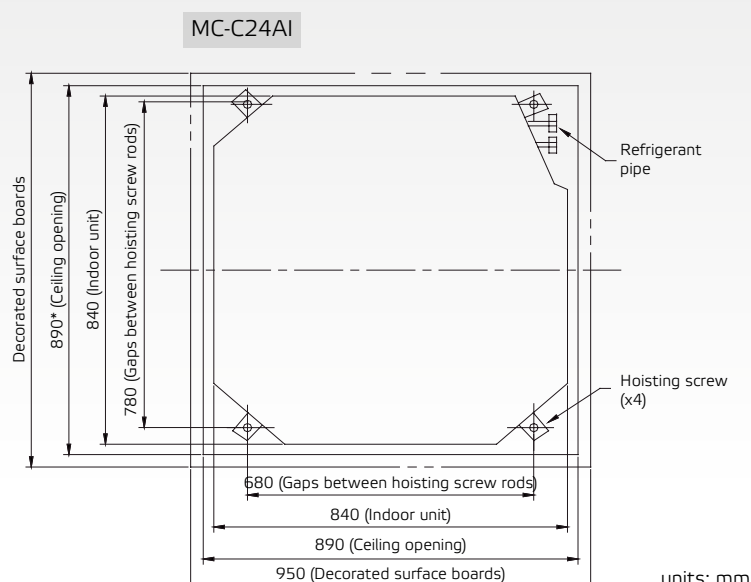
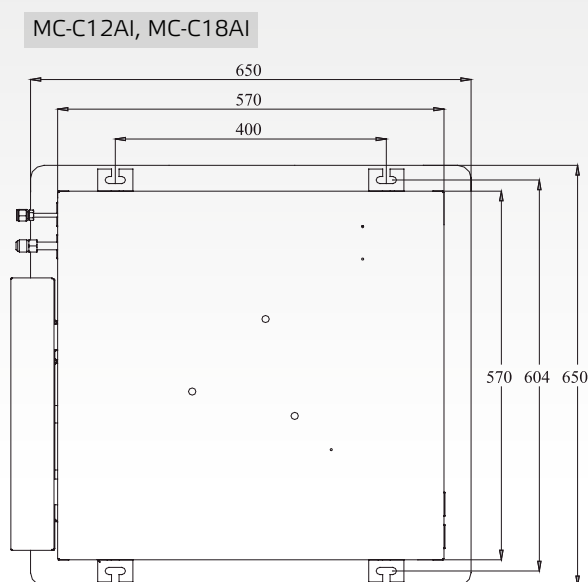
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R410A (50% HFC-32, 50% HFC-125), GWP 2088

Contains fluorinated greenhouse gases covered by the Kyoto Protocol.

Explanatory notes on the very last page of the catalogue.

APPEARANCE AND DIMENSIONS OF INDOOR UNIT



units: mm



FLOOR CEILING INDOOR UNITS

HIGH POWER MULTI SYSTEM SERIES

| MODEL | | | MC-F09AI | MC-F12AI | MC-F18AI | MC-F24AI | | |
|---|-------------------|--------------------|-----------------------------|-------------------|-------------------|-------------------|--|--|
| Capacity cooling/heating 1) | Nominal (min-max) | kW | 2,5 / 2,8 | 3,5 / 3,9 | 5,0 / 5,5 | 7,1 / 8,0 | | |
| Power supply | | Hz / V | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | | |
| Air flow of ID | H | m ³ / h | 650 | 650 | 950 | 1250 | | |
| Sound pressure of ID 4) | H/N | dB(A) | 40 / 36 | 40 / 36 | 45 / 40 | 48 / 40 | | |
| Sound power of ID 4) | H/N | dB(A) | 50 / 46 | 50 / 46 | 55 / 50 | 58 / 50 | | |
| External static pressure | | Pa | - | - | - | - | | |
| Dehumidifying volume | | l / h | 0,8 | 1,4 | 1,8 | 2,5 | | |
| Refrigerant type | | Type | R410A | R410A | R410A | R410A | | |
| Pipe diameter - liquid side 5) | | inch / mm | ¼ / 6,4 | ¼ / 6,4 | ¼ / 6,4 | ¼ / 9,5 | | |
| Pipe diameter - gas side 5) | | inch / mm | ¾ / 19,5 | ¾ / 19,5 | ¾ / 12,7 | ¾ / 15,9 | | |
| Dimension of ID | w x h x d | mm | 1220x700x225 | 1220x700x225 | 1220x700x225 | 1220x700x225 | | |
| Dimension of panel | w x h x d | mm | - | - | - | - | | |
| Package dimension of ID | w x h x d | mm | 1343x823x315 | 1343x823x315 | 1343x823x315 | 1343x823x315 | | |
| Package dimension of panel | w x h x d | mm | - | - | - | - | | |
| Weight of ID | netto / brutto | kg | 40,0 / 50,0 | 40,0 / 50,0 | 45,0 / 54,0 | 45,0 / 54,0 | | |
| Set temperature range | | °C | 16 - 30 | 16 - 30 | 16 - 30 | 16 - 30 | | |
| ADDITIONAL TECHNICAL INFORMATION | | | | | | | | |
| Screw holes distance | w x d | mm | 1158x280 | | | | | |
| Communication cable | | mm ² | 4x1,0 | 4x1,0 | 4x1,0 | 4x1,0 | | |
| Recommended power cable 11) | | mm ² | Outdoor unit power supplied | | | | | |
| Recommended air switch | | A | Outdoor unit power supplied | | | | | |
| EQUIPMENT | | | | | | | | |
| Plasma generator | | | no | no | no | no | | |
| Wifi module | | | no | no | no | no | | |
| Drain pump | | | no | no | no | no | | |
| Max. lift (from bottom of ID unit) | | mm | - | - | - | - | | |
| Dry contact (ON/OFF) | | | no | no | no | no | | |
| Alarm contact | | | no | no | no | no | | |
| Fresh air inlet | | | no | no | no | no | | |
| STANDARD ACCESSORIES | | | | | | | | |
| Standard health filter | | | - | - | - | - | | |
| Remote controller (IR) | | | YT1F | YT1F | YT1F | YT1F | | |
| Wired controller | | | XK19 | XK19 | XK19 | XK19 | | |
| OPTIONAL ACCESSORIES | | | | | | | | |
| Optional health filters | | | - | - | - | - | | |
| Wired controller | | | - | - | - | - | | |
| Central controller | | | SCC-16 | SCC-16 | SCC-16 | SCC-16 | | |
| Other | | | G25 | | | | | |

These indoor units may be combined with other indoor units from HIGH POWER MULTI SYSTEM series, it is essential to follow combinations recommended in the combination table.

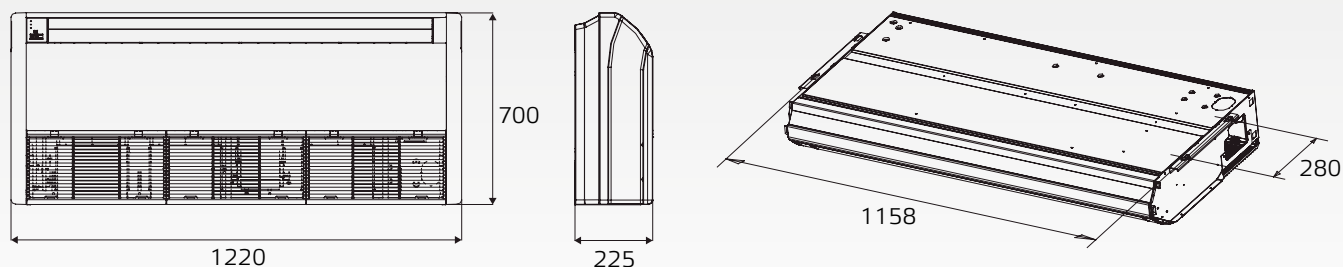
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R410A (50% HFC-32, 50% HFC-125), GWP 2088

Contains fluorinated greenhouse gases covered by the Kyoto Protocol.

Explanatory notes on the very last page of the catalogue.

APPEARANCE AND DIMENSIONS OF INDOOR UNIT



units: mm

DUCT INDOOR UNITS

HIGH POWER MULTI SYSTEM SERIES

| MODEL | | | MC-D09AI | MC-D12AI | MC-D18AI | MC-D24AI | |
|---|-------------------|-----------|-----------------------------|-------------------|-------------------|-------------------|--|
| Capacity cooling/heating 1) | Nominal (min-max) | kW | 2,5 / 2,8 | 3,5 / 3,9 | 5,0 / 5,5 | 7,1 / 8,0 | |
| Power supply | | Hz / V | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | |
| Air flow of ID | H | m³ / h | 450 | 550 | 700 | 1000 | |
| Sound pressure of ID 4) | H/L | dB(A) | 37 / 31 | 39 / 32 | 41 / 33 | 42 / 34 | |
| Sound power of ID 4) | H/L | dB(A) | 47 / 41 | 49 / 42 | 51 / 43 | 52 / 44 | |
| External static pressure | min-max | Pa | 0-15 | 0-15 | 0-15 | 0-15 | |
| Dehumidifying volume | | l / h | 0,8 | 1,4 | 1,8 | 2,5 | |
| Refrigerant type | | Type | R410A | R410A | R410A | R410A | |
| Pipe diameter - liquid side 5) | | inch / mm | ¼ / 6,4 | ¼ / 6,4 | ¼ / 6,4 | ¼ / 9,5 | |
| Pipe diameter - gas side 5) | | inch / mm | ¾ / 19,5 | ¾ / 19,5 | ¾ / 12,7 | ¾ / 15,9 | |
| Dimension of ID | w x h x d | mm | 700x200x615 | 700x200x615 | 900x200x615 | 1100x200x615 | |
| Dimension of panel | w x h x d | mm | - | - | - | - | |
| Package dimension of ID | w x h x d | mm | 893x305x743 | 893x305x743 | 1123x305x743 | 1323x305x743 | |
| Package dimension of panel | w x h x d | mm | - | - | - | - | |
| Weight of ID | netto / brutto | kg | 22,0 / 27,0 | 23,0 / 29,0 | 27,0 / 36,0 | 31,0 / 41,0 | |
| Set temperature range | | °C | 16 ~ 30 | 16 ~ 30 | 16 ~ 30 | 16 ~ 30 | |
| ADDITIONAL TECHNICAL INFORMATION | | | | | | | |
| Screw holes distance | w x d | mm | 742x491 | 742x491 | 942x491 | 1142x491 | |
| Communication cable | | mm² | 4x1,0 | 4x1,0 | 4x1,0 | 4x1,0 | |
| Recommended power cable 11) | | mm² | Outdoor unit power supplied | | | | |
| Recommended air switch | | A | Outdoor unit power supplied | | | | |
| EQUIPMENT | | | | | | | |
| Plasma generator | | | no | no | no | no | |
| Wifi module | | | no | no | no | no | |
| Drain pump | | | yes | yes | yes | yes | |
| Max. lift (from bottom of ID unit) | | mm | 500 | 500 | 500 | 500 | |
| Dry contact (ON/OFF) | | | no | no | no | no | |
| Alarm contact | | | no | no | no | no | |
| Fresh air inlet | | | yes | yes | yes | yes | |
| STANDARD ACCESSORIES | | | | | | | |
| Standard health filter | | | - | - | - | - | |
| Remote controller (IR) | | | YT1F | YT1F | YT1F | YT1F | |
| Wired controller | | | XK19 | XK19 | XK19 | XK19 | |
| OPTIONAL ACCESSORIES | | | | | | | |
| Optional health filters | | | - | - | - | - | |
| Wired controller | | | - | - | - | - | |
| Central controller | | | SCC-16 | SCC-16 | SCC-16 | SCC-16 | |
| Other | | | G25 | | | | |

These indoor units may be combined with other indoor units from HIGH POWER MULTI SYSTEM series, it is essential to follow combinations recommended in the combination table.

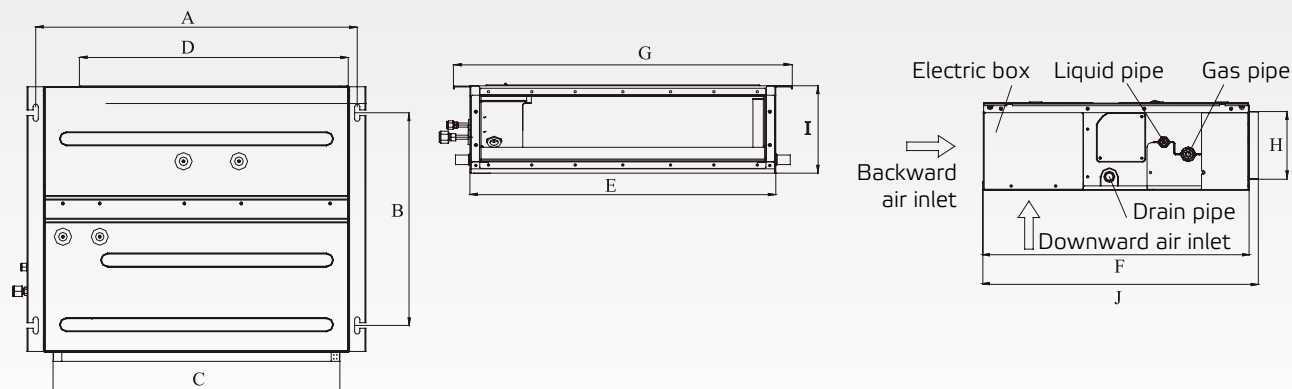
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R410A (50% HFC-32, 50% HFC-125), GWP 2088

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Explanatory notes on the very last page of the catalogue.

APPEARANCE AND DIMENSIONS OF INDOOR UNIT



| | A | B | C | D | E | F | G | H | I | J |
|----------|------|-----|------|------|------|-----|------|-----|-----|-----|
| MC-D09AI | 742 | 491 | 662 | 620 | 700 | 615 | 782 | 156 | 200 | 635 |
| MC-D12AI | 742 | 491 | 662 | 620 | 700 | 615 | 782 | 156 | 200 | 635 |
| MC-D18AI | 942 | 491 | 862 | 820 | 900 | 615 | 982 | 156 | 200 | 635 |
| MC-D24AI | 1142 | 491 | 1062 | 1020 | 1100 | 615 | 1182 | 156 | 200 | 635 |

units: mm

OUTDOOR UNITS

HIGH POWER MULTI SYSTEM SERIES

| MODEL | | | MS-E48AIN | MS-E56AIN | | |
|---|-------------------|-----------------------------------|-----------------------------------|-----------------------------------|--|--|
| Qty of connectable indoor units | | - | 2-8 | 2-9 | | |
| Capacity cooling/heating 1) | Nominal (min-max) | kW | 14,0 (1,0-16,0) / 16,0 (1,2-17,4) | 16,0 (1,0-18,0) / 18,0 (1,2-19,0) | | |
| Power supply | | Hz / V | 3~ / 50 / 380-415 | 3~ / 50 / 380-415 | | |
| Power input cooling/heating 1) | | W | 4600 / 4250 | 5200 / 4700 | | |
| Maximal power input 2) | | W | 6000 | 6500 | | |
| Power current cooling/heating | | A | 9,0 / 8,4 | 9,5 / 8,5 | | |
| Maximal power current 2) | | A | 12 | 12 | | |
| EER/COP 10) | | - | 2,7/3,2 | 2,65/3,5 | | |
| Air flow of ID | H | m ³ / h | 7000 | 7000 | | |
| Sound pressure of ID 4) | H | dB(A) | 58 | 58 | | |
| Sound power of ID 4) | H | dB(A) | - | - | | |
| Refrigerant type/charge | | Type / kg / t eq. CO ₂ | R410A / 4,95 / 10,33 | R410A / 4,95 / 10,33 | | |
| Additional refrigerant | | g / m | depend on calculation | depend on calculation | | |
| Pipe diameter - liquid side 5) | | inch / mm | ¾ / 19,5 | ¾ / 19,5 | | |
| Pipe diameter - gas side 5) | | inch / mm | ¾ / 19,5 | ¾ / 19,5 | | |
| Max pipe length without additional refrigerant 6) | | m | 30 | 30 | | |
| Max. total pipe length (ΣL+ΣA) 7) | | m | 135 | 145 | | |
| Max. total pipe length between OD and Dbox (ΣL) | | m | 55 | 55 | | |
| Max. total pipe length between Dbox and ID (ΣA) | | m | 80 | 90 | | |
| Pipe length between Dbox and ID (A1,2,...) | | m | 15 | 15 | | |
| Max. height between OD and Dbox (H1) and ID (H2) | | m | 30 | 30 | | |
| Max. height between DBoxes or IDs (H3) | | m | 15 | 15 | | |
| Dimension of ID | w x h x d | mm | 900x1345x340 | 900x1345x340 | | |
| Package dimension of ID | w x h x d | mm | 993x1500x453 | 993x1500x453 | | |
| Weight of ID | netto / brutto | kg | 116/125 | 116/125 | | |
| Operating temperature range cooling 8) | | °C | 18-48 | 18-48 | | |
| Operating temperature range heating 8) | | °C | -10-24 | -10-24 | | |

ADDITIONAL TECHNICAL INFORMATION

| | | | | | | |
|----------------------------|-------|-----------------|---------|---------|--|--|
| Screw holes distance of OD | w x d | mm | 572x378 | 572x378 | | |
| Communication cable | | mm ² | 2x1,5 | 2x1,5 | | |
| Recommended power cable | | mm ² | 5x4,0 | 5x4,0 | | |
| Recommended air switch | | A | 20 | 20 | | |

EQUIPMENT

| | | | | | | |
|-----------------------|--|--|--------------|--------------|--|--|
| Throttling method | | | - | - | | |
| Bottom chassis heater | | | no | no | | |
| Crankcase heater | | | Heating belt | Heating belt | | |
| Bottom plugs for OD | | | yes | yes | | |
| Drain pipe connector | | | yes | yes | | |
| Pipe reduction | | | yes | yes | | |

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R410A (50% HFC-32, 50% HFC-125), GWP 2088

Contains fluorinated greenhouse gases covered by the Kyoto Protocol.

Explanatory notes on the very last page of the catalogue.

May not be used separately, must be combined with indoor units from Multi Variable (MV) series. For using 2-3 distribution boxes in one system it is necessary to use MS-01BI joints.

DISTRIBUTION BOXES

| MODEL | | | DB2-195B | DB3-195B | DB5-16AF |
|--|----------------|--------|-------------------|-------------------|-------------------|
| Maximum number of connectable indoor units | | - | 2 | 3 | 5 |
| Power Supply | | Hz / V | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 |
| Connection port to outdoor unit liquid / gas | | mm | 9,7 / 19,3 | 9,7 / 19,3 | 9,7 / 16,3 |
| Connection port to indoor unit liquid / gas | | mm | 2x 6,4 / 16,3 | 3x 6,4 / 16,3 | 5x 6,4 / 9,5 |
| Connection Method | | - | braze | braze | flare |
| Sound pressure level 4) | | dB(A) | 28 | 28 | 30 |
| Sound power level 4) | | dB(A) | - | - | - |
| Unit dimensions | w x h x d | mm | 600x313x182 | 600x313x182 | 617x410x193 |
| Package dimensions | w x h x d | mm | 683x392x270 | 683x392x270 | 676x473x275 |
| Weight | netto / brutto | kg | 5,5 / 7,5 | 6,0 / 8,0 | 9,0 / 11,0 |

ADDITIONAL TECHNICAL INFORMATION

| | | | | | |
|-------------------------|-------|-----------------|---------|---------|---------|
| Screw holes distance | w x d | mm | 383x263 | 383x263 | 463x338 |
| Communication cable | | mm ² | 2x1,5 | 2x1,5 | 2x1,5 |
| Recommended power cable | | mm ² | 3x1,5 | 3x1,5 | 3x1,5 |
| Recommended air switch | | A | C10 | C10 | C10 |

For using 2-3 distribution boxes in one system it is necessary to use MS-01BI joints.

DISTRIBUTION BOXES ADDRESS SETTINGS

| Position | Address |
|----------|--------------------|
| | Distribution box 1 |
| | Distribution box 2 |
| | Distribution box 3 |

OUTDOOR UNITS

HIGH POWER MULTI SYSTEM SERIES

COMBINATION TABLE

(unit: x1000Btu/h)

| MS-E48AIN | | | | | | |
|-----------------|-----------------|------------------|-----------------|------------------|-----------------|-----------------|
| 2 UNITS | | | | | | |
| 7+18 | 9+18 | 12+12 | 12+24 | 18+18 | 18+24 | 24+24 |
| 7+24 | 9+24 | 12+18 | | | | |
| 3 UNITS | | | | | | |
| 7+7+12 | 7+9+18 | 7+18+18 | 9+9+18 | 9+12+24 | 12+12+12 | 12+18+24 |
| 7+7+18 | 7+9+24 | 7+18+24 | 9+9+24 | 9+18+18 | 12+12+18 | 12+24+24 |
| 7+7+24 | 7+12+12 | 7+24+24 | 9+12+12 | 9+18+24 | 12+12+24 | 18+18+18 |
| 7+9+9 | 7+12+18 | 9+9+9 | 9+12+18 | 9+24+24 | 12+18+18 | 18+18+24 |
| 7+9+12 | 7+12+24 | 9+9+12 | | | | |
| 4 UNITS | | | | | | |
| 7+7+7+7 | 7+7+9+24 | 7+9+9+9 | 7+9+18+18 | 7+12+18+24 | 9+9+12+18 | 9+12+18+18 |
| 7+7+7+9 | 7+7+12+12 | 7+9+9+12 | 7+9+18+24 | 7+18+18+18 | 9+9+12+24 | 9+12+18+24 |
| 7+7+7+12 | 7+7+12+18 | 7+9+9+18 | 7+9+24+24 | 9+9+9+9 | 9+9+18+18 | 9+18+18+18 |
| 7+7+7+18 | 7+7+12+24 | 7+9+9+24 | 7+12+12+12 | 9+9+9+12 | 9+9+18+24 | 12+12+12+12 |
| 7+7+7+24 | 7+7+18+18 | 7+9+12+12 | 7+12+12+18 | 9+9+9+18 | 9+12+12+12 | 12+12+12+18 |
| 7+7+9+9 | 7+7+18+24 | 7+9+12+18 | 7+12+12+24 | 9+9+9+24 | 9+12+12+18 | 12+12+12+24 |
| 7+7+9+12 | 7+7+24+24 | 7+9+12+24 | 7+12+18+18 | 9+9+12+12 | 9+12+12+24 | 12+12+18+18 |
| 7+7+9+18 | | | | | | |
| 5 UNITS | | | | | | |
| 7+7+7+7+7 | 7+7+7+9+24 | 7+7+9+9+18 | 7+7+12+12+24 | 7+9+9+12+18 | 7+12+12+12+18 | 9+9+9+12+24 |
| 7+7+7+7+9 | 7+7+7+12+12 | 7+7+9+9+24 | 7+7+12+18+18 | 7+9+9+12+24 | 9+9+9+9+9 | 9+9+9+18+18 |
| 7+7+7+7+12 | 7+7+7+12+18 | 7+7+9+12+12 | 7+9+9+9+9 | 7+9+9+18+18 | 9+9+9+9+12 | 9+9+12+12+12 |
| 7+7+7+7+18 | 7+7+7+12+24 | 7+7+9+12+18 | 7+9+9+9+12 | 7+9+12+12+12 | 9+9+9+9+18 | 9+9+12+12+18 |
| 7+7+7+7+24 | 7+7+7+18+18 | 7+7+9+12+24 | 7+9+9+9+18 | 7+9+12+12+18 | 9+9+9+9+24 | 9+12+12+12+12 |
| 7+7+7+9+9 | 7+7+7+18+24 | 7+7+9+18+18 | 7+9+9+9+24 | 7+9+12+12+24 | 9+9+9+12+12 | 9+12+12+12+18 |
| 7+7+7+9+12 | 7+7+9+9+9 | 7+7+12+12+12 | 7+9+9+12+12 | 7+12+12+12+12 | 9+9+9+12+18 | 12+12+12+12+12 |
| 7+7+7+9+18 | 7+7+9+9+12 | 7+7+12+12+18 | | | | |
| 6 UNITS | | | | | | |
| 7+7+7+7+7+7 | 7+7+7+7+9+12 | 7+7+7+7+18+18 | 7+7+7+9+12+18 | 7+7+9+9+12+12 | 7+9+9+9+9+18 | 9+9+9+9+9+9 |
| 7+7+7+7+7+9 | 7+7+7+7+9+18 | 7+7+7+9+9+9 | 7+7+7+12+12+12 | 7+7+9+9+12+18 | 7+9+9+9+12+12 | 9+9+9+9+9+12 |
| 7+7+7+7+7+12 | 7+7+7+7+9+24 | 7+7+7+9+9+12 | 7+7+7+12+12+18 | 7+7+9+12+12+12 | 7+9+9+9+12+18 | 9+9+9+9+9+18 |
| 7+7+7+7+7+18 | 7+7+7+7+12+12 | 7+7+7+9+9+18 | 7+7+9+9+9+9 | 7+7+12+12+12+12 | 7+9+9+12+12+12 | 9+9+9+9+12+12 |
| 7+7+7+7+7+24 | 7+7+7+7+12+18 | 7+7+7+9+9+24 | 7+7+9+9+9+12 | 7+9+9+9+9+9 | 7+9+12+12+12+12 | 9+9+9+12+12+12 |
| 7+7+7+7+9+9 | 7+7+7+7+12+24 | 7+7+7+9+12+12 | 7+7+9+9+9+18 | 7+9+9+9+9+12 | | |
| 7 UNITS | | | | | | |
| 7+7+7+7+7+7+7 | 7+7+7+7+7+7+18 | 7+7+7+7+7+9+18 | 7+7+7+7+9+9+12 | 7+7+7+7+12+12+12 | 7+7+7+9+9+12+12 | 7+9+9+9+9+9+9 |
| 7+7+7+7+7+7+9 | 7+7+7+7+7+9+9 | 7+7+7+7+7+12+12 | 7+7+7+7+9+9+18 | 7+7+7+9+9+9+9 | 7+7+9+9+9+9+9 | 7+9+9+9+9+9+12 |
| 7+7+7+7+7+7+12 | 7+7+7+7+7+9+12 | 7+7+7+7+9+9+9 | 7+7+7+7+9+12+12 | 7+7+9+9+9+9+12 | 7+7+9+9+9+9+12 | 9+9+9+9+9+9+9 |
| 7+7+7+7+7+7+18 | 7+7+7+7+7+12+12 | 7+7+7+7+9+9+18 | 7+7+9+9+9+9+9 | 7+7+12+12+12+12 | 7+9+9+12+12+12 | 9+9+9+9+12+12 |
| 7+7+7+7+7+7+24 | 7+7+7+7+7+12+18 | 7+7+7+7+9+9+24 | 7+7+9+9+9+9+12 | 7+9+9+9+9+9+9 | 7+9+12+12+12+12 | 9+9+9+12+12+12 |
| 7+7+7+7+7+9+9 | 7+7+7+7+7+12+24 | 7+7+7+7+9+12+12 | 7+7+9+9+9+9+18 | 7+9+9+9+9+9+12 | | |
| 8 UNITS | | | | | | |
| 7+7+7+7+7+7+7+7 | 7+7+7+7+7+7+7+9 | 7+7+7+7+7+7+7+12 | 7+7+7+7+7+7+9+9 | 7+7+7+7+7+7+9+12 | 7+7+7+7+7+9+9+9 | 7+7+7+7+7+9+9+9 |
| 7+9+9+9+9+9+9+9 | | | | | | |

When connecting other than recommended combinations, the system will not work.

OUTDOOR UNITS

HIGH POWER MULTI SYSTEM SERIES

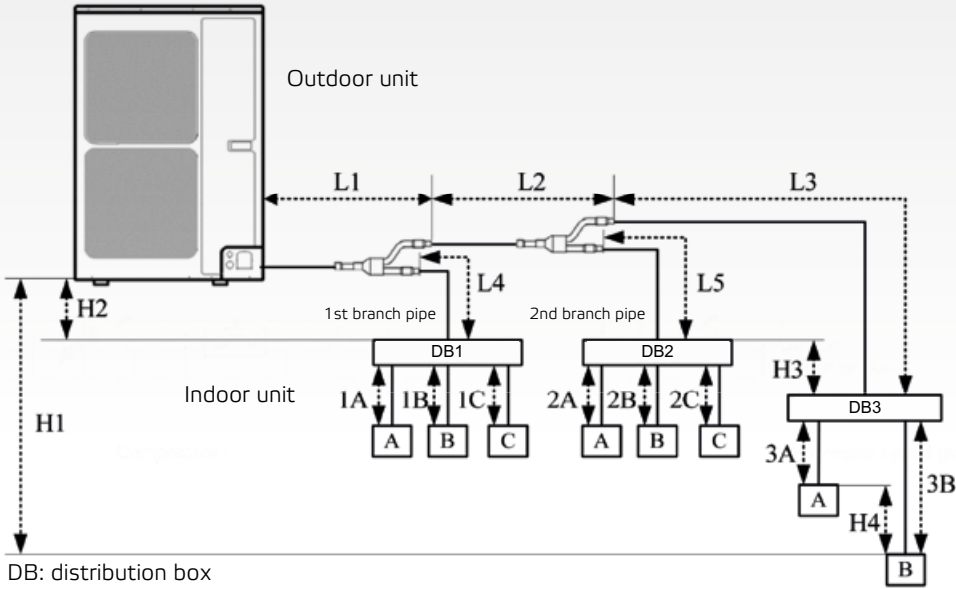
COMBINATION TABLE

(unit: x1000Btu/h)

| MS-E56AIN | | | | | | |
|-------------------|--------------------|-------------------|--------------------|-------------------|--------------------|-------------------|
| 2 UNITS | | | | | | |
| 7+18 | 9+18 | 12+18 | 12+24 | 18+18 | 18+24 | 24+24 |
| 7+24 | 9+24 | | | | | |
| 3 UNITS | | | | | | |
| 7+7+18 | 7+12+12 | 7+24+24 | 9+12+12 | 9+18+24 | 12+12+24 | 18+18+18 |
| 7+7+24 | 7+12+18 | 9+9+12 | 9+12+18 | 9+24+24 | 12+18+18 | 18+18+24 |
| 7+9+12 | 7+12+24 | 9+9+18 | 9+12+24 | 12+12+12 | 12+18+24 | 18+24+24 |
| 7+9+18 | 7+18+18 | 9+9+24 | 9+18+18 | 12+12+18 | 12+24+24 | 24+24+24 |
| 7+9+24 | 7+18+24 | | | | | |
| 4 UNITS | | | | | | |
| 7+7+7+7 | 7+7+12+12 | 7+9+9+24 | 7+12+12+24 | 9+9+9+24 | 9+12+12+18 | 12+12+12+18 |
| 7+7+7+9 | 7+7+12+18 | 7+9+12+12 | 7+12+18+18 | 9+9+12+12 | 9+12+12+24 | 12+12+12+24 |
| 7+7+7+12 | 7+7+12+24 | 7+9+12+18 | 7+12+18+24 | 9+9+12+18 | 9+12+18+18 | 12+12+18+18 |
| 7+7+7+18 | 7+7+18+18 | 7+9+12+24 | 7+18+18+18 | 9+9+12+24 | 9+12+18+24 | 12+12+18+24 |
| 7+7+7+24 | 7+7+18+24 | 7+9+18+18 | 7+18+18+24 | 9+9+18+18 | 9+12+24+24 | 12+12+24+24 |
| 7+7+9+9 | 7+7+24+24 | 7+9+18+24 | 7+18+24+24 | 9+9+18+24 | 9+18+18+18 | 12+18+18+18 |
| 7+7+9+12 | 7+9+9+9 | 7+9+24+24 | 9+9+9+9 | 9+9+24+24 | 9+18+18+24 | 12+18+18+24 |
| 7+7+9+18 | 7+9+9+12 | 7+12+12+12 | 9+9+9+12 | 9+12+12+12 | 12+12+12+12 | 18+18+18+18 |
| 7+7+9+24 | 7+9+9+18 | 7+12+12+18 | 9+9+9+18 | | | |
| 5 UNITS | | | | | | |
| 7+7+7+7+7 | 7+7+7+12+24 | 7+7+9+18+18 | 7+9+9+9+18 | 7+9+12+18+18 | 9+9+9+9+24 | 9+9+12+18+24 |
| 7+7+7+7+9 | 7+7+7+18+18 | 7+7+9+18+24 | 7+9+9+9+24 | 7+9+12+18+24 | 9+9+9+12+12 | 9+9+18+18+18 |
| 7+7+7+7+12 | 7+7+7+18+24 | 7+7+9+24+24 | 7+9+9+12+12 | 7+9+18+18+18 | 9+9+9+12+18 | 9+12+12+12+12 |
| 7+7+7+7+18 | 7+7+7+24+24 | 7+7+12+12+12 | 7+9+9+12+18 | 7+12+12+12+12 | 9+9+9+12+24 | 9+12+12+12+18 |
| 7+7+7+7+24 | 7+7+9+9+9 | 7+7+12+12+18 | 7+9+9+12+24 | 7+12+12+12+18 | 9+9+9+18+18 | 9+12+12+12+24 |
| 7+7+7+9+9 | 7+7+9+9+12 | 7+7+12+12+24 | 7+9+9+18+18 | 7+12+12+12+24 | 9+9+9+18+24 | 9+12+12+18+18 |
| 7+7+7+9+12 | 7+7+9+9+18 | 7+7+12+18+18 | 7+9+9+18+24 | 7+12+12+18+18 | 9+9+12+12+12 | 12+12+12+12+12 |
| 7+7+7+9+18 | 7+7+9+9+24 | 7+7+12+18+24 | 7+9+12+12+12 | 9+9+9+9+9 | 9+9+12+12+18 | 12+12+12+12+18 |
| 7+7+7+9+24 | 7+7+9+12+12 | 7+7+18+18+18 | 7+9+12+12+18 | 9+9+9+9+12 | 9+9+12+12+24 | 12+12+12+12+24 |
| 7+7+7+12+12 | 7+7+9+12+18 | 7+9+9+9+9 | 7+9+12+12+24 | 9+9+9+9+18 | 9+9+12+18+18 | 12+12+12+18+18 |
| 7+7+7+12+18 | 7+7+9+12+24 | 7+9+9+9+12 | | | | |
| 6 UNITS | | | | | | |
| 7+7+7+7+7+7 | 7+7+7+7+12+18 | 7+7+7+9+18+18 | 7+7+9+9+9+24 | 7+9+9+9+9+9 | 7+9+9+12+12+18 | 9+9+9+9+12+18 |
| 7+7+7+7+7+9 | 7+7+7+7+12+24 | 7+7+7+9+18+24 | 7+7+9+9+12+12 | 7+9+9+9+9+12 | 7+9+12+12+12+12 | 9+9+9+9+12+24 |
| 7+7+7+7+7+12 | 7+7+7+7+18+18 | 7+7+7+12+12+12 | 7+7+9+9+12+18 | 7+9+9+9+9+18 | 7+9+12+12+12+18 | 9+9+9+9+18+18 |
| 7+7+7+7+7+18 | 7+7+7+9+9+9 | 7+7+7+12+12+18 | 7+7+9+9+12+24 | 7+9+9+9+9+24 | 7+12+12+12+12+12 | 9+9+9+12+12+12 |
| 7+7+7+7+7+24 | 7+7+7+9+9+12 | 7+7+7+12+12+24 | 7+7+9+9+18+18 | 7+9+9+9+12+12 | 9+9+9+9+9+9 | 9+9+9+12+12+18 |
| 7+7+7+7+9+9 | 7+7+7+9+9+18 | 7+7+7+12+18+18 | 7+7+9+12+12+12 | 7+9+9+9+12+18 | 9+9+9+9+12 | 9+9+12+12+12+12 |
| 7+7+7+7+9+12 | 7+7+7+9+9+24 | 7+7+9+9+9+9 | 7+7+9+12+12+18 | 7+9+9+9+12+24 | 9+9+9+9+18 | 9+9+12+12+12+18 |
| 7+7+7+7+9+18 | 7+7+7+9+12+12 | 7+7+9+9+9+12 | 7+7+9+12+12+24 | 7+9+9+9+18+18 | 9+9+9+9+24 | 9+12+12+12+12+12 |
| 7+7+7+7+9+24 | 7+7+7+9+12+18 | 7+7+9+9+9+18 | 7+7+9+12+18+18 | 7+9+9+12+12+12 | 9+9+9+9+12+12 | 12+12+12+12+12+12 |
| 7+7+7+7+12+12 | 7+7+7+9+12+24 | | | | | |
| 7 UNITS | | | | | | |
| 7+7+7+7+7+7+7 | 7+7+7+7+7+9+18 | 7+7+7+7+9+9+12 | 7+7+7+9+9+9+9 | 7+7+7+9+12+12+18 | 7+7+9+9+12+12+12 | 7+9+9+9+12+12+12 |
| 7+7+7+7+7+7+9 | 7+7+7+7+7+9+24 | 7+7+7+7+9+9+18 | 7+7+7+9+9+9+12 | 7+7+7+12+12+12+12 | 7+7+9+12+12+12+12 | 9+9+9+9+9+9+9 |
| 7+7+7+7+7+7+12 | 7+7+7+7+7+12+12 | 7+7+7+7+9+9+24 | 7+7+7+9+9+9+18 | 7+7+9+9+9+9+9 | 7+9+9+9+9+9+9 | 9+9+9+9+9+9+12 |
| 7+7+7+7+7+7+18 | 7+7+7+7+7+12+18 | 7+7+7+7+9+12+12 | 7+7+7+9+9+9+24 | 7+7+9+9+9+9+12 | 7+9+9+9+9+9+12 | 9+9+9+9+9+9+18 |
| 7+7+7+7+7+7+24 | 7+7+7+7+7+12+24 | 7+7+7+7+9+12+18 | 7+7+7+9+9+12+12 | 7+7+9+9+9+9+18 | 7+9+9+9+9+9+18 | 9+9+9+9+9+12+12 |
| 7+7+7+7+7+9+9 | 7+7+7+7+7+18+18 | 7+7+7+7+12+12+12 | 7+7+7+9+9+12+18 | 7+7+9+9+9+12+12 | 7+9+9+9+9+12+12 | 9+9+9+9+12+12+12 |
| 7+7+7+7+7+9+12 | 7+7+7+7+9+9+9 | 7+7+7+7+12+12+18 | 7+7+7+9+9+12+12 | 7+7+9+9+9+12+18 | | |
| 8 UNITS | | | | | | |
| 7+7+7+7+7+7+7+7 | 7+7+7+7+7+7+9+9 | 7+7+7+7+7+7+12+18 | 7+7+7+7+7+9+12+12 | 7+7+7+7+9+9+9+12 | 7+7+7+9+9+9+9+12 | 7+7+9+9+9+9+9+12 |
| 7+7+7+7+7+7+7+9 | 7+7+7+7+7+7+9+12 | 7+7+7+7+7+9+9+9 | 7+7+7+7+7+12+12+12 | 7+7+7+7+9+9+12+12 | 7+7+7+9+9+9+12+12 | 7+9+9+9+9+9+9+9 |
| 7+7+7+7+7+7+7+12 | 7+7+7+7+7+7+9+18 | 7+7+7+7+7+9+9+12 | 7+7+7+7+9+9+9+9 | 7+7+7+9+9+9+9+9 | 7+7+9+9+9+9+9+9 | 9+9+9+9+9+9+9+9 |
| 7+7+7+7+7+7+7+18 | 7+7+7+7+7+7+12+12 | 7+7+7+7+7+9+9+18 | | | | |
| 9 UNITS | | | | | | |
| 7+7+7+7+7+7+7+7+7 | 7+7+7+7+7+7+7+7+12 | 7+7+7+7+7+7+7+9+9 | 7+7+7+7+7+7+7+9+12 | 7+7+7+7+7+7+9+9+9 | 7+7+7+7+7+7+9+9+12 | 7+7+7+7+7+9+9+9+9 |
| 7+7+7+7+7+7+7+7+9 | | | | | | |

When connecting other than recommended combinations, the system will not work.

ALLOWED LENGTH AND DROP HEIGHT OF CONNECTING PIPE
HIGH POWER MULTI SYSTEM SERIES



MAXIMAL LENGTH OF CONNECTION PIPES

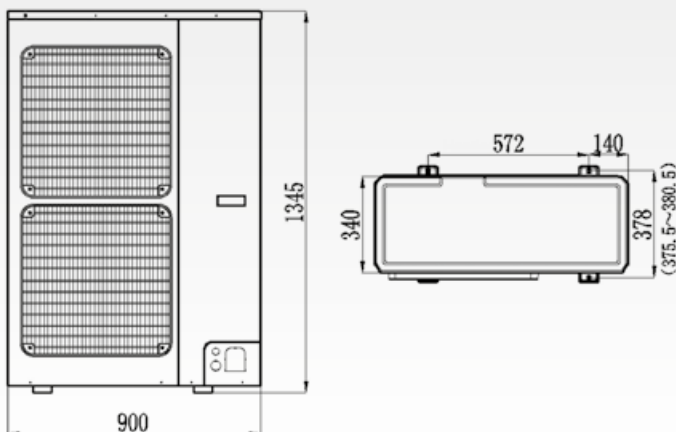
| | | The pipes | Length (m) |
|------------------------|--|----------------------------------|----------------------|
| Maximal allowed length | Total length between outdoor unit and distribution boxes | $L1+L2+L3+L4+L5$ | ≤ 55 |
| | Total length between indoor unit and distribution box | MS-E48AI | ≤ 80 |
| | | MS-E56AI | ≤ 90 |
| | Between indoor unit and distribution box | $1A; 1B; 1C; 2A; 2B; 2C; 3A; 3B$ | ≤ 15 |
| Maximal allowed length | Between indoor unit and the 1st branch | $L4+1B; L2+L5+2A; L2+L3+3B$ | ≤ 40 |
| | Between outdoor and indoor units | $H1$ | ≤ 30 |
| | Between outdoor unit and distribution box | $H2$ | ≤ 30 |
| | Between distribution box and other distribution boxes | $H3$ | ≤ 15 |
| | Between indoor unit and other indoor units | $H4$ | ≤ 15 |
| Minimal allowed length | Between outdoor unit and the 1st branch | $L1$ | ≥ 5 |
| | Between distribution box and branch pipe | $L3; L4; L5$ | As short as possible |

Distribution box should be placed within the level between outdoor unit and indoor unit

DIMENSION OF CONNECTING PIPES

| | | Gas pipe (mm) | Liquid pipe (mm) |
|---|----------|---------------|------------------|
| Outdoor unit | MS-E48AI | $\phi 15,9$ | $\phi 9,52$ |
| | MS-E56AI | $\phi 19,05$ | $\phi 9,52$ |
| Between outdoor unit and the 1st branch | Pipe L1 | $\phi 19,05$ | $\phi 9,52$ |
| Between the 1st and the 2nd branch | Pipe L2 | $\phi 15,9$ | $\phi 9,52$ |

APPEARANCE AND DIMENSIONS OF OUTDOOR UNIT

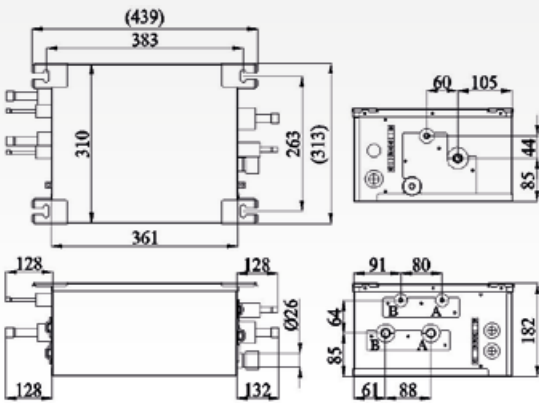


units: mm

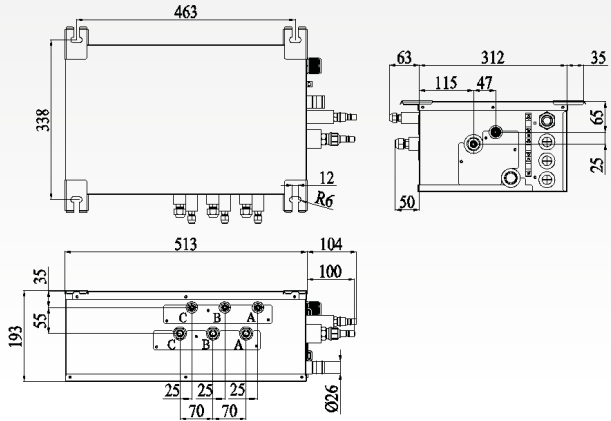
APPEARANCE AND DIMENSIONS OF DISTRIBUTION BOXES

HIGH POWER MULTI SYSTEM SERIES

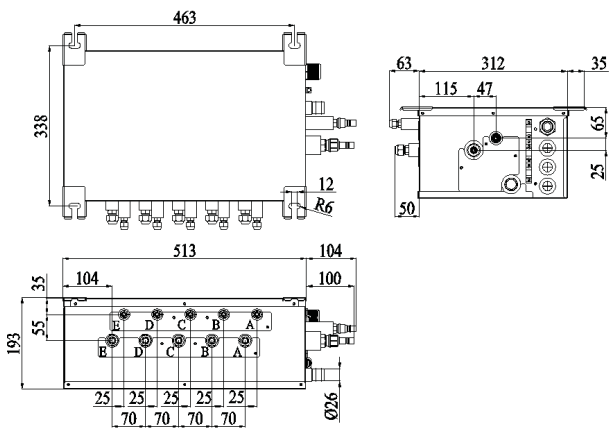
DB2-19SB



DB3-19SB




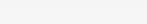


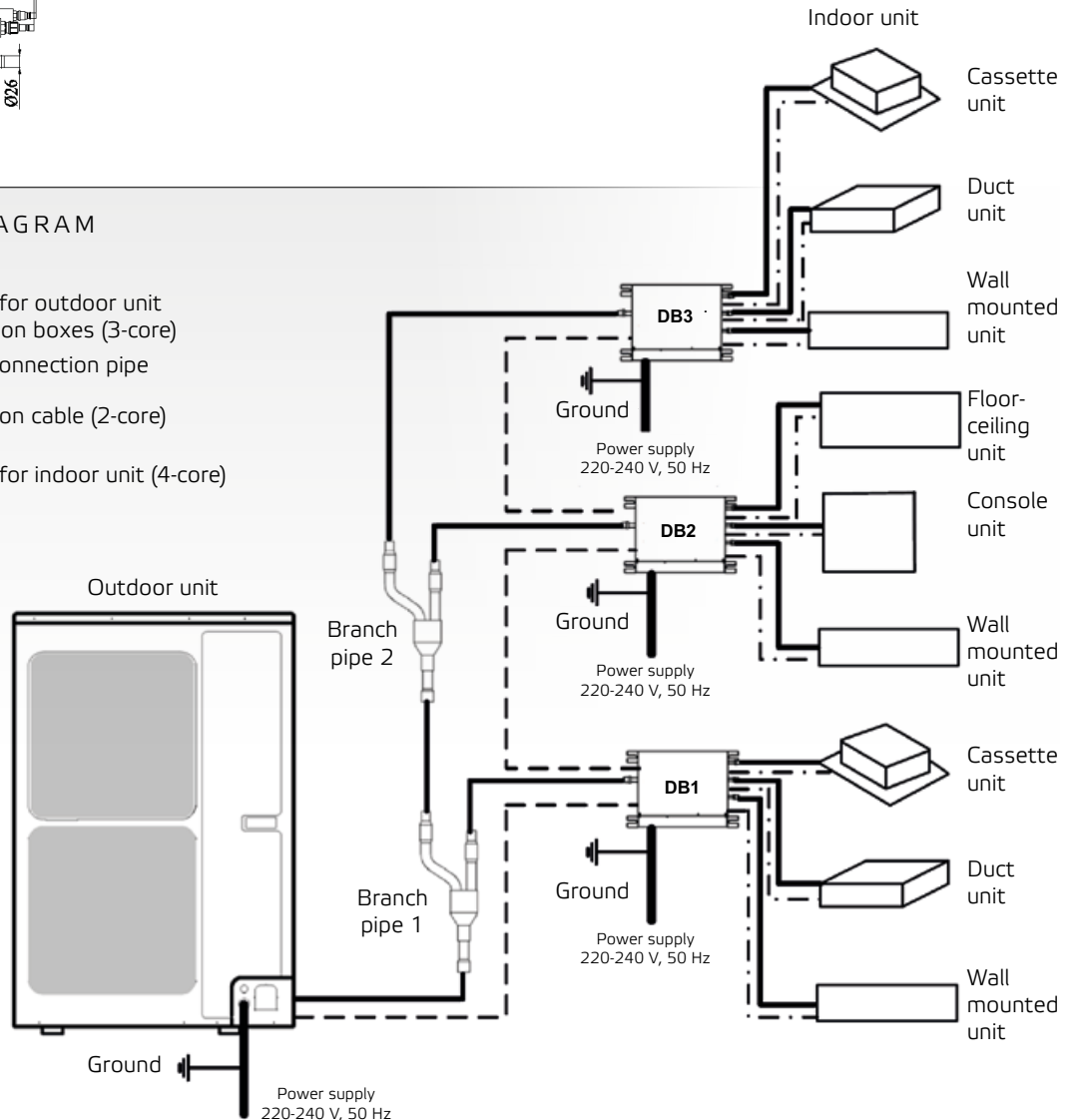
DB5-16AF



units: mm

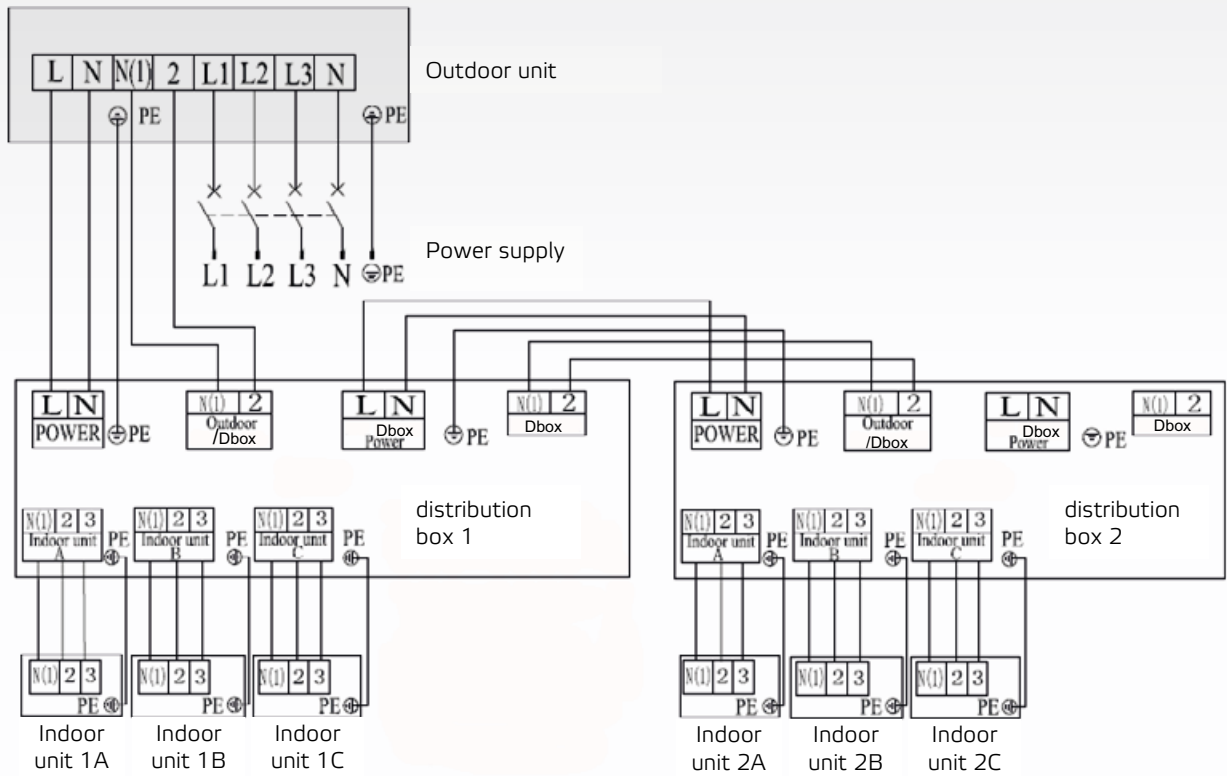
ELECTRICAL WIRING DIAGRAM

-  Power cable for outdoor unit and distribution boxes (3-core)
-  Refrigerant connection pipe
-  Communication cable (2-core)
-  Power cable for indoor unit (4-core)

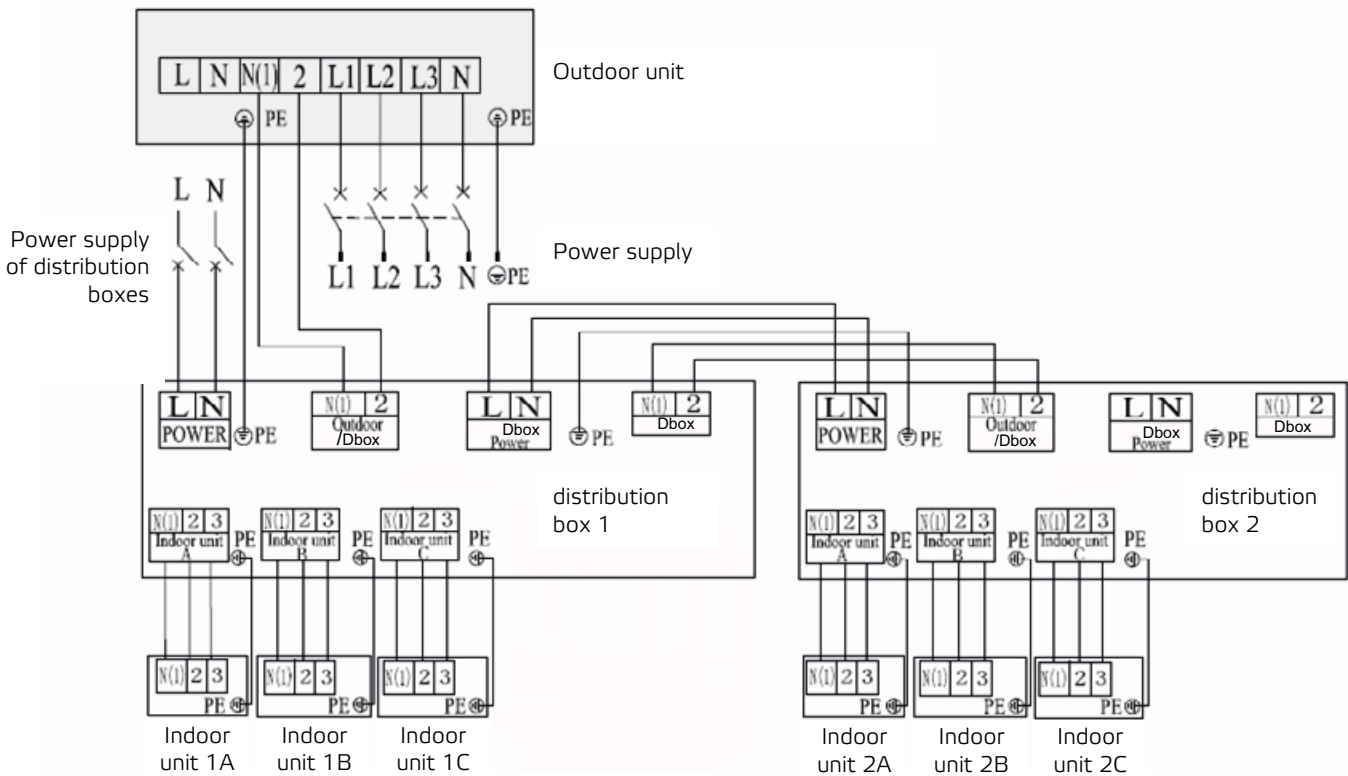


ELECTRICAL WIRING DIAGRAM
HIGH POWER MULTI SYSTEM SERIES

OPTION 1

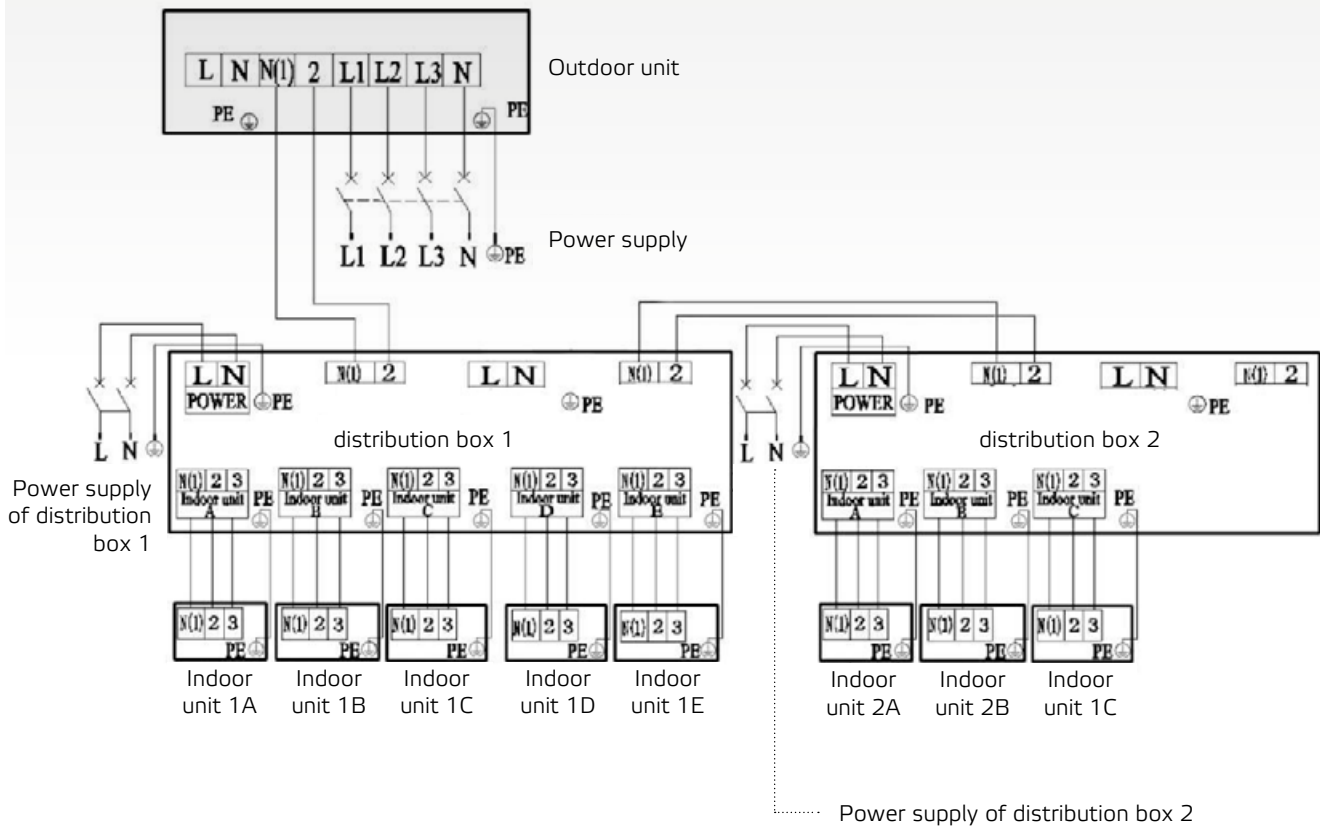


OPTION 2



ELECTRICAL WIRING DIAGRAM
HIGH POWER MULTI SYSTEM SERIES

OPTION 3



REQUIREMENTS OF POWER CIRCUIT AND CABLE

| | | | |
|---|------------------|-----------------|-------------------|
| Frequency | | Hz | 50 |
| Phase and voltage | Outdoor unit | f, V | 3 phases, 380-415 |
| | Distribution box | f, V | 1 phase, 220 |
| Recommended cable of outdoor unit (pieces x sectional area) | MS-E48AIN | mm ² | 5x4,0 |
| | MS-E56AIN | mm ² | 5x4,0 |
| Recommended cable of distribution box (pieces x sectional area) | | mm ² | 3x1,0 |
| Communication cable (pieces x sectional area) | | mm ² | 2x1,5 |
| Recommended cable of indoor unit (pieces x sectional area) | | mm ² | 4x1,0 |
| Capacity of the air switch | MS-E48AIN | A | C20 |
| | MS-E56AIN | A | C20 |
| | Distribution box | A | C10 |

SPLIT AIR CONDITIONING

HIGH STATIC PRESSURE DUCT UNIT

| MODEL | | ASDH-96AI | | | | |
|---|-------------------|-----------------------------------|---------------------|--|--|--|
| Capacity cooling/heating 1) | Nominal (min-max) | kW | 28,0 / 31,5 | | | |
| Power supply ID | | Hz / V | 1~ / 50 / 220-240 | | | |
| Power supply OD | | - | 3~ / 50 / 380-415 | | | |
| Power input cooling/heating 1) | | W | 9000 / 8500 | | | |
| Maximal power input 2) | | W | 11700 | | | |
| Power current cooling/heating | | A | 4,5 | | | |
| Maximal power current 2) | | A | 16,0 | | | |
| EER / COP | | - | 3,11 / 3,71 | | | |
| Air flow of ID | H/M/L | m³ / h | 4800/4100/3000 | | | |
| Airflow of OD | H | m³ / h | 9800 | | | |
| Sound pressure of ID 4) | min-max | dB(A) | 49-52 | | | |
| Sound pressure of OD 4) | H | dB(A) | 59 | | | |
| Sound power of ID 4) | H/M/L | dB(A) | - | | | |
| Sound power of OD 4) | V | dB(A) | - | | | |
| External static pressure | | Pa | 0~150 | | | |
| Dehumidifying volume | | l / h | - | | | |
| Refrigerant type/charge | | Type / kg / t eq. CO ₂ | R410A / 7,2 / 15,03 | | | |
| Additional refrigerant | | g / m | 30 | | | |
| Pipe diameter - liquid side 5) | | inch / mm | ¾ / 9,5 | | | |
| Pipe diameter - gas side 5) | | inch / mm | 1 / 25,4 | | | |
| Max pipe length without additional refrigerant 6) | | m | 5 | | | |
| Maximal allowed pipe length 7) | | m | 50 | | | |
| Max. elevation / Drop height* | | m | 25/30 | | | |
| Dimension of ID | w x h x d | mm | 1470x512x775 | | | |
| Dimensions of outdoor unit | w x h x d | mm | 1120x1558x528 | | | |
| Package dimension of ID | w x h x d | mm | 1555x545x875 | | | |
| Package dimensions of outdoor unit | w x h x d | mm | 1270x1720x565 | | | |
| Weight of ID | netto / brutto | kg | 83 / 92 | | | |
| Weight of OD | netto / brutto | kg | 148 / 164 | | | |
| Set temperature range | | °C | 17~30 | | | |
| Operating temperature range 8) | cooling | °C | -15~48 | | | |
| | heating | °C | -15~24 | | | |
| ADDITIONAL TECHNICAL INFORMATION | | | | | | |
| Screw holes distance of OD | w (w2) x d | mm | 668 (874)x494 | | | |
| Communication cable | | mm² | 3x0,75 | | | |
| Recommended power cable | indoor | mm² | 3x2,5 | | | |
| | outdoor | mm² | 5x6 | | | |
| Recommended air switch | indoor | A | C16 | | | |
| | outdoor | A | C40 | | | |
| EQUIPMENT | | | | | | |
| Plasma generator | indoor | | no | | | |
| Wifi module | | | no | | | |
| Drain pump | | | no | | | |
| Max. lift (from bottom of ID unit) | | mm | - | | | |
| Dry contact (ON/OFF) | | | yes | | | |
| Alarm contact | | | yes | | | |
| Fresh air inlet | outdoor | | - | | | |
| Throttling method | | | Capillary | | | |
| Bottom chassis heater | | | no | | | |
| Crankcase heater | | | yes | | | |
| Bottom plugs for OD | | | yes | | | |
| Drain pipe connector | | | yes | | | |
| STANDARD ACCESSORIES | | | | | | |
| Standard health filter | | | no | | | |
| Remote controller (IR) | | | no | | | |
| Wired controller | | | KJR-29B1/BK-E | | | |
| OPTIONAL ACCESSORIES | | | | | | |
| Optional health filters | | | - | | | |
| Wired controller | | | - | | | |
| Central controller | | | CCM30 | | | |

* Outdoor unit above indoor unit / Outdoor unit below indoor unit

The specification of products is subject to change based on further development of the units by the producer and can be changed without prior notice. Refer to rating label.

R410A (50% HFC-32, 50% HFC-125), GWP 2088

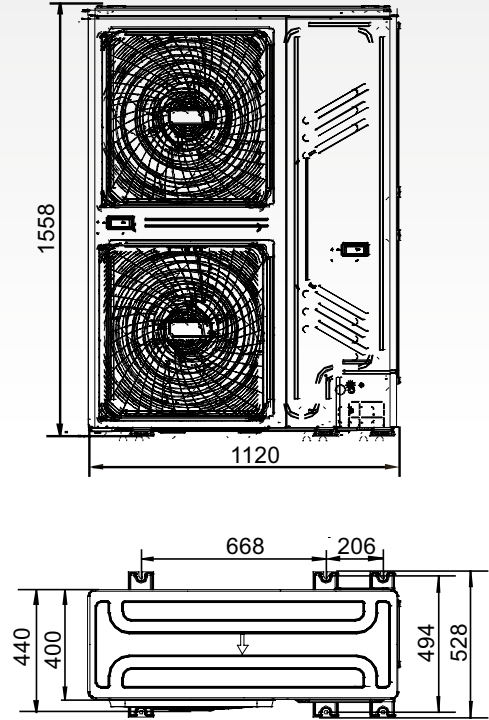
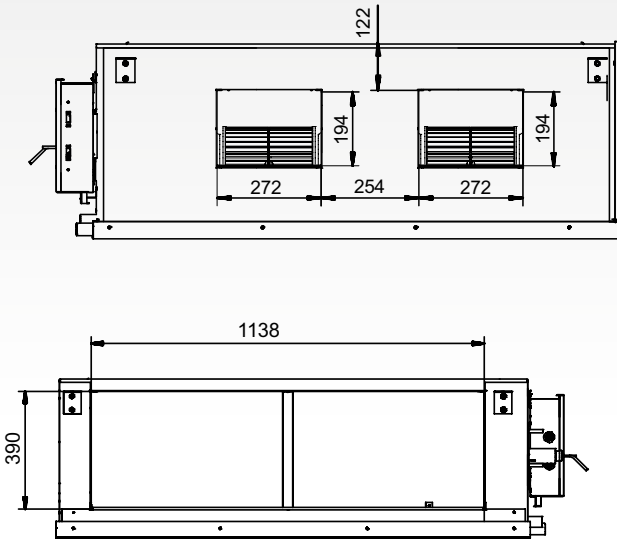
Contains fluorinated greenhouse gases covered by the Kyoto Protocol.

Explanatory notes on the very last page of the catalogue.

The device is being sold as a set (indoor + outdoor unit).

APPEARANCE AND DIMENSIONS OF UNITS

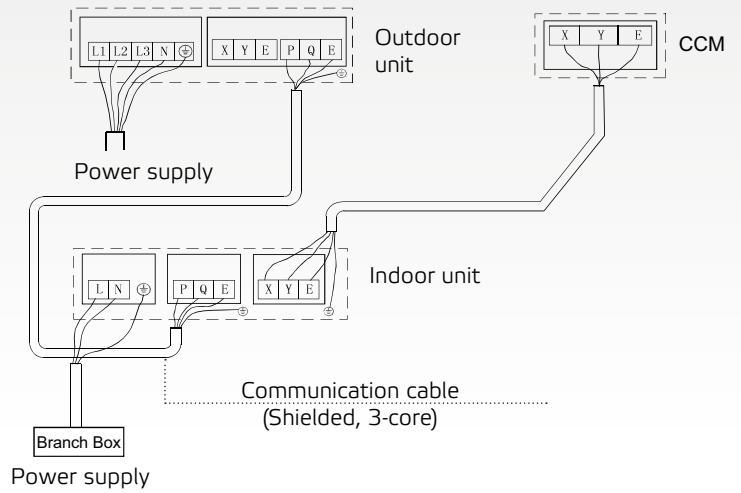
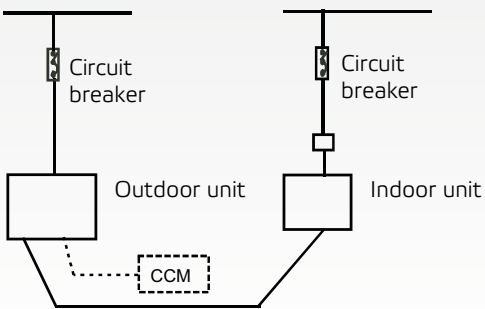
HIGH STATIC PRESSURE DUCT UNIT



units: mm

ELECTRICAL WIRING DIAGRAM

POWER SUPPLY 380-415V ~50HZ



WINDOW MONOBLOCK AIR CONDITIONINGS

WINDOW SERIES

| MODEL | | | ASW-09BI | ASW-12BI | | |
|--|-------------------|----------------------------------|-------------------|-------------------|--|--|
| Cooling capacity 1) | Nominal | kW | 2,7 | 3,7 | | |
| Power supply | Frequency/Voltage | Hz / V | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | | |
| Application area | | m ² | 12-18 | 16-24 | | |
| Power input cooling 1) | | W | 782 | 1030 | | |
| Maximal power input 2) | | W | 1100 | 1300 | | |
| Power current cooling | | A | 3,5 | 4,6 | | |
| Maximal power current 2) | | A | 5,5 | 6,5 | | |
| SEER | | - | 3,45 | 3,54 | | |
| Energy class cooling | | - | A | A | | |
| Air flow of ID | H/M/L | m ³ /h | 400/360/320 | 480/430/380 | | |
| Airflow of OD | H | m ³ /h | 800 | 1200 | | |
| Sound pressure of ID 4) | H/M/L | dB(A) | 50/48/46 | 50/48/46 | | |
| Sound pressure of OD 4) | H | dB(A) | 56/54/52 | 58/56/54 | | |
| Sound power of ID 4) | H/M/L | dB(A) | 59/57/55 | 59/57/55 | | |
| Sound power of OD 4) | H | dB(A) | 65/63/61 | 65/63/61 | | |
| Dehumidifying volume | | l/h | 1,0 | 1,6 | | |
| Refrigerant type/charge | | Type / kg / t eq.CO ₂ | R32 / 0,51 / 0,34 | R32 / 0,63 / 0,43 | | |
| Dimension | w x h x d | mm | 560x375x710 | 660x428x700 | | |
| Package dimension | w x h x d | mm | 623x425x806 | 739x505x793 | | |
| Weight | netto / brutto | kg | 43,0 / 47,0 | 50,0 / 54,0 | | |
| Set temperature range | | °C | 16 ~ 30 | 16 ~ 30 | | |
| Operating temperature range cooling 8) | | °C | 16 ~ 43 | 16 ~ 43 | | |
| STANDARD ACCESSORIES | | | | | | |
| Standard health filter | | | - | - | | |
| Remote controller (IR) | | | YX1F | YX1F | | |
| Wired controller | | | - | - | | |
| OPTIONAL ACCESSORIES | | | | | | |
| Optional health filters | | | - | - | | |
| Wired controller | | | - | - | | |
| Central controller | | | - | - | | |

The specification of products is subject to change based on further development of the units by the producer and can be changed without prior notice. Refer to rating label.

R32 (single component refrigerant HFC), GWP of refrigerant used: 675.

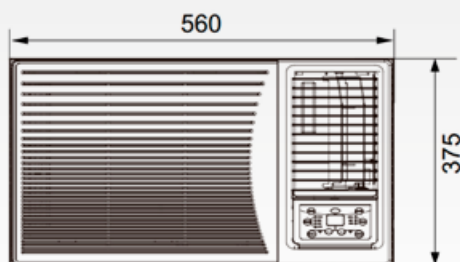
Contains fluorinated greenhouse gases covered by the Kyoto Protocol.

Hermetically sealed system.

Explanatory notes on the very last page of the catalogue.

APPEARANCE AND DIMENSIONS OF UNITS

ASW-09BI



ASW-12BI



units: mm

SPLIT AIR CONDITIONING

TOWER SERIES

| MODEL | AST-24AI | | |
|---|----------------------------------|--------------------|--------------------|
| Capacity cooling/heating 1) | Nominal (min-max) | kW | 7,2 / 7,5 |
| Power supply 1) | Frequency/Voltage | Hz / V | 1~ / 50 / 220-240 |
| Optimal room area | | m ² | 27-42 |
| Power input cooling/heating 1) | | W | 2250 / 2080 |
| Maximal power input 2) | | W | 3800 |
| Power current cooling/heating | | A | 10,4/9,3 |
| Maximal power current 2) | | A | 18 |
| Energy class cooling 3) | | - | A++ |
| Pdesign cooling | | kW | 7,2 |
| SEER | | - | 6,1 |
| Annual power consumption | | kWh / annum | 413 |
| Energy class heating 3) | Average climate | - | A+ |
| Pdesign heating | Average climate | kW | 6,1 |
| SCOP | Average climate | - | 4,0 |
| Annual power consumption | Average climate | kWh / annum | 2135 |
| Air flow of ID ID | SH/H/M/L | m ³ / h | 1400/1150/1050/900 |
| Air flow of ID OD | H | m ³ / h | 3200 |
| Sound pressure of ID 4) | SH/H/M/L | dB(A) | 49/45/42/39 |
| Sound pressure of OD 4) | H | dB(A) | 60 |
| Sound power of ID 4) | SH/H/M/L | dB(A) | 63/57/53/50 |
| Sound power of OD 4) | H | dB(A) | 70 |
| Dehumidifying volume | | l / h | 2,0 |
| Refrigerant type/charge | Type / kg / t eq.CO ₂ | | R410A / 2,0 / 4,18 |
| Additional refrigerant | | g / m | 50 |
| Pipe diameter - liquid side 5) | | inch / mm | ¼ / 6,4 |
| Pipe diameter - gas side 5) | | inch / mm | ¾ / 15,9 |
| Max pipe length without additional refrigerant 6) | | m | 5 |
| Maximal allowed pipe length 7) | | m | 25 |
| Max. elevation/ Drop height | | m | 10 |
| Dimension of ID | w x h x d | mm | 507x1771x320 |
| Dimensions of outdoor unit | w x h x d | mm | 955x700x396 |
| Package dimension of ID | w x h x d | mm | 1988x623x440 |
| Package dimensions of outdoor unit | w x h x d | mm | 1029x458x750 |
| Weight of ID | netto / brutto | kg | 40,0 / 54,0 |
| Weight of OD | netto / brutto | kg | 53,5 / 58,0 |
| Set temperature range | | °C | 16-30 |
| Operating temperature range 8) | cooling | °C | -15-43 |
| | heating | °C | -15-24 |

ADDITIONAL TECHNICAL INFORMATION

| | | | |
|----------------------------|-------|-----------------|---------|
| Screw holes distance of OD | w x d | mm | 560x364 |
| Communication cable | | mm ² | 4x1,5 |
| Recommended power cable | | mm ² | 3x2,5 |
| Recommended air switch | | A | 25 |

EQUIPMENT

| | | | |
|------------------------------------|---------|-----|-----|
| Plasma generator | indoor | | no |
| Wifi module | | | yes |
| Drain pump | | | no |
| Max. lift (from bottom of ID unit) | | | mm |
| Dry contact (ON/OFF) | outdoor | | no |
| Alarm contact | | | no |
| Fresh air inlet | | | no |
| Throttling method | | | EXV |
| Bottom chassis heater | | | no |
| Crankcase heater | | | no |
| Bottom plugs for OD | | | yes |
| Drain pipe connector | | yes | |

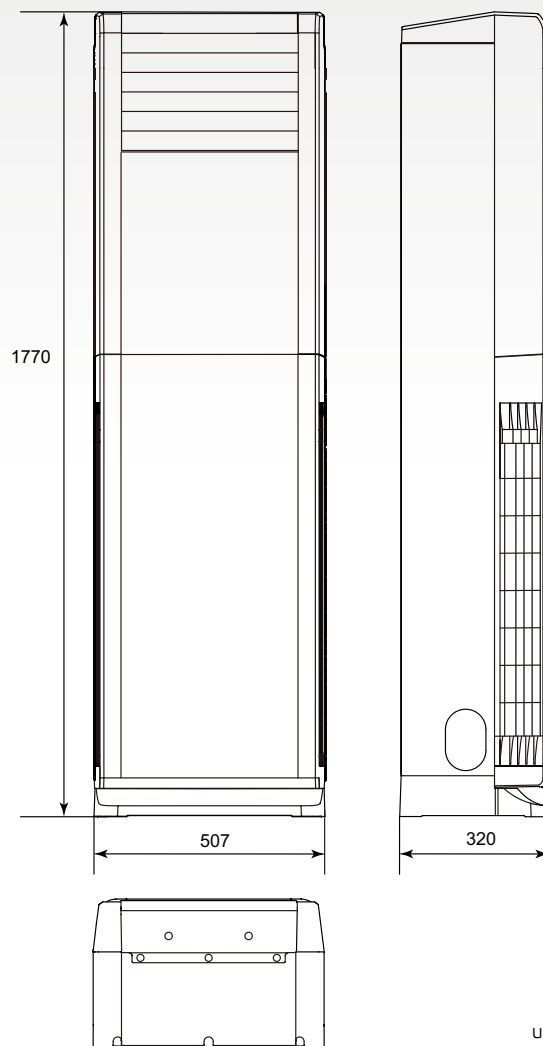
STANDARD ACCESSORIES

| | | | |
|------------------------|--|--|--------------|
| Standard health filter | | | - |
| Remote controller (IR) | | | YAP1F4(WiFi) |
| Wired controller | | | - |

OPTIONAL ACCESSORIES

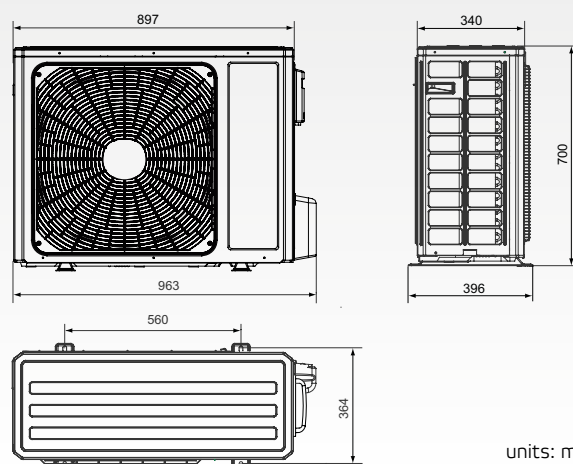
| | | | |
|-------------------------|--|--|---|
| Optional health filters | | | - |
| Wired controller | | | - |
| Central controller | | | - |

APPEARANCE AND DIMENSIONS OF UNITS



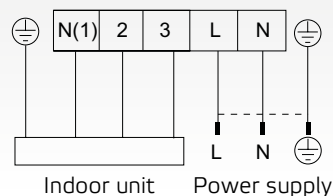
units: mm

APPEARANCE AND DIMENSIONS OF UNITS



units: mm

ELECTRICAL WIRING DIAGRAM



CAMPER TRAILER AIR CONDITIONER

| MODEL | | | ASV-25AS | ASV-35AS | | |
|------------------------------------|-------------------|----------------------------------|-----------------------|-----------------------|--|--|
| Capacity cooling/heating 1) | Nominal (min-max) | kW | 2,5 / 2,2 | 3,5 / 3,2 | | |
| Power supply | Frequency/Voltage | Hz / V | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | | |
| Power input cooling/heating 1) | | W | 1070 / 980 | 1270 / 1180 | | |
| Maximal power input 2) | | W | 1400 | 1400 | | |
| Power current cooling/heating | | A | 4,7 / 4,2 | 4,7 / 4,2 | | |
| Maximal power current 2) | | A | 6,6 | 6,6 | | |
| EER / COP | | - | 2,34 / 2,24 | 2,76 / 2,71 | | |
| Air flow of ID | SH/H/M/L | m³ / h | 340 / 280 / 220 / 190 | 380 / 320 / 260 / 230 | | |
| Airflow of OD | H/L | m³ / h | 600 / 300 | 600 / 300 | | |
| Sound pressure of ID 4) | SH/H/M/L | dB(A) | 53 / 48 / 43 / 38 | 55 / 49 / 44 / 39 | | |
| Sound pressure of OD 4) | H/L | dB(A) | 65 / 55 | 65 / 55 | | |
| Sound power of ID 4) | SH/H/M/L | dB(A) | 63 / 58 / 53 / 48 | 65 / 59 / 54 / 49 | | |
| Sound power of OD 4) | H/L | dB(A) | 75 / 65 | 75 / 65 | | |
| Dehumidifying volume | | l / h | 1,0 | 1,5 | | |
| IP protection | | - | IPX4 | IPX4 | | |
| Roof mounting hole | | mm | 356x356 | 356x356 | | |
| Roof thickness | | mm | 30 - 80 | 30 - 80 | | |
| Refrigerant type/charge | | Type / kg / t eq.CO ₂ | R410A / 0,67 / 1,4 | R410A / 0,67 / 1,4 | | |
| Dimension of ID | w x h x d | mm | 485x49x610 | 485x49x610 | | |
| Dimension of OD | w x h x d | mm | 1018x259x650 | 1018x259x650 | | |
| Package dimension of ID | w x h x d | mm | 547x109x668 | 547x109x668 | | |
| Package dimension of OD | w x h x d | mm | 1099x312x715 | 1099x312x715 | | |
| Weight of ID | netto / brutto | kg | 2,7 / 4,0 | 2,7 / 4,0 | | |
| Weight of OD | netto / brutto | kg | 42,5 / 49,0 | 42,5 / 49,0 | | |
| Set temperature range | | °C | 16 ~ 30 | 16 ~ 30 | | |
| Operating temperature range 8) | cooling | °C | 18 ~ 43 | 18 ~ 43 | | |
| | heating | °C | 2 ~ 24 | 2 ~ 24 | | |
| EQUIPMENT | | | | | | |
| Plasma generator | indoor | | no | no | | |
| Wifi module | | | yes | yes | | |
| Drain pump | | | no | no | | |
| Max. lift (from bottom of ID unit) | | mm | - | - | | |
| Dry contact (ON/OFF) | outdoor | | no | no | | |
| Alarm contact | | | no | no | | |
| Fresh air inlet | | | no | no | | |
| Throttling method | | | Capillary | Capillary | | |
| Bottom chassis heater | | | no | no | | |
| Crankcase heater | | | no | no | | |
| Bottom plugs for OD | | | no | no | | |
| Drain pipe connector | | | no | no | | |
| STANDARD ACCESSORIES | | | | | | |
| Standard health filter | | | - | - | | |
| Remote controller (IR) | | | YAM1F1 | YAM1F1 | | |
| Wired controller | | | - | - | | |
| OPTIONAL ACCESSORIES | | | | | | |
| Optional health filters | | | - | - | | |
| Wired controller | | | - | - | | |
| Central controller | | | - | - | | |

The specification of products is subject to change based on further development of the units by the producer and can be changed without prior notice. Refer to rating label.

R410A (50% HFC-32, 50% HFC-125), GWP 2088

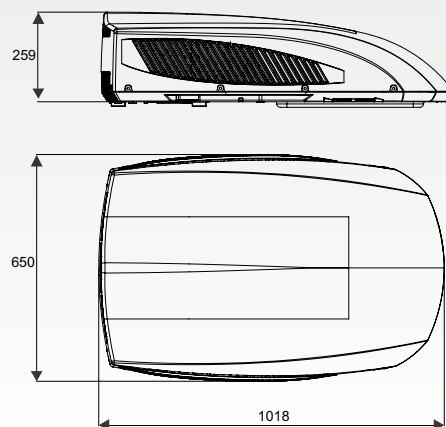
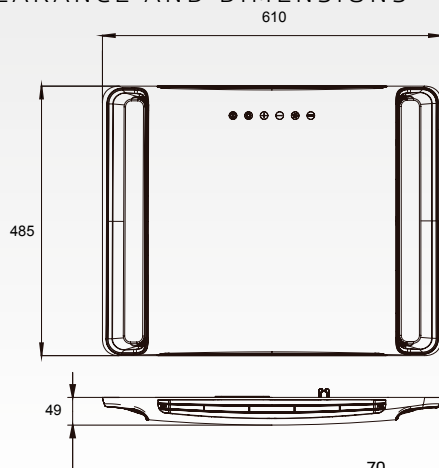
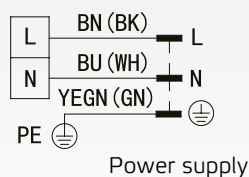
Contains fluorinated greenhouse gases covered by the Kyoto Protocol.

Hermetically sealed system.

Explanatory notes on the very last page of the catalogue.

POWER SUPPLY, APPEARANCE AND DIMENSIONS OF UNITS

Indoor unit



units: mm

MONOBLOCK BOAT AIR CONDITIONING

BOAT SERIES

| MODEL | | | ASB-05A | ASB-09A | ASB-12A | |
|--|-------------------|-----------------------------------|---------------------|---------------------|---------------------|--|
| Capacity cooling/heating 12) | Nominal (min-max) | kW | 1,10 / 1,40 | 2,10 / 2,20 | 3,10 / 3,20 | |
| Power supply | Frequency/Voltage | Hz / V | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | |
| Power input cooling/heating 1) | | W | 560 / 530 | 900 / 880 | 1100 / 1100 | |
| Maximal power input 2) | | W | 800 / 750 | 1350 / 1100 | 1600 / 1700 | |
| Power current cooling/heating | | A | 3,5 / 3,4 | 4,9 / 4,8 | 6,1 / 6,0 | |
| Maximal power current 2) | | A | 6,2 / 6,1 | 7,3 / 7,0 | 9,0 / 9,0 | |
| EER / COP | | - | 1,96 / 2,64 | 2,33 / 2,50 | 2,82 / 2,91 | |
| Air flow of ID | H | m ³ / h | 320 | 450 | 466 | |
| Sound pressure of ID 4) | H | dB(A) | 58 | 58 | 58 | |
| Sound power of ID 4) | H | dB(A) | 68 | 68 | 68 | |
| Refrigerant type/charge | | Type / kg / t ekv.CO ₂ | R410A / 0,32 / 0,67 | R410A / 0,34 / 0,71 | R410A / 0,53 / 1,11 | |
| Dimension of ID | w x h x d | mm | 285x408x295 | 380x408x310 | 380x420x330 | |
| Package dimension of ID | w x h x d | mm | 594x493x360 | 683x513x360 | 608x533x395 | |
| Weight of ID | netto / brutto | kg | 25,5 / 30,0 | 28,0 / 33,0 | 33,0 / 38,0 | |
| Set temperature range | | °C | 16~30 | 16~30 | 16~30 | |
| Operating temperature range cooling 8) | | °C | 16 ~ 43 | 16 ~ 43 | 16 ~ 43 | |
| Operating temperature range heating 8) | | °C | -10 ~ 30 | -10 ~ 30 | -10 ~ 30 | |
| Operating temperature range cooling 8) | water | °C | 10 ~ 35 | 10 ~ 35 | 10 ~ 35 | |
| Operating temperature range heating 8) | water | °C | 4 ~ 25 | 4 ~ 25 | 4 ~ 25 | |

| MODEL | | | ASB-16A | ASB-24A | | |
|--|-------------------|-----------------------------------|---------------------|---------------------|--|--|
| Capacity cooling/heating 12) | Nominal (min-max) | kW | 3,20 / 4,00 | 6,40 / 6,65 | | |
| Power supply | Frequency/Voltage | Hz / V | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | | |
| Power input cooling/heating 1) | | W | 1200 / 1300 | 1450 / 1750 | | |
| Maximal power input 2) | | W | 1650 / 1650 | 2400 / 2700 | | |
| Power current cooling/heating | | A | 6,0 / 6,1 | 6,8 / 8,2 | | |
| Maximal power current 2) | | A | 8,2 / 8,6 | 11,5 / 11,8 | | |
| EER / COP | | - | 2,67 / 3,08 | 4,41 / 3,80 | | |
| Air flow of ID | H | m ³ / h | 590 | 951 | | |
| Sound pressure of ID 4) | H | dB(A) | 62 | 60 | | |
| Sound power of ID 4) | H | dB(A) | 72 | 70 | | |
| Refrigerant type/charge | | Type / kg / t ekv.CO ₂ | R410A / 0,46 / 0,96 | R410A / 0,95 / 1,98 | | |
| Dimension of ID | w x h x d | mm | 450x465x330 | 595x529x386 | | |
| Package dimension of ID | w x h x d | mm | 663x558x395 | 853x638x440 | | |
| Weight of ID | netto / brutto | kg | 37,5 / 43,5 | 60,5 / 68,0 | | |
| Set temperature range | | °C | 16~30 | 16~30 | | |
| Operating temperature range cooling 8) | | °C | 16 ~ 43 | 16 ~ 43 | | |
| Operating temperature range heating 8) | | °C | -10 ~ 30 | -10 ~ 30 | | |
| Operating temperature range cooling 8) | water | °C | 10 ~ 35 | 10 ~ 35 | | |
| Operating temperature range heating 8) | water | °C | 4 ~ 25 | 4 ~ 25 | | |

| STANDARD ACCESSORIES | | | | | | |
|------------------------|--|--|--|--|------|--|
| Standard health filter | | | | | no | |
| Remote controller (IR) | | | | | YX1F | |
| Wired controller | | | | | yes | |

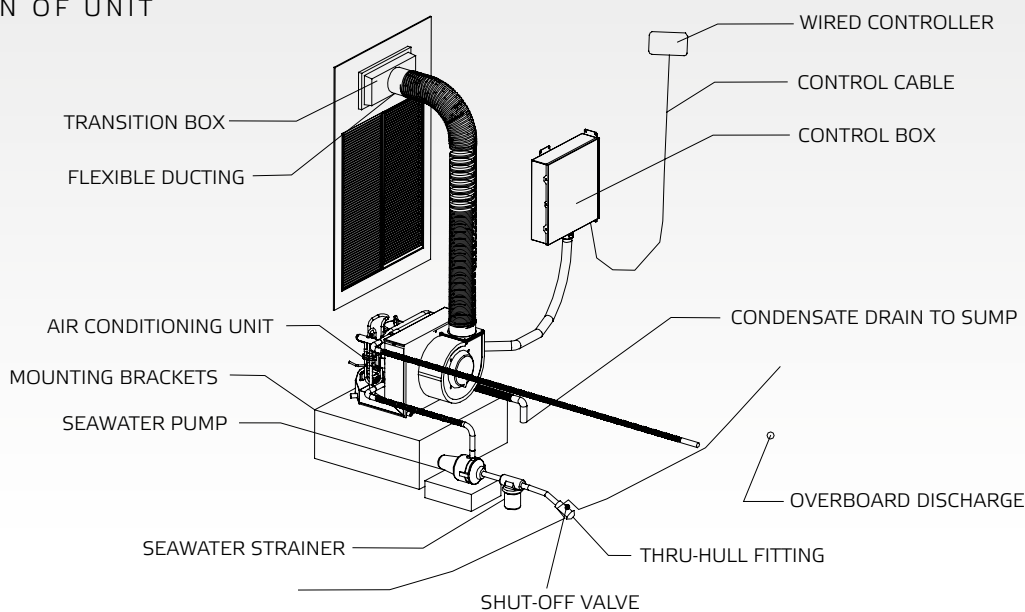
The specification of products is subject to change based on further development of the units by the producer and can be changed without prior notice. Refer to rating label.

R410A (50% HFC-32, 50% HFC-125), GWP 2088

Contains fluorinated greenhouse gases covered by the Kyoto Protocol.

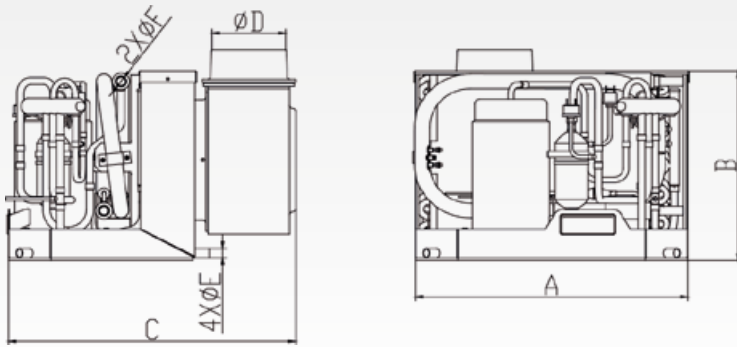
Explanatory notes on the very last page of the catalogue.

INSTALLATION OF UNIT



APPEARANCE, DIMENSIONS AND WIRING OF UNITS

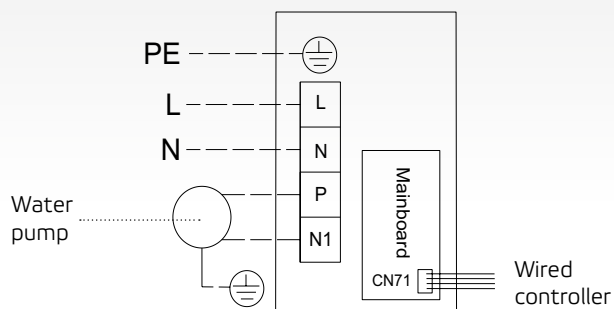
BOAT SERIES



units: mm

| | A | B | C | D | E | F |
|---------|-----|-----|-----|-------|----|----|
| ASB-05A | 285 | 295 | 408 | 91,5 | 16 | 19 |
| ASB-09A | 380 | 310 | 408 | 91,5 | 16 | 19 |
| ASB-12A | 380 | 330 | 420 | 119,4 | 16 | 19 |
| ASB-16A | 450 | 330 | 465 | 119,4 | 16 | 19 |
| ASB-24A | 529 | 386 | 595 | 119,4 | 16 | 19 |

ELECTRICAL WIRING DIAGRAM



PACKAGE CONTENTS

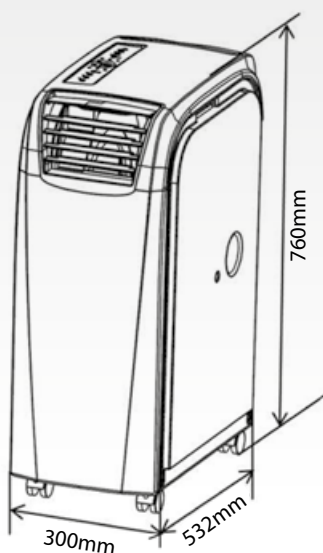
| | Package Include |
|---|-----------------|
| Wired Controller | ✓ |
| Remote Controller | ✓ |
| Communication Cable of Wired Controller (8 m) | ✓ |
| Power Supply Wire | - |
| Inlet/Outlet water pipe | - |
| Fixed board | ✓ |
| Condensing drain pipe | - |
| Flexible Ducting | - |
| Air Diffuser | - |
| Air Return Grill | - |
| Water pump | - |
| Filter | - |

LOCAL AIR CONDITIONERS

| MODEL | | | AMC-11P | AMC-14P | | |
|-------------------------------|-------------------|-----------------------------------|-------------------|-------------------|--|--|
| Capacity | Cooling | kW | 3,0 | 4,0 | | |
| | Heating | kW | 3,0 | 4,0 | | |
| Optimal room size | | m ² | 15-25 | 25-35 | | |
| Power supply | Frequency/Voltage | Hz / V | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | | |
| Rated current | | A | 5,5 | 6,8 | | |
| Power input | Cooling/Heating | W | 1150/ 965 | 1535/ 1290 | | |
| EER / COP | | - | 2,6 / 3,1 | 2,6 / 3,1 | | |
| Energy class | Cooling/Heating | - | A / A++ | A / A++ | | |
| Noise - indoor unit | | dB(A) | 65 | 65 | | |
| Air flow | | m ³ /h | 450 | 450 | | |
| Dehumidifying volume | | l/day | 50 | 70 | | |
| Refrigerant type/ charge | | Type / kg / t eq. CO ₂ | R290 / 0,3 | R290 / 0,4 | | |
| Global Warming Potential | | GWP value | 2088 | 2088 | | |
| Dimension (w x h x d) | | mm | 300x760x532 | 300x760x532 | | |
| Package dimension (w x h x d) | | mm | 370x855x620 | 370x855x620 | | |
| Net/ gross weight | | kg | 28,6 / 30,7 | 30,6 / 32,8 | | |
| Operating temperature | Cooling | °C | 17-32 | 17-32 | | |
| | Heating | °C | 7-25 | 7-25 | | |

R290 (100% CH3CH2CH3)

APPEARANCE AND DIMENSIONS OF UNITS



units: mm

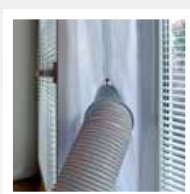
ACCESSORIES



AMC-WINK
WINDOW KIT
(standard)



AMC-WK
WALL KIT
(optional)



WK-400A
WINDOW KIT
(optional)

MOBILE DEHUMIDIFIERS

| MODEL | | | CFO-16P | CFO-20P | CFO-40P | | |
|--------------------------------|--|-----------------------------------|-------------------|-------------------|-------------------|--|--|
| Dehumidifying volume | | l/day | 16,0 | 20,0 | 40,0 | | |
| Power supply | | Hz / V | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | 1~ / 50 / 220-240 | | |
| Power input / Max. power input | | W | 220 / 245 | 360 / 450 | 670 / 900 | | |
| Rated current | | A | 1,1 | 2,1 | 4,0 | | |
| Sound pressure level | | dB | 41 / 38 | 43 / 41 / 39 | 48 / 45 / 42 | | |
| Air flow | | m³/h | 115 / 100 | 130 / 115 / 105 | 230 / 195 / 170 | | |
| Water tank volume | | l | 2,5 | 3,5 | 6,5 | | |
| Optimal room size | | m² | 20 | 28 | 48 | | |
| Refrigerant type / charge | | Type / kg / t eq. CO ₂ | R290 / 0,085 | R290 / 0,11 | R290 / 0,15 | | |
| Dimension (w x h x d) | | mm | 305x490x192 | 363x577x245 | 396x625x286 | | |
| Package dimension (w x h x d) | | mm | 345x540x230 | 428x602x311 | 448x338x638 | | |
| Net/ gross weight | | kg | 10,5 / 11,5 | 15,5 / 17,0 | 22,5 / 24,5 | | |
| Operating temperature | | °C | 5 ~ 32 | 5 ~ 32 | 5 ~ 32 | | |

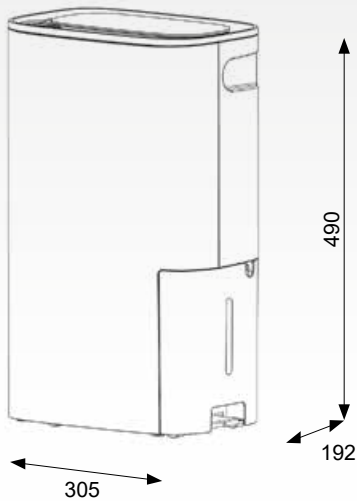
R290 (100% CH₃CH₂CH₃)

The values stated in the sheet are complying with norm EN810

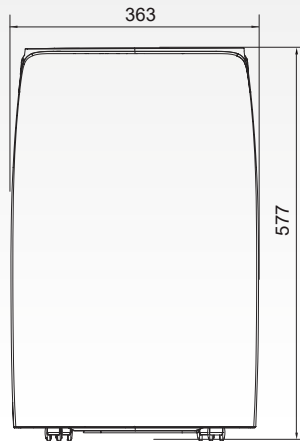
Dehumidifying volume is measured according to EN60335-2-40, test conditions: DB 30%, RH 80%

APPEARANCE AND DIMENSIONS OF UNITS

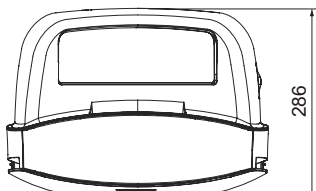
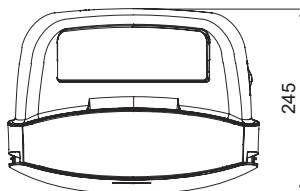
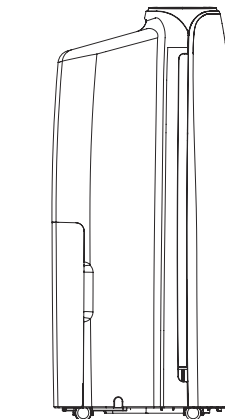
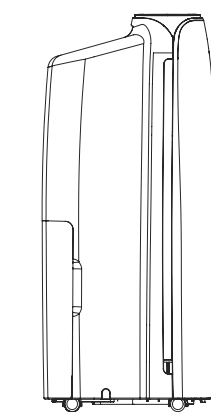
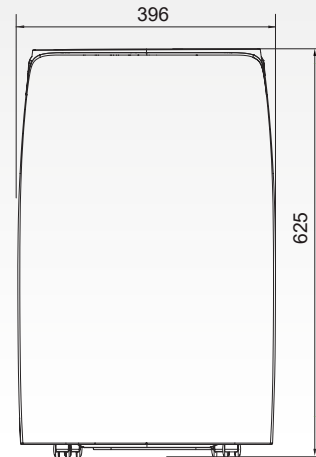
CFO-16P



CFO-20P



CFO-40P



units: mm

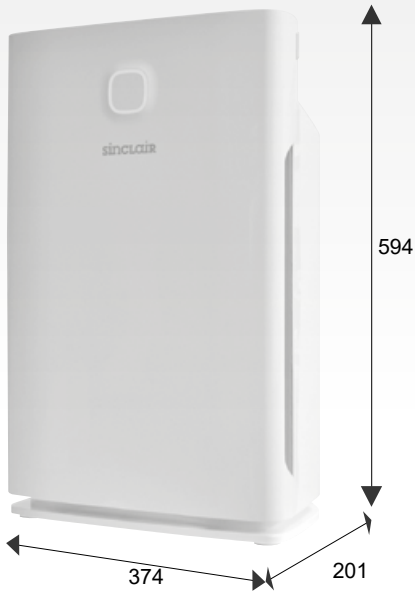
PORTABLE DEVICE

AIR PURIFIER

| MODEL | SP-45A | | | | | | |
|-------------------------------|--------|-------------------|-------------------|--|--|--|--|
| Power supply | | Hz / V | 1~ / 50 / 220-240 | | | | |
| Power input | | W | 80 | | | | |
| Rated current | | A | 0,4 | | | | |
| Sound pressure level at 1m | | dB | 19 - 51 | | | | |
| Cleaning volume | | m ³ /h | 340 | | | | |
| Optimal room size | | m ² | 10-45 | | | | |
| Dimension (w x h x d) | | mm | 374x594x201 | | | | |
| Package dimension (w x h x d) | | mm | 433x667x260 | | | | |
| Net / gross weight | | kg | 6,8 / 8,5 | | | | |
| Operating temperature | | °C | 0 - 40 | | | | |

APPEARANCE AND DIMENSIONS OF UNITS

SP-45A



ACCESSORIES

SPF-45

Dust filters

- 1 pc active-carbon filter
- 1 pc HEPA filter
- 1 pc dust filter

COMMUNICATION MODULE SCMI-01.4



LOW EVAPORATING TEMPERATURE UP TO -10°C

- SCMI-01.4 offers 3 basic operation modes:
 - Autonomous temperature control mode: The system changes its performance in order to achieve set temperature measured with T2 sensor. You can set temperature from -10°C to +55°C
 - Slave unit mode – operated: You set the compressor performance directly via 0-10V input. Evaporating temperature depends on compressor performance and other conditions
 - Autonomous pressure (evaporating temperature) control mode for cooling only: The compressor performance changes based on evaporating pressure. You can set the pressure which corresponds with temperatures from -10°C to +55°C.
- Control of separate condensing units of UNI SPLIT series
- Direct operation mode (cooling) or reverse operation mode (heating)
- Control of FMD modules
- Password protected setting
- Language options
- Pre-setting of all parameters via USB Communicator software
- DIN rail compatible – 4M wide, installation in power distribution unit

DEFAULT SETTINGS

| Function | | Operated | |
|------------|-----------------------|------------|--------|
| Goal Temp. | C (cooling) | +10,0°C | |
| | H (heating) | +25,0°C | |
| Outputs | Relay 1 | Function | On/Off |
| | | Logic | Direct |
| | Relay 2 | Compressor | |
| | Relay 3 | Error | |
| | DC fan | Off | |
| Regulation | Time constant | 30sec | |
| | Proportional constant | 35 | |
| | Integration constant | 0 | |
| | Derivation constant | 60 | |

TECHNICAL PARAMETERS

| | | |
|---------------------------|--|-------------|
| Power supply | V/Hz | 230/50 ±10% |
| Rated power input | VA | 15 |
| Dimension (wxhxd) | mm | 90x71x58 |
| Package dimension (wxhxd) | mm | 120x100x80 |
| Net/gross weight | kg | 0,21 / 0,35 |
| Storage temperature | °C | -25 ~ +70 |
| Operating temperature | °C | -10 ~ +55 |
| Outputs | 3x relay with on/off contact 230V/2A | |
| Inputs | 2x binary input for communication | |
| | 2x input for temperature sensors; input for FMD modules (VE+, VE-) | |
| | 1x voltage input 0-10V, resistance 100kΩ | |
| | 1x current input for pressure sensor 0-18bar | |
| Standard accessories | 2x temperature sensor NTC015WF00 (10kΩ; B=3435) | |
| Optional accessories | Pressure sensor Alco Controls PT5-18M | |

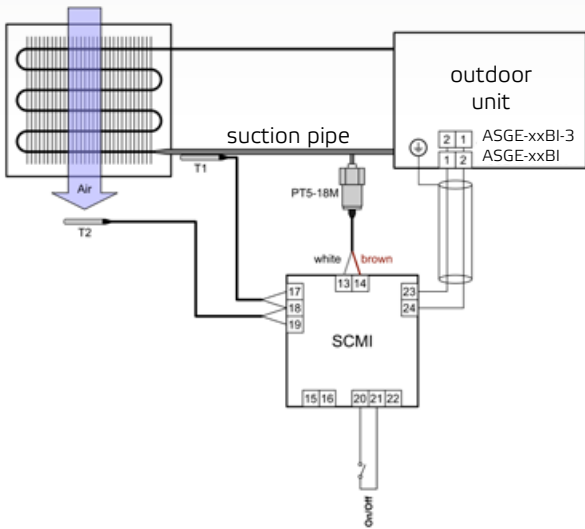
CONDENSING UNITS ASGE-XXBI, ASGE-XXBI-3

- Automatic protection of outdoor unit
- Automatic defrost of outdoor unit
- Informational error display placed on the main board.
- EC fan motor
- Electronic expansion valve as standard accessory
- Connection valves and terminal block on right side
- Compressor heater as standard accessory
- Bottom heater as optional accessory



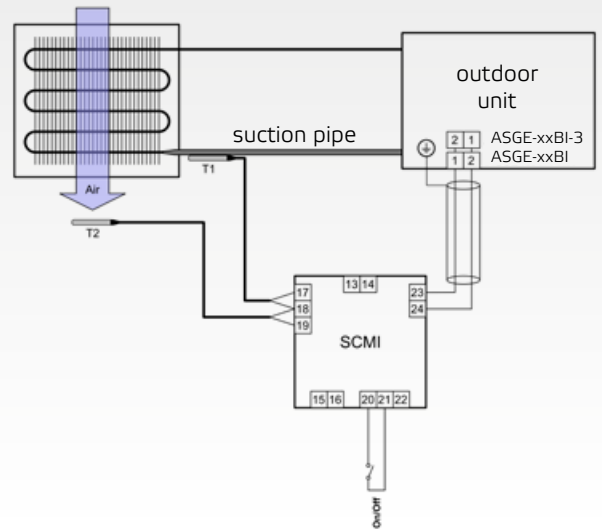
AUTONOMOUS TEMPERATURE CONTROL MODE FOR COOLING AND HEATING

Performance of the outdoor unit compressor is controlled to keep the temperature set for cooling/heating/ mode combi. The room temperature is measured with the resistance thermometer T2. It is necessary to set the requested temperature for cooling and heating manually. Use "21" and "22" non-potential contacts for switching between cooling and heating mode.



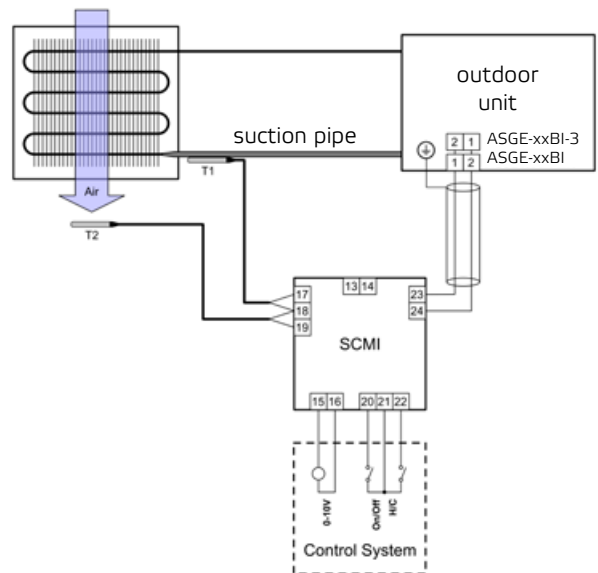
SLAVE UNIT MODE - OPERATED

Performance of the outdoor unit compressor is controlled with SCMI-01.4 module according to direct voltage 0-10V from an external supply. The voltage value corresponds with the desired compressor performance 0-100%. The unit can work in both modes – cooling and heating, H/C connectors are used for switching the modes.

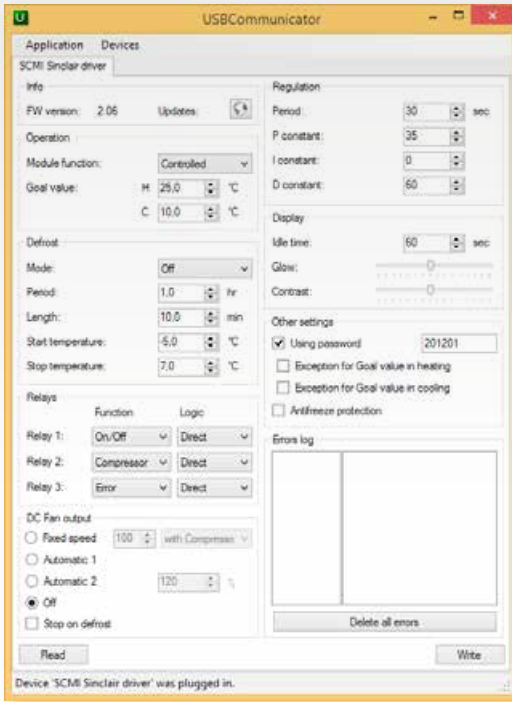


AUTONOMOUS PRESSURE (EVAPORATION TEMPERATURE) CONTROL FOR COOLING

Performance of the outdoor unit compressor is controlled to keep the requested cooling temperature recalculated to appropriate refrigerant (R32) pressure.



USB COMMUNICATOR



SOFTWARE FOR SCMI-01.4 CONTROL

- Distant setting
- Quick summary of all settings
- Language options (EN, DE, PL, CZ, HU, HR)
- Password setting
- View of error history, history eraser

FMD MODULES

FMD modules are used to control speed of DC fan motors.

FMD-01

Designed to control fan motors of indoor units from UNI SPLIT series*. The fan speed is controlled via SCMI-01.4 module.



* ASD-xxBI, ASC-xxBI, ASF-xxBI except ASD-48BI, ASD-60BI

FMD-01T

Designed to control fan motors of indoor units from UNI SPLIT series*. The fan speed is controlled via multi-turn trimmer.



FMD-02

Designed to control fan motors of outdoor ASGE units**. The fan speed is controlled via SCMI-01.4 module.



** Optimization for cooling with low evaporating temperatures

FMD-03

Designed to control fan motors of indoor units ASD-48BI and ASD-60BI. The fan speed is controlled via SCMI-01.4 module.



OTHER FUNTIONS

SELF-DIAGNOSIS

- Stopping the system when failure has been detected
- Error code displaying on SCMI-01.4
- Automatic defrost

HEALTH FILTERS

HEALTH FILTERS FOR RAY, VISION, FOCUS PLUS, SPECTRUM,
SPECTRUM PLUS AND CONSOLE SERIES

SAF-OPWC4

CATECHIN FILTER

Catechin is a green tea extract added to the filters for its oxidizing and sterilizing effects. Active enzymes form a benzene nucleus which absorbs odors and harmful substances in the air. Catechin filter effectively captures and sterilizes dust particles. It is antibacterial and destroys more than 95% of bacteria, e.g., Staphylococcus aureus.

SAF-OPWA4

ACTIVE CARBON FILTER

Active carbon is an excellent absorbent with capability of dual absorption: physical and chemical, as from air and from fluids. Quickly absorbs harmful gases, e.g. benzene, formaldehyde and ammonia.

SAF-OPWB4

BIOLOGICAL FILTER

This filter is made of a material with excellent properties of sterilizing and capture of dust. When air flows through the filter, dust and bacteria are retained on the filter surface, which is bio-bactericidal. In case of attachment of microbes, bio-bactericidal surface disrupts its metabolism and limits its growth. Efficiency of capturing of Escherichia coli and Staphylococcus aureus is higher than 95%.

SAF-OPWS4

SILVER ION FILTER

Silver ion filter is an entirely new kind of powerful sterilizing product. Silver ions are odorless and colorless and have no side effects, such as irritation, pollution or volatility. After sterilization the ions recycle themselves, therefore have a long lifespan and effectively prevent bacterial growth. The filter is also environmentally friendly and completely safe. It is highly efficient and destroys over 99% of the bacteria. Silver ions themselves attract bacteria and microorganisms, pass through the cell membrane and inhibit the cleavage activity of the bacteria. Disrupts DNA structure of bacteria and microorganisms, causing a loss of reproductive ability of bacteria.

SAF-OPWP4

PHOTOCATALYST FILTER

Photocatalytic filter reduces odors and germs via its ultraviolet light. Effectively purifies the air and keeps it fresh. Titan TiO₂ contained in this filter has a strong photocatalytic effect, but it is also environmentally friendly. Removes from the air more than 90% of acetic acid, formaldehyde, ammonia and more than 70% of renewable pollutants.

SAF-OPWK4

COLD CATALYST FILTER

The basic material of the filter are polyurethane (PU) and various catalytic fibers. Effectively captures and removes formaldehyde and other volatile organic compounds (VOCs), as well as harmful gases and odors. The catalyst filter can remove up to 92,9% of formaldehyde from the air within 2,5 hours.

SAF-OPWM4

ANTI-MITE FILTER

Using this filter, you can quickly remove up to 90% of the dust mites from the air. This filter is especially useful for people suffering from allergies and asthma.

WIRED CONTROLLERS

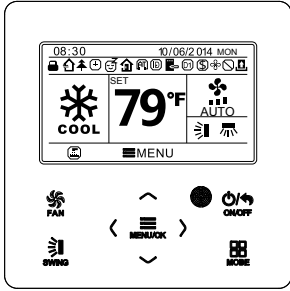


XK19

WIRED CONTROLLER

Standard accessory for duct, cassette and floor-ceiling MULTI VARIABLE units. Optionally can be connected to the indoor units of MULTI VARIABLE, FOCUS, FOCUS PLUS, SPECTRUM, SPECTRUM PLUS, SPLIT CONSOLE series.

It is necessary to order communication cable SC-H01 or SC-CDF for this controller when ordered separately.



SWC-02

WIRED CONTROLLER

Optional wired controller with weekly timer for the indoor units of MULTI VARIABLE, FOCUS, FOCUS PLUS, SPECTRUM, SPECTRUM PLUS, SPLIT CONSOLE series.

It is necessary to order communication cable SC-H01 or SC-CDF for this controller.



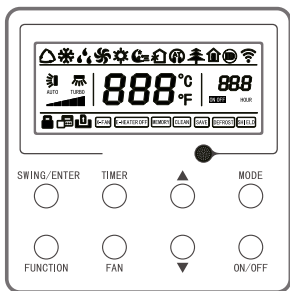
SC-H01

Cable for connection R32 split wall mounted units or MULTI VARIABLE wall mounted, console units or split CONSOLE units with wired controllers XK19 or SWC-02. Length of cable is about 8 meters.



SC-CDF

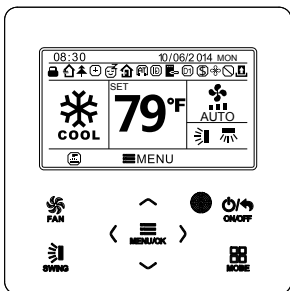
Cable for connecting MULTI VARIABLE cassette, duct or floor-ceiling indoor units with wired controllers XK19 or SWC-02. Length of cable is about 8 meters.



XK117

WIRED CONTROLLER

Standard accessory for indoor units of UNI SPLIT series.



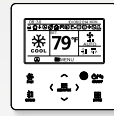
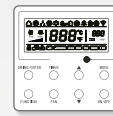
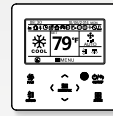
SWC-03

WIRED CONTROLLER

Optional wired controller with weekly timer to the indoor units of UNI SPLIT series.

TECHNICAL PARAMETERS

WIRED CONTROLLERS



| Model | XK19 | SWC-02 | XK117 | SWC-03 | |
|------------------------------------|--|-----------------|----------------|--------------|----------------|
| On/Off | ✓ | ✓ | ✓ | ✓ | |
| Mode selection | ✓ | ✓ | ✓ | ✓ | |
| Temperature setting | ✓ | ✓ | ✓ | ✓ | |
| Fan control | ✓ | ✓ | ✓ | ✓ | |
| Swing louver | ✓ | ✓ | ✓ | ✓ | |
| Save function setting | ✓ | ✓ | ✓ | ✓ | |
| Room temperature display | ✓ | ✓ | ✓ | ✓ | |
| Buttons lock | ✓ | ✓ | ✓ | ✓ | |
| Function lock | ✓ | ✓ | ✓ | ✓ | |
| On/Off timer | ✓ | ✓ | ✓ | ✓ | |
| Daily timer | - | ✓ | - | ✓ | |
| Weekly schedule timer | - | ✓ | - | ✓ | |
| Two week schedule timer | - | ✓ | - | ✓ | |
| Auto restart | ✓ | ✓ | ✓ | ✓ | |
| Turbo mode | ✓ | ✓ | ✓ | ✓ | |
| Blow (X-fan) mode | ✓ | ✓ | ✓ | ✓ | |
| Quiet function | - | ✓ | - | ✓ | |
| Sleep curve setting | ✓ | ✓ | ✓ | ✓ | |
| Clock display | - | ✓ | - | ✓ | |
| Remote signal receiver | ✓ | ✓ | ✓ | - | |
| Clean filter reminder | - | ✓ | - | ✓ | |
| Error check function | ✓ | ✓ | ✓ | ✓ | |
| Unit parameters view | - | ✓ | - | ✓ | |
| °F / °C display | - | ✓ | - | ✓ | |
| Slave/master controller setting | - | - | ✓ | - | |
| 8°C heating mode | - | - | ✓ | ✓ | |
| Low temperature drying mode (12°C) | - | - | ✓ | ✓ | |
| Forced defrost mode | ✓ | ✓ | ✓ | ✓ | |
| Setting (debugging) menu: | Error code history | ✓ | ✓ | ✓ | ✓ |
| | Address setting for central controlling | ✓ | ✓ | ✓ | ✓ |
| | Ambient temperature sensor setting | ✓ | ✓ | ✓ | ✓ |
| | Fans speed level setting | ✓ | ✓ | ✓ | - |
| | Antifreeze protection of evaporator (E2) display | - | ✓ | ✓ | ✓ |
| | Refrigerant leakage protection display | - | ✓ | ✓ | ✓ |
| | Blow function setting | - | - | ✓ | ✓ |
| | Crankcase heater setting | - | - | ✓ | ✓ |
| | Stand-by power consumption setting | - | - | ✓ | ✓ |
| | On/Off contact activation | - | ✓ | ✓ | ✓ |
| | External device setting | - | - | ✓ | ✓ |
| | Fan speed setting | - | - | ✓ | ✓ |
| | Temperature compensation setting | - | ✓ | ✓ | ✓ |
| | AUTO mode selection | - | - | ✓ | - |
| | Defrost mode selection | - | - | ✓ | - |
| Heat pump enabled | ✓ | - | ✓ | - | |
| Connection | SC-H01 / SC-CDF | SC-H01 / SC-CDF | 2-core wire | 2-core wire | |
| Dimension | w x h x d | 86 x 98 x 39 | 112 x 112 x 22 | 86 x 98 x 39 | 112 x 112 x 22 |

CENTRAL CONTROLLERS

SCC-16



CENTRAL CONTROLLER AND WEEKLY TIMER

This central controller allows you to control up to 16 unit simultaneously and set the weekly timer.

It can be used with UNI SPLIT series (has to be connected via modbus gateway SMG-01 – each indoor unit needs to have one SMG-01) or when connected via wired controller SWC-02 or XK19 and communication cable SCC-16k it can be used with MULTI VARIABLE series, R32 wall mounted split units or split CONSOLE series (each indoor unit needs to have one SWC-02 or XK19 and N + 1 pcs of communication cables SCC-16k, where N is number of indoor units).

SCC-16K



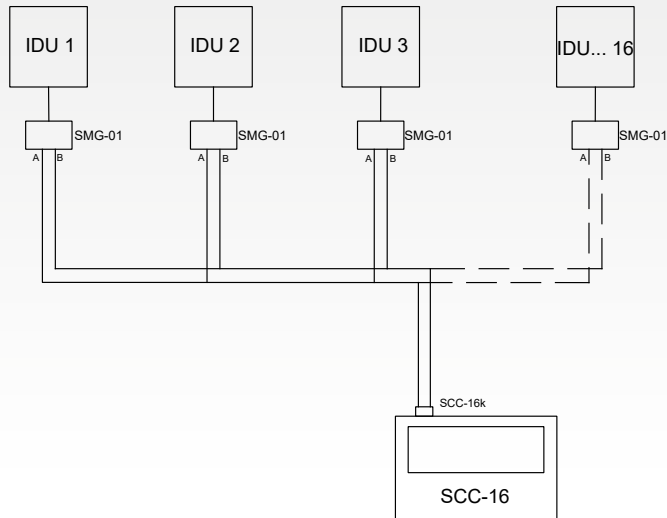
COMMUNICATION CABLE FOR SCC-16 CENTRAL CONTROLLER

Used to connect the indoor units to SCC-16 central controller

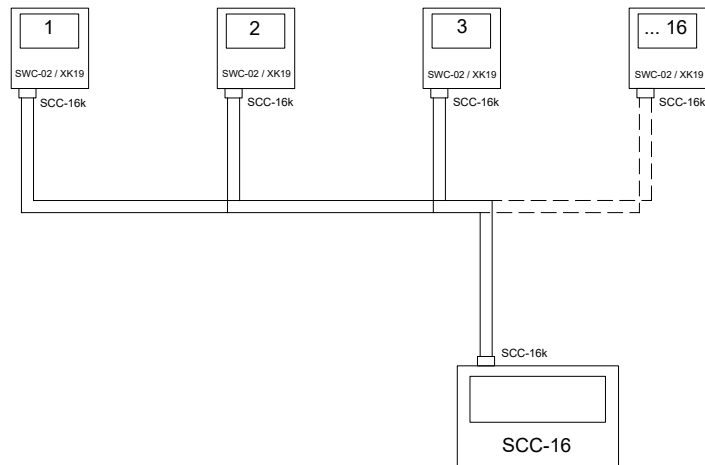
Necessary number of cables = number of indoor units + 1 pc (if connected to MULTI VARIABLE or R32 wall mounted or split CONSOLE) or 1pc (when connected to UNI SPLIT series).

CONNECTING SCHEMAS

Central controller SCC-16 with UNI SPLIT series



Central controller SCC-16 with multi variable, R32 wall mounted or split console series



CENTRAL CONTROLLERS

SCC-36



CENTRAL CONTROLLER AND WEEKLY TIMER

- Stylish central controller with 7" touch screen
- Connects up to 36 indoor units
- User friendly interface
- Weekly timer
- Single, group or all units control

It can be used with UNI SPLIT series (has to be connected via Modbus gateway SMG-01 – each indoor unit has to have one SMG-01) or when connected via wired controller SWC-02 and communication cable SCC-36k it can be used with MULTI VARIABLE series, R32 wall mounted split units or split CONSOLE series (each indoor unit has to have one SWC-02 and two SCC-36k).

SCC-36K



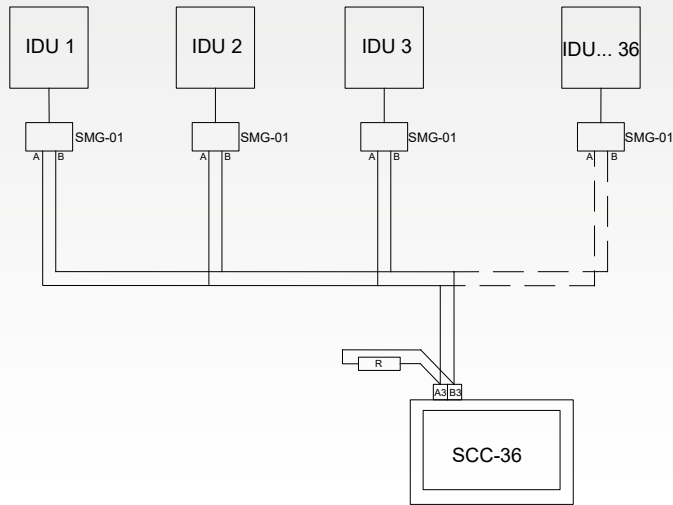
COMMUNICATION CABLE FOR CENTRAL CONTROLLER SCC-36

Used for connection of indoor units with central controller SCC-36 and wired controller SWC-02 (for MULTI VARIABLE series, R32 wall mounted units or split Console series).

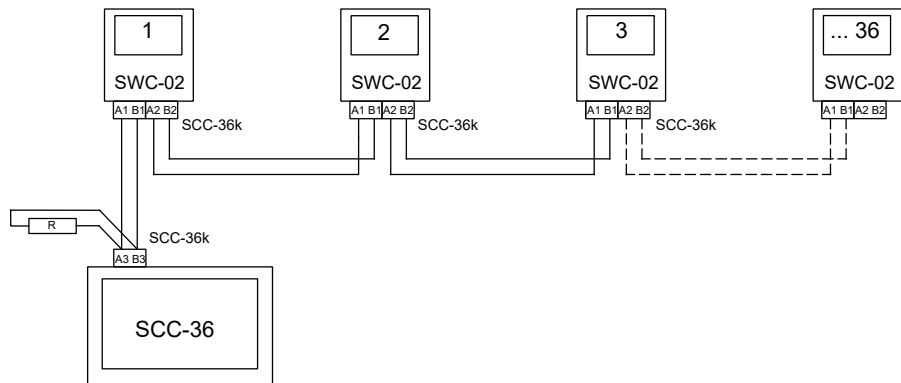
Order in amount 2N-1 where N is number of indoor units.

CONNECTING SCHEMAS

Central controller SCC-36 with UNI SPLIT series



Central controller SCC-36 with multi variable, R32 wall mounted or split console series



OTHER ACCESSORIES

SWM-03



SINCLAIR WIFI MODULE FOR UNI SPLIT SERIES

WiFi module can be connected to indoor unit to achieve long distance control with smart phone or tablet. SWM-03 is optional accessory for UNI SPLIT units.

SMG-01



MODBUS GATEWAY FOR UNI SPLIT SERIES

Enables the communication of indoor units of UNI SPLIT series via the Modbus protocol. It can be used for connecting SCC-36 central controller or for connection of external control system using Modbus protocol.

Control software is not included, it has to be field supplied.

SCC-16



SINCLAIR MODUL GSM

GSM module is used for controlling SINCLAIR air-conditioners by means of your mobile phone. It applies IR transfer for communication with the air-conditioner, therefore there is no need to connect it to the air-conditioner in any way. In this view it operates as another remote controller. The module is equipped with two transmitting IR diodes, signaling diodes, slot for inserting SIM card and with connectors for connecting power supply cable and for connecting to the USB port of a computer.

SDG-01

SINCLAIR DRY CONTACT GATEWAY

Dry contact gateway allows to externally turn the unit on or off and switch its modes. Module is also equipped with more functions like signaling of malfunction, etc.

SYSTEM ERROR DIAGNOSIS

SDT-ASH

DIAGNOSTIC TOOL FOR SPLIT WALL MOUNTED AC

- Indoor and outdoor unit diagnostic
- Running parameters
- Simulation run of indoor or outdoor unit
- Test of indoor and outdoor mainboard during communication malfunction
- IR receiver (can be used during outdoor unit's test run)
- User friendly (just 4 buttons)
- Simple display (4 lines)
- No need for other accessories
- Connected to terminal board of units

SDT-MV

DIAGNOSTIC TOOL FOR MULTI SPLIT AC

- Compatible with Multi Variable, Multi System and High Power Multi System series
- Automatic detection of connected units
- User friendly interface
- Running parameters of whole system
- Connected to outdoor unit's mainboard
- 3 diodes (power supply, running, error)
- Power supply: USB connector (cable is included in the package, 5V adapter is field supplied)

SINCLAIR TECHHELP APP

- This practical tool is used for identification of error codes and their brief analysis.
- List of our products and their error codes, brief description of each error and suggested solution together with possible causes.
- Search comfortably by error code or device name
- Save the already installed devices between "My Devices" and have relevant information about errors available immediately



The app is available at below mentioned web page. Login is required, please use following user name and password. Application is available for OS Android only

EN

User name: SinclairTechHelp.en
Password: TechHelp1



DE

User name: SinclairTechHelp.de
Password: TechHelp1



HU

User name: SinclairTechHelp.hu
Password: TechHelp1



CZ

User name: SinclairTechHelp.cz
Password: TechHelp1



PL

User name: SinclairTechHelp.pl
Password: TechHelp1



Installing of an application requires permission to install applications from unknown sources

GENERAL OVERVIEW OF ERROR CODES

APPLIES TO ALL RESIDENTIAL AIR CONDITIONING UNITS MENTIONED IN THIS CATALOGUE EXCEPT ASDH-96AI

| ERROR | | Others | |
|-------------------|---|--------|---|
| E0 | Start-up protection to adjust the frequency when the power input is low | AL | X-fan |
| E1 | High pressure protection | C5 | Malfunction of jumper cap |
| E2 | Freeze protection | C6 | Ground wire missing |
| E3 | Low pressure protection, refrigerant lacking protection | CC | Wrong wired controller/locked buttons |
| E4 | Compressor high discharge temperature protection | CP | Protection from cold air blowing |
| E5 | Overcurrent protection of the complete unit | EE | Malfunction of outdoor main control memory chip |
| E6 | Communication malfunction | ee | Malfunction of outdoor drive module memory chip |
| E7 | Mode conflict | EU | Limit/decrease frequency due to module temperature protection |
| E8 | Malfunction of indoor fan motor | H0 | Decrease frequency for high temperature resistant in heating mode |
| E9 | Full water protection | H1 | Defrosting |
| Failure | | H2 | Electrostatic dedust protection |
| F0 | Indoor ambient temperature sensor or indoor pipe temperature sensor is open/short circuited | H3 | Overload protection of compressor |
| F1 | Indoor ambient temperature sensor is open/short circuited | H4 | Overload protection |
| F2 | Indoor evaporator temperature sensor is open/short circuited | H5 | IPM protection (module current protection) |
| F3 | Outdoor ambient temperature sensor is open/short circuited | H6 | Malfunction of indoor fan motor |
| F4 | Outdoor condenser temperature sensor is open/short circuited | H7 | Desynchronizing of compressor |
| F5 | Outdoor discharge temperature sensor is open/short circuited | H8 | Water overflow protection |
| F7 | Oil return cycle | Hc | PFC protection |
| F8 | Limit/decrease frequency due to current protection of the complete unit | HE | Demagnetizing protection of compressor |
| F9 | Decrease frequency due to high air discharge | Hp | Evaporator temperature is higher than 58°C (heating mode) |
| FA | Limit/decrease frequency due to high evaporator or condenser temperature | JF | Malfunction of Wi-Fi module |
| FH | Limit/decrease frequency due to freeze protection | L3 | Malfunction of ODU DC fan motor |
| F0 | Refrigerant lacking/system blockage protection | L9 | Power input protection |
| Fo | Gathering refrigerant | Lp | Indoor unit and outdoor unit do not match |
| Protection | | U1 | Malfunction of phase current circuit detection for compressor |
| P0 | Drive module reset protection | Ld | Compressor phase lack protection |
| P5 | Overcurrent protection of compressor | U3 | Malfunction of voltage dropping of DC bus-bar |
| P6 | Communication malfunction between main control and drive | U4 | Compressor is reversing |
| P7 | Malfunction of module temperature sensor circuit | U5 | Malfunction of complete unit's current detection |
| P8 | Module high temperature protection | U6 | High temperature protection of oil |
| P9 | Zero-crossing protection | U7 | The 4-way valve is abnormal |
| PL | Voltage of DC bus-bar is too low | | |
| PH | Voltage of DC bus-bar is too high | | |
| PU | Charging malfunction of capacitor | | |
| PP | Input voltage is abnormal | | |

GENERAL OVERVIEW OF ERROR CODES

| | | | |
|----|--|----|---|
| E1 | Phase sequence error | P0 | Top high temperature protection of inverter compressor |
| E2 | Indoor & outdoor unit communication error | P1 | High pressure protection or high temperature protection of discharge sensor |
| E4 | Ambient temperature T4/pipe temperature T3 sensor error | P2 | Low pressure protection |
| E5 | Voltage error | P3 | Outdoor input current protection |
| E6 | DC fan motor fault | P4 | Compressor discharge temperature protection |
| E7 | Discharge sensor error | P5 | Pipe temperature protection |
| EA | A fan in the A region run for more than 5 minutes in HEAT mode | P6 | Inverter module protection |
| Eb | 2 times of E6 protection in 10 minutes | P8 | Storm protection |
| E8 | Outdoor unit address is wrong | PE | Evaporator high temperature protection |
| E9 | EEPROM error | P9 | DC fan module protection |
| H0 | IR341 and main control chip communication error | L0 | Inverter module error |
| H1 | Communication chip and main control chip communication error | L1 | DC generatrix low voltage error |
| H4 | Three times P6 protection in 60 minutes | L2 | DC generatrix high voltage error |
| H5 | Three times P2 protection in 60 minutes | L4 | MCE error/ synchronization/ closed loop |
| H6 | Three times P4 protection in 100 minutes | L5 | Zero speed protection |
| H7 | The number of indoor units decreases | L7 | Phase sequence error |
| H8 | High pressure sensor error | L8 | Frequency protection - frequency difference in one second more than 15Hz |
| H9 | Three times P9 protection in 60 minutes | L9 | Frequency protection - frequency difference between the real and the setting frequency more than 15Hz |
| HF | M-HOME for the indoor and outdoor units does not match | | |

GENERAL OVERVIEW OF ERROR CODES

| Module SCMI-01.4 error | |
|--|--|
| Error T1 open | Open circuit of temperature sensor T1 |
| Error T2 open | Open circuit of temperature sensor T2 |
| Error T1 short | Short circuit of temperature sensor T1 |
| Error T2 short | Short circuit of temperature sensor T2 |
| Error P open | Open circuit of pressure sensor P |
| Error P short | Short circuit of pressure sensor P |
| Error P low | Low pressure on suction side of compressor |
| Err. com disconnected | Communication malfunction between SCMI-01.4 module and outdoor unit |
| Error of UNI SPLIT series outdoor unit | |
| 01000000 | E4 - Compressor discharge high-temperature protection |
| 02000000 | Lack of refrigerant protection |
| 04000000 | Fan DC motor protection |
| 08000000 | 4-way valve protection |
| 10000000 | Overcurrent protection |
| 20000000 | H3 - Overload protection |
| 40000000 | E3 - Compressor low pressure protection |
| 80000000 | E1 - Compressor high pressure protection |
| 00010000 | Indoor unit freezing protection |
| 00020000 | F3 - Indoor unit freezing protection |
| 00040000 | F4 - Discharge temperature sensor malfunction |
| 00080000 | F2 - Condenser temperature sensor malfunction |
| 00100000 | Condenser inlet tube temperature sensor malfunction |
| 00200000 | C5 - Invalid power code (invalid position of the jumper) |
| 00400000 | Drive unit memory chip malfunction |
| 00000100 | Protection against starting compressor at a low frequency at a low voltage |
| 00000200 | DC Bus overvoltage protection |
| 00000400 | AC current protection |
| 00000800 | IPM protection |
| 00001000 | PFC protection |
| 00002000 | Start up malfunction |
| 00004000 | Compressor wrong phase order protection |
| 00008000 | Drive unit module sensor malfunction |
| 00000001 | Compressor overcurrent protection |
| 00000002 | Power supply protection |
| 00000004 | Circuit current measurement malfunction |
| 00000008 | H7 - Compressor desynchronization protection |
| 00000010 | Compressor stalling protection |
| 00000040 | Drive unit module high-temperature protection |
| 00000080 | Drive unit module sensor malfunction |

EXPLANATORY NOTES:

- 1) Data are based on following conditions: Length of connection pipe: 5m. Cooling: indoor temperature 27°C DB/19°C WB, outdoor temperature 35°C DB/24°C WB. Heating condition: indoor temperature 20°C DB/15°C WB, outdoor temperature 7°C DB/6°C WB.
- 2) Data are based on following conditions: Length of connection pipe: 5m. Cooling: indoor temperature 27°C DB/19°C WB, outdoor temperature 35°C DB/24°C WB. Heating condition: indoor temperature 20°C DB/15°C WB, outdoor temperature 7°C DB/6°C WB.
- 3) SEER/SCOP was calculated according to European standards contained in EN14825, based on part load classifying and testing conditions given by norm EN14511. Energy label can be downloaded from Sinclair product web page after B2B login.
- 4) Noise is tested in the semi-anechoic room, so it should be slightly higher in the actual Operation due to environmental change.
- 5) Cooling mode
- 6) Standard length of liquid pipes pre-filled with refrigerant.
- 7) Maximum length of liquid pipes in one-way including elevation between indoor and outdoor unit.
- 8) Guaranteed range of operational temperatures.
- 9) Maximum length of liquid pipes to last indoor unit.
- 10) EER/COP in accordance with EN14511.
- 11) If the outdoor unit is power supplied, the cable between indoor unit and outdoor unit is also common for communication.
- 12) Data are based on following conditions: Cooling: indoor temperature 27°C DB/19°C WB, water temperature 25°C, water temperature slope 5°C, pressure 0Pa; Heating: indoor temperature 20°C DB/15°C WB, water temperature 15°C, water flow same as for cooling, pressure 0Pa.

| | |
|--------------------------|---|
| SH/MH/H/M/L/ML/SL | super high / mid high / high / mid / low / mid low / super low |
| EXV | electromagnetic expansion valve |
| R32 | (single component refrigerant HFC), GWP of refrigerant used: 675. |
| R410A | (50% HFC-32, 50% HFC-125), GWP 2088 |
| R134A | (100% HFC-134a), GWP 1300 |
| R290 | (100% CH3CH2CH3), GWP 3 |
| ID/OD | indoor unit/outdoor unit |

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These values can be influenced by local conditions (acoustical bouncing area, the equipment of the room, etc).
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