

SPLIT TYPE
ROOM AIR CONDITIONER
WALL MOUNTED TYPE

SERVICE MANUAL



| Indoor unit | Outdoor unit |
|-------------|--------------|
| ASYG09LLCA | AOYG09LLC |
| ASYG12LLCA | AOYG12LLC |

CONTENTS

| | |
|----------------------------------|----|
| SPECIFICATIONS..... | 1 |
| DIMENSIONS..... | 2 |
| REFRIGERANT SYSTEM DIAGRAM... . | 3 |
| CIRCUIT DIAGRAM..... | 4 |
| INDOOR PCB CIRCUIT DIAGRAM..... | 5 |
| OUTDOOR PCB CIRCUIT DIAGRAM... . | 9 |
| ERROR DETECTION..... | 13 |
| PARTS (INDOOR UNIT)..... | 14 |
| PARTS (OUTDOOR UNIT)..... | 19 |
| ACCESSORIES..... | 23 |

SPECIFICATIONS

ELECTRICAL DATA

| TYPE | | Cool & heat inverter | |
|----------------------|---------|-----------------------|-----------------------|
| INDOOR UNIT | | ASYG09LLCA | ASYG12LLCA |
| OUTDOOR UNIT | | AOYG09LLC | AOYG12LLC |
| COOLING CAPACITY | | 2.50 kW | 3.40 kW |
| HEATING CAPACITY | | 3.20 kW | 4.00 kW |
| POWER SOURCE | | 230 V | 230 V |
| FREQUENCY | | 50 Hz | 50 Hz |
| RUNNING CURRENT | Cooling | 4.0 A | 4.7 A |
| | Heating | 4.7 A | 5.1 A |
| INPUT WATTS | Cooling | 0.745 kW | 1.015 kW |
| | Heating | 0.865 kW | 1.080 kW |
| E.E.R. | Cooling | 3.36 kW/kW | 3.35 kW/kW |
| COP | Heating | 3.70 kW/kW | 3.70 kW/kW |
| MOISTURE REMOVAL | | 1.3 L/h | 1.8 L/h |
| AIR CIRCULATION HIGH | Cooling | 720 m ³ /h | 720 m ³ /h |
| | Heating | 740 m ³ /h | 740 m ³ /h |
| MAXIMUM CURRENT | Cooling | 6.0 A | 7.0 A |
| | Heating | 6.0 A | 9.5 A |

FAN MOTOR

| POWER SOURCE | | 230 V | 230 V |
|----------------------|--------|--------------|--------------|
| INDOOR UNIT Cooling | High | 1,320 r.p.m. | 1,320 r.p.m. |
| | Medium | 1,120 r.p.m. | 1,120 r.p.m. |
| | Low | 840 r.p.m. | 860 r.p.m. |
| | Quiet | 700 r.p.m. | 700 r.p.m. |
| INDOOR UNIT Heating | High | 1,360 r.p.m. | 1,360 r.p.m. |
| | Medium | 1,120 r.p.m. | 1,120 r.p.m. |
| | Low | 900 r.p.m. | 900 r.p.m. |
| | Quiet | 700 r.p.m. | 700 r.p.m. |
| OUTDOOR UNIT Cooling | | 740 r.p.m. | 820 r.p.m. |
| OUTDOOR UNIT Heating | | 730 r.p.m. | 810 r.p.m. |

NOISE LEVEL

| | | | |
|----------------------|--------|-------|-------|
| INDOOR UNIT | High | 43 dB | |
| | Medium | 38 dB | |
| | Low | 33 dB | |
| | Quiet | 22 dB | |
| OUTDOOR UNIT Cooling | | 47 dB | 51 dB |
| OUTDOOR UNIT Heating | | 48 dB | 52 dB |

COMPRESSOR AND REFRIGERANT

| | | | |
|------------------------|-------------|-----------------------------------------------------------|-------|
| COMPRESSOR TYPE | | Hermetic type, 4 pole, 3 phase, DC inverter motor, Rotary | |
| DISCRIMINATION | | ASM89D10UFZ | |
| WEIGHT (with oil) | | 8.9 kg | |
| PRECHARGED REFRIGERANT | | 650 g | 750 g |
| REFRIGERANT TYPE | | R410A | R410A |
| FULL CHARGE | Pipe length | 10 m | 650 g |
| | | 15 m | 750 g |
| ADDITIONAL CHARGE | | 20 g/m | |
| MAXIMUM PIPING HEIGHT | | 10 m | |

DIMENSIONS

| | | |
|--------------|-----------|--------------------|
| INDOOR UNIT | H x W x D | 262 x 820 x 206 mm |
| OUTDOOR UNIT | H x W x D | 535 x 663 x 293 mm |

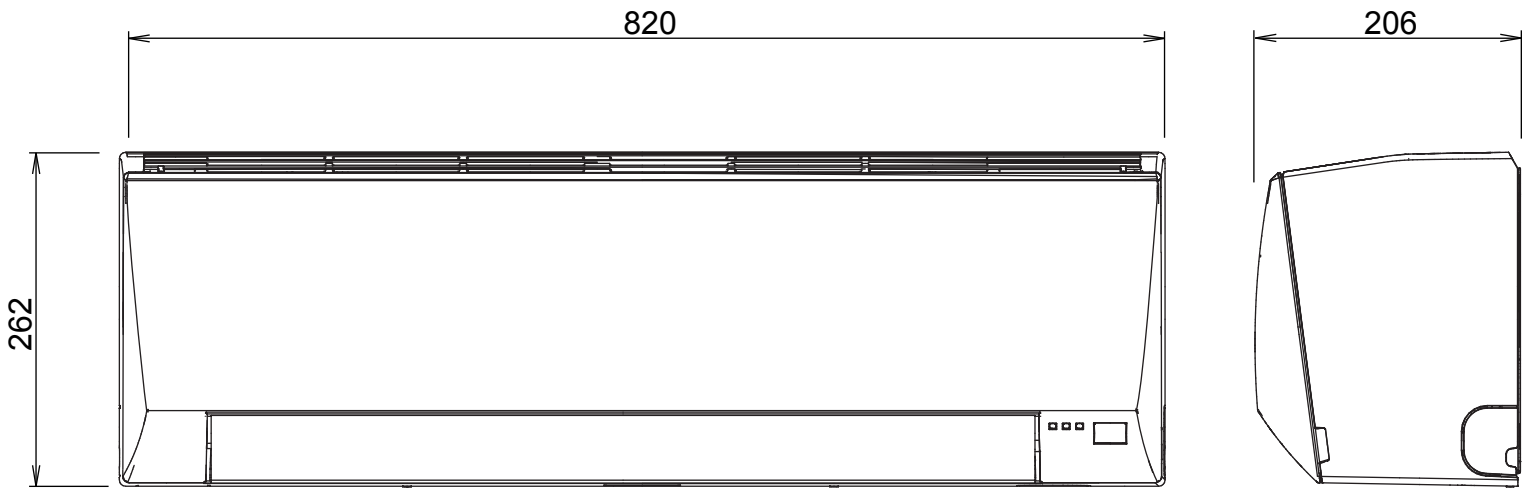
WEIGHT

| | | |
|--------------|----------------|-----------------|
| INDOOR UNIT | Net / Shipping | 7.5 kg / 9.5 kg |
| OUTDOOR UNIT | Net / Shipping | 24 kg / 27 kg |
| | | 26 kg / 28 kg |

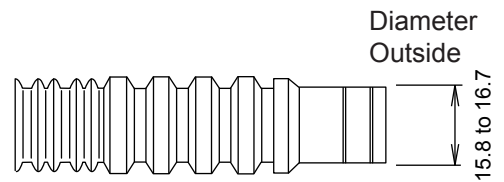
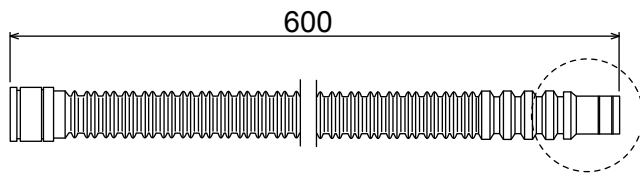
DIMENSIONS

unit : mm

INDOOR UNIT

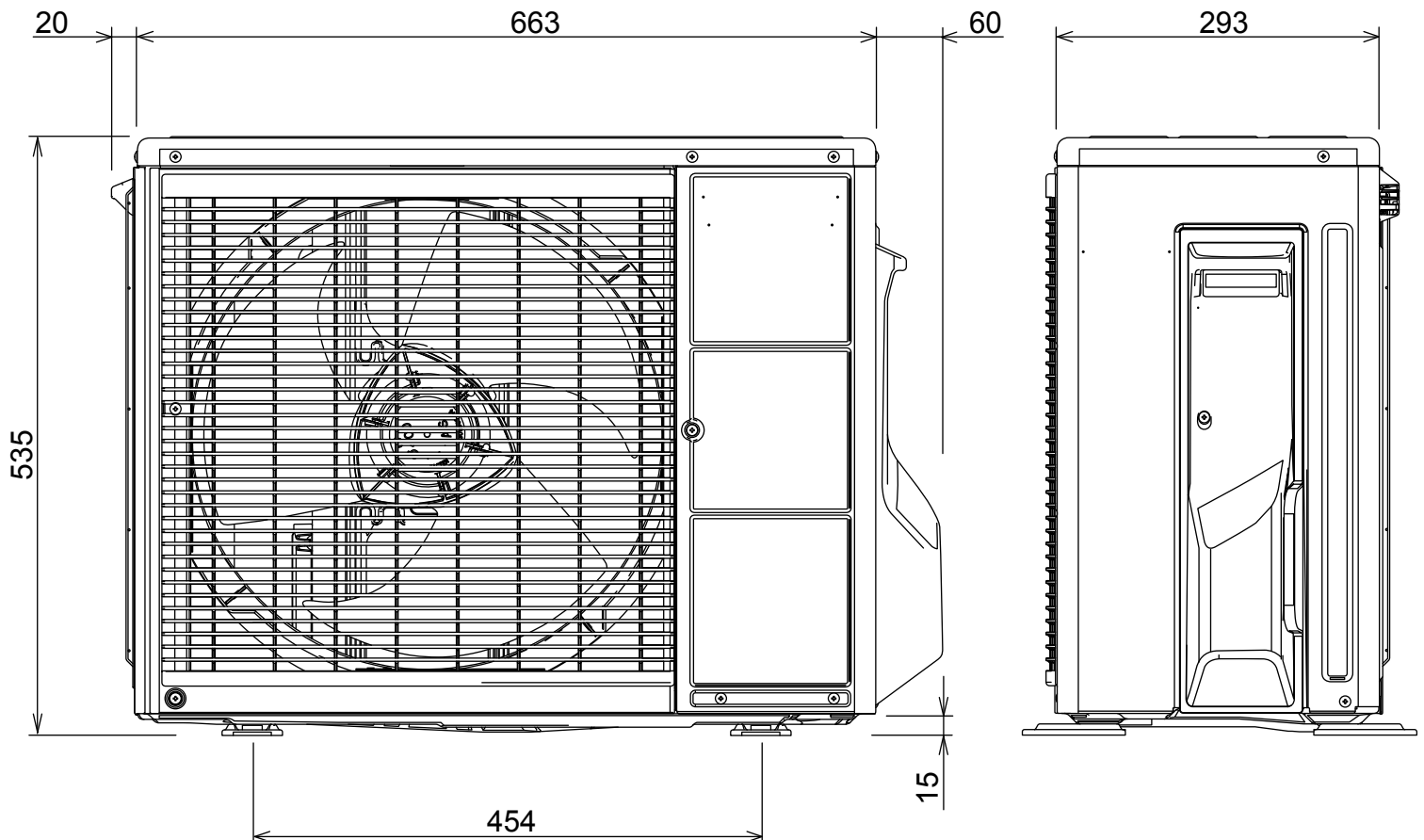


Drain hose

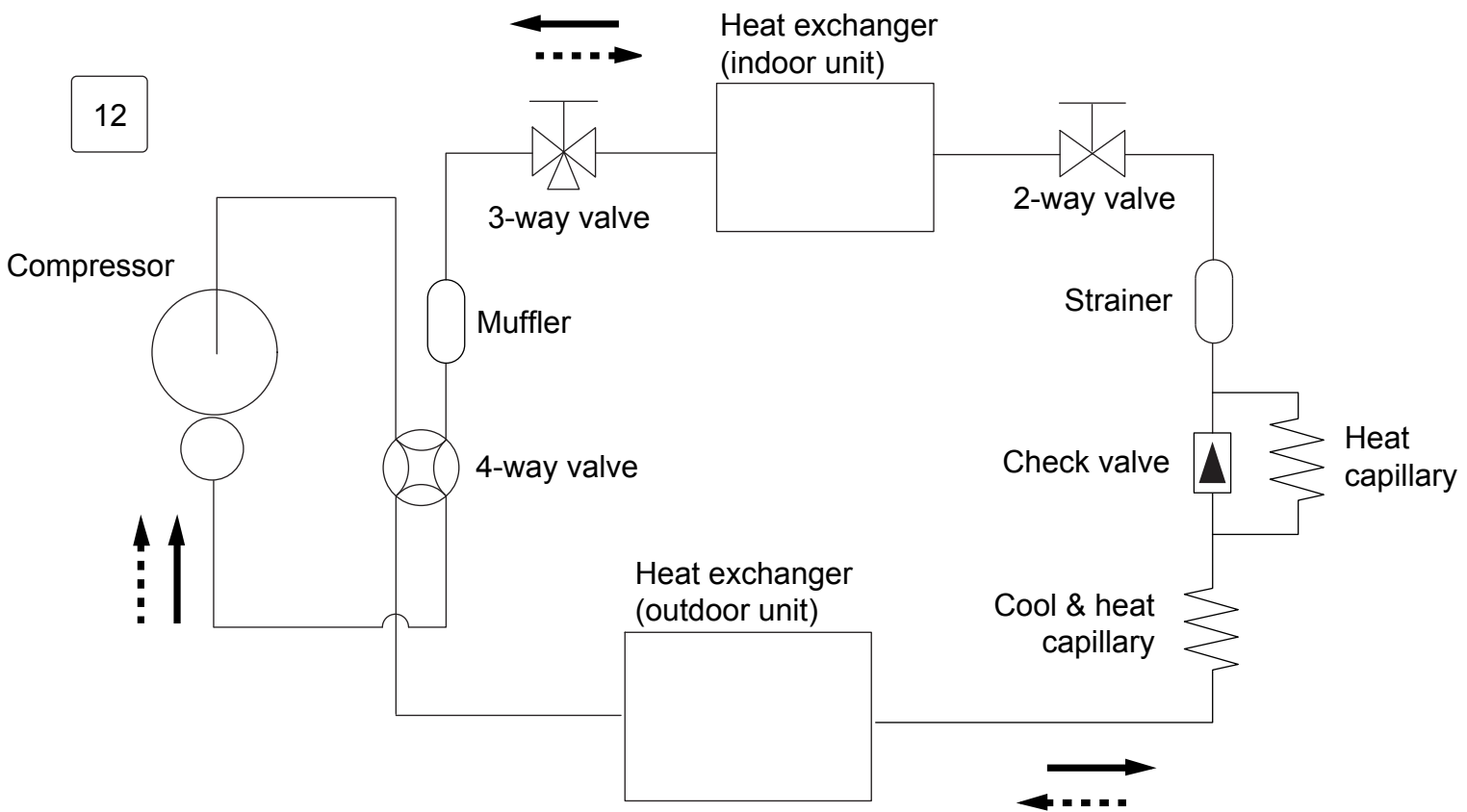
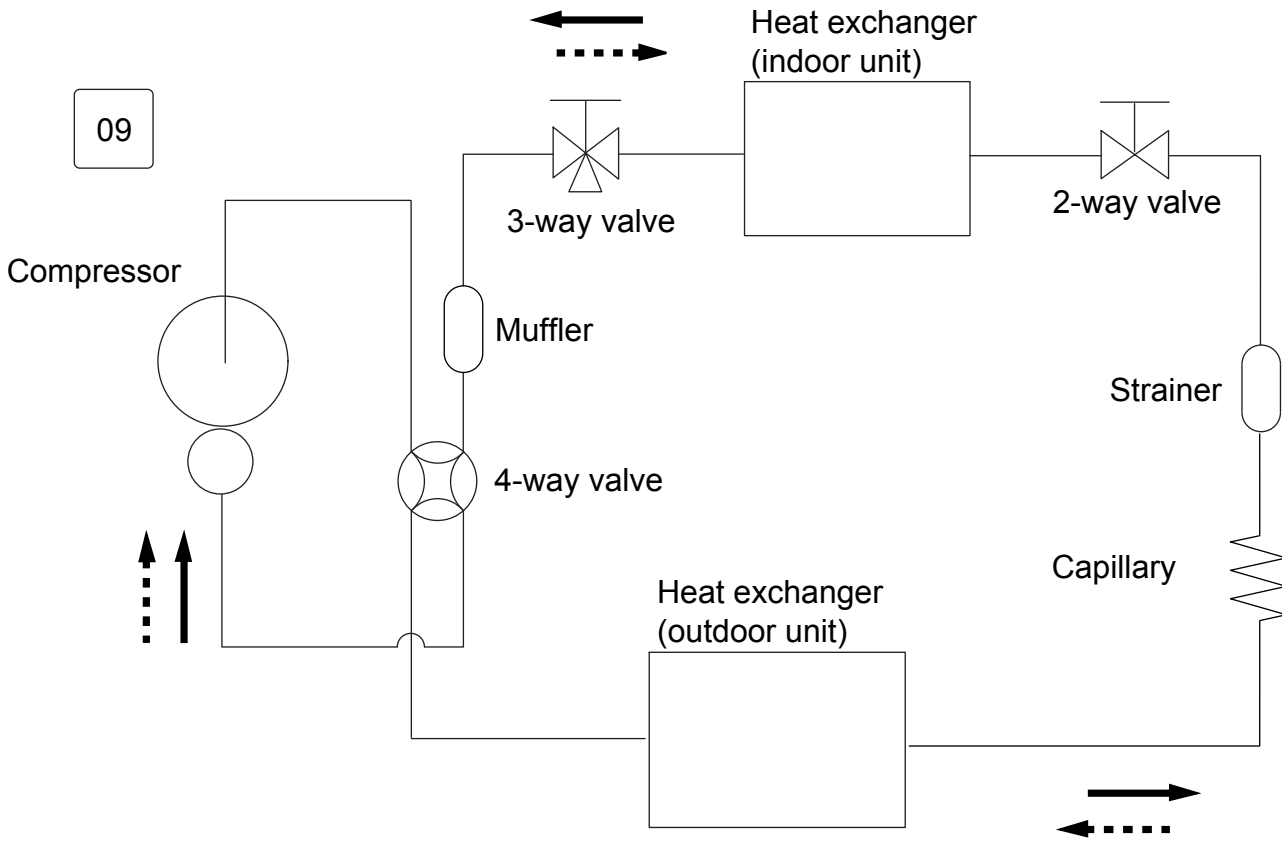


Inside : 13.8 mm

OUTDOOR UNIT



REFRIGERANT SYSTEM DIAGRAM



Refrigerant direction

—————▶ Cooling

.....▶ Heating

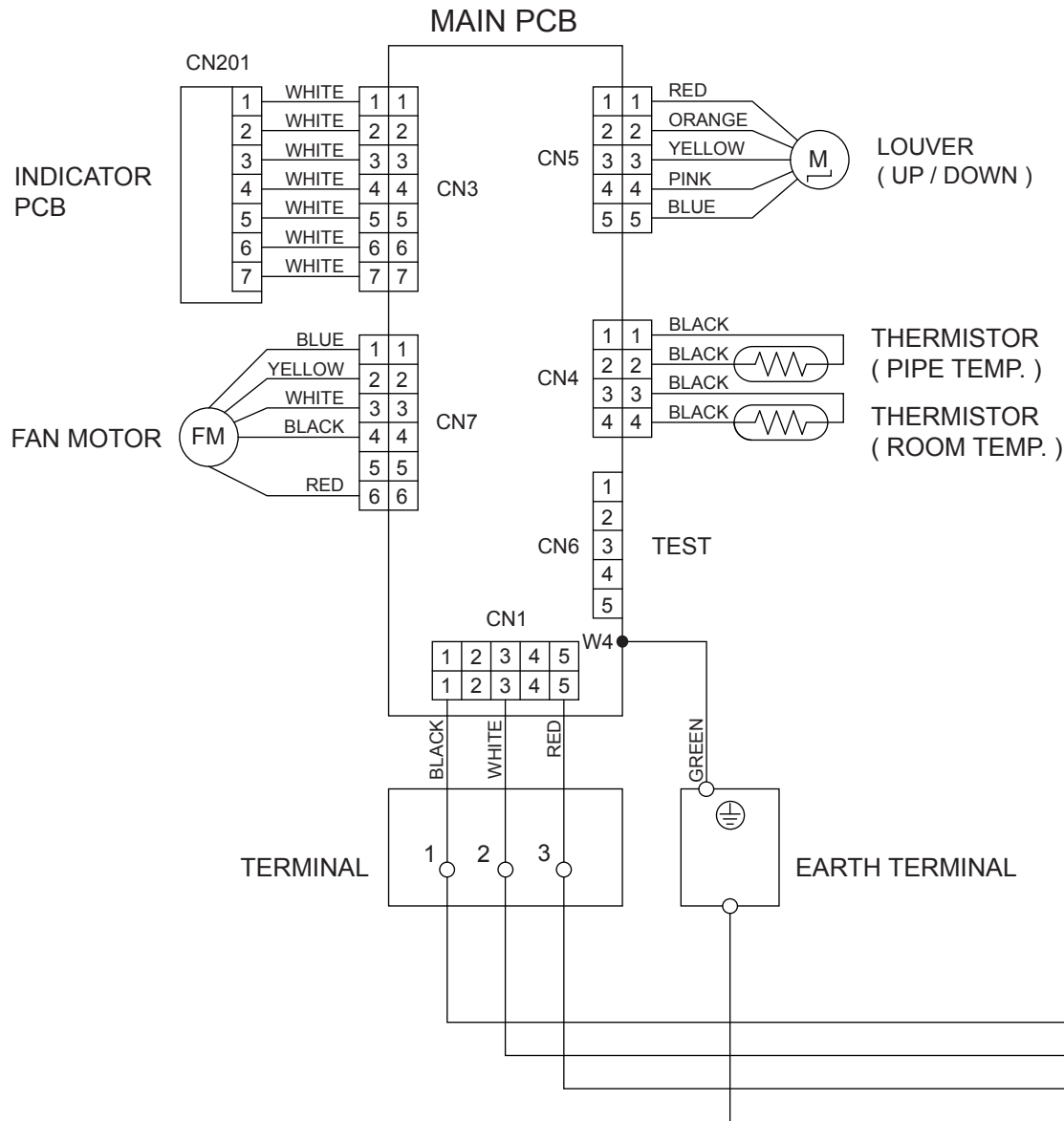
Refrigerant pipe diameter

Liquid : 1/4" (6.35 mm)

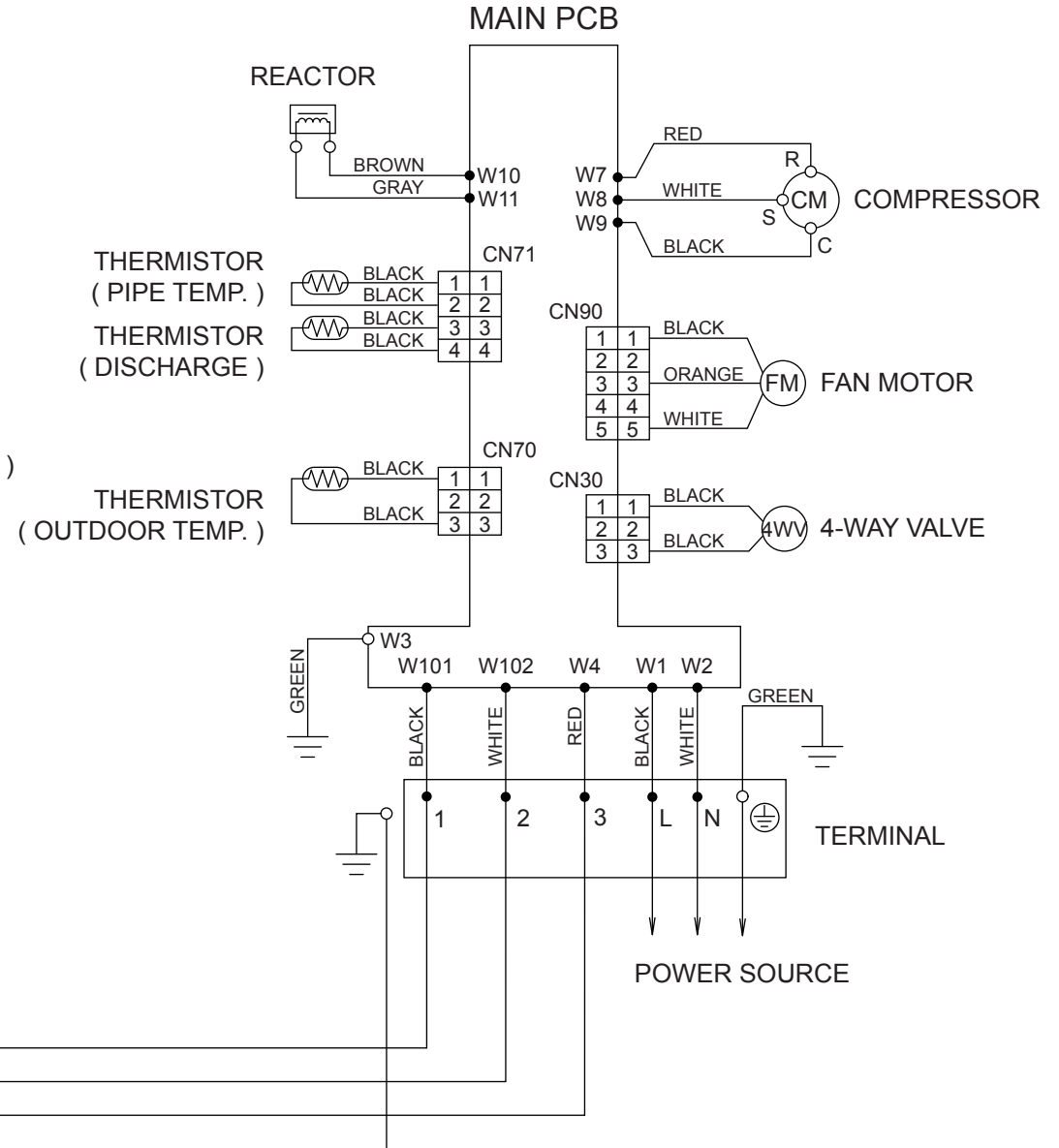
Gas : 3/8" (9.52 mm)

CIRCUIT DIAGRAM

INDOOR UNIT

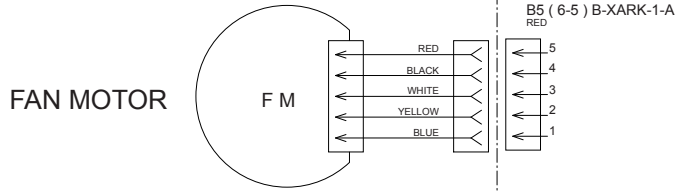
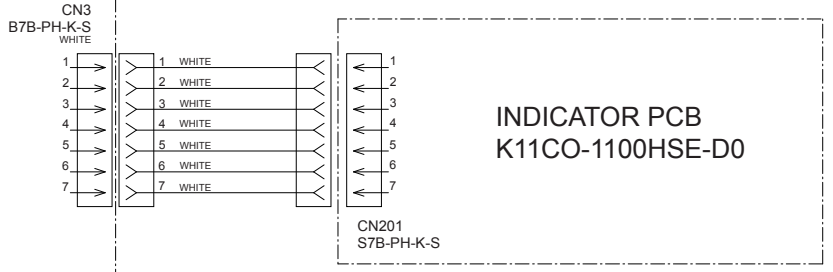
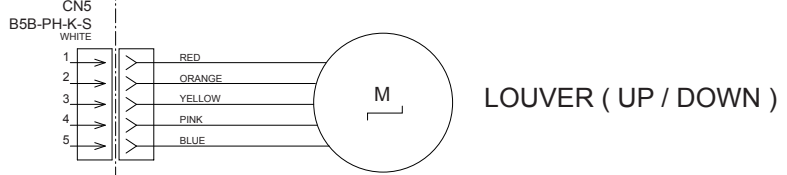
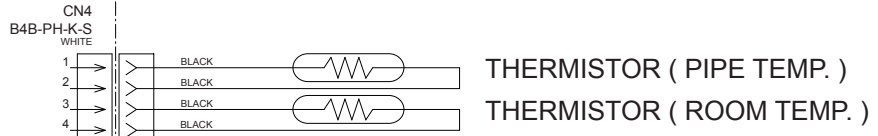
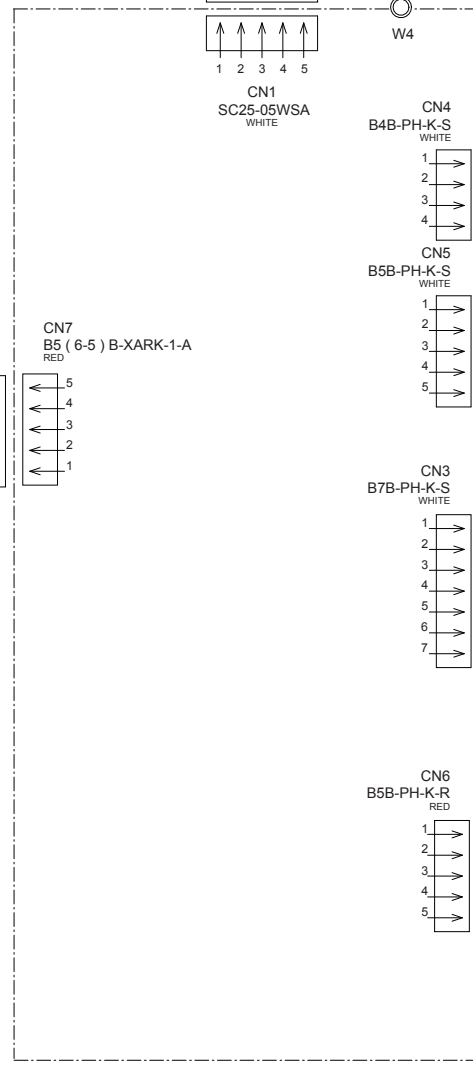
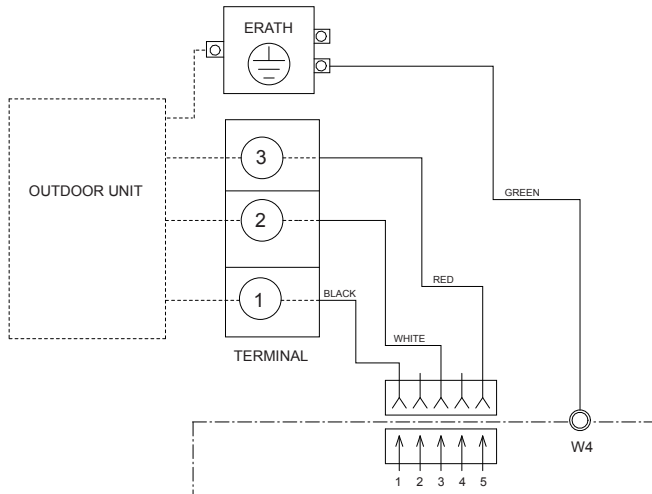


OUTDOOR UNIT

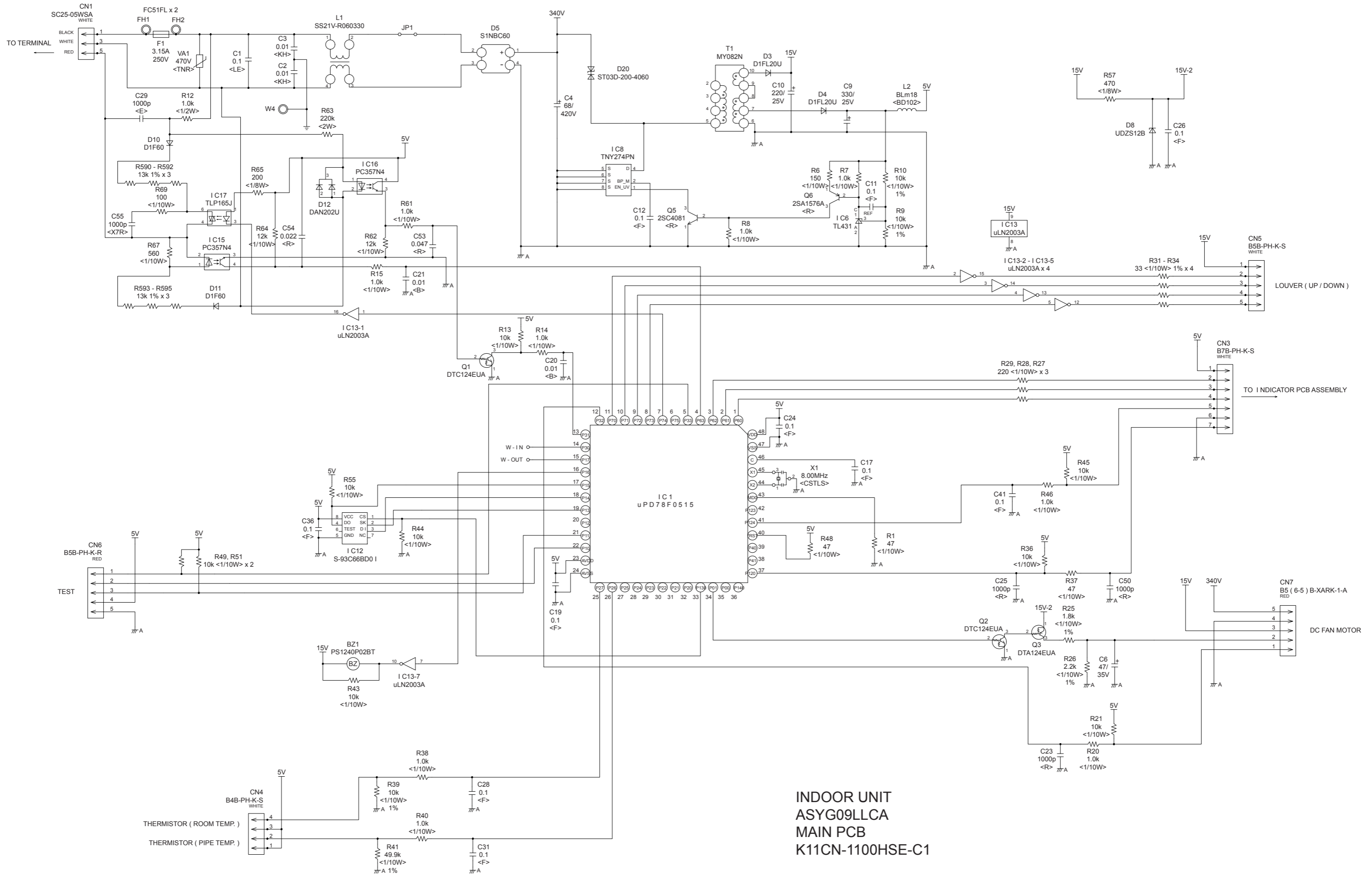


INDOOR PCB CIRCUIT DIAGRAM

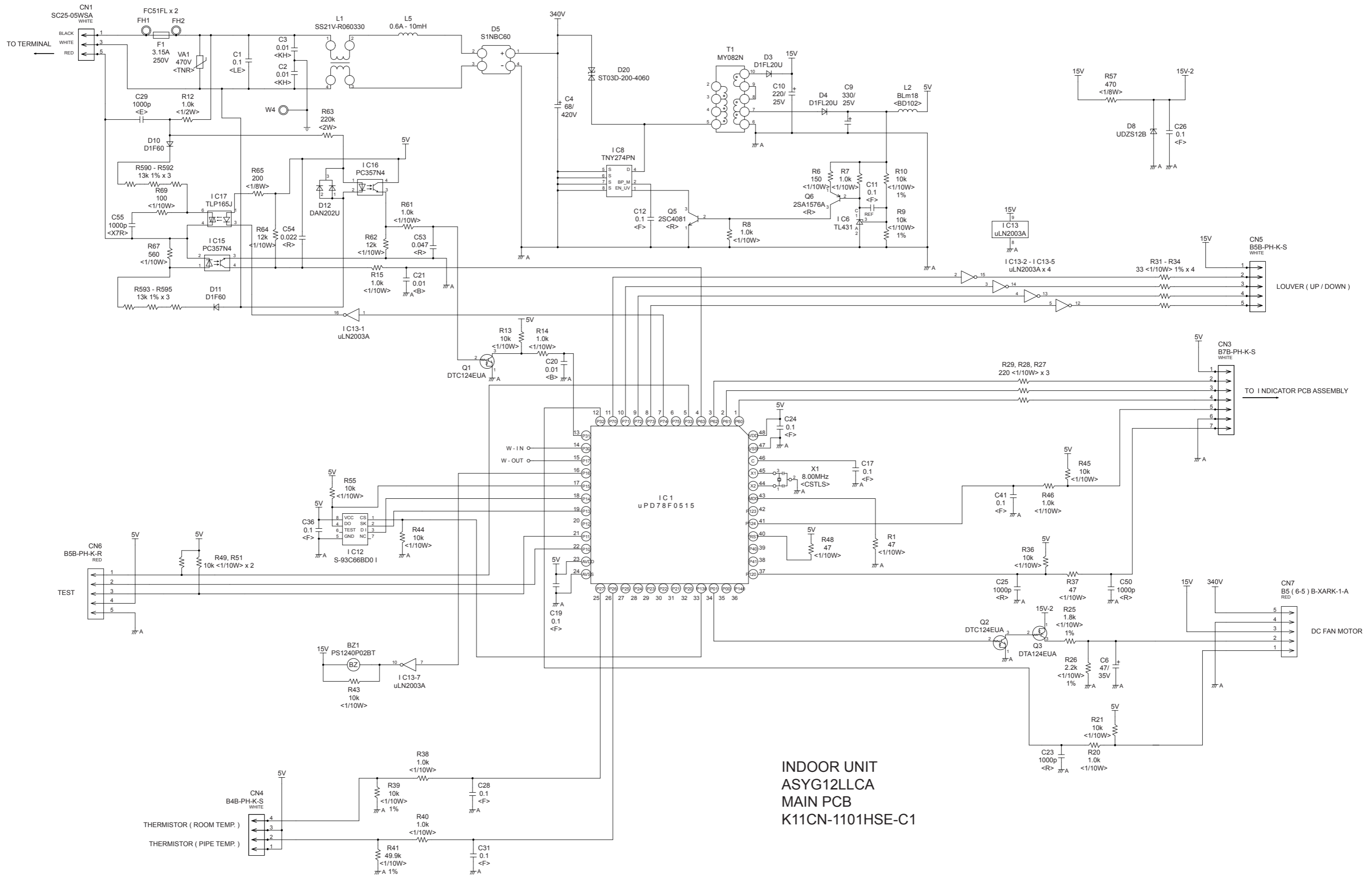
CONTROL UNIT
 ASYG09LLCA : EZ-0110RHSE
 ASYG12LLCA : EZ-0110SHSE



MAIN PCB
 ASYG09LLCA : K11CN-1100HSE-C1
 ASYG12LLCA : K11CN-1101HSE-C1

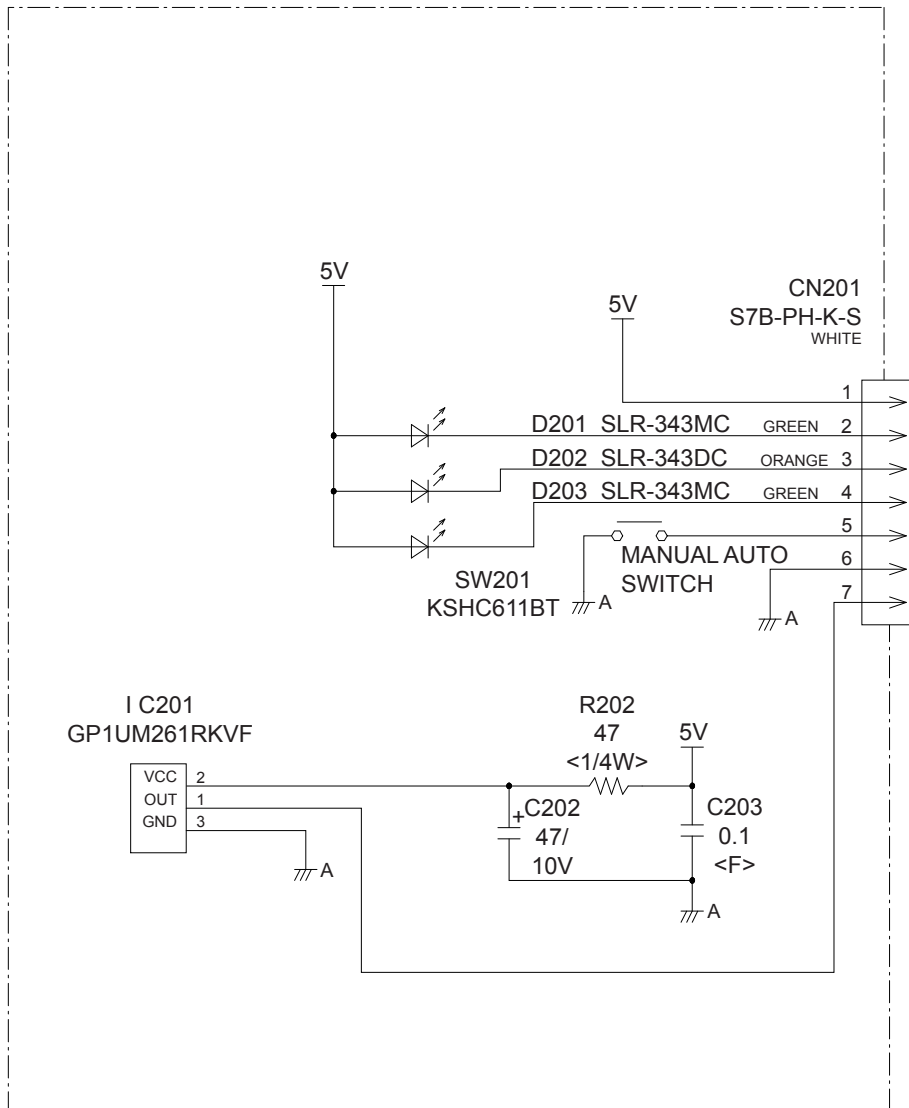


INDOOR UNIT
 ASYG09LLCA
 MAIN PCB
 K11CN-1100HSE-C1



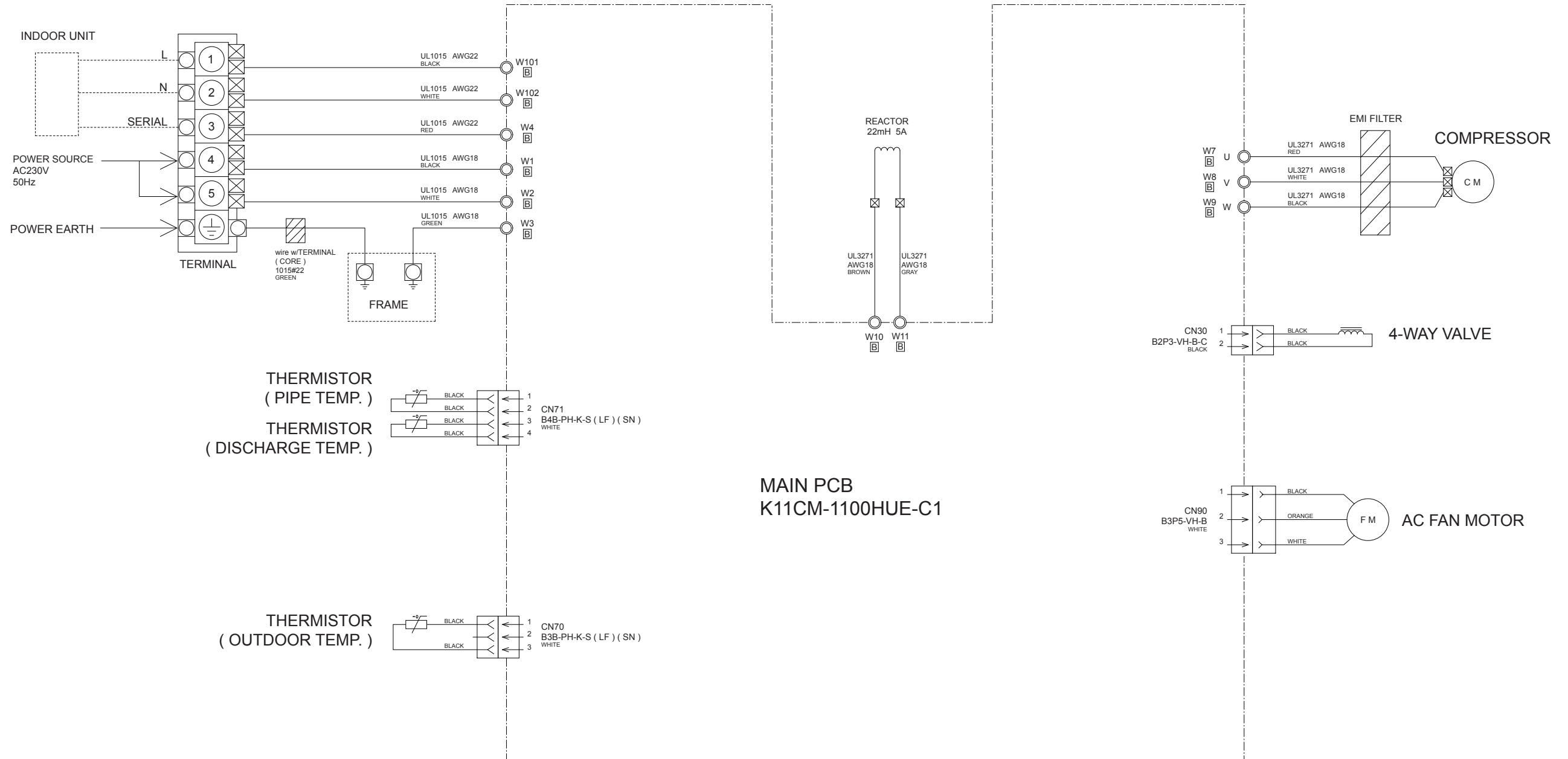
INDOOR UNIT
 ASYG12LLCA
 MAIN PCB
 K11CN-1101HSE-C1

INDOOR UNIT
 INDICATOR PCB
 K11CO-1100HSE-D0



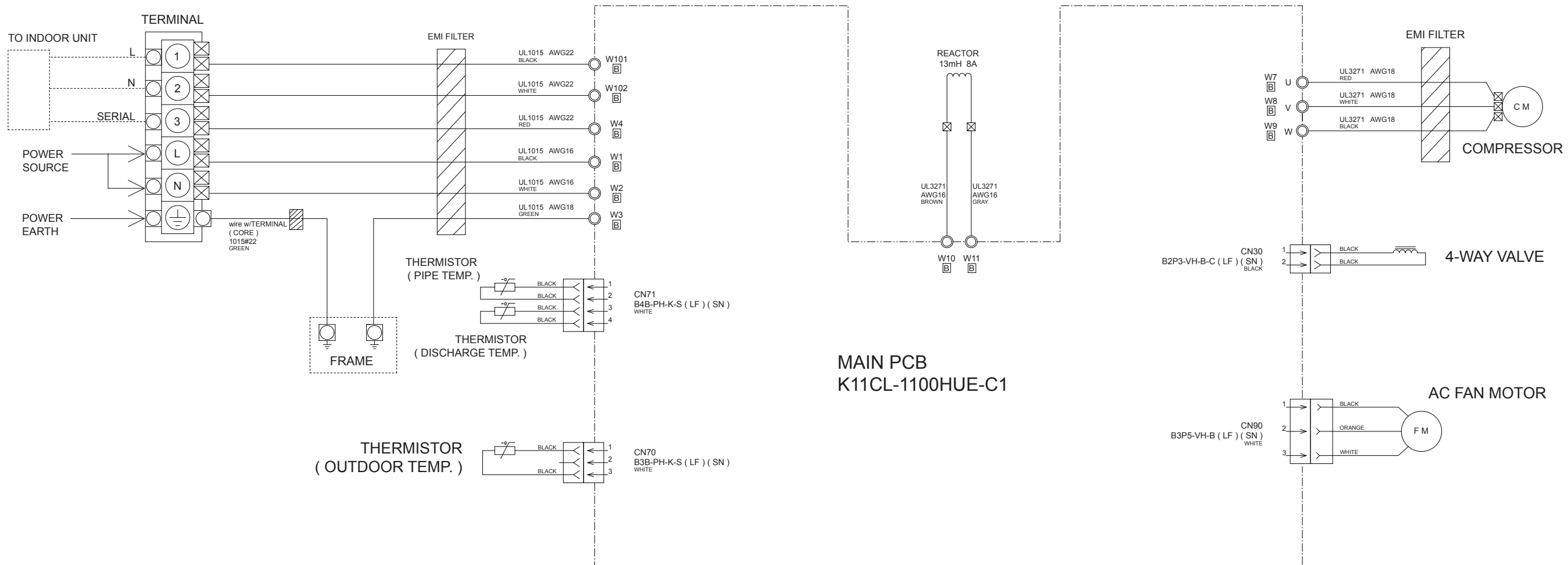
OUTDOOR PCB CIRCUIT DIAGRAM

AOYG09LLC
INVERTER ASSEMBLY
EZ-0111KHUE

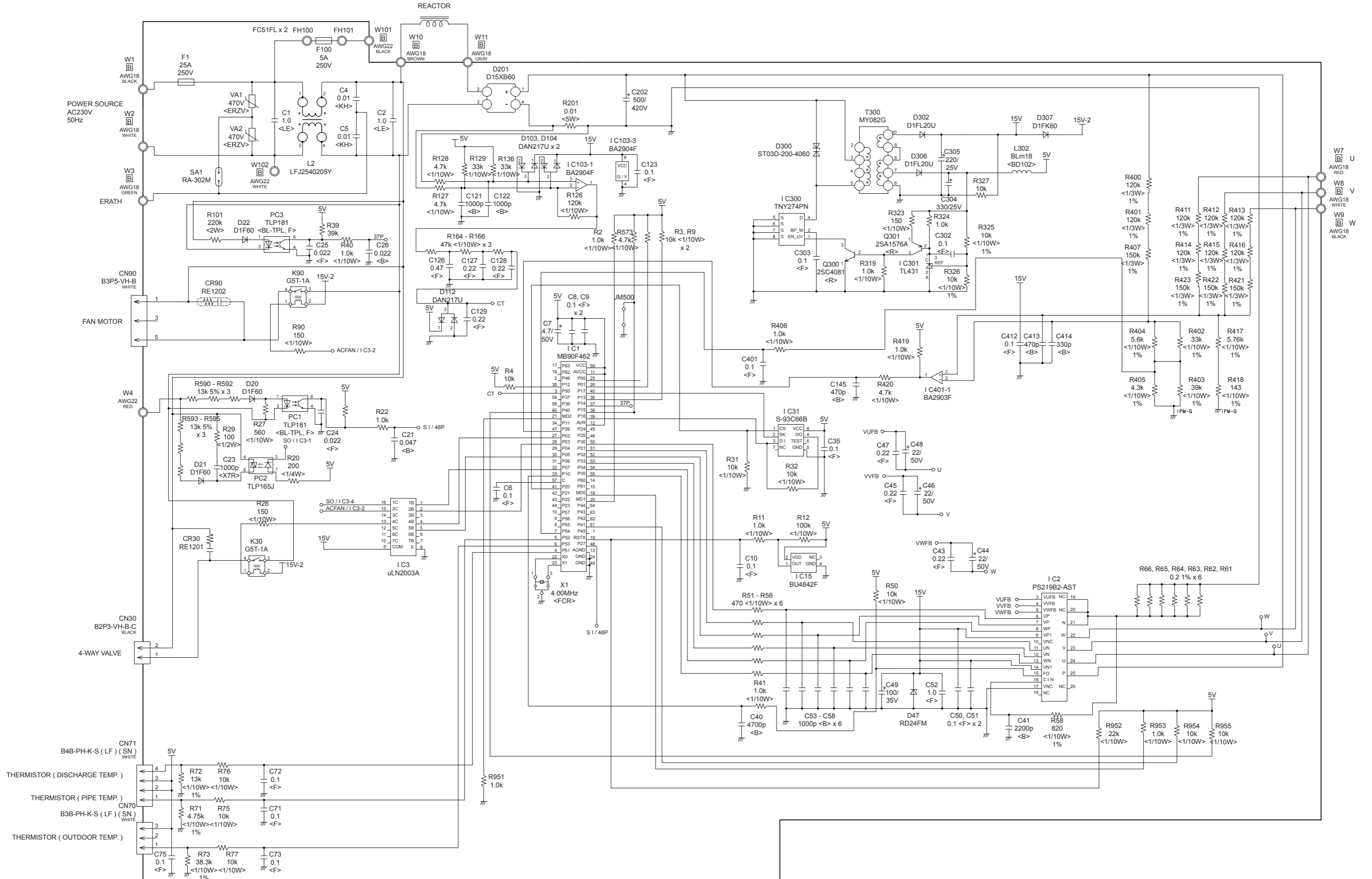


MAIN PCB
K11CM-1100HUE-C1

OUTDOOR UNIT
 AOYG12LLC
 INVERTER ASSEMBLY
 EZ-0111LHUE

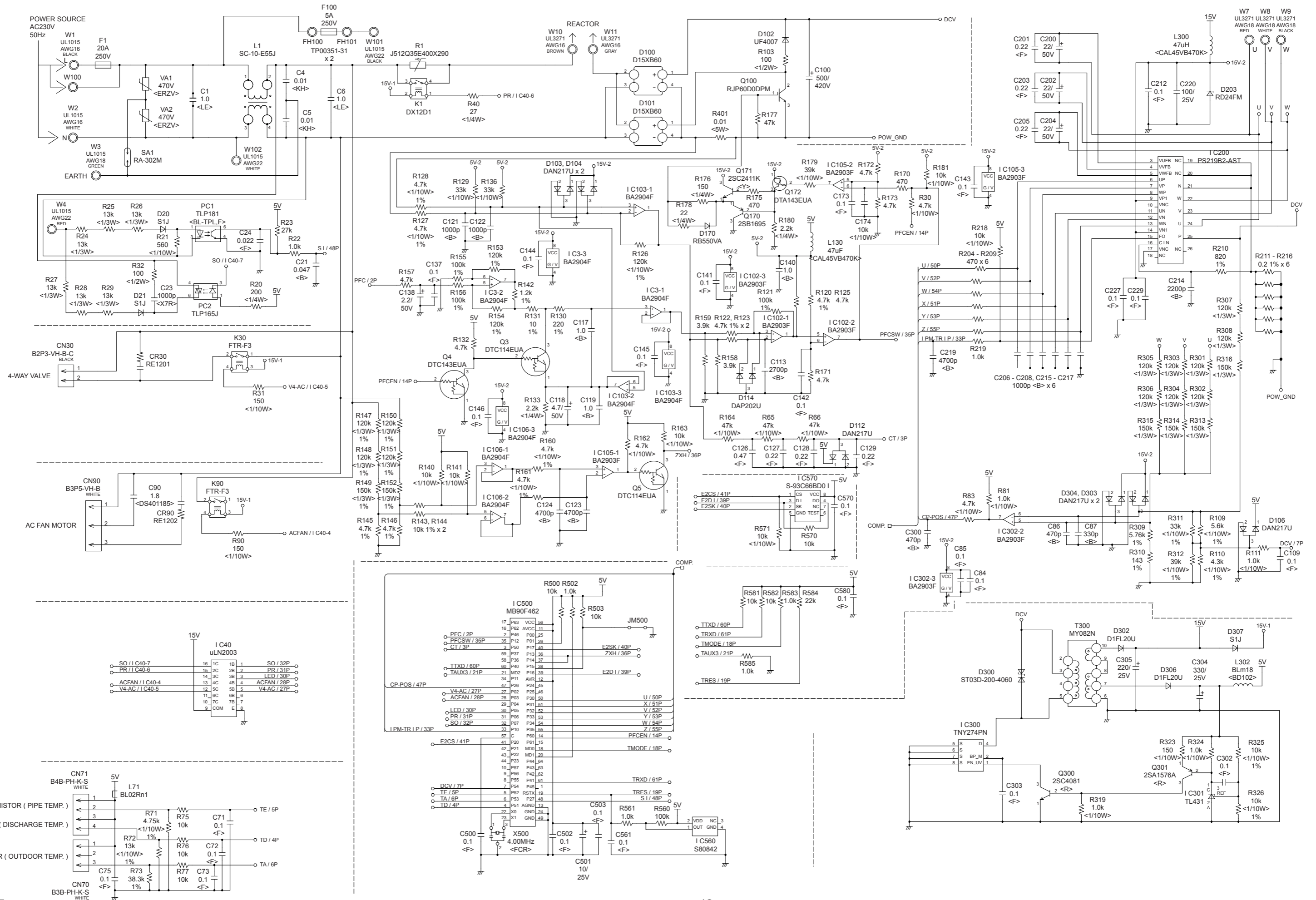


OUTDOOR UNIT
 AOYG09LLC
 MAIN PCB
 K11CM-1100HUE-C1

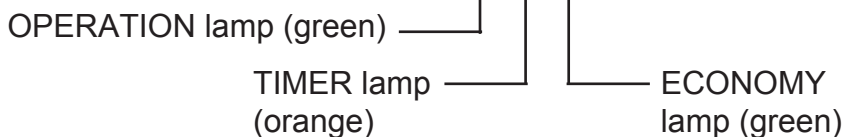
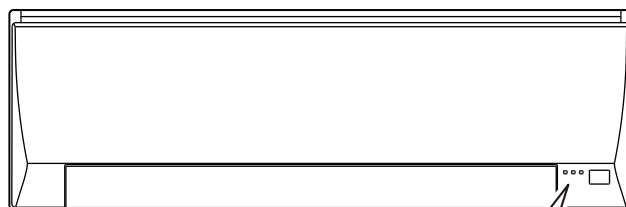


- W7 AWG18 RED
- W8 AWG18 WHITE
- W9 AWG18 BLACK

OUTDOOR UNIT
AOYG12LLC
MAIN PCB
K11CL-1100HUE-C1



ERROR DETECTION



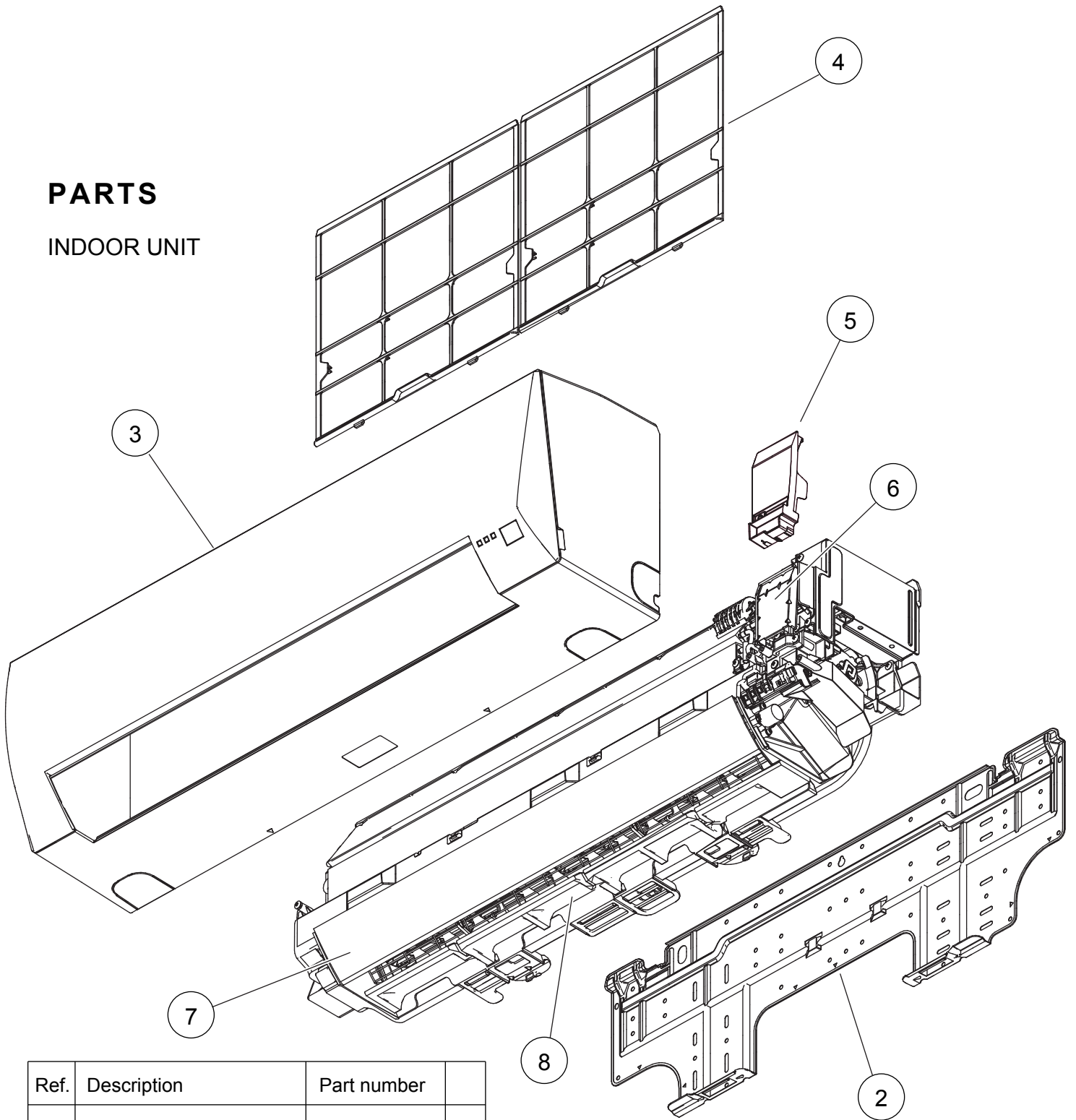
TROUBLESHOOTING
with the indoor unit display

| Error | OPERATION | TIMER | ECONOMY |
|----------------------------------------------------------------------|-----------|---------|-------------------------------------|
| Serial communication error | 1 flash | 1 flash | Rapid flash (0.1s on / 0.1s off) |
| Indoor unit PCB model information error | 3 | 2 | |
| Manual auto switch error | 3 | 5 | |
| Room temp. sensor error | 4 | 1 | |
| Indoor unit Heat Ex. Middle temp.sensor error | 4 | 2 | |
| Indoor unit fan motor error | 5 | 1 | |
| Indoor unit error | 5 | 15 | |
| Outdoor unit main PCB model information error or communication error | 6 | 2 | |
| Inverter error | 6 | 3 | |
| Active filter error, PFC circuit error | 6 | 4 | |
| Trip terminal L error | 6 | 5 | |
| Display PCB microcomputers communication error | 6 | 10 | |
| Discharge temp. sensor error | 7 | 1 | |
| Outdoor unit Heat Ex. liquid temp. sensor error | 7 | 3 | |
| Outdoor temp. sensor error | 7 | 4 | |
| Current sensor error | 8 | 4 | |
| Trip detection | 9 | 4 | |
| Compressor rotor position detection error | 9 | 5 | |
| 4-way valve error | 9 | 9 | |
| Discharge temp. error | 10 | 1 | |

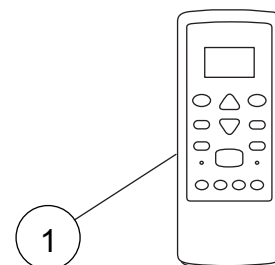
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PARTS

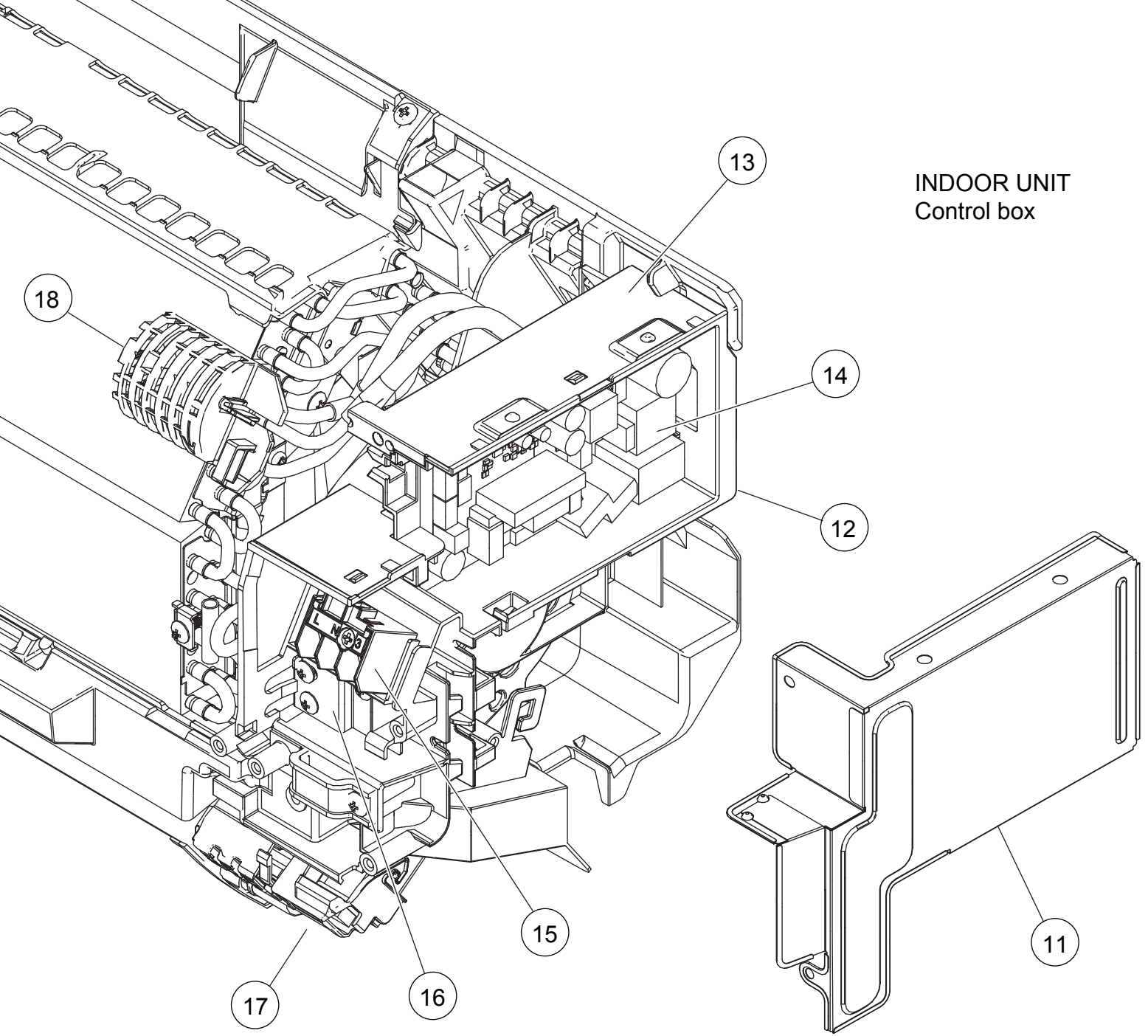
INDOOR UNIT



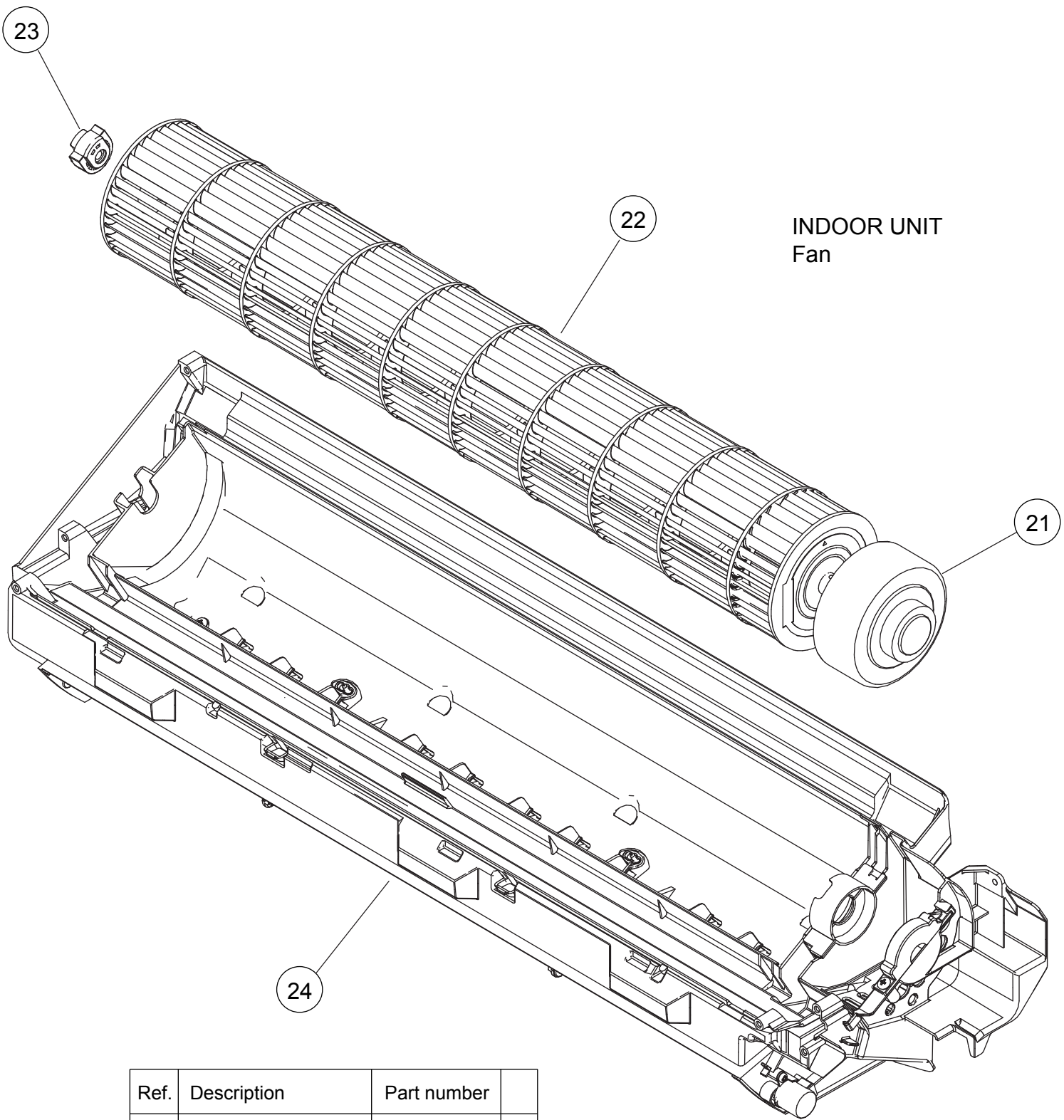
| Ref. | Description | Part number |
|------|------------------------------------------------|-------------|
| 1 | Remote Control | 9332598001 |
| 2 | Bracket Panel | 9332556001 |
| 3 | Front Panel Sub Assy | 9332627015 |
| 4 | Air Filter | 9332549003 |
| 5 | Wire Cover | 9332544008 |
| 6 | Wire Shield | 9332555004 |
| 7 | Louver | 9332548006 |
| 8 | Panel Cover | 9332559002 |
| - | Front Panel Sub Assy with Air Filter (FUJITSU) | 9332626018 |



INDOOR UNIT
Control box



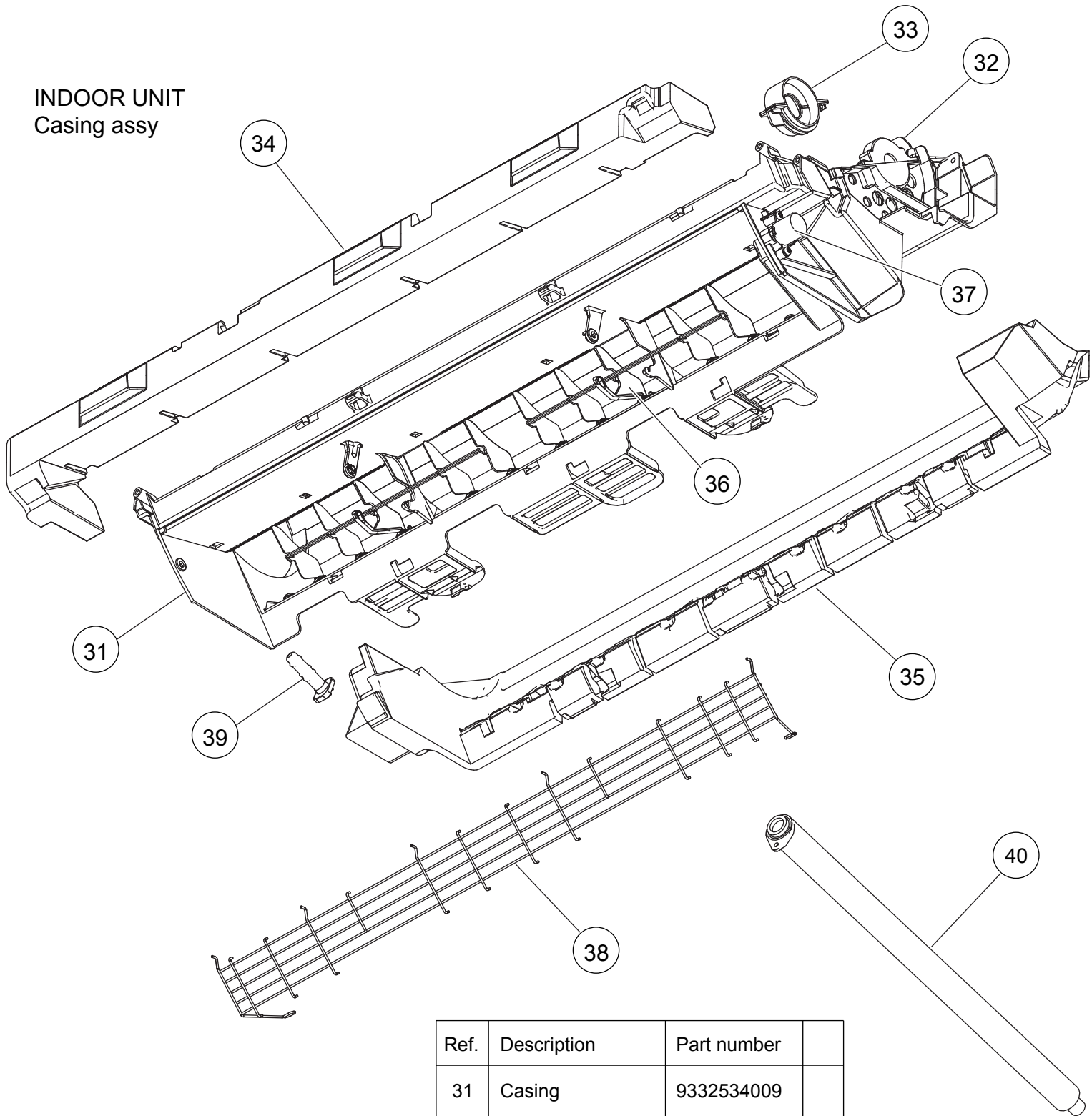
| Ref. | Description | Part number |
|------|------------------------|-------------|
| 11 | Cover Shield | 9332554007 |
| 12 | Control Box | 9332542004 |
| 13 | Box Shield Assy | 9332561005 |
| 14 | Main PCB (09) | 9709170014 |
| 14 | Main PCB (12) | 9709170021 |
| 15 | Terminal | 9900720001 |
| 16 | Earth Terminal | 9332553017 |
| 17 | Display Assy | 9709173015 |
| 18 | Room Thermistor Holder | 9316895003 |
| -- | Thermistor Assy | 9900714017 |



INDOOR UNIT
Fan

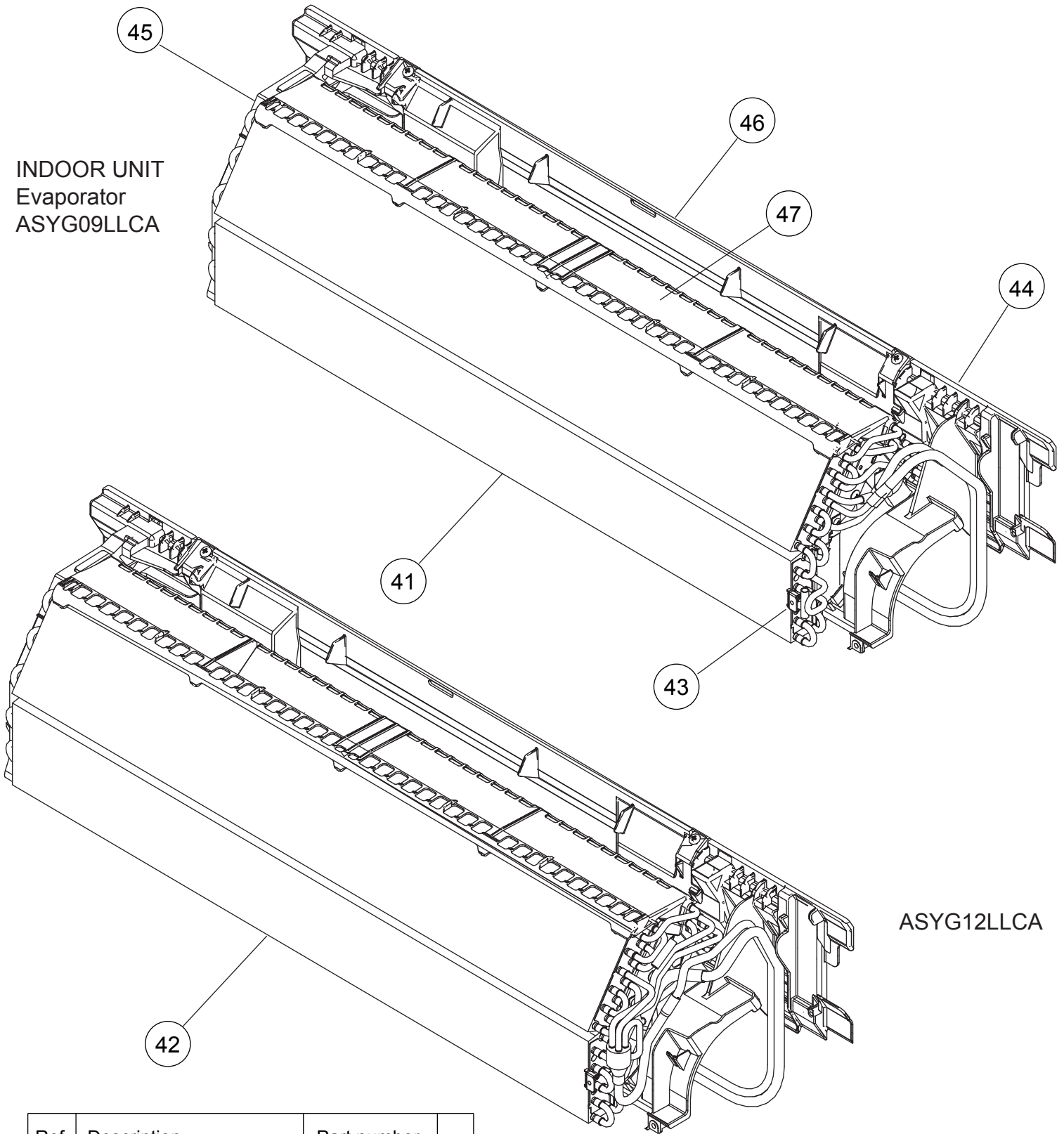
| Ref. | Description | Part number |
|------|--------------------|-------------|
| 21 | Fan Motor | 9603180003 |
| 22 | Crossflow Fan Assy | 9316830004 |
| 23 | Bearing C Assy | 9306628017 |
| 24 | Casing Assy | 9332613018 |

INDOOR UNIT
Casing assy



| Ref. | Description | Part number | |
|------|-----------------|-------------|--|
| 31 | Casing | 9332534009 | |
| 32 | Motor Cover | 9316601000 | |
| 33 | Motor Cover | 9316568006 | |
| 34 | Casing Cover F | 9332558005 | |
| 35 | Casing Cover B | 9332557008 | |
| 36 | R and L Louver | 9332535006 | |
| 37 | Step Motor | 9900725006 | |
| 38 | Fan Guard | 9332551006 | |
| 39 | Drain Cap | 9316177017 | |
| 40 | Drain Hose Assy | 9316904002 | |

INDOOR UNIT
Evaporator
ASYG09LLCA

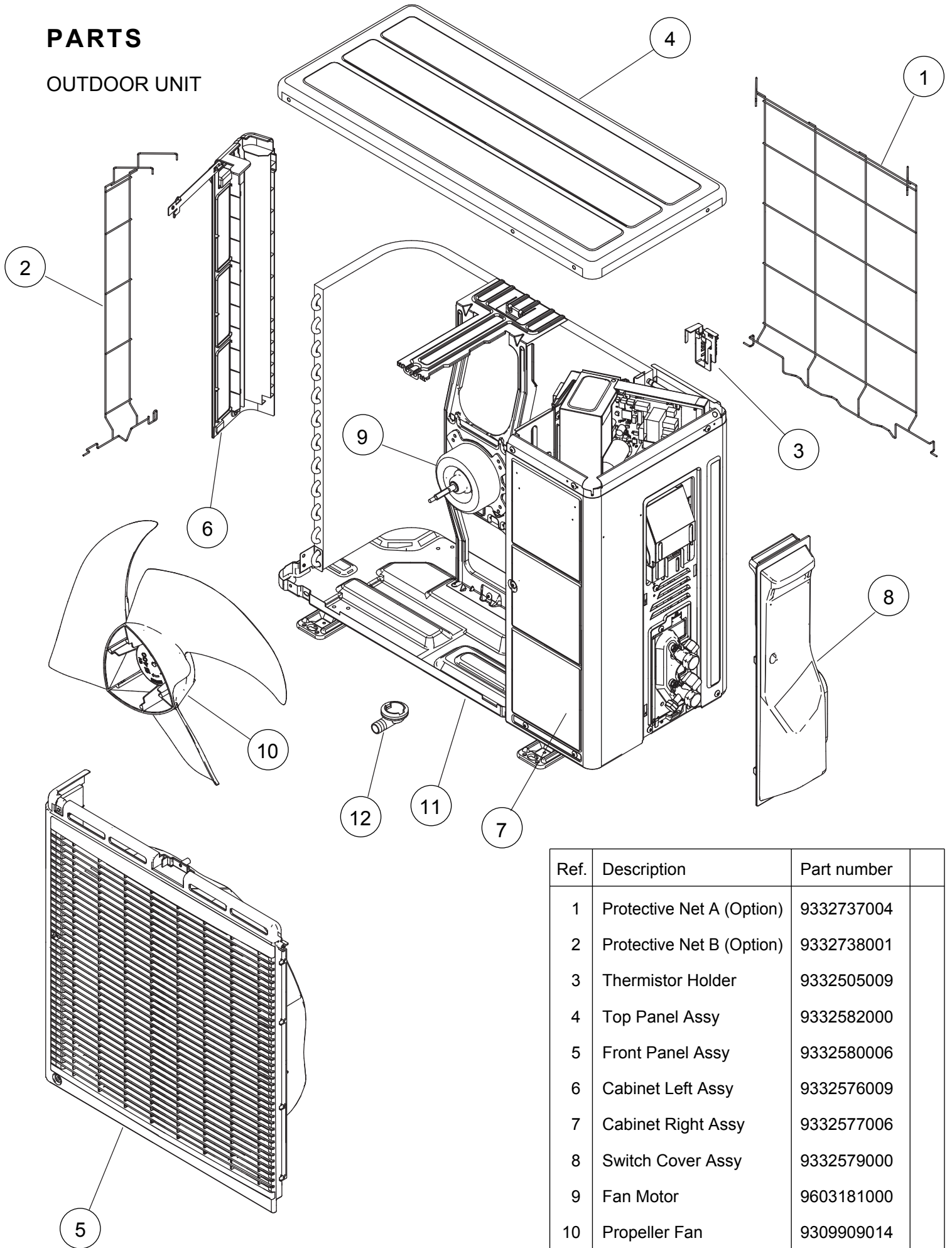


ASYG12LLCA

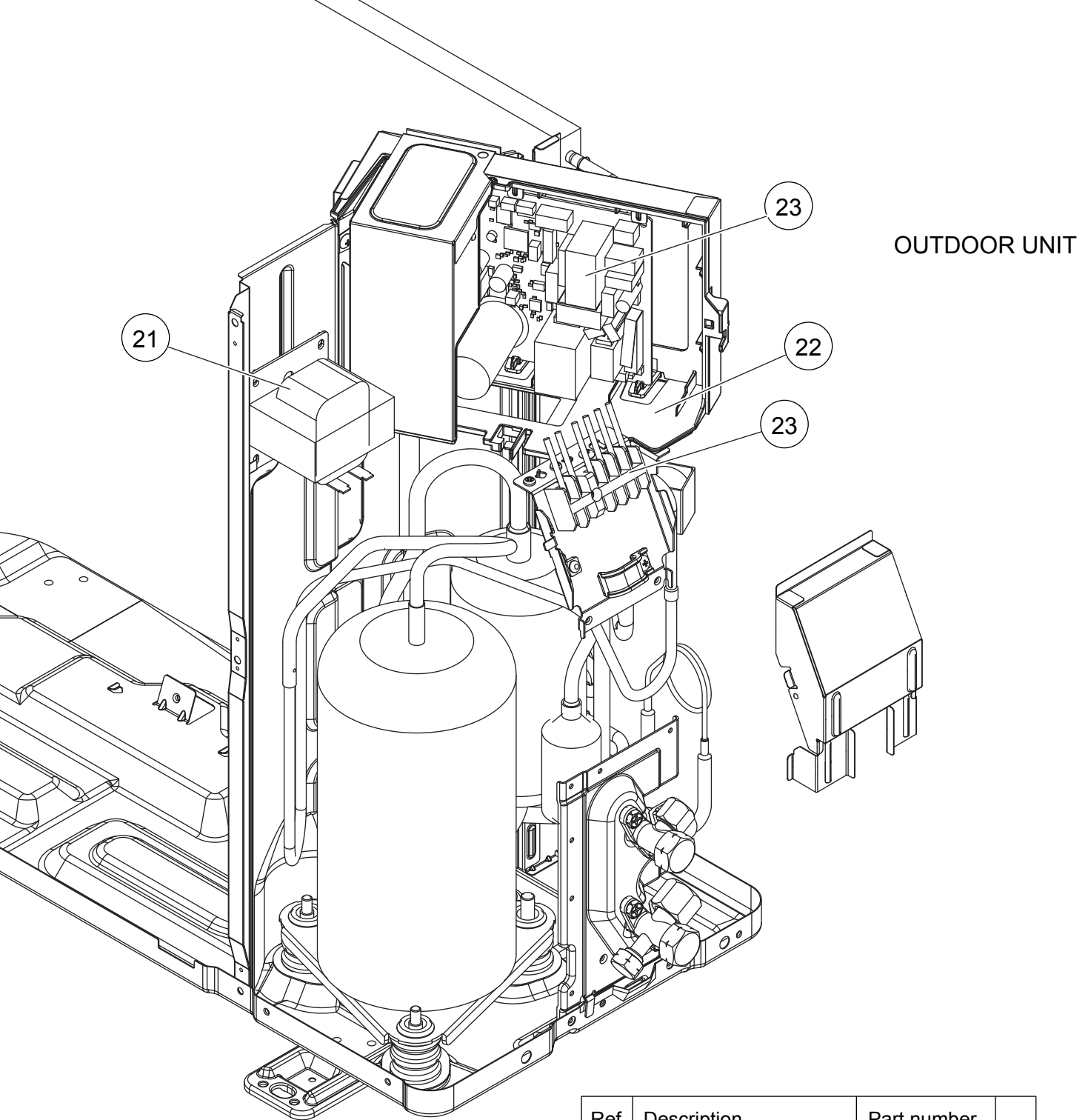
| Ref. | Description | Part number |
|------|----------------------------|-------------|
| 41 | Evaporator Total Assy (09) | 9316893085 |
| 42 | Evaporator Total Assy (12) | 9316893092 |
| 43 | Earth Terminal | 9316579002 |
| 44 | Evaporator Holder R | 9332538007 |
| 45 | Evaporator Holder L | 9332539004 |
| 46 | Rear Bracket | 9332540017 |
| 47 | Filter Guide | 9332541007 |

PARTS

OUTDOOR UNIT

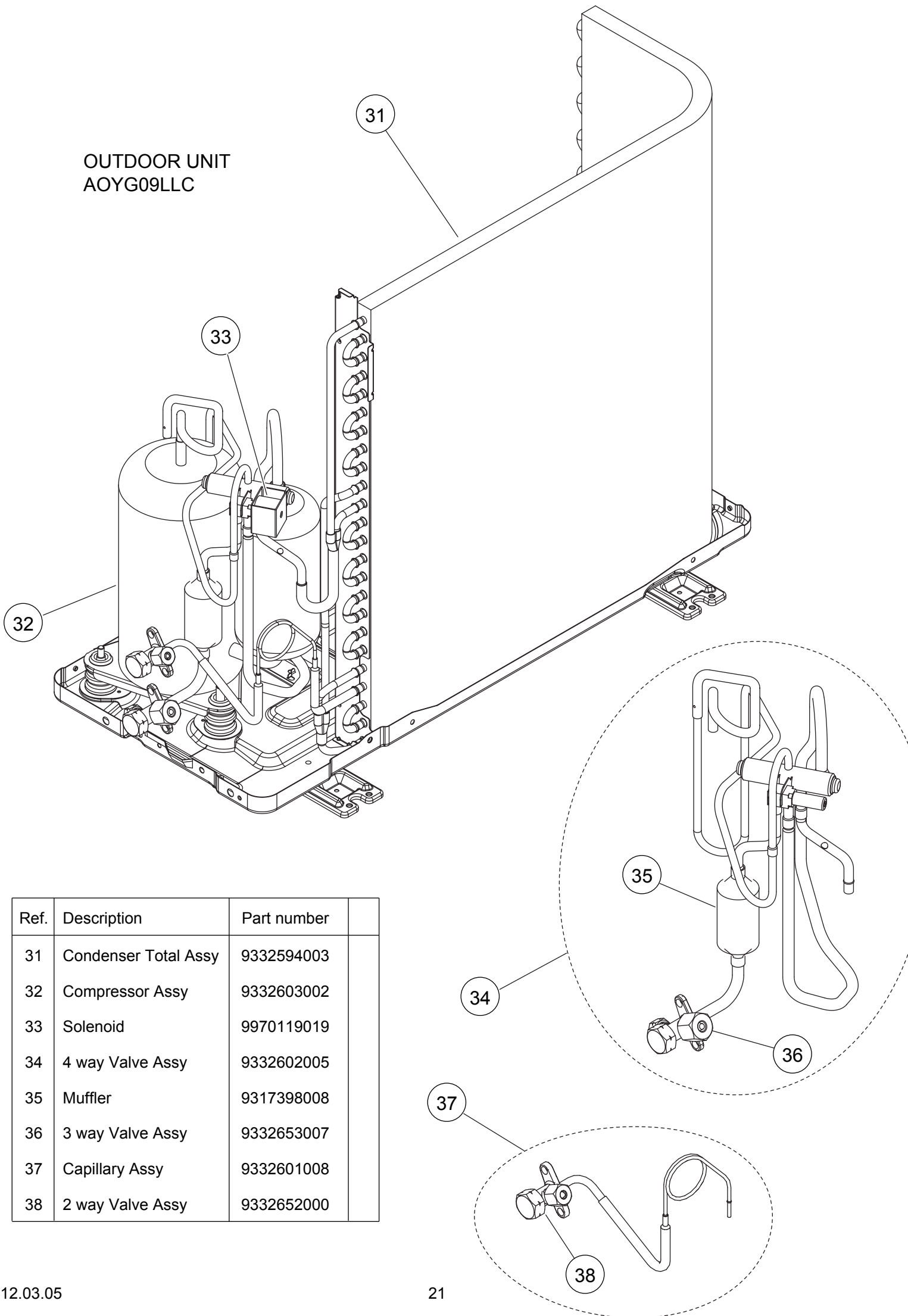


| Ref. | Description | Part number |
|------|---------------------------|-------------|
| 1 | Protective Net A (Option) | 9332737004 |
| 2 | Protective Net B (Option) | 9332738001 |
| 3 | Thermistor Holder | 9332505009 |
| 4 | Top Panel Assy | 9332582000 |
| 5 | Front Panel Assy | 9332580006 |
| 6 | Cabinet Left Assy | 9332576009 |
| 7 | Cabinet Right Assy | 9332577006 |
| 8 | Switch Cover Assy | 9332579000 |
| 9 | Fan Motor | 9603181000 |
| 10 | Propeller Fan | 9309909014 |
| 11 | Base Assy | 9332526004 |
| 12 | Drain Assy | 9332574005 |
| -- | Emblem | 9319396019 |



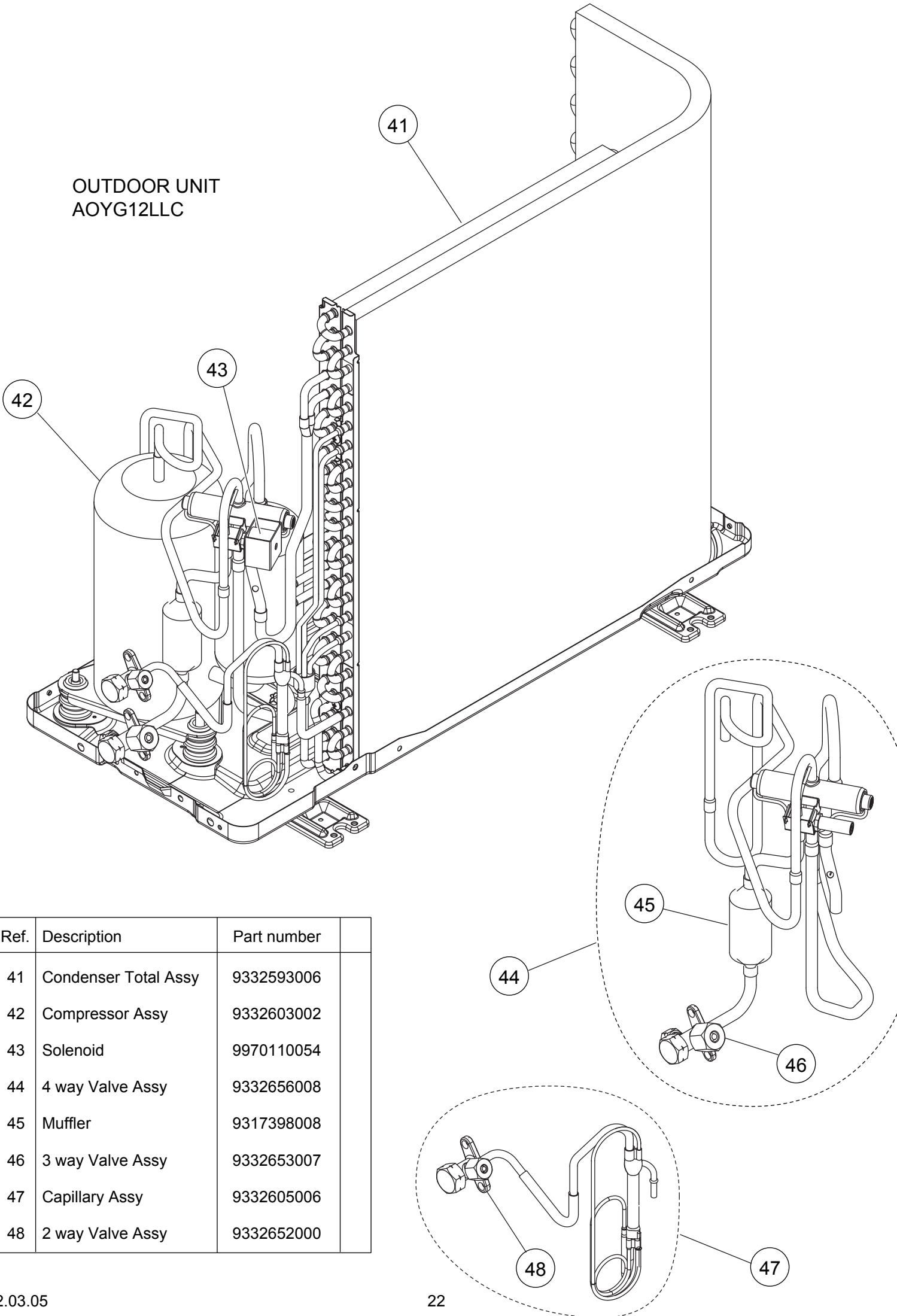
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|------|-----------------------------|-------------|
| 21 | Reactor Assy (09) | 9900711016 |
| 21 | Reactor Assy (12) | 9900710019 |
| 22 | PCB Holder | 9332506006 |
| 23 | Main PCB with Terminal (09) | 9709178010 |
| 23 | Main PCB with Terminal (12) | 9709183014 |
| -- | Thermistor Assy | 9900719012 |
| -- | Thermistor | 9900717018 |
| -- | Heat Sink A (09) | 9332521009 |
| -- | Heat Sink B (12) | 9332522006 |

OUTDOOR UNIT
AOYG09LLC



| Ref. | Description | Part number |
|------|----------------------|-------------|
| 31 | Condenser Total Assy | 9332594003 |
| 32 | Compressor Assy | 9332603002 |
| 33 | Solenoid | 9970119019 |
| 34 | 4 way Valve Assy | 9332602005 |
| 35 | Muffler | 9317398008 |
| 36 | 3 way Valve Assy | 9332653007 |
| 37 | Capillary Assy | 9332601008 |
| 38 | 2 way Valve Assy | 9332652000 |

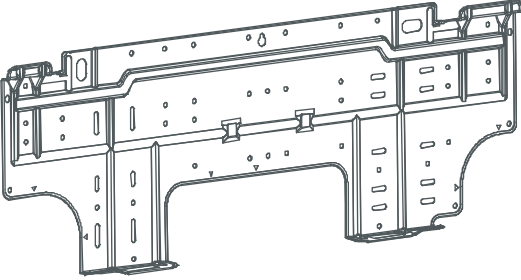
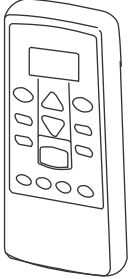
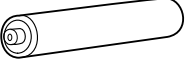
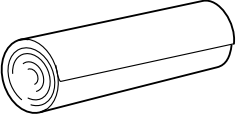

OUTDOOR UNIT
AOYG12LLC



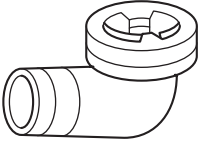
| Ref. | Description | Part number |
|------|----------------------|-------------|
| 41 | Condenser Total Assy | 9332593006 |
| 42 | Compressor Assy | 9332603002 |
| 43 | Solenoid | 9970110054 |
| 44 | 4 way Valve Assy | 9332656008 |
| 45 | Muffler | 9317398008 |
| 46 | 3 way Valve Assy | 9332653007 |
| 47 | Capillary Assy | 9332605006 |
| 48 | 2 way Valve Assy | 9332652000 |

ACCESSORIES

INDOOR UNIT

| Name and Shape | Part number |
|--------------------------------------------------------------------------------------------------------------------------------|-------------|
| Wall hook bracket  | 9332556001 |
| Remote control  | 9332598001 |
| Battery (penlight)  | 0600185541 |
| Cloth tape  | 9310519004 |
| Tapping screw (big) (ϕ 4 x 25)  | 0700076046 |

OUTDOOR UNIT

| Name and Shape | Part number |
|--------------------------------------------------------------------------------------------------------|-------------|
| Drain pipe assy  | 9332574005 |

1111G3994