SAMSUNG

SYSTEM AIRCONDITIONER

INDOOR UNIT

AM017/022HN1DEH/EU
AM022/028/036FN1DEH/EU
AM071JN1DEH/EU, AM056/071FN2DEH/EU
AM045/056/071/090/112/128/140/FN4DEH/EU
AM045/056/071/090/112/128/140/FN4DEH/AR
AM045/056/071/090/112/128/140KN4DEH/EU
AM022/028/036/045/056/060FNNDEH/EU
AM015HNNDEH/EU
AM112/128/140/220/280FNHDEH/EU
AM036/056/071FNFDEH/EU
AM050/100FNKDEH/EU
AM017/022/028/036/045/056/071/090/112/128/140FNLDEH/EU
AM022/028/036/045/056/071/090/112//128/140FNMDEH/EU
AM056/071FNCDEH/EU
AM028/036/056FNJDEH/EU
AM022/028/036/056/071FNTDEH/EU
AM015HNTDEH/EU
AM022/028/036/045/056/071FNQDEH/EU
AM015HNQDEH/EU
AM160FNBFEB/EU,250FNBFEB/EU
AM160FNBFGB/EU,250FNBFGB/EU
AM160FNBDEH/EU,320FNBDEH/EU,500FNBDEH/EU
AM036/045/056/071/090/112/128/140HNMPKH/EU
AM112/128/140 HNHPKH/EU
AM180/224JNHFKH/EU
AM112/140JNCDKH/EU
AM015/022/028/036/045/056/071/082JNVDKH/EU
AM015/022/028/036/045/056/071/082JNADKH/EU
AM015/022/028/036/045/056/071/082JNVDEH/TK
AM036FN1DEH/TL
AM056/071FN1DEH/TL
AM056/071FN2DEH/TL
AM045/056/071/090/112/128/140FN4DEH/TL
AM045/056/071/090/112/128/140FN4DEH/TS
AM045/056/071/090/112/128/140KN4DEH/TL
AM022/028/036/045/056/060FNNDEH/TL
AM022/028/036/045/056/071FNLDEH/TL
AM056/071/090/112/128/140FNMDEH/TL
AM022/028/036/045/056/071/082JNVDKH/TL
AM140/220/280JNEPEH/EU
AM012/018/024/030/036/048/054/060/072JNZDCH/AA
AM160KNMDEH/EU, AM022/045KNJDEH/EU
AM140/280JNPDKH/TK
AM015/022/028/036/045/056/071KNTDEH/EU
AM015/022/028/036/045/056/071KNQDEH/EU
AM022/028/036/045/056/071KNQDEH/TL
AM007/009/012/018/020/024KNTDCH/TC
AM007/009/012/018/020/024KNQDCH/TC
AM017/022/028/036KNLDEH/EU
AM045/056/071/090/112/128/140KN4DEH/AR
AM022/028/036KNLDEH/TK
AM022/028/036KNLDEH/TL
AM036/056/071MNFDEH/EU
AM140/220/280MNEPEH/EUAM093MNQDEH/EU
AM093MNQDEH/TK
AE022/028/036/056MNLDEH/EU
AE071/090MNMPEH/EU
AE022/028/036/056/071MNADEH/EU
AE022/028/036/056MNJDEH/EU
AM017/022NN1PEH/EU
AM022/028/036/056/071NN1DEH/✳✳
AM022/028/036/045/056/071/082JNADKH/TS
AM022/028/036/045/056/071/082JNVDKH/TS
AM093MNQDEH/TS
AM022/028/036/045/056/060FNNDEH/TS
AM112/128/140FNHDEH/TS
AM180/224JNHFKH/TS
AM036/045/056/071/090/112/128/140HNMPKH/TS
AM112/128/140HNHPKH/TS
AM022/028/036/045/056/071/090/112/128/140KNMDEH/TS
AM160KNMDEH1TS
AM017/022/028/036/045/056/071/090/112/128/140KNLDEH/TS
AM056/071FNCDEH/TS
AM112/140JNCDKH/TS
AM028/036/045HNNDEH/TL

SERVICE Manual

SYSTEM AIRCONDITIONER

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1. Precautions

1-1 Precautions for the Service

- **Use the correct parts when changing the electric parts.**
  – Please check the labels and notices for the model name, proper voltage, and proper current for the electric parts.
- **Fully repair the connection for the types of harness when repairing the product after breakdown.**
  – A faulty connection can cause irregular noise and problems.
- **When disassembling or assembling, make sure that the product is laid down on a work cloth.**
  – Doing so will prevent scratching to the exterior of the rear side of the product.
- **Completely remove dust or foreign substances on the housing, connection, and inspection parts when performing repairs.**
  – This can prevent fire hazards for tracking, short, etc.
- **Please tighten the service valve of the outdoor unit and the valve cap of the charging valve as securely as possible by using a monkey spanner.**
- **Check whether the parts are properly and securely assembled after performing repairs.**
  – These parts should be in the same condition as before the repair.

1-2 Precautions for the Static Electricity and PL

- **Please carefully handle the PCB power terminal during repair and measurement when it is turned on since it is vulnerable to static electricity.**
  – Please wear insulation gloves before performing PCB repair and measurement.
- **Check if the place of installation is at least 2m away from electronic appliances such as TV, video players, and stereos.**
  – This can cause irregular noise or degrade the picture quality.
- **Please make sure the customer does not directly repair the product.**
  – Arbitrary dismantling may result in electric shock or fire.

1-3 Precautions for the Safety

- **Do not pull or touch the power plug or the subsidiary power switch with wet hands.**
  – This may result in electric shock or fire.
- **If the power line or the power plug is damaged, then it must be changed since this is a hazard.**
- **Do not bend the wire too much or position it so that it can be damaged by a heavy object on top.**
  – This may result in electric shock or fire.
- **The use of multiple electric outlets should be prohibited.**
  – This may result in electric shock or fire.
- **Ground the connection if it is necessary.**
  – The connection must be grounded if there is any risk of electrical short due to water or moisture.
- **Unplug the power or turn off the subsidiary power switch when changing or repairing electrical parts.**
  – Doing so will prevent electric shock.
- **Explain to workers that the battery for the remote control needs to be separated for storage purposes when the product will not be used for a long time.**
  – This can cause a problem for the remote control since battery fluid may trickle out.

1-4 Precautions for Handling Refrigerant for Air Conditioner

Environmental Cautions: Air pollution due to gas release

- **Safety Cautions**
  If liquid gas is released, then body parts that come into contact with it may experience frostbite/blister/numbness.
  If a large amount of gas is released, then suffocation may occur due to lack of oxygen. If the released gas is heated, then noxious gas may be produced by combustion.

- **Container Handling Cautions**
  Do not subject container to physical shock or overheating. (Flowage is possible while moving within the regulated pressure.)

1-5 Precautions for Welding the Air Conditioner Pipe

- **Dangerous or flammable objects around the pipe must be removed before the welding.**

- **If the refrigerant is kept inside the product or the pipe, then remove the refrigerant prior to welding.**
  If the welding is carried out while the refrigerant is kept inside, the welding cannot be properly performed. This will also produce noxious gas that is a health hazard. This leakage will also explode with the refrigerant and oil due to an increase in the refrigerant pressure, posing a danger to workers.

- **Please remove the oxide produced inside the pipe during the welding with nitrogen gas.**
  Using another gas may cause harm to the product or others.

1-6 Precautions for Additional Supplement of Air Conditioner Refrigerant

- **Precisely calculate the refrigerant by using a scale and S-net, and proceed with the test operation.**
  Excessive supplement can cause harm to the product since it can cause an inflow of the liquid refrigerant into the compressor.

- **Do not heat the refrigerant container for a forced injection.**
  This may cause harm to the product or others since the refrigerant container may burst.

- **Do not operate the product after removing the product safety pressure switch and sensor.**
  If the product is blocked inside, then this may cause harm to the product or others due to the excess pressure increase of the refrigerant gas.

1-7 Other Precautions

- **There should be no leakage of the pipes after installation. When withdrawing the refrigerant, the compressor should be stopped before removing the connecting pipe.**
  If the compressor is operating while the refrigerant pipe is not correctly connected and the service valve is opened, then air and other substances can enter the pipe. The interior of the refrigerant cycle may then build up excessive high pressure resulting in explosion and damage.

Indoor Unit (cont.)

■ Floor Standing Type

Model				AM036MNFDEH/EU	AM056MNFDEH/EU	AM071MNFDEH/EU
Power Supply			Φ, #, V, Hz	1,2,220~240,50	1,2,220~240,50	1,2,220~240,50
Mode			-	HP/HR	HP/HR	HP/HR
Performance	Capacity (Nominal)	Cooling 2)	T1 (kW)	3.6	5.6	7.1
			T1 (Btu/h)	-	-	-
		Heating 2)	T1 (kW)	4.0	6.3	8.0
			T1 (Btu/h)	-	-	-
Power	Power Input (Nominal)	Cooling 1)	T1 (W)	22.0	42.0	42.0
		Heating 2)	T1 (W)	22.0	42.0	42.0
	Current Input (Nominal)	Cooling 1)	T1 (A)	0.2	0.37	0.37
		Heating 2)	T1 (A)	0.2	0.37	0.37
Fan	Type		-	Sirocco Fan	Sirocco Fan	Sirocco Fan
	Motor	Output x n	W	100 x 1	100 x 1	100 x 1
	Air Flow Rate	H/M/L (UL)	CMM	10.0/8.5/6.0	15.5/14.0/11.0	15.5/14.0/11.0
			l/s	-	-	-
	External Static Pressure	Standard (Min.~Max)	mmAq	0 (0~6)	0 (0~6)	0 (0~6)
			Pa	-	-	-
Fan Speed	Fan(H/M/L)	0 (Standard)	rpm±20	880/740/620	940/800/640	940/800/640
		3mmAq	rpm±20	1200/1040/880	1200/1040/880	1200/1040/880
		6mmAq	rpm±20	1380/1140/920	1420/1220/1020	1420/1220/1020
Piping Connections	Liquid Pipe		Φ,mm	6.35	6.35	9.52
			Φ, inch	1/4"	1/4"	3/8"
	Gas Pipe		Φ,mm	12.70	12.70	15.88
			Φ, inch	1/2"	1/2"	5/8"
	Drain Pipe		Φ,mm	ID 18 HOSE	ID 18 HOSE	ID 18 HOSE
Field Wiring	Power Source Wire		mm^2	1.5 ~ 2.5	1.5 ~ 2.5	1.5 ~ 2.5
	Transmission Cable		mm^2	0.75 ~ 1.50	0.75 ~ 1.50	0.75 ~ 1.50
Refrigerant	Type		-	R410A	R410A	R410A
	Control Method		-	EEV INCLUDED	EEV INCLUDED	EEV INCLUDED
Sound	Sound Pressure	High	dB(A)	43	45	45
Dimensions	Net Weight		kg	22	27	27
	Shipping Weight		kg	27	32.5	32.5
	Net Dimensions (W×H×D)		mm	945 x 600 x 220	1225 x 600 x 220	1225 x 600 x 220
	Shipping Dimensions (W×H×D)		mm	1035 x 690 x 310	1335 x 690 x 310	1335 x 690 x 310
Functions	Auto Restart		-	O	O	O
	Auto Swing		-	X	X	X
	Group/Individual Control		-	O	O	O
	External Contact Control		-	O	O	O
	Trouble Shooting by LED		-	O	O	O
Standard Accessories	Installation Manual		-	O	O	O
	Operation Manual		-	X	X	X
	Pattern Sheet for Installation		-	X	X	X
	Flexible Drain Hose		-	O	O	O
	Filter / Safety Grille		-	O	O	O
	Drain Pump (Pumping, Speeed, Lift)		ℓ/h,mm	X	X	X
Optional Accessories	Wireless Remote Controller		-	X	X	X
	Wired Remote Controller		-	MWR-WE10N	MWR-WE10N	MWR-WE10N
	External Contact Interface Module		-	X	X	X
Option Code			0	010054-1C5414-202424-330010	010054-1C5445-203838-330010	010054-1C5445-204747-330010
			3	010054-1C5911-202424-330010	010054-1C5911-203838-330010	010054-1C5911-204747-330010
			6	010054-1C59A3-202424-330010	010054-1C59C8-203838-330010	010054-1C59C8-204747-330010

*1) Mode
- HP : Heat Pump, HR : Heat Recovery

*2) Nominal cooling capacities are based on;
- Indoor temperature : 27˚C DB, 19˚C WB
- Outdoor temperature : 35˚C DB, 24˚C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m

*3) Nominal heating capacities are based on;
- Indoor temperature : 20˚C DB, 15˚C WB
- Outdoor temperature : 7˚C DB, 6˚C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m

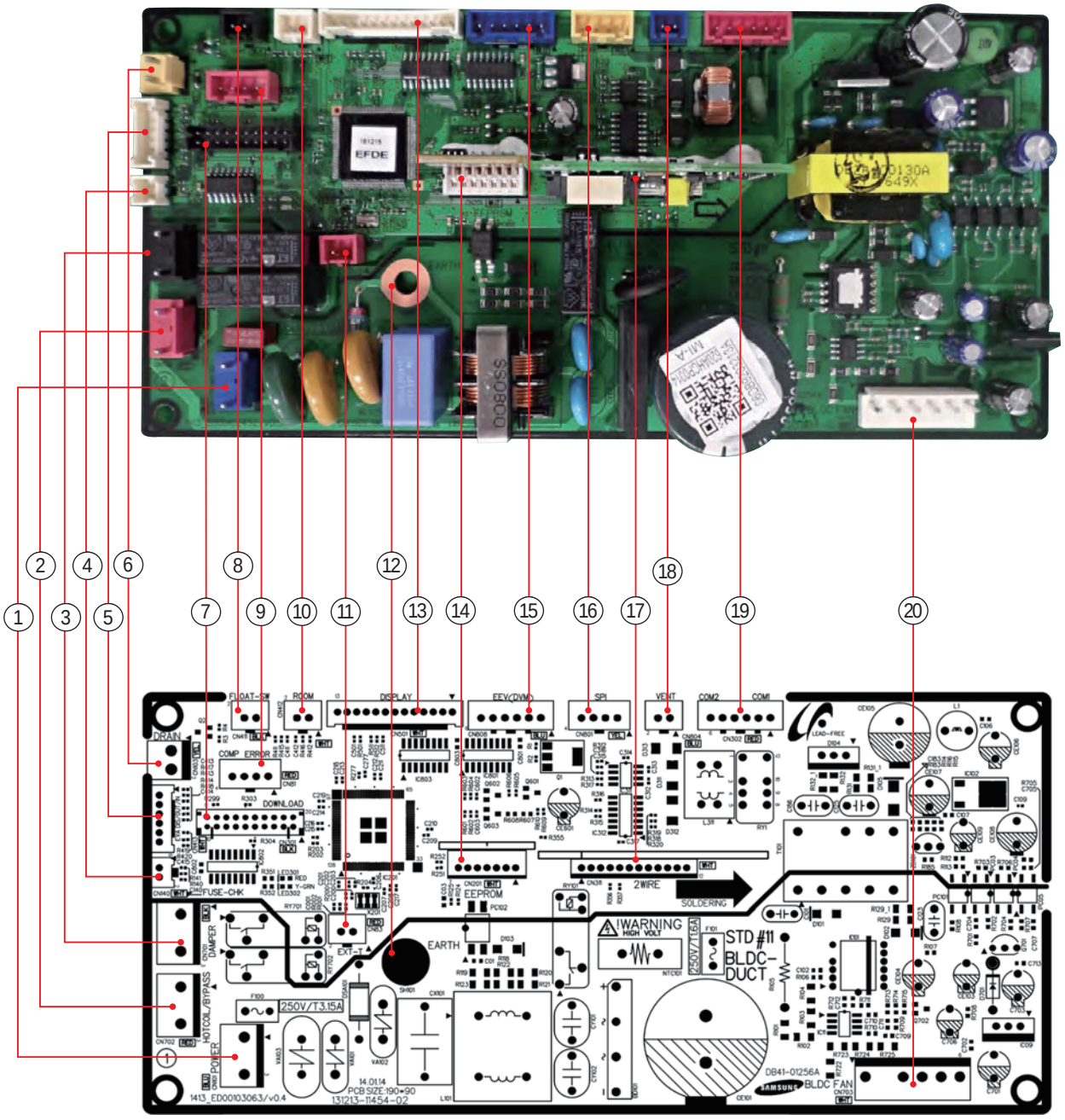
*4) Sound pressure was acquired in a dead room. Thus actual noise level may be different depending on the installation conditions.

*5) Specifications may be subject to change without prior notice for product improvement.

Option Items(cont.)

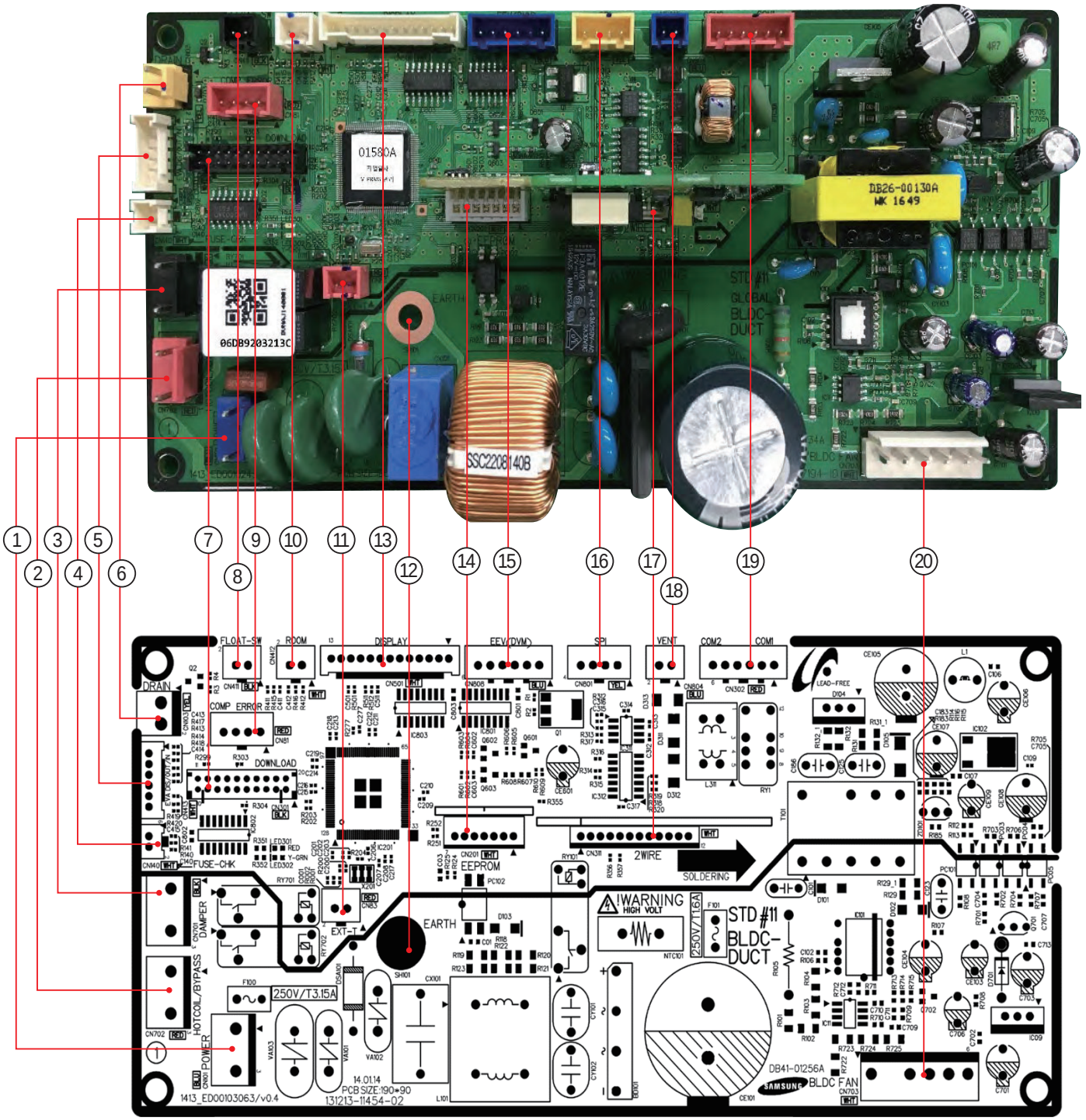
Item	Model	SEG																							Static Pressure
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
Floor Standing	AM036FNFDEH/EU	0	1	A	0	5	4	1	0	5	0	0	0	2	0	2	4	2	4	3	3	0	0	1	0	
	AM056FNFDEH/EU	0	1	A	0	5	4	1	0	5	0	0	0	2	0	3	8	3	8	3	3	0	0	1	0	
	AM071FNFDEH/EU	0	1	A	0	5	4	1	0	5	0	0	0	2	0	4	7	4	7	3	3	0	0	1	0	
	AM036MNFDEH/EU	0	1	0	0	5	4	1	C	5	4	1	4	2	0	2	4	2	4	3	3	0	0	1	0	0mmAq
		0	1	0	0	5	4	1	C	5	9	1	1	2	0	2	4	2	4	3	3	0	0	1	0	3mmAq
		0	1	0	0	5	4	1	C	5	9	A	3	2	0	2	4	2	4	3	3	0	0	1	0	6mmAq
	AM056MNFDEH/EU	0	1	0	0	5	4	1	C	5	4	4	5	2	0	3	8	3	8	3	3	0	0	1	0	0mmAq
		0	1	0	0	5	4	1	C	5	9	1	1	2	0	3	8	3	8	3	3	0	0	1	0	3mmAq
		0	1	0	0	5	4	1	C	5	9	C	8	2	0	3	8	3	8	3	3	0	0	1	0	6mmAq
	AM071MNFDEH/EU	0	1	0	0	5	4	1	C	5	4	4	5	2	0	4	7	4	7	3	3	0	0	1	0	0mmAq
		0	1	0	0	5	4	1	C	5	9	1	1	2	0	4	7	4	7	3	3	0	0	1	0	3mmAq
		0	1	0	0	5	4	1	C	5	9	C	8	2	0	4	7	4	7	3	3	0	0	1	0	6mmAq
ERV Plus	AM050FNKDEH/EU	0	1	E	0	4	4	1	9	5	5	8	0	2	0	2	4	2	4	3	3	2	0	0	0	
	AM100FNKDEH/EU	0	1	E	0	4	4	1	9	5	5	7	3	2	0	4	7	4	7	3	3	2	0	2	0	
Global 4Way Cassette (600x600)	AM015HNNDEH/EU	0	1	5	0	4	F	1	9	7	0	B	8	2	0	0	F	0	F	3	3	0	0	0	0	
	AM022FNNDEH/EU	0	1	5	0	4	F	1	9	7	0	E	8	2	0	1	6	1	6	3	3	0	0	0	0	
	AM028FNNDEH/EU	0	1	5	0	4	F	1	9	5	4	0	A	2	0	1	C	1	C	3	3	0	0	0	0	
	AM036FNNDEH/EU	0	1	5	0	4	F	1	9	3	4	2	C	2	0	2	4	2	4	3	3	0	0	0	0	
	AM045FNNDEH/EU	0	1	5	0	4	F	1	9	5	4	4	E	2	0	2	D	2	D	3	3	0	0	0	0	
	AM056FNNDEH/EU	0	1	5	0	4	F	1	9	5	4	7	F	2	0	3	8	3	8	3	3	0	0	0	0	
	AM060FNNDEH/EU	0	1	5	0	4	F	1	9	5	5	9	1	2	0	3	C	3	C	3	3	0	0	0	0	
SLIM DUCT-S	AM017FNLDEH/EU	0	1	0	0	5	4	1	2	5	4	9	E	2	0	1	1	1	1	3	3	1	1	1	0	0mmAq
		0	1	0	0	5	4	1	2	5	5	B	1	2	0	1	1	1	1	3	3	1	1	1	0	1mmAq
		0	1	0	0	5	4	1	2	5	5	F	5	2	0	1	1	1	1	3	3	1	1	1	0	3mmAq
	AM022FNLDEH/EU	0	1	0	0	5	4	1	2	5	E	0	8	2	0	1	6	1	6	3	3	1	1	1	0	3mmAq
		0	1	0	0	5	4	1	2	5	A	C	3	2	0	1	6	1	6	3	3	1	1	1	0	1mmAq
		0	1	0	0	5	4	1	2	5	A	8	0	2	0	1	6	1	6	3	3	1	1	1	0	0mmAq
	AM028FNLDEH/EU	0	1	0	0	5	4	1	2	5	E	7	A	2	0	1	C	1	C	3	3	1	1	1	0	3mmAq
		0	1	0	0	5	4	1	2	5	E	1	5	2	0	1	C	1	C	3	3	1	1	1	0	1mmAq
		0	1	0	0	5	4	1	2	5	A	E	2	2	0	1	C	1	C	3	3	1	1	1	0	0mmAq
	AM036FNLDEH/EU	0	1	0	0	5	4	1	2	5	E	C	D	2	0	2	4	2	4	3	3	1	1	1	0	3mmAq
		0	1	0	0	5	4	1	2	5	E	6	8	2	0	2	4	2	4	3	3	1	1	1	0	1mmAq
		0	1	0	0	5	4	1	2	5	E	3	5	2	0	2	4	2	4	3	3	1	1	1	0	0mmAq
SLIM DUCT-1	AM045FNLDEH/EU	0	1	0	0	5	4	1	2	5	E	F	6	2	0	2	D	2	D	3	3	1	1	1	0	4mmAq
		0	1	0	0	5	4	1	2	5	A	E	2	2	0	2	D	2	D	3	3	1	1	1	0	2mmAq
		0	1	0	0	5	4	1	2	5	9	9	F	2	0	2	D	2	D	3	3	1	1	1	0	0mmAq
	AM056FNLDEH/EU	0	1	0	0	5	4	1	2	5	E	F	9	2	0	3	8	3	8	3	3	1	1	1	0	4mmAq
		0	1	0	0	5	4	1	2	5	E	3	4	2	0	3	8	3	8	3	3	1	1	1	0	2mmAq
		0	1	0	0	5	4	1	2	5	A	C	1	2	0	3	8	3	8	3	3	1	1	1	0	0mmAq
SLIM DUCT-2	AM071FNLDEH/EU	0	1	0	0	5	4	1	2	5	E	F	4	2	0	4	7	4	7	3	3	1	1	1	0	4mmAq
		0	1	0	0	5	4	1	2	5	D	9	E	2	0	4	7	4	7	3	3	1	1	1	0	2mmAq
		0	1	0	0	5	4	1	2	5	9	B	B	2	0	4	7	4	7	3	3	1	1	1	0	0mmAq
SLIM DUCT-3	AM090FNLDEH/EU	0	1	0	0	5	4	1	B	5	E	2	A	2	0	5	A	5	A	3	3	1	1	1	0	6mmAq
		0	1	0	0	5	4	1	B	5	A	D	4	2	0	5	A	5	A	3	3	1	1	1	0	3mmAq
		0	1	0	0	5	4	1	B	5	9	6	C	2	0	5	A	5	A	3	3	1	1	1	0	0mmAq
	AM112FNLDEH/EU	0	1	0	0	5	4	1	B	5	E	2	A	2	0	7	0	7	0	3	3	1	1	1	0	6mmAq
		0	1	0	0	5	4	1	B	5	A	D	4	2	0	7	0	7	0	3	3	1	1	1	0	3mmAq
		0	1	0	0	5	4	1	B	5	9	6	C	2	0	7	0	7	0	3	3	1	1	1	0	0mmAq
	AM128FNLDEH/EU	0	1	0	0	5	4	1	B	5	E	8	F	2	0	8	0	8	0	3	3	1	1	1	0	6mmAq
		0	1	0	0	5	4	1	B	5	E	4	B	2	0	8	0	8	0	3	3	1	1	1	0	3mmAq
		0	1	0	0	5	4	1	B	5	A	F	5	2	0	8	0	8	0	3	3	1	1	1	0	0mmAq
	AM140FNLDEH/EU	0	1	0	0	5	4	1	B	5	F	C	3	2	0	8	C	8	C	3	3	1	1	1	0	6mmAq
		0	1	0	0	5	4	1	B	5	E	7	F	2	0	8	C	8	C	3	3	1	1	1	0	3mmAq
		0	1	0	0	5	4	1	B	5	E	3	A	2	0	8	C	8	C	3	3	1	1	1	0	0mmAq
SLIM DUCT-1 [Uplevel Static Pressure]	AM022FNMDEH/EU	0	1	0	0	5	4	1	3	5	5	E	4	2	0	1	6	1	6	3	3	1	1	1	0	6mmAq
		0	1	0	0	5	4	1	3	5	4	1	E	2	0	1	6	1	6	3	3	1	1	1	0	4mmAq
		0	1	0	0	5	4	1	3	5	0	E	A	2	0	1	6	1	6	3	3	1	1	1	0	2mmAq
		0	1	0	0	5	4	1	3	5	0	B	6	2	0	1	6	1	6	3	3	1	1	1	0	0mmAq
	AM028FNMDEH/EU	0	1	0	0	5	4	1	3	5	9	A	9	2	0	1	C	1	C	3	3	1	1	1	0	6mmAq
		0	1	0	0	5	4	1	3	5	5	6	2	2	0	1	C	1	C	3	3	1	1	1	0	4mmAq
		0	1	0	0	5	4	1	3	5	4	2	C	2	0	1	C	1	C	3	3	1	1	1	0	2mmAq
		0	1	0	0	5	4	1	3	5	0	E	8	2	0	1	C	1	C	3	3	1	1	1	0	0mmAq
	AM036FNMDEH/EU	0	1	0	0	5	4	1	3	5	4	C	F	2	0	2	4	2	4	3	3	1	1	1	0	6mmAq
		0	1	0	0	5	4	1	3	5	4	2	C	2	0	2	4	2	4	3	3	1	1	1	0	4mmAq
		0	1	0	0	5	4	1	3	5	0	F	B	2	0	2	4	2	4	3	3	1	1	1	0	2mmAq
		0	1	0	0	5	4	1	3	5	0	E	A	2	0	2	4	2	4	3	3	1	1	1	0	0mmAq

OAP DUCT(AM140MNEPEH/EU) (Cont.)

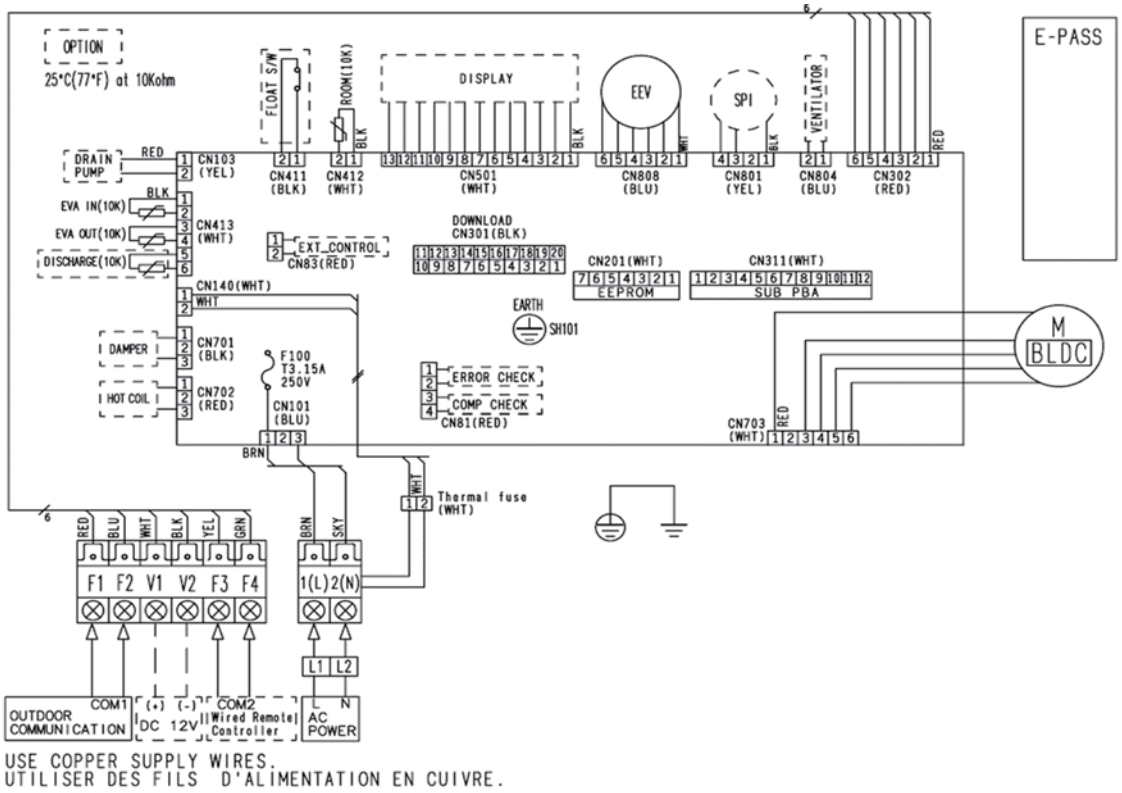


Floor Standing Type

■ **Main PCB (AM✳✳✳MNFDEH✳)**



■ AM✳✳✳MNFDEH✳



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