

SPLIT TYPE
ROOM AIR CONDITIONER
CEILING TYPE (50Hz)

SERVICE MANUAL

Indoor unit
ABY45LBAG

Outdoor unit
AOY45LJBYL



ENINDEL CLIMA

CONTENTS

SPECIFICATIONS.....	1
DIMENSIONS.....	2
REFRIGERANT SYSTEM DIAGRAM.....	4
CIRCUIT DIAGRAM.....	5
INDOOR PCB CIRCUIT DIAGRAM.....	7
OUTDOOR PCB CIRCUIT DIAGRAM.....	8
ERROR DISPLAY.....	11
DISASSEMBLY ILLUSTRATION.....	13
PARTS LIST.....	22
ACCESSORIES.....	24

FUJITSU GENERAL LIMITED

WWW.ENINDEL.COM

SPECIFICATIONS

ELECTRICAL DATA

TYPE		COOLING & HEATING
INDOOR UNIT		ABY45LBAG
OUTDOOR UNIT		AOY45LJBYL
COOLING CAPACITY		12.5 kW
HEATING CAPACITY		14.0 kW
POWER SOURCE		230 V
		50 Hz
RUNNING CURRENT (A)	COOLING	19.5
	HEATING	18.5
INPUT WATTS (kW)	COOLING	4.45
	HEATING	4.25
E.E.R. (kW/kW)	COOLING	2.81
	HEATING	3.29
STARTING CURRENT (A)		15
MOISTURE REMOVAL (l/hr)		4.0

FAN MOTOR

FAN SPEED (r.p.m.)	INDOOR	HIGH	1,200
		MED	1,100
		LOW	950
	OUTDOOR	Up Fan 850 / Down Fan750	
AIR FLOW	INDOOER	(m ³ /h)	2,000
	OURDOOR		6,600

COMPRESSOR AND REFRIGERANT

TYPE		Hermetic type, 6 poles, Induction motor, Scroll	
DISCRIMINATION		ANB33FCMMT	
PRECHARGED REFRIGERANT		3,400 g	
REFRIGERANT TYPE		R410A	
MAX PIPE HEIGHT		30 m	
FULL CHARGE	PIPE LENGTH	20 m (66 ft)	3,400 g (119.9 oz)
		30 m (99 ft)	3,800 g (134.0 oz)
		50 m (164 ft)	4,600 g (162.3 oz)
		70 m (230 ft)	5,400 g (190.5 oz)
ADDITIONAL CHARGE		40 g / m (0.427 oz / ft.)	

DIMENSIONS

INDOOR UNIT	H x W x D	240 x 1,660 x 700 mm
OUTDOOR UNIT	H x W x D	1,290 x 900 x 330 mm

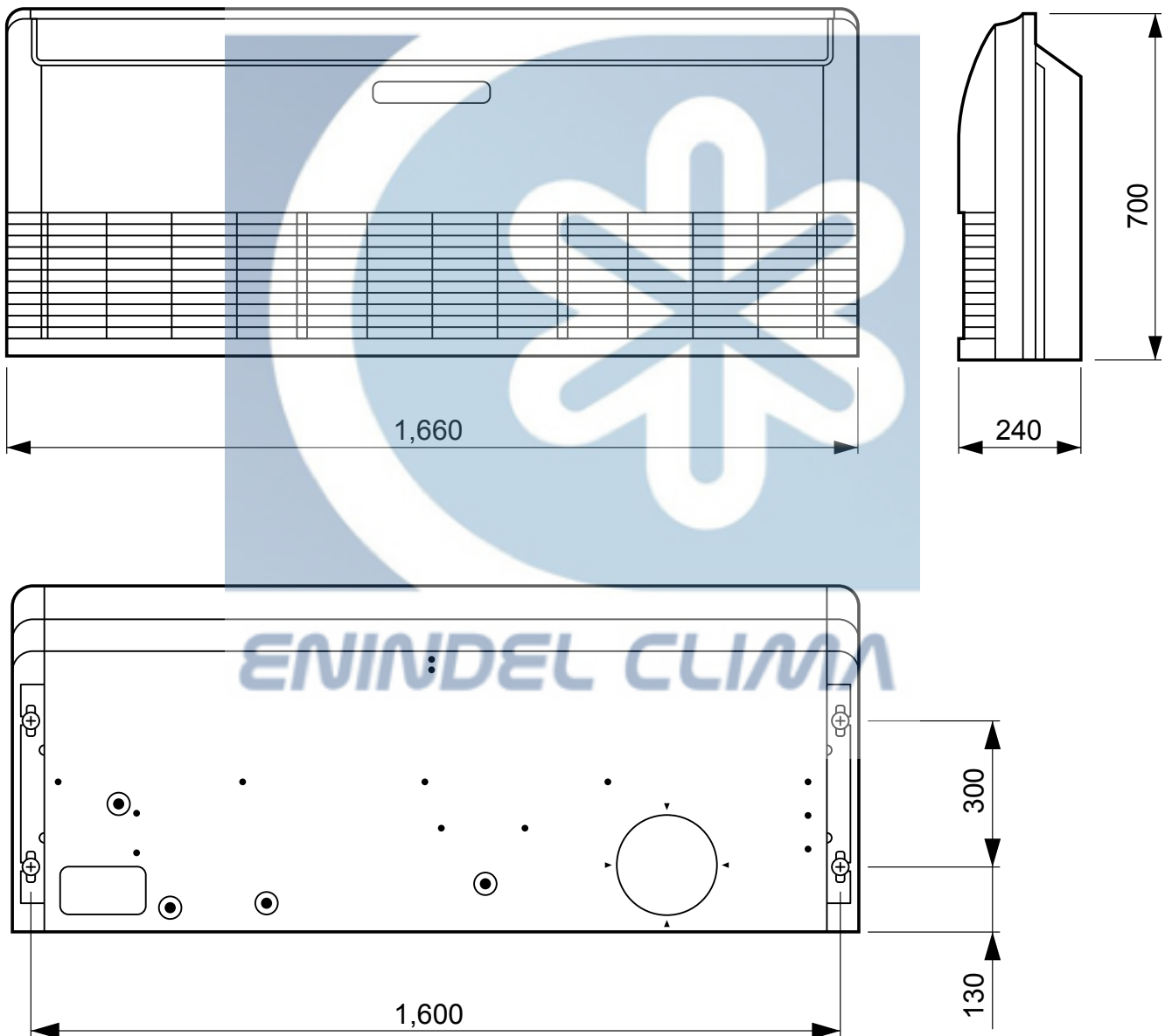
WEIGHT

INDOOR UNIT	GROSS / NET	61 kg / 48 kg
OUTDOOR UNIT	GROSS / NET	112 kg / 105 kg

DIMENSIONS

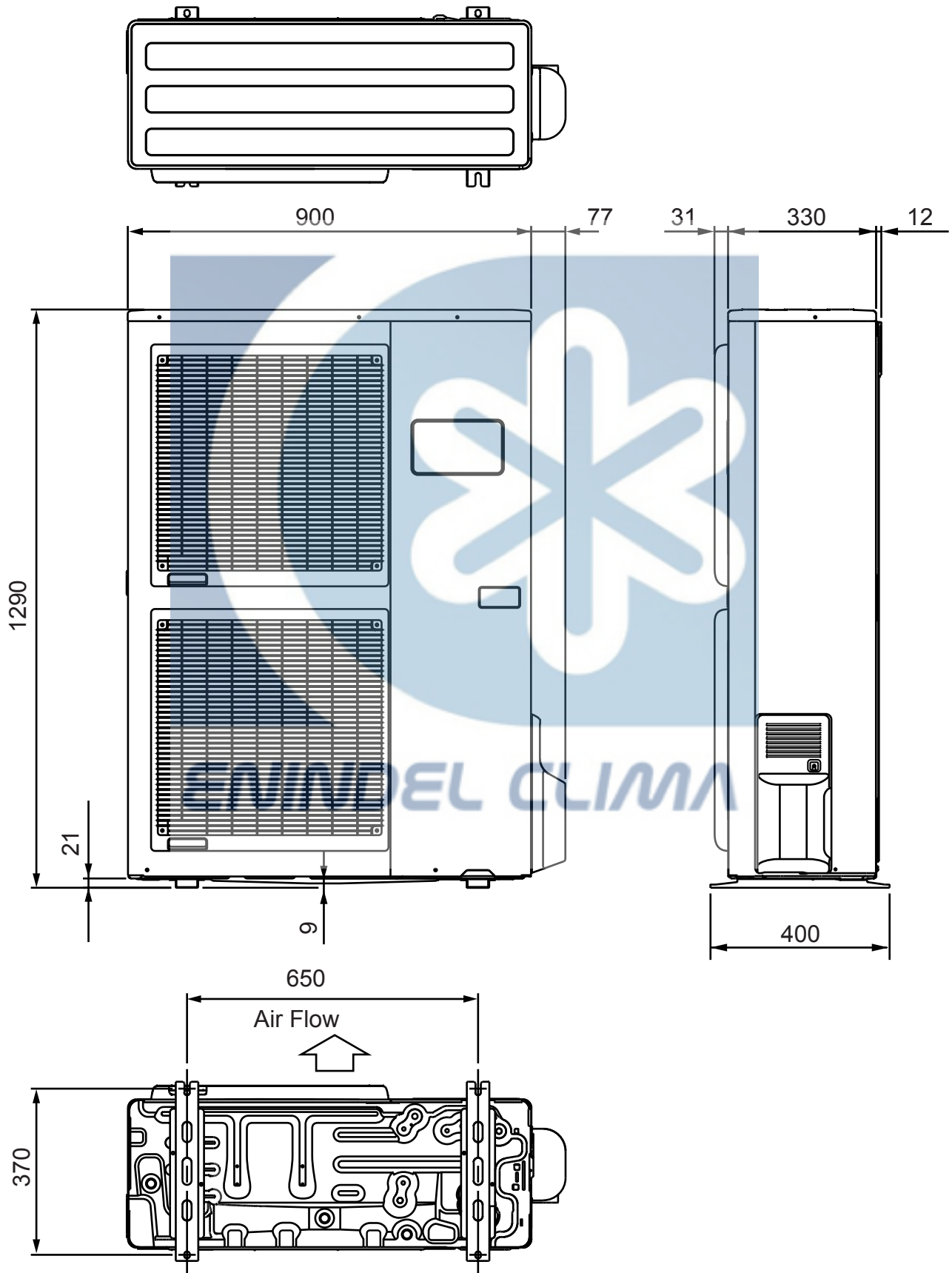
INDOOR UNIT

(Unit : mm)

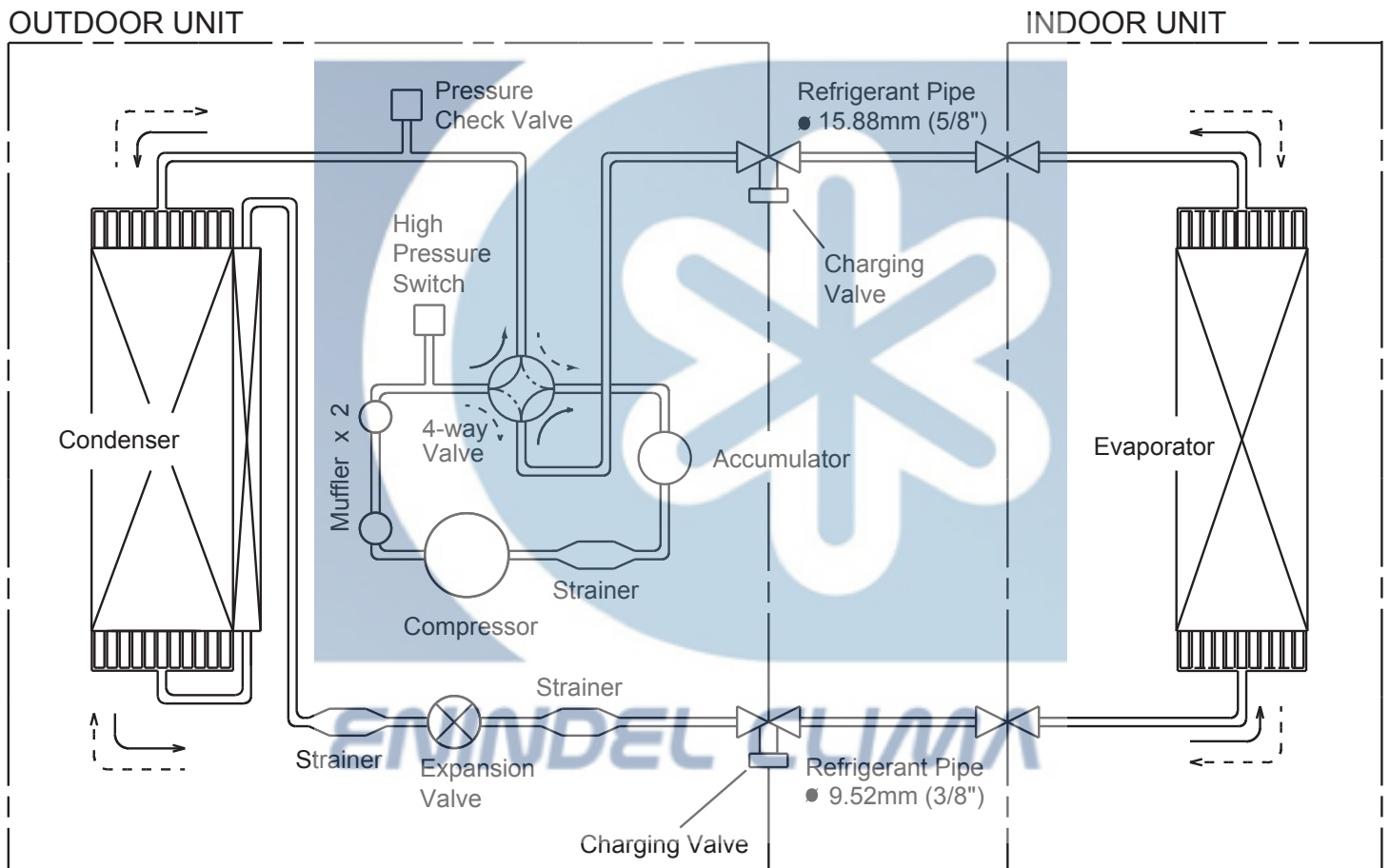


OUTDOOR UNIT

(Unit : mm)



REFRIGERANT SYSTEM DIAGRAM

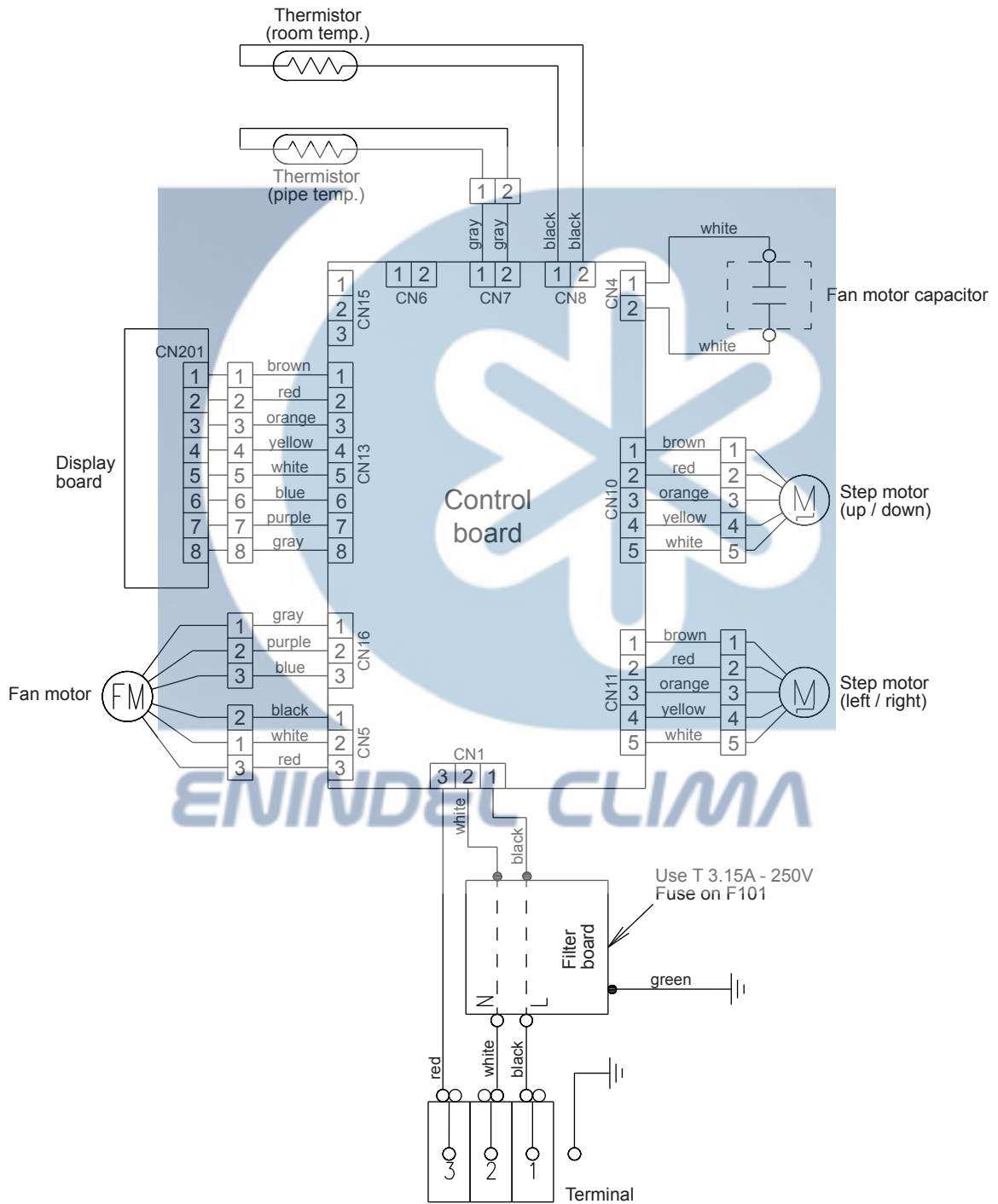


—→ : Cool

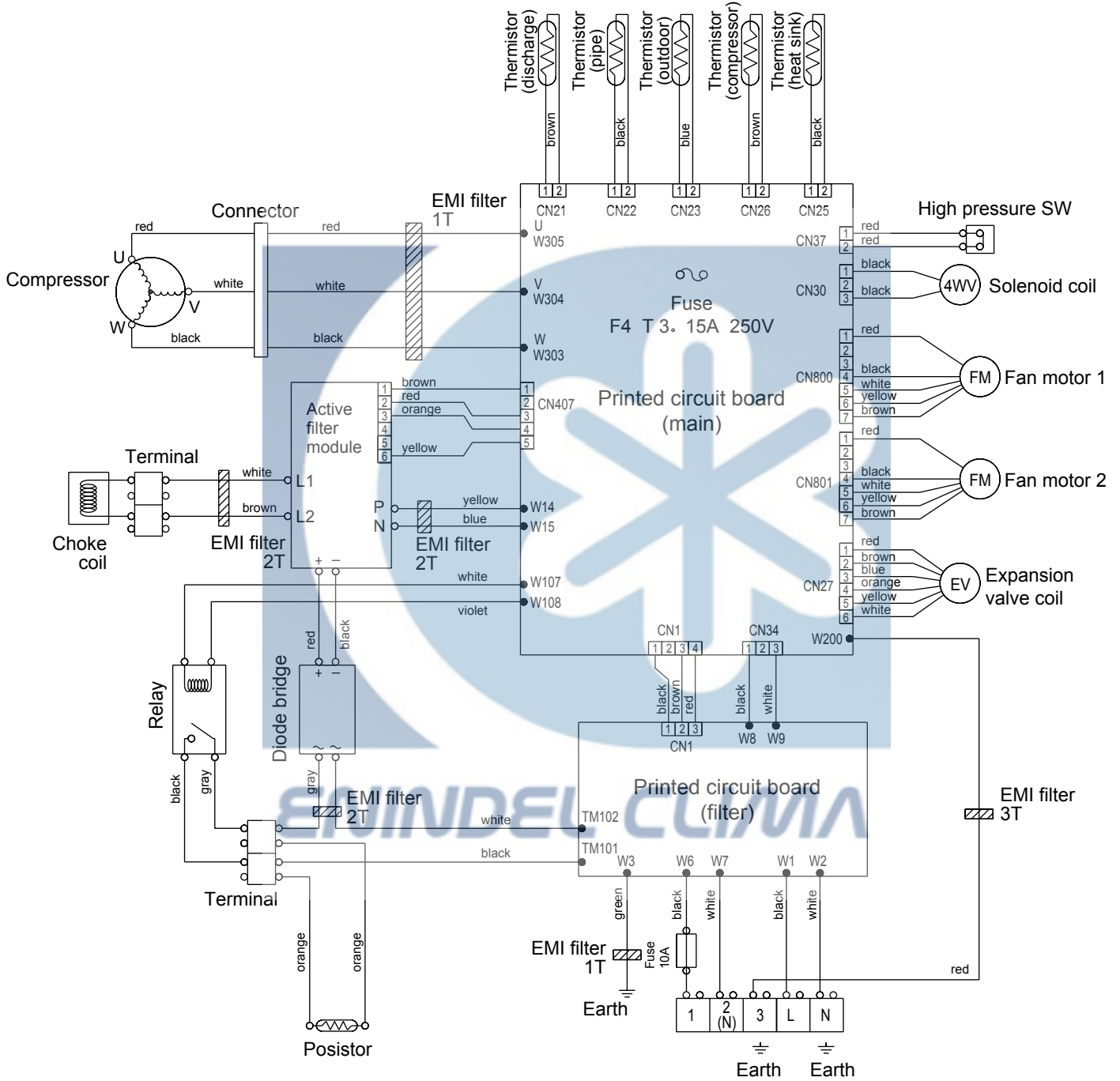
- - -> : Heat

CIRCUIT DIAGRAM

INDOOR UNIT



Model : AOY45LJBYL

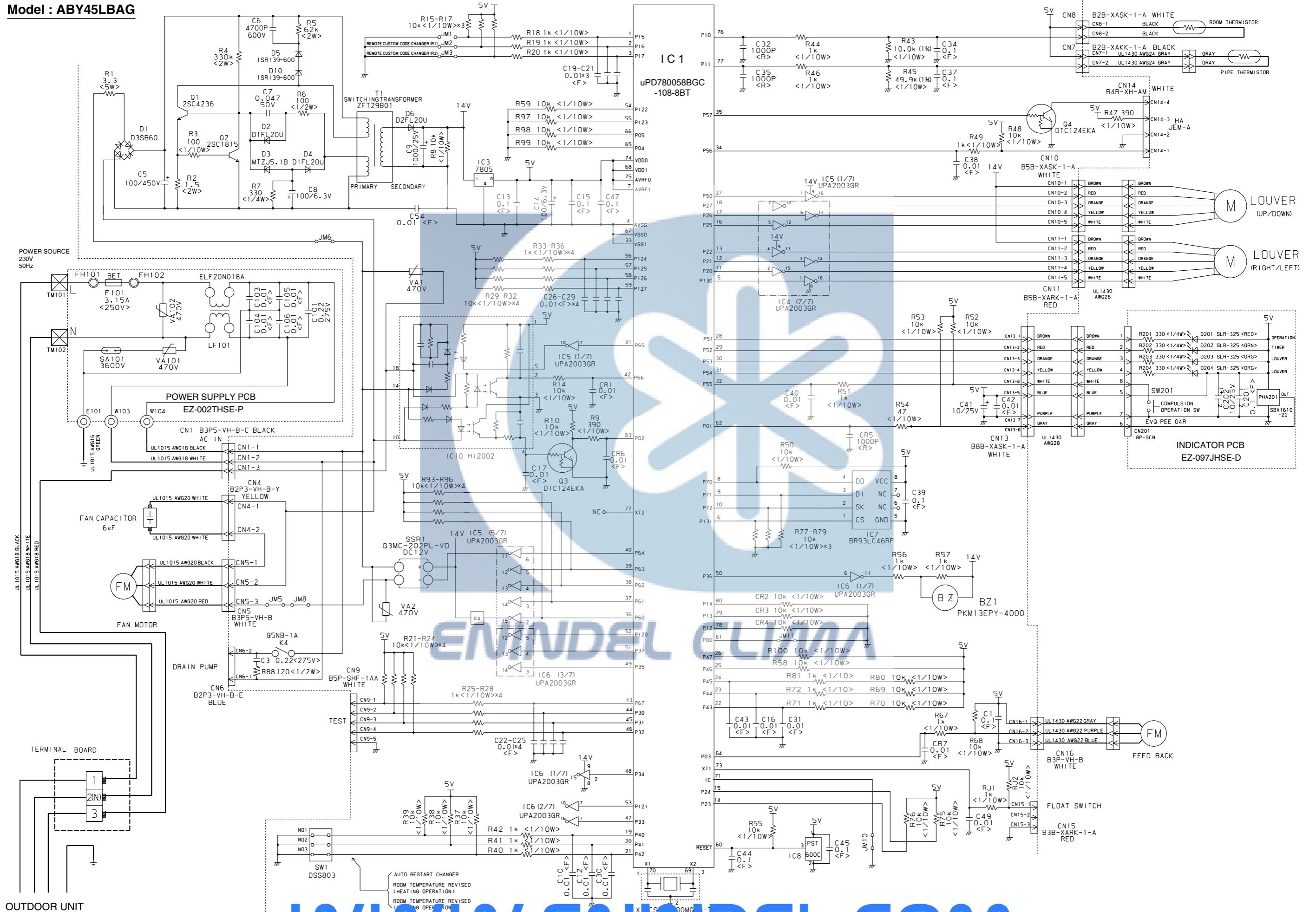


INDOOR PCB CIRCUIT DIAGRAM

CONTROLLER PCB ASSEMBLY(MAIN PCB)

K01AL-050HHSE-C1

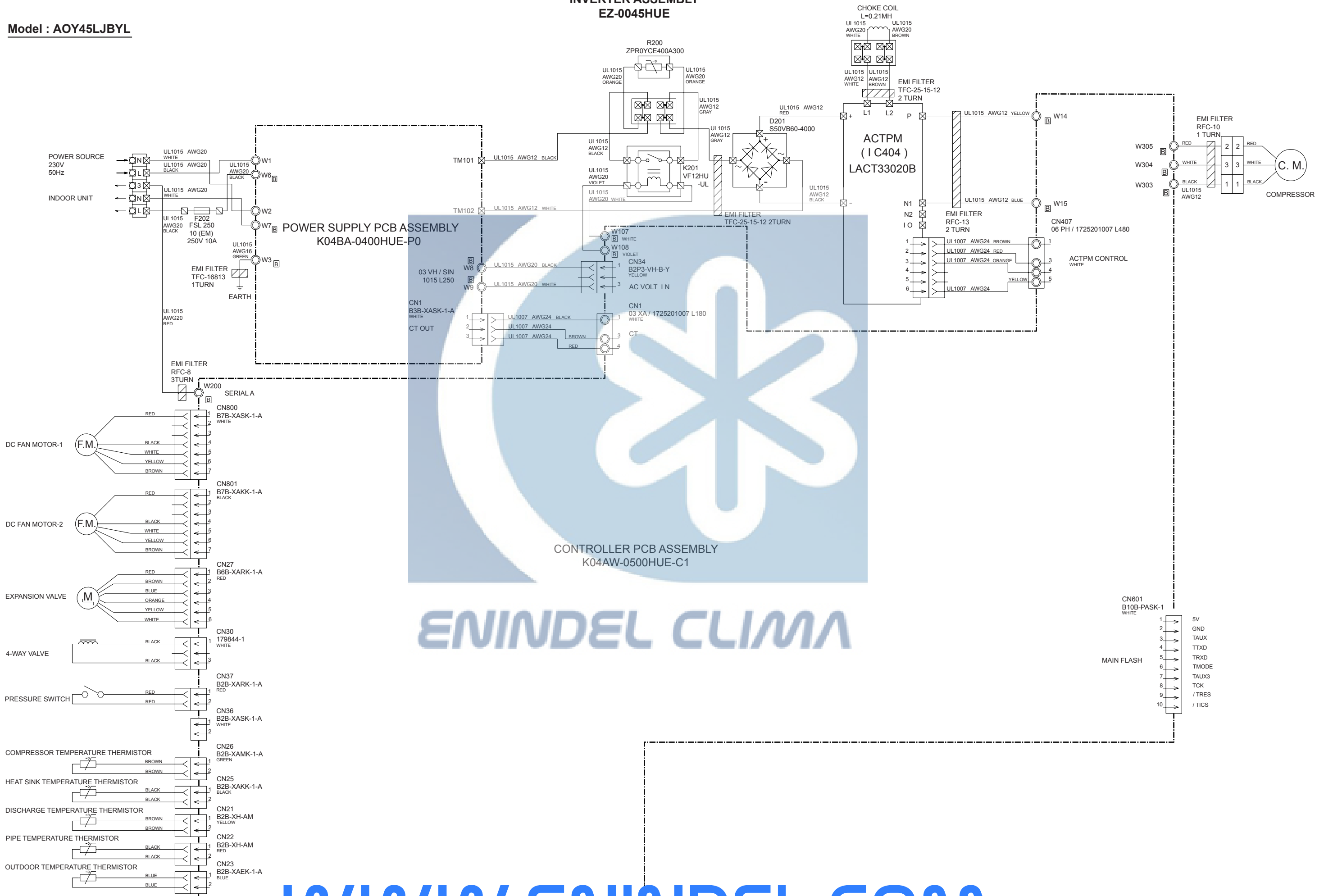
Model : ABY45LBAG



OUTDOOR PCB CIRCUIT DIAGRAM

Model : AOY45LJBYL

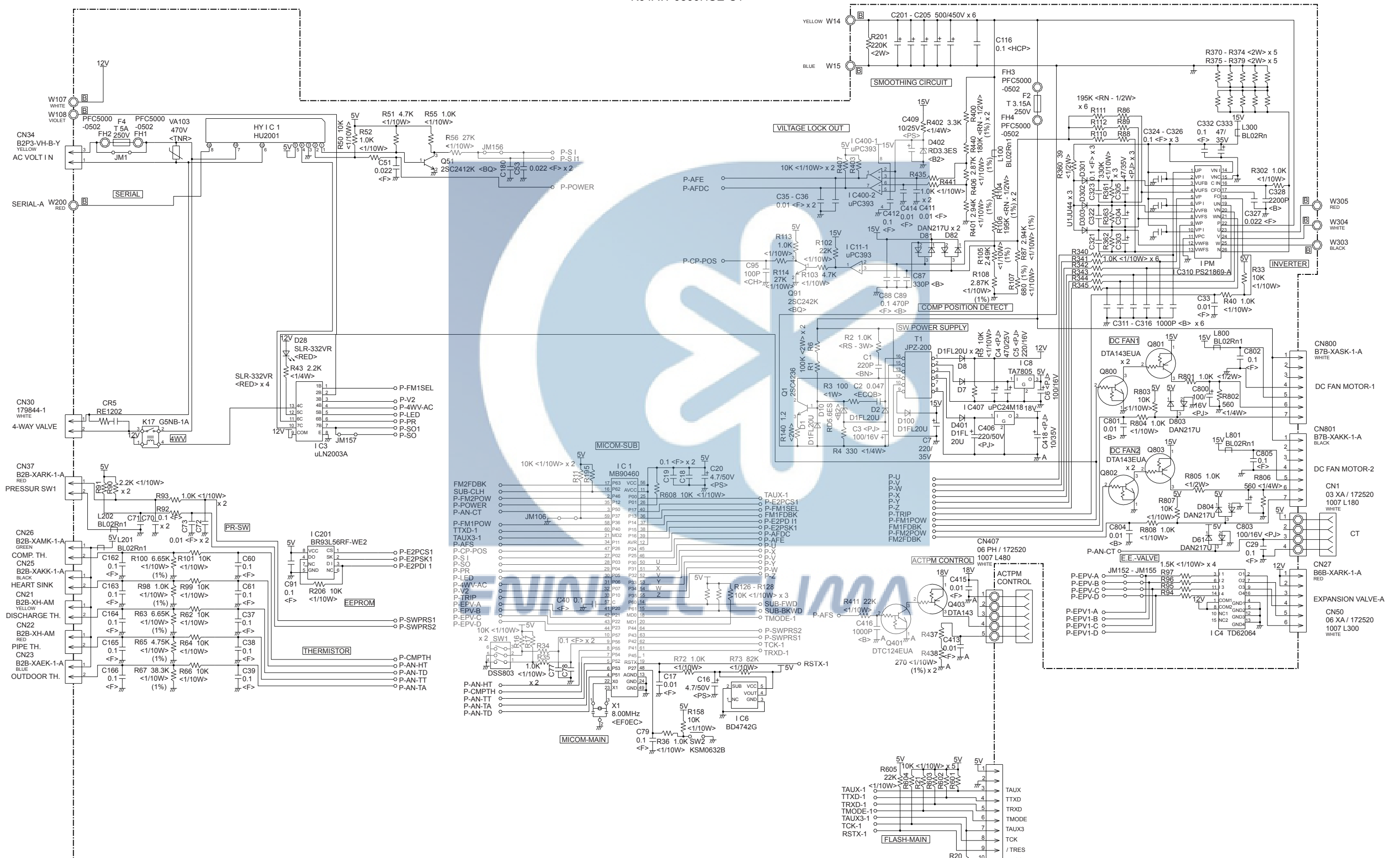
INVERTER ASSEMBLY EZ-0045HUE



ENINDEL CLIMA

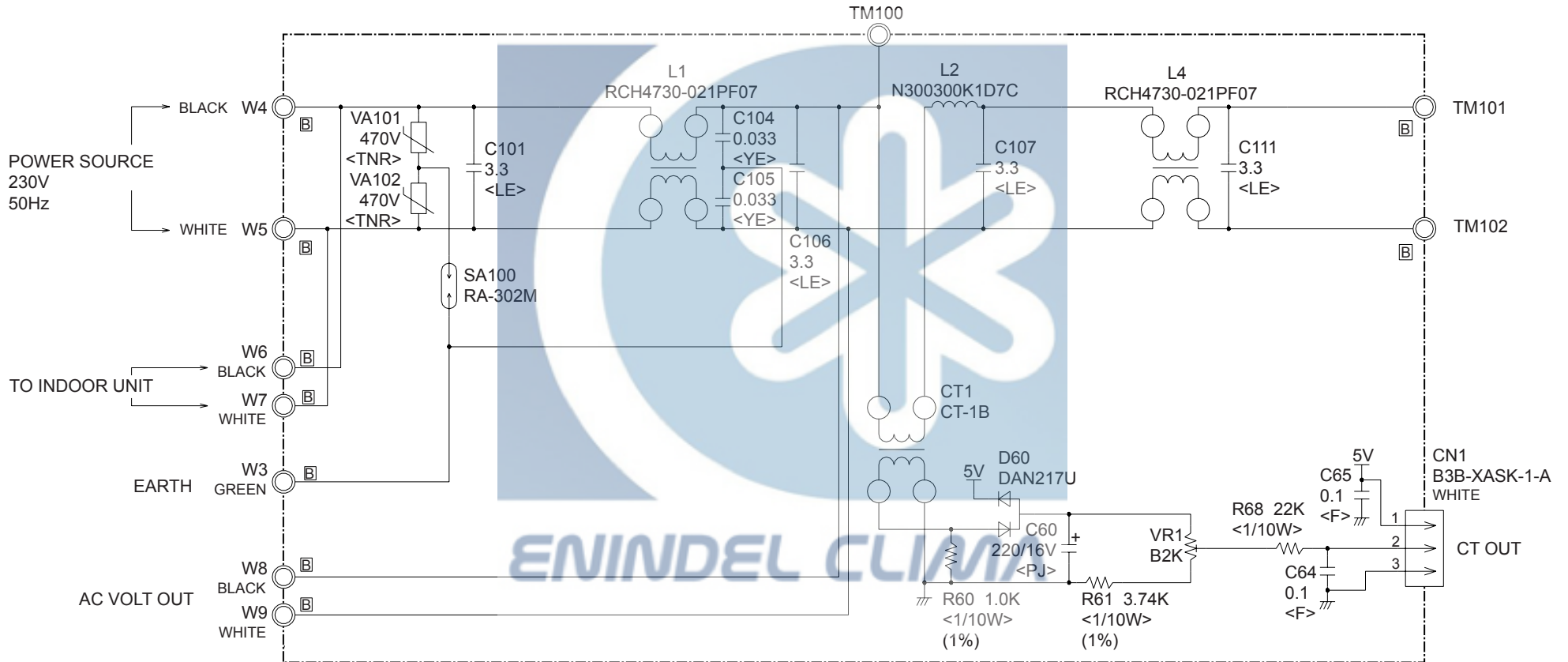
WWW.ENINDEL.COM

CONTROLLER PCB ASSEMBLY
K04AW-0500HUE-C1



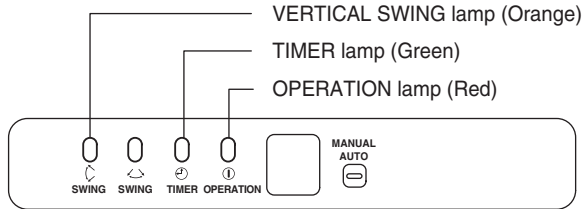
Model : AOY45LJBYL

POWER SUPPLY PCB ASSEMBLY K04BA-0400HUE-P0



ERROR CONTENTS (Indoor unit)

Operation can be checked by lighting and flashing of the display section OPERATION, TIMER, and VERTICAL SWING lamps. Perform judgment in accordance with the following.



TEST RUNNING

When the air conditioner is run by pressing the remote control unit test run button, the OPERATION, TIMER, and VERTICAL SWING lamps flash slowly at the same time.

ERROR

The OPERATION, TIMER, and VERTICAL SWING lamps operate as follows according to the error contents.

OPERATION lamp (RED)	TIMER lamp (GREEN)	SWING lamp (ORANGE)	Error contents
○	○	×	Indoor EEPROM abnormal
○	○	○	Outdoor EEPROM abnormal
(2 times) ●	○	×	Indoor room temperature sensor open
(2 times) ●	○	○	Indoor room temperature sensor short-circuited
(3 times) ●	○	×	Indoor heat exchanger temperature sensor open
(3 times) ●	○	○	Indoor heat exchanger temperature sensor short-circuited
(4 times) ●	○	×	Float switch operated
(5 times) ●	○	×	Indoor signal abnormal
(5 times) ●	○	○	Outdoor signal abnormal
(6 times) ●	○	×	Indoor fan abnormal
○	(2 times) ●	×	Outdoor power source connection abnormal
○	(3 times) ●	×	Outdoor heat exchanger temperature sensor open
○	(3 times) ●	○	Outdoor heat exchanger temperature sensor short-circuited
○	(4 times) ●	×	Outdoor temperature sensor open
○	(4 times) ●	○	Outdoor temperature sensor short-circuited
○	(5 times) ●	×	Outdoor discharge pipe temperature sensor or compressor temperature sensor open
○	(5 times) ●	○	Outdoor discharge pipe temperature sensor or compressor temperature sensor short-circuited
○	(6 times) ●	×	Outdoor high pressure abnormal
○	(7 times) ●	×	Outdoor discharge pipe temperature or compressor temperature sensor abnormal

○ : 0.1s ON/0.1s OFF (flash) × : OFF
● : 0.5s ON/0.5s OFF (flash)

ERROR CONTENTS (outdoor unit)

⚠ CAUTION

Always turn on the power 12 hours prior to the start of the operation in order to ensure compressor protection

1. Make a TEST RUN in accordance with the installation instruction sheet for the indoor unit.

2. OUTDOOR UNIT LEDS

When a malfunction occurs in the outdoor unit, the LED on the circuit board lights to indicate the error. Refer to the following table for the description of each error according to the LED.

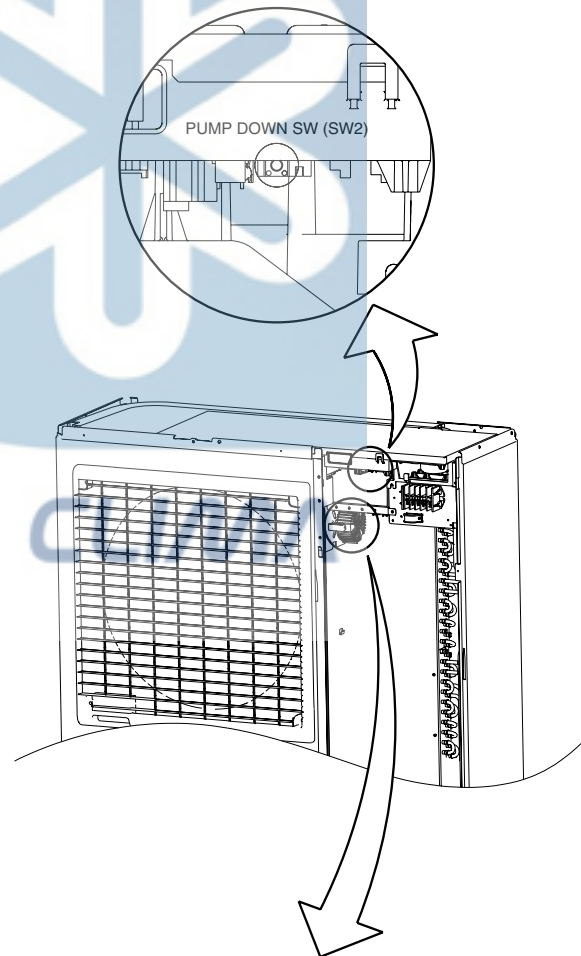
LED	Error contents
1 flash	Communication error (Indoor unit - Outdoor unit)
2 flash	Discharg pipe temperature sensor
3 flash	Outdoor heat exchanger temperature sensor
4 flash	Outdoor temperature sensor
7 flash	Compressor temperature sensor
8 flash	Heat sink temperature sensor
9 flash	Pressure switch abnormal
12 flash	IPM error
13 flash	Compressor rotor position cannot detect
14 flash	Compressor cannot operate
15 flash	Outdoor fan abnormal (upper fan)
16 flash	Outdoor fan abnormal (lower fan)
5 sec. ON/ 1 sec. OFF repeated	Protect operation
lighting	No error

SPECIAL INSTALLATION SETTING

PUMP DOWN (Refrigerant collecting operation)

Perform the following procedures to collect the refrigerant when moving the indoor unit or the outdoor unit.

- Press the push-button switch (SW2) on the circuit board once. The LED on the circuit board starts flashing (one second ON/one second OFF). This indicates the start of PUMP DOWN operation. When the switch is pressed while the compressor is in operation, PUMP DOWN operation starts automatically. When the switch is pressed while the compressor is in stop, the compressor starts to operate automatically, and then move on to PUMP DOWN operation.
- PUMP DOWN operation continues for about 1 minute. When PUMP DOWN operation is completed, the compressor stops automatically. Then close the 2-way valve and 3-way valve immediately.
- Turn the power off.

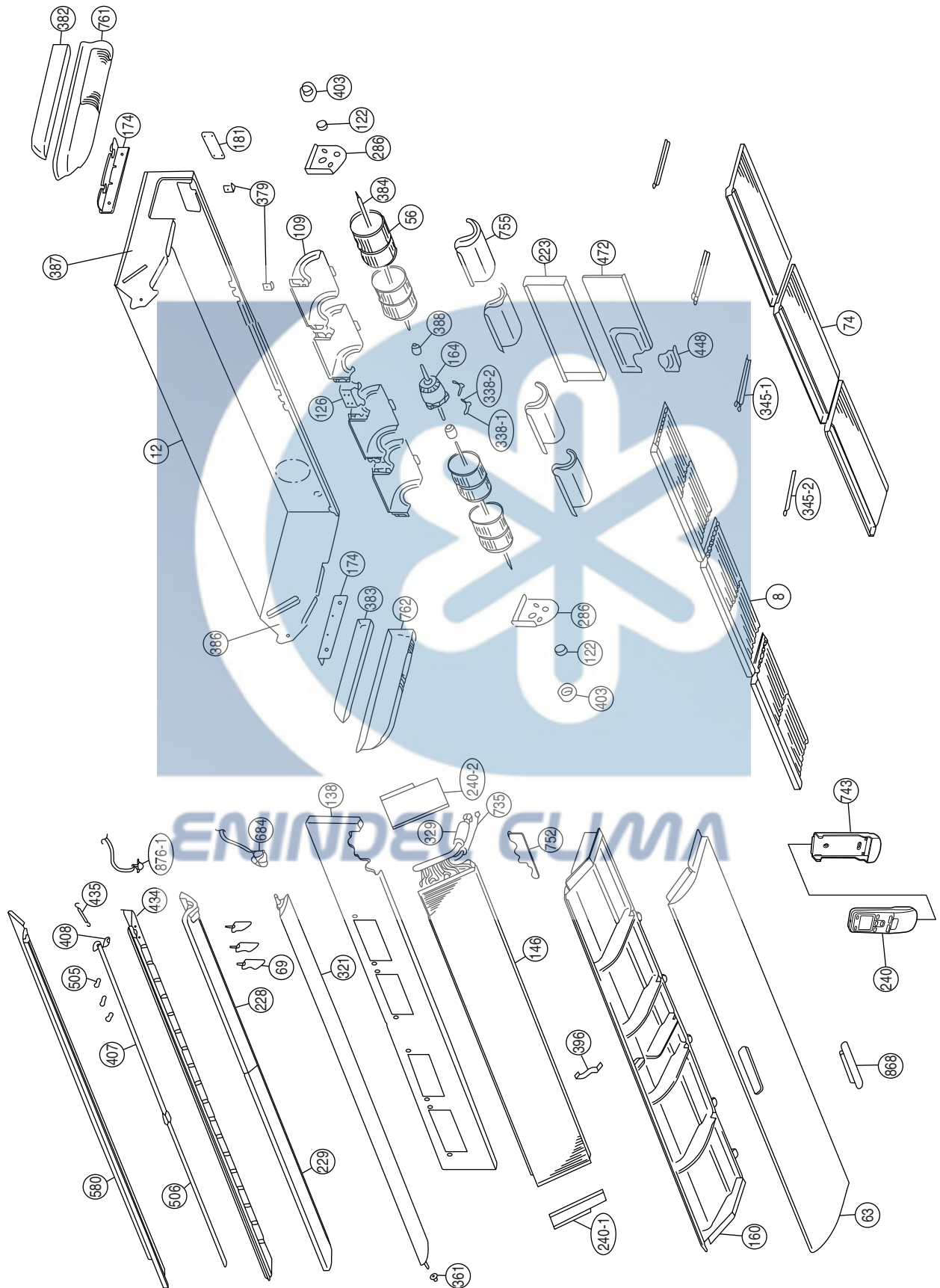


⚠ DANGER

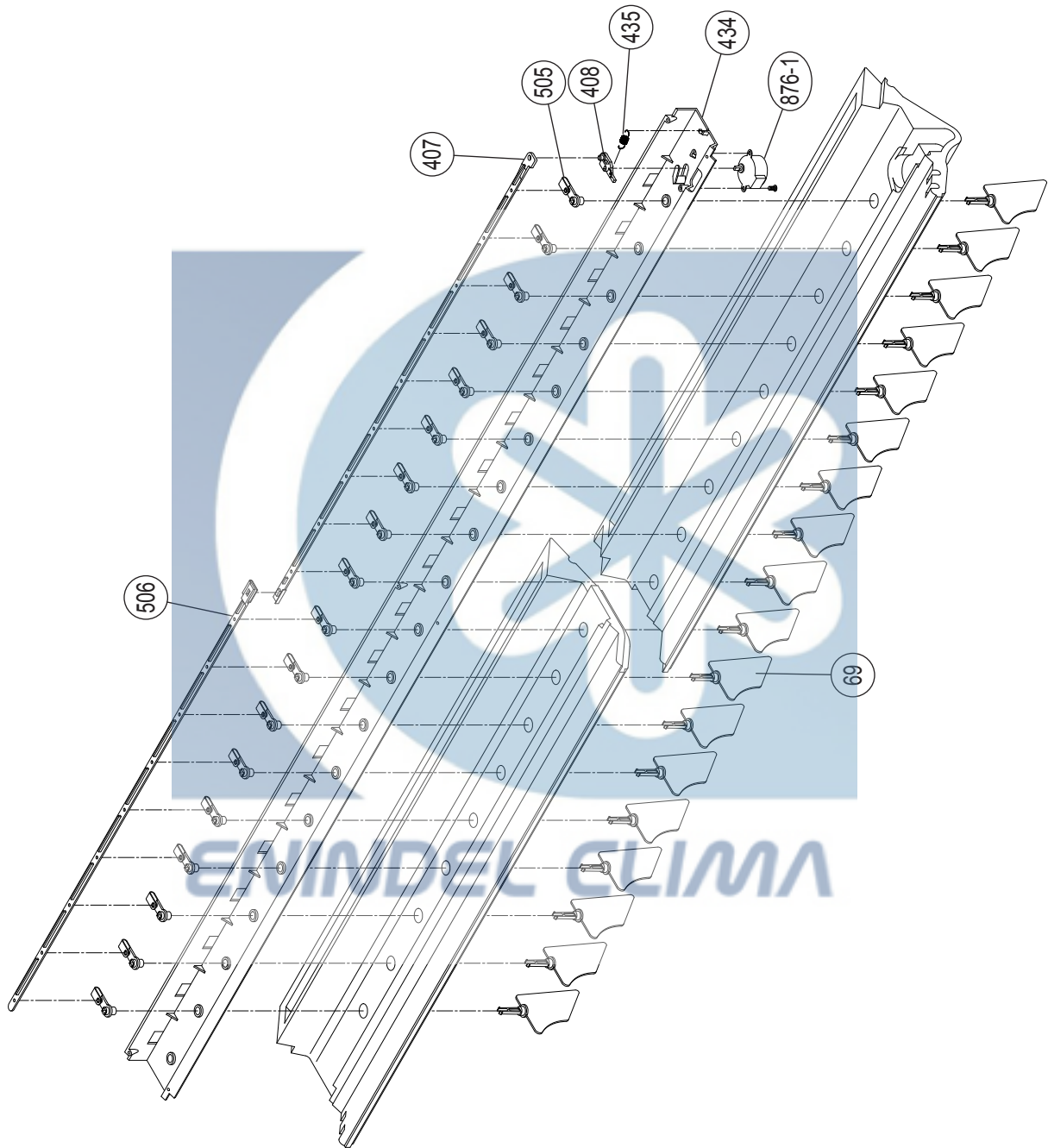
This part (Choke coil) generates high voltages. Never touch this part.

DISASSEMBLY ILLUSTRATION

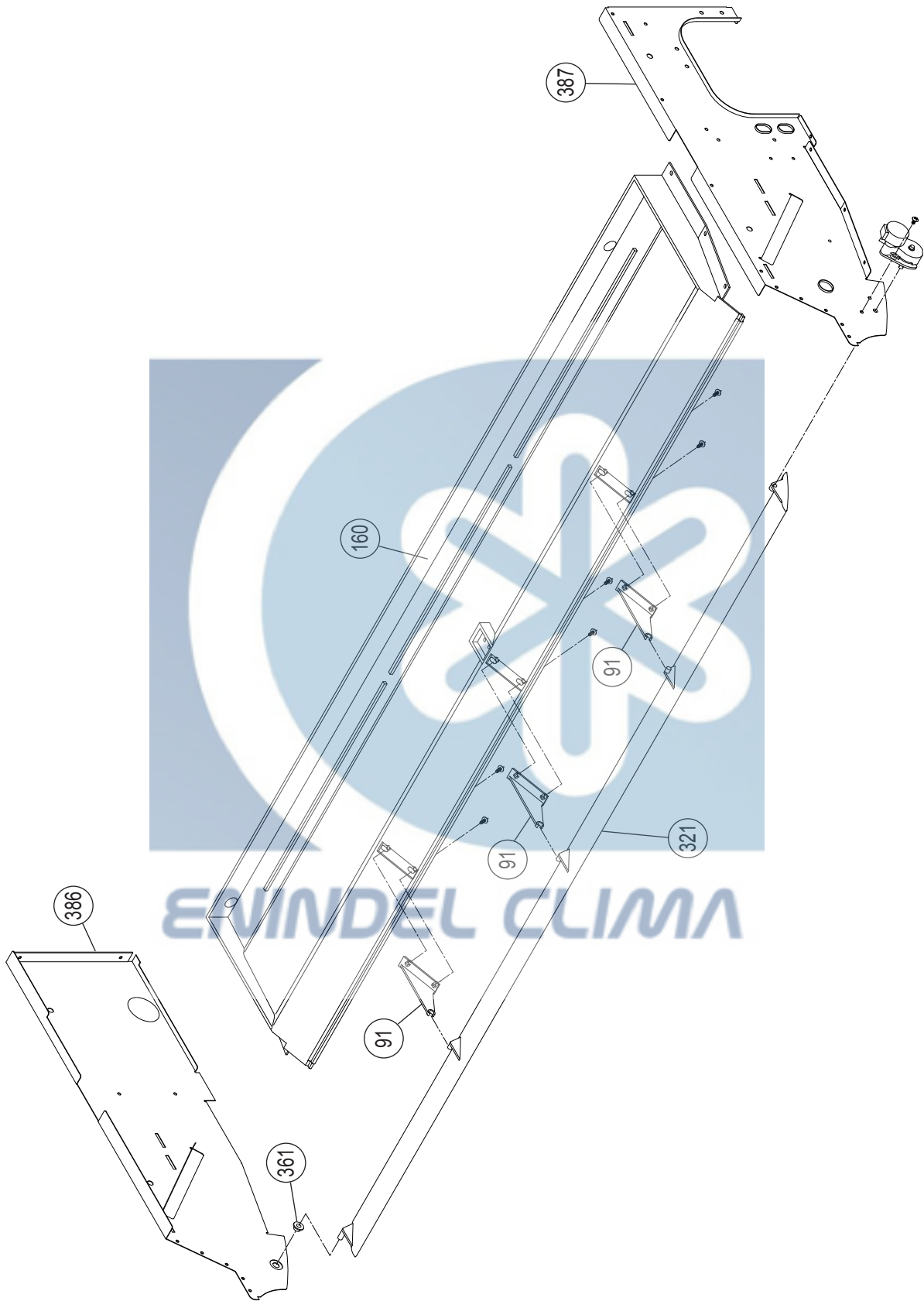
Model : ABY45LBAG



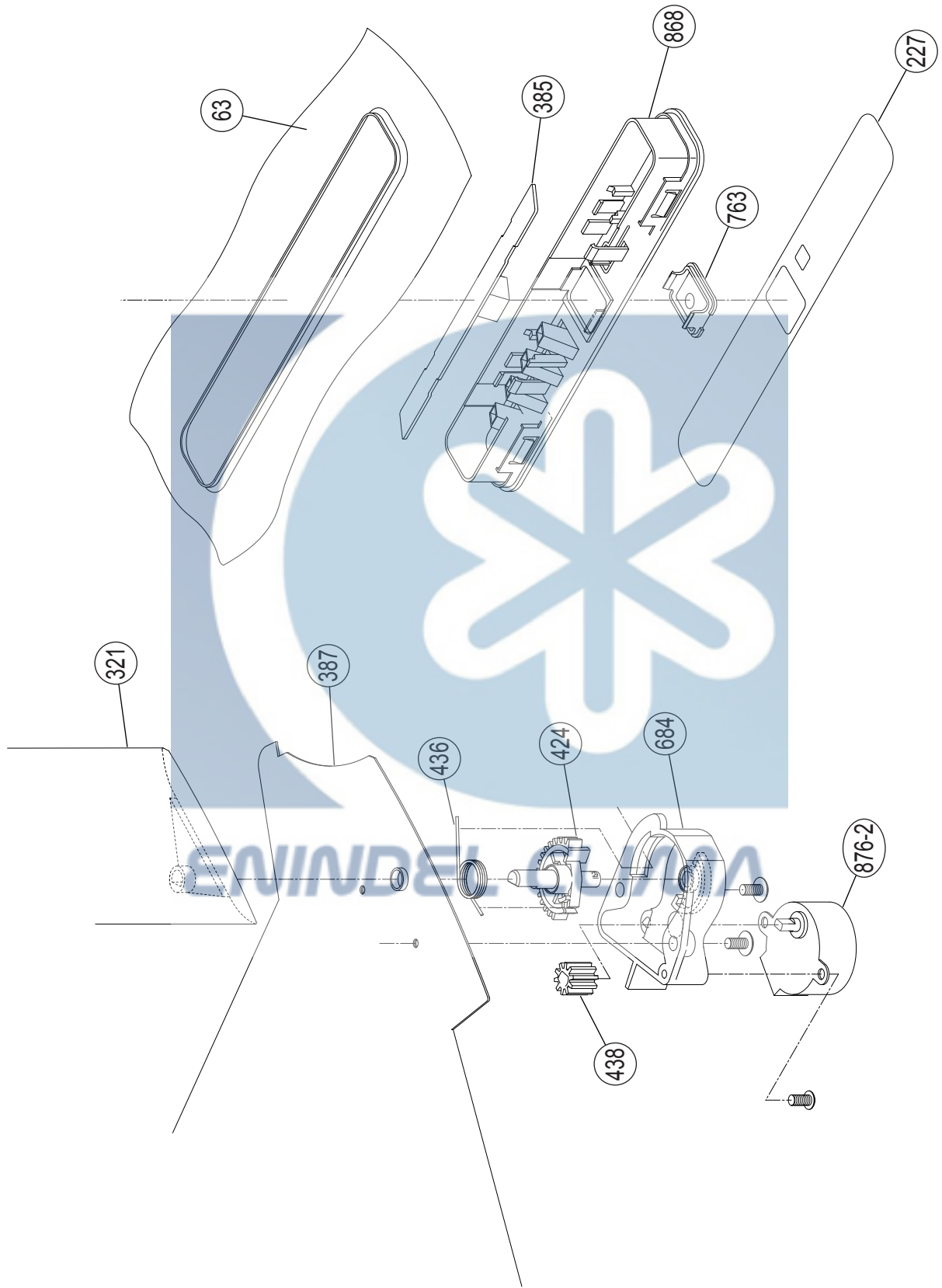
Model : ABY45LBAG



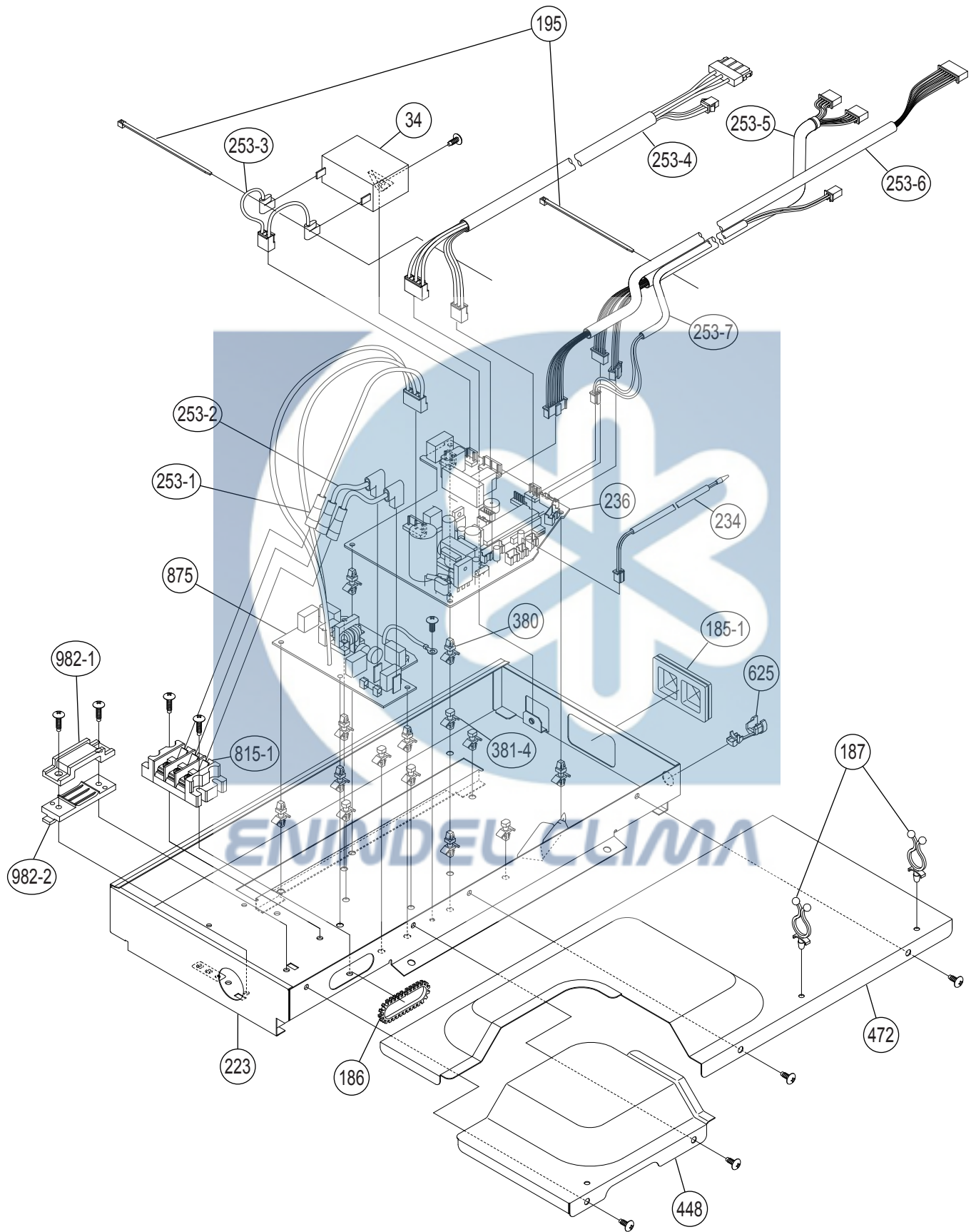
Model : ABY45LBAG



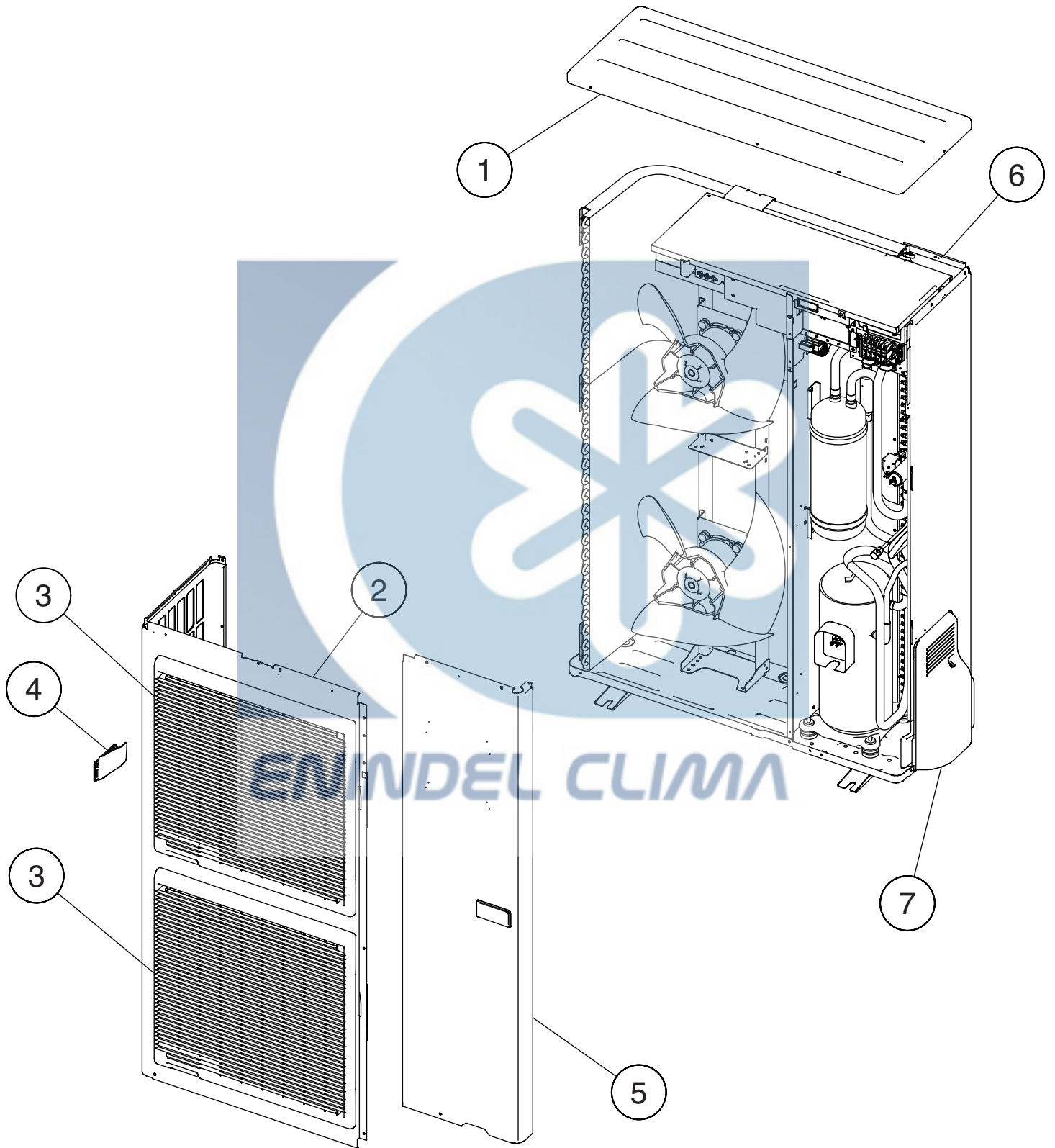
Model : ABY45LBAG



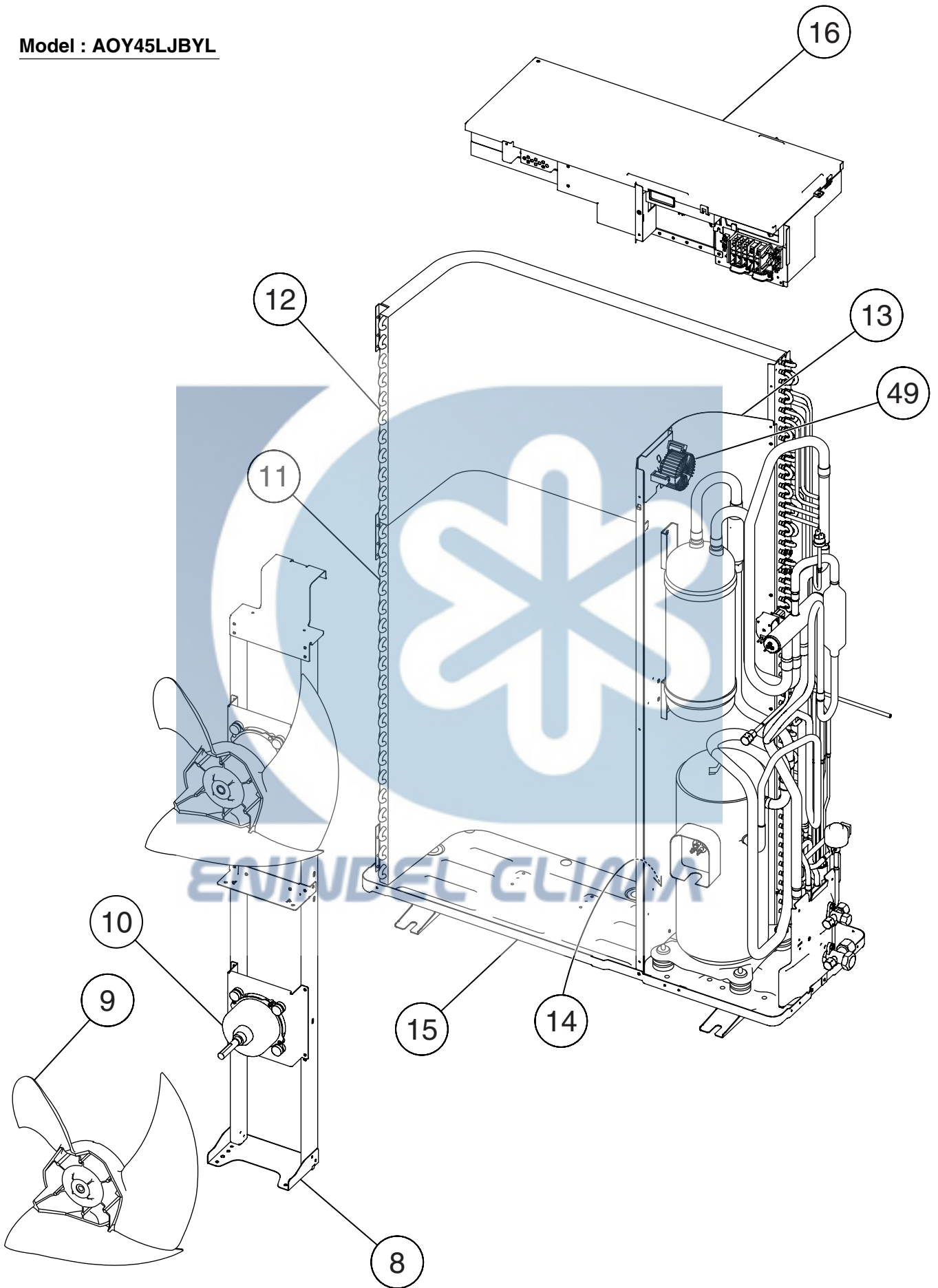
Model : ABY45LBAG



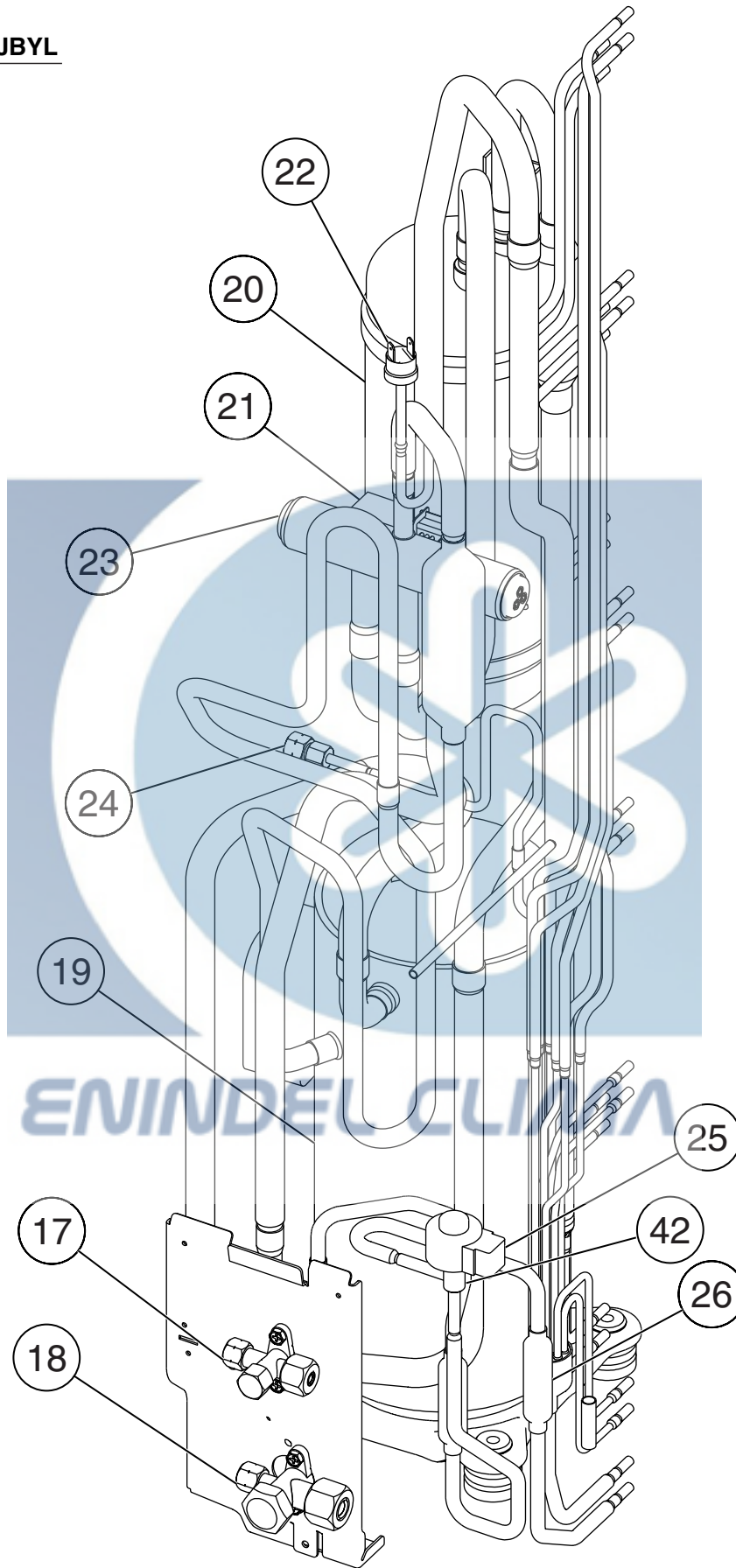
Model : AOY45LJBYL



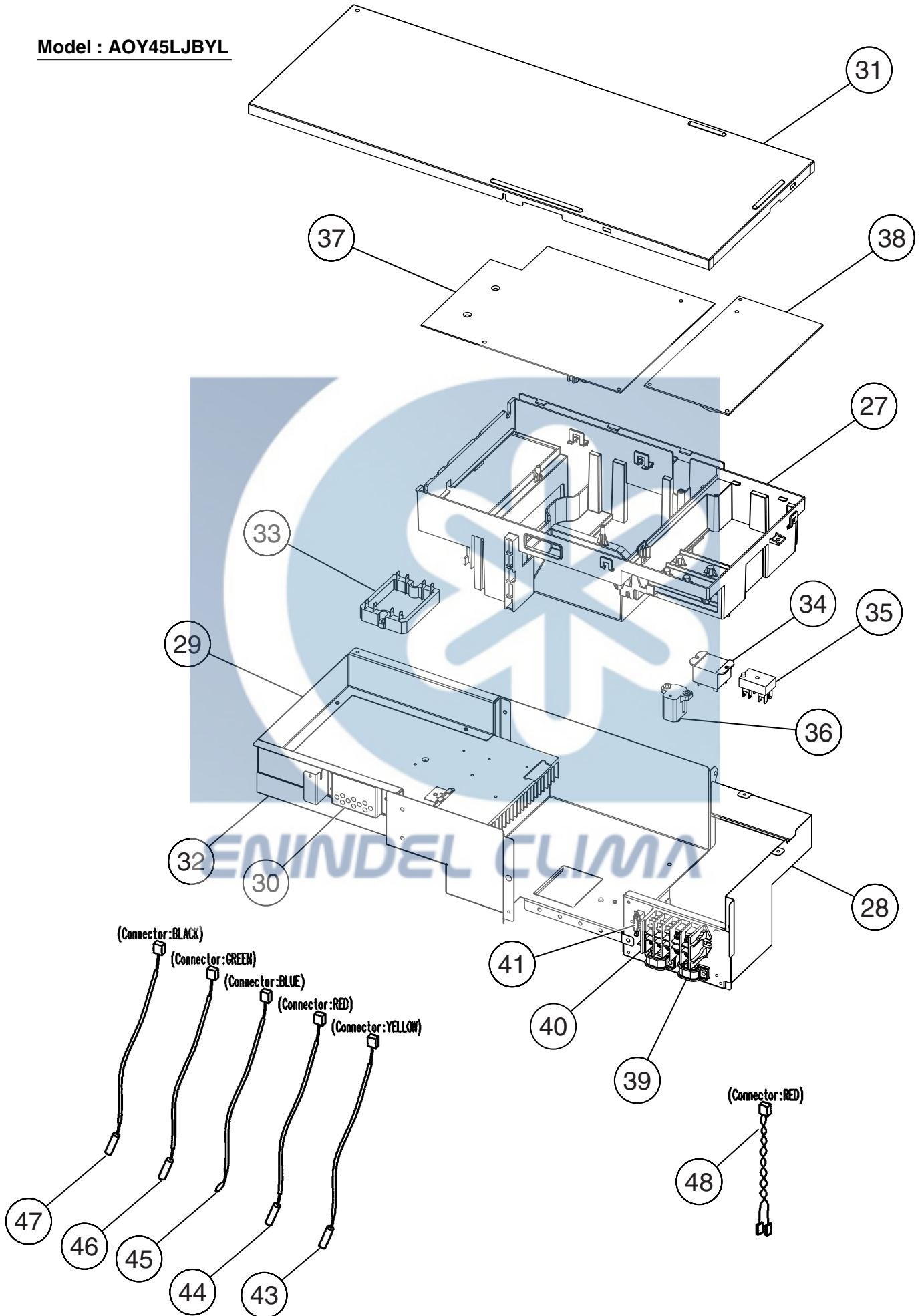
Model : AOY45LJBYL



Model : AOY45LJBYL



Model : AOY45LJBYL



PARTS LIST

INDOOR UNIT

Ref. No.	Description	Part No.	Ord. Q'ty	Ref. No.	Description	Part No.	Ord. Q'ty
		ABY45LBAG				ABY45LBAG	
8	Air Filter	9359739005		338-1	Motor Fixture	9359702009	
12	Base Assy	9359680000		338-2	Motor Fixture-B	9359703006	
34	Capacitor (Fan Motor)	9900270216		345-1	Filter Guide-R	9359692003	
56	Sirocco Fan Assy	9359701002		345-2	Filter Guide-L	9359693000	
----	Panel Sub Assy	9360436078		361	Bushing	9359733003	
63	Panel (Front)	9359734000		379	Hinge Plate (Grille)	9359694007	
69	Louver	9359719007		380	Locking Spacer KGLS-6S	313209391403	
74	Intake Grille	9359738008		381-4	Locking Spacer KGPS-6S	0600118075	
91	Hinge	9359699002		382	Cover (Decoration)-R	9359744009	
109	Casing	9359704003		383	Cover (Decoration)-L	9359745006	
122	Shaft Holder-B	9357921006		384	Shaft	9359707004	
126	Motor Fixing Table	9359681007		385	Indicator PCB Assy	9702260019	
138	Kit (Separate Wall Sub Assy)	9371366012		386	Panel Left Assy	9359685005	
----	Evaporator Sub Assy	9360428219		387	Panel Right Assy	9359683001	
146	Evaporator Assy	9371073040		388	Joint Assy	9359706007	
----	Drain Pan Sub Assy	9360429018		396	Reinforcement Metal	9359697008	
160	Kit (Drain Pan) Sub Assy	9371368016		403	Shaft Holder Fixture	9359687009	
164	Fan Motor Assy-IN	9360457004		407	Rod (Motor)	9359723004	
174	Hanger Bracket	9359742005		408	Louver Link	9359726005	
181	Hole Cover	9359691006		424	Sector Gear	9359729006	
185-1	Rubber Bushing	9357376004		434	Louver Base	9359718000	
186	Edge Cover	9361049017		435	Louver Spring	9359720003	
187	Clamp No. 1219	313361271706		436	Flap Spring	9359730002	
195	Clamp SKB-100	313361275805		438	Pinion	9359728009	
223	Control Box Assy	9359708001		448	Control Box-B	9359713005	
227	Badge	9359735014		472	Control Box-A	9359712008	
228	Insulation (Louver)-R	9359721000		505	Louver Stopper	9359724001	
229	Insulation (Louver)-L	9359722007		506	Louver Rod	9359725008	
234	Room Temperature Thermistor	9703299025		580	Cover (Top)	9359737001	
----	Pipe Temperature Thermistor	9900022020		625	Cord Bushing	9359240006	
----	Thermistor Spring-A	313728262708		684	Motor Base	9359727002	
236	Controller PCB Assy	9705914216		735	Distributor Assy	9360455000	
240	Remote Control Unit	9371190013		743	Remote Control Unit Holder	9305642014	
240-1	Kit (Panel pipe-L) Sub Assy	9371362014		752	Pipe Fixture Metal	9359688006	
240-2	Kit (Panel pipe-R) Sub Assy	9371363011		755	Kit (Cover Casing) Sub Assy	9371367019	
253-1	Wire Assy (Connector)	9702321017		761	Side Cover-R	9359740001	
253-2	Wire Assy (Connector)	9702322014		762	Side Cover-L	9359741008	
253-3	Wire Assembly	9702311018		763	Receiver Cover	9359714002	
253-4	Wire Assy (Connector)	9702323011		815-1	Terminal-3P	9900203016	
253-5	Wire Assy (Connector)	9702319014		868	PCB Holder	9359736004	
253-6	Wire Assy (Connector)	9702317010		875	Power Supply PCB Assy	9704561060	
253-7	Wire Assy (Connector)	9702318017		876-1	Motor, Step-H	9360479013	
253-9	Wire Assembly	9702311018		876-2	Motor, Step-V	9360307026	
286	Shaft Holder Bracket	9359686002		982-1	Cord Clamp-A	9359820017	
321	Flap Assy	9359731009		982-2	Cord Clamp-B	9359821014	
329	Coupling Pipe Assy	9373038214					



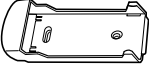




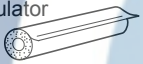





When you order parts, please make a photocopy of this page and fill the number of the parts in the "Order" column.

OUTDOOR UNIT

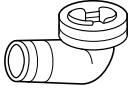

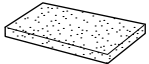
Ref.	Description	Parts number
1	Top Panel Sub Assy	9374417025
2	Front Panel X	9374094028
3	Fan Guard	9374330010
4	Grip Side	9374173013
5	Service Panel Sub Assy	9374415014
6	Right Panel Sub Assy	9374416042
7	Valve Cover	9374174010
8	Motor Bracket Sub Assy	9374418046
9	Propeller Fan Assy	9366378020
10	Motor DC Brushless	9601882015
11	Condenser A Assy	9374433018
12	Condenser B Assy	9374434015
13	Sepa Wall	9374135028
14	Cap Foot	9374345014
15	Base Assy	9374166060
16	Inverter Assy	9705641068
17	3-Way Valve Assy	9372205044
18	3-Way Valve Assy	9372205075
19	Compressor Assy	9374653010
20	Accumulator Assy	9371615011
21	Solenoid	9900165055
22	Pressure Switch	9900186012
23	4-Way Valve	9970035029
24	Check Valve Assy	9374274017
25	Coil (Expansion Valve)	9900190033
26	Strainer Assy	9372524015
27	Inverter Box A	9374603015
28	Inverter Box B	9374625017
29	Inverter Box C	9374605019
30	Inverter Box Duct	9374609017
31	Inverter Box Cover	9374608010
32	Heat Sink A	9374607013
33	Act-Module	9704258014
34	Relay	9900262013
35	Terminal	9701971015
36	Posistor	9704265012
37	Inverter PCB Assy	9705642065
38	Power PCB Assy	9705647015
39	Clamp (Cord)	9356857009
40	Terminal	9900184025
41	Fuse	0600376116
42	Expansion Valve	9900170028
43	Thermistor (Dischage)	9704219084
44	Thermistor (Heat Exchanger)	9704220066
45	Thermistor (Outdoor)	9703516078
46	Compressor Thermistor	9900156039
47	Heat Sink Thermistor	9374607013
48	Wire (Pressure Switch)	9367595051
49	Coil, Choke	9705877016
--	Emblem Rear	9351355005

ACCESSORIES

INDOOR UNIT

Name and Shape	Q'ty	Application	Part No.
Remote control 	1	Use for air conditioner operation	9371190013 (AR-JW1)
Battery (pen light) 	2	For remote control	0600185534
Remote control holder 	1	For mounting the remote control	9305642014
Tapping screw (φ 3 x 12) 	2	For remote control holder installation	0700019098
Drain hose insulation 	1	Adhesive type 70 x 230	9360464002
VT wire 	1	For fixing the drain hose L 280 mm	313806350303
Coupler heat insulator (large) 	2	For indoor side pipe joint (large pipe)	9350716029
Coupler heat insulator (small) 	1	For indoor side pipe joint (small pipe)	9352766015
Nylon fastener 	Large 4	For fixing the coupler heat insulator	9301501001
	Small 4		312300787605
Special nut A (large flange) 	4	For installing indoor unit	313005446653
Special nut B (small flange) 	4	For installing indoor unit	313005446759
Installation template 	1	For positioning the indoor unit	9360022004
Auxiliary pipe assembly 	1	For connecting the piping	9374714025

OUTDOOR UNIT

Name and Shape	Q'ty	Application	Part No.
Drain pipe 	1	For outdoor unit drain piping work (May not be supplied, depending on the model)	9303029015
Drain cap 	2		313166024302
Installation (seal) 	1	For filling in a gap at the entrance of connection cords	9374756018



0510G2926

WWW.ENINDEL.COM