



FRIEDRICH

1883

Single Zone Air Conditioner SVC MANUAL (Exploded View)

DUCTLESS SPLIT SYSTEMS

CAUTION

Before Servicing the unit, read the safety precautions in General SVC manual.
Only for authorized service personnel.

MODEL: MR36UY3J

THE EXPERTS IN ROOM AIR CONDITIONING

960-920-10

1. Specification

Indoor Unit				MD36Y3J	MC36Y3J
Capacity	Cooling	Min. ~ Rated ~ Max.	kW	4.7~10.5~12.1	4.10 ~ 10.5 ~ 12.3
		Min. ~ Rated ~ Max.	Btu/h	16,200 ~ 36,000 ~ 41,400	14,000 ~ 36,000 ~ 42,000
	Heating	Min. ~ Rated ~ Max.	kW	5.2 ~ 11.7 ~ 13.4	4.25 ~ 11.7 ~ 13.1
		Min. ~ Rated ~ Max.	Btu/h	18,000 ~ 40,000 ~ 46,000	14,500 ~ 40,000 ~ 45,000
Power Input	Cooling	Rated	kW	2.97	2.97
	Heating	Rated	kW	3.36	3.2
EER / COP			Btu/h-W	12.1/-	13.5 / -
SEER / HSPF			Btu/h-W	17.6 / 9.2	19.0 / 9.5

Model Name				MR36UY3J
Power Supply			V , Ø , Hz	208-230 / 1 / 60
Starting Current	Cooling	Max.	A	-
	Heating	Max.	A	-
Wiring Connections	Power Supply Cable (included Earth)		No. x mm ² (AWG)	3C x 5.0 (10)
Casing Color			-	Warm Gray
Dimensions	W x H x D		mm	950 x 1,380 x 330
	W x H x D		inch	37-13/32 x 54-11/32 x 13
Net Weight			kg (lbs)	92.0 (202.8)
Compressor	Type		-	Twin Rotary
	Model		Model x No.	GPT442MBA x 1
	Motor type		-	BLDC
	Motor Output		W x No.	4,000 x 1
Refrigerant	Type		-	R410A
	Precharged Amount		g (oz)	3,400 (119.9)
	Chargeless-Pipe Length		m (ft)	7.5 (24.6)
	Additional Charging Volume		g/m (oz/ft)	40 (0.43)
	Control		-	Electronic Expansion Valve
Refrigerant Oil	Type		-	FVC68D
	Charged volume		cc x No.	1,300 x 1
Heat Exchanger	(Row x Column x Fins per inch) x No.		-	(2 x 32 x 14) x 2
Fan	Type		-	Propeller
	Air Flow Rate		m ³ /min(ft ³ /min) x No.	55(1942)x2
Fan Motor	Type		-	BLDC
	Output		W x No.	124.0 x 2
Sound Pressure Level	Cooling	Rated	dB(A)	52
	Heating	Rated	dB(A)	54
Sound Power Level		Rated	dB(A)	67
Piping Connections	Liquid	Outer Dia.	mm(inch)	Ø 9.52 (3/8)
	Gas	Outer Dia.	mm(inch)	Ø 15.88 (5/8)
Piping Length		Max.	m (ft)	75 (246.1)
Maximum Height Difference	Outdoor Unit ~ Indoor Unit	Max.	m (ft)	30 (98.4)
Operation Range (Outdoor Temperature)	Cooling	Min. ~ Max.	°C DB (°F DB)	-15 (5.0) ~ 48 (118.4)
	Heating	Min. ~ Max.	°C WB (°F WB)	-18 (-0.4) ~ 18 (64.4)

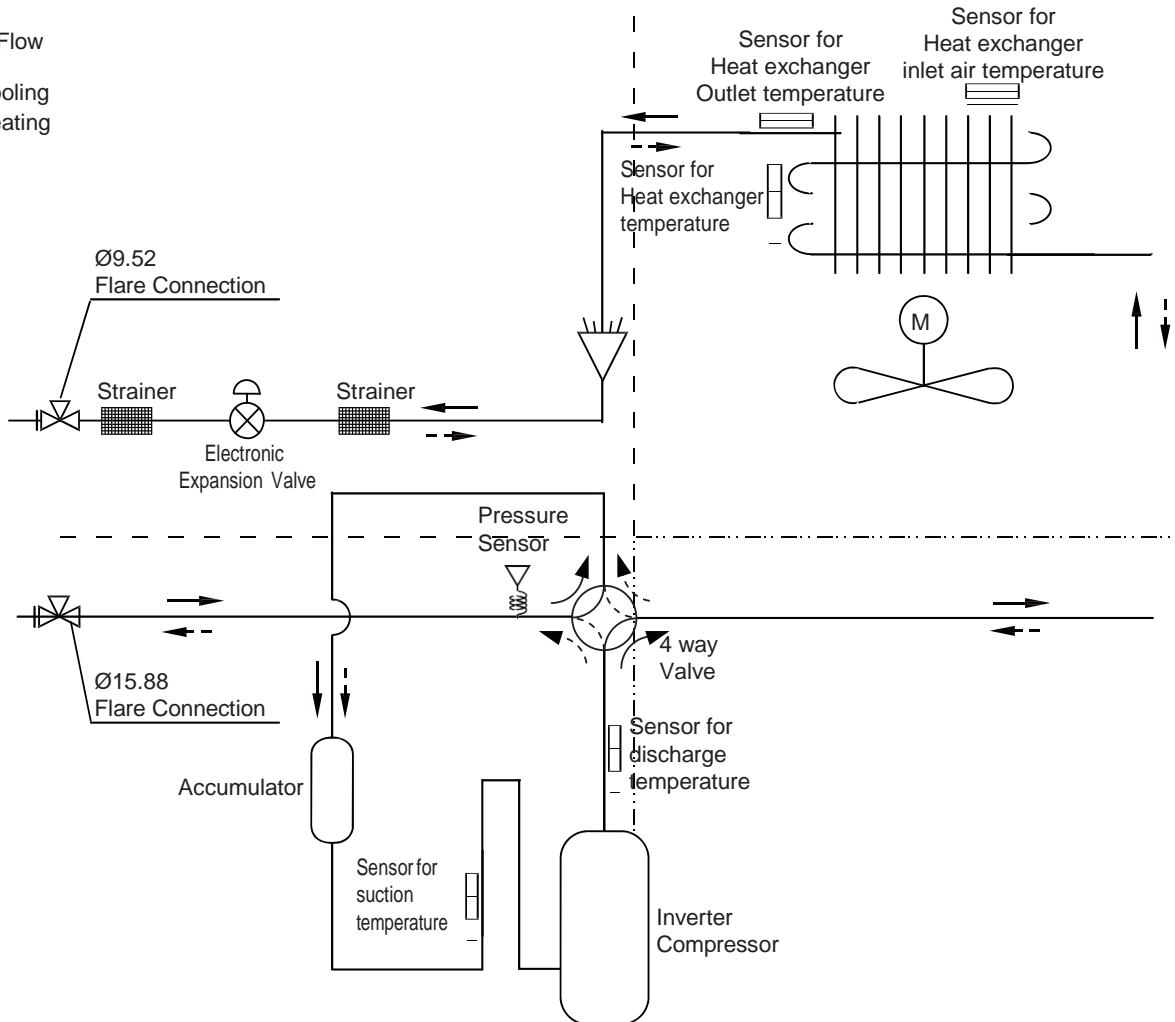
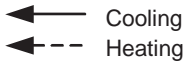
Note:

- All data are based on the following conditions:
 - Cooling Temperature : Indoor 26.7°C(80°F) DB / 19.4°C(67°F) WB
Outdoor 35°C(95°F) DB / 23.9°C(75°F) WB
 - Heating Temperature : Indoor 21.1°C(70°F) DB / 15.6°C(60°F) WB
Outdoor 8.33°C(47°F) DB / 6.11°C(43°F) WB
 - Piping Length : Interconnected Pipe Length = 7.5m
 - Difference Limit of Elevation (Outdoor ~ Indoor Unit) is Zero.
- Wiring cable size must comply with the applicable local and national code.
- Due to our policy of innovation some specifications may be changed without notification.
- Sound Level Values are measured at Anechoic chamber.
Therefore, these values can be increased (maximum 3dB(A)) owing to ambient conditions during operation.

2. Piping Diagrams

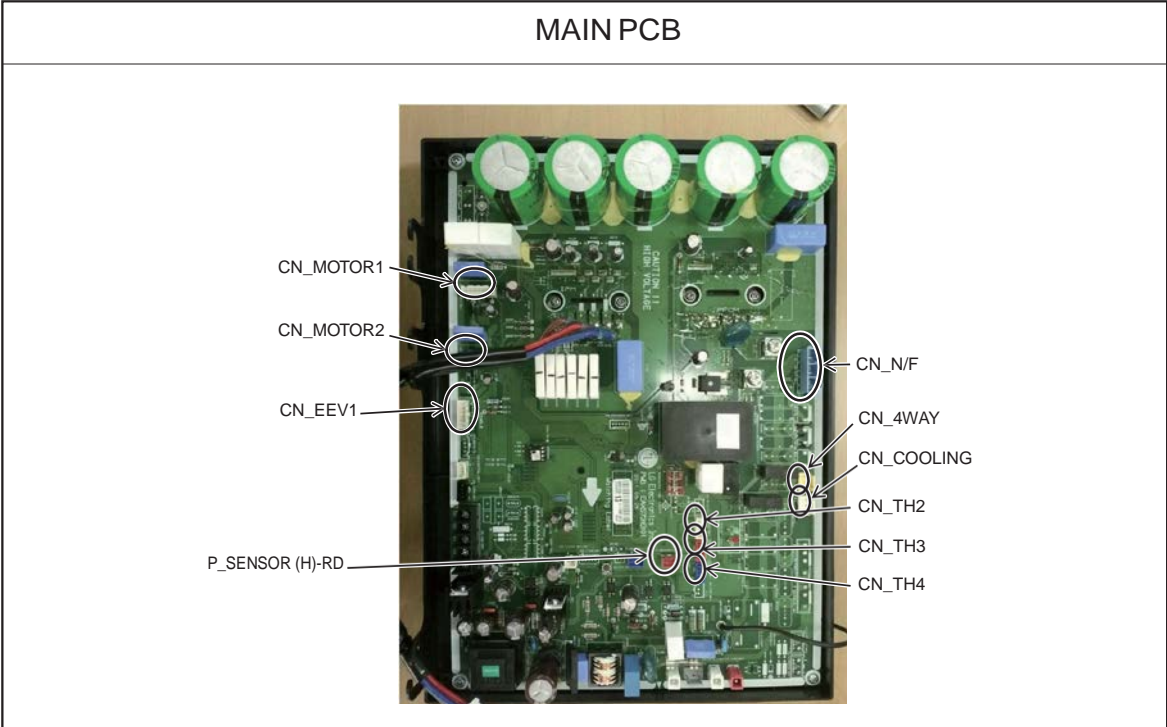
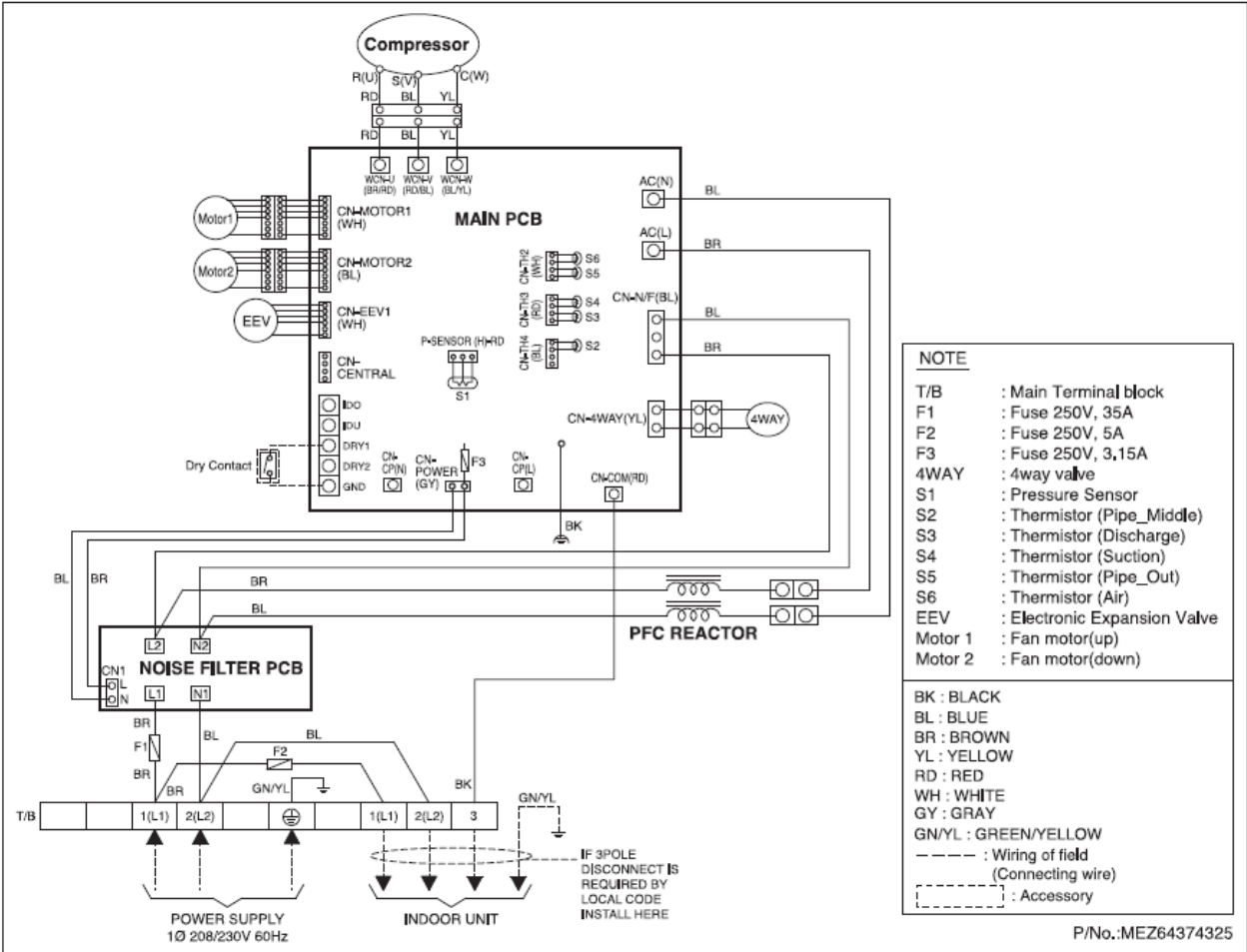
Outdoor Unit

Refrigerant Flow

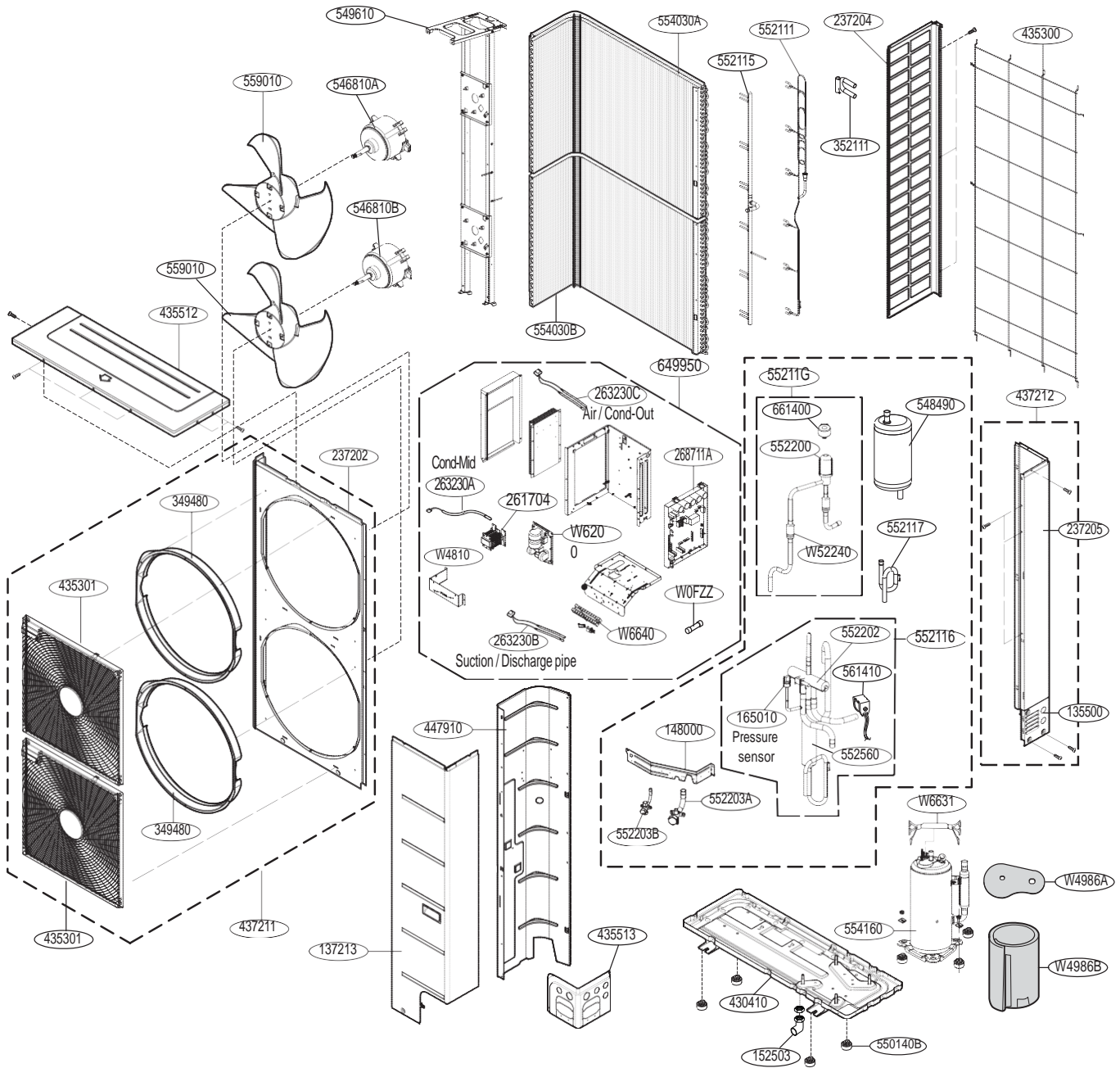


Description	PCB Connector
Sensor for suction temperature	CN_TH3
Sensor for discharge temperature	
Sensor for Heat exchanger inlet air temperature	CN_TH2
Sen for Heat exchanger inlet air temperature	
Sensor for Heat exchanger temperature	CN_TH4
Pressure Sensor	P-SENSOR(H)

3. Wiring Diagrams



4. Exploded View



Location No.	Description	Sensor Information	Housing Color
263230A	Thermistor S2(CN-TH4)	Cond-Mid	Blue
263230B	Thermistor S4/S3(CN-TH3)	Suction /Discharge pipe	Red
263230C	Thermistor S6/S5(CN-TH2)	Air / Cond-Out	White
165010	Pressure sensor(P-SENSOR (H)-RD)	Pressure Sensor	Red

Model: MR36UY3J

Loc No.	Description	Friedrich Part #
548490	Accumulator Assembly	67600102
447910	Barrier Assembly, Outdoor	67600303
430410	Base Assembly, Outdoor	67600600
W4810	Bracket Assembly	67600706
549610	Bracket Assembly, Motor(Outdoor)	67600709
649950	Case Assembly, Control(Outdoor)	67600927
661400	Coil	67601100
554160	Compressor Set, Korea	67601203
554030A	Condenser Assembly, First	67601309
554030B	Condenser Assembly, First	67601310
W6640	Connector, Terminal Block	67601400
135500	Cover	67601503
435512	Cover Assembly, Top(Outdoor)	67601612
435513	Cover Assembly, Tubing	67601615
550140B	Damper, Compressor	67601701
561410	Drawing, Assembly	67601904
559010	Fan, Propeller	67602117
W6200	Filter, AC Line	67602203
W0FZZ	Fuse, Time Delay	67602301
W4986A	Gasket	67602409
W4986B	Gasket	67602410
435301	Grille, Discharge	67602511
435300	Grille, Rear	67602516
W6631	Harness, Multi	67602600
546810B	Motor Assembly, DC	67603303
546810A	Motor Assembly, DC, Indoor	67603308
546810A	Motor Assembly, DC, Outdoor	67603314
552560	Muffler	67603401
152503	Nipple, Drain	67603500
349480	Orifice	67603602
437211	Panel Assembly, Front(Outdoor)	67603805
437212	Panel Assembly, Rear(Outdoor)	67603817
137213	Panel Assembly, Side	67603843
237202	Panel, Front	67603834
237205	Panel, Rear	67603839
237204	Panel, Side	67603841
268711A	PCB Assembly	67603902
165010	Sensor, Pressure	67607400
W52240	Strainer	67607500
148000	Supporter	67604602
263230C	Thermistor Assembly, NTC	67604804
263230A	Thermistor Assembly, NTC	67604812
263230B	Thermistor Assembly, NTC	67604814
261704	Transformer, Linear	67604900
352111	Tube Assembly	67605000
552111	Tube Assembly, Capillary	67605102
55211G	Tube Assembly, Expansion	67605900
552115	Tube Assembly, Manifold(Outdoor)	67606011
552116	Tube Assembly, Reverse	67606109
552117	Tube Assembly, Suction(Outdoor)	67606200
552200	Valve, Expansion Body	67606303
552202	Valve, Reverse	67606400
552203A	Valve, Service	67606514
552203B	Valve, Service	67606511



FRIEDRICH

Friedrich Air Conditioning Co. | 10001 Reunion Place, Suite 500 | San Antonio, TX 78216 | 877.599.5665
www.friedrich.com