

1. Models Line Up

1.1 Indoor Unit

Category	Picture	Chassis	Nominal Capacity (kBtu/h)	Model Name
Standard		SJ	12	EZ09CYN.CSJ1 (S3NM09JA3FD.EC6GEEU)
Standard		SJ	12	EZ09CSN.CSJ1 (S3NM09JAWFD.EC6GEEU)
Standard		SK	24	EZ24CYN.CSK1 (S3NM24K23FD.EC6GEEU)
Standard		SK	12	EZ18CYN.CSK1 (S3NM18KL3FD.EC6GEEU)
Standard		SK	24	EZ24CSN.CSK1 (S3NM24K2WFD.EC6GEEU)
Standard		SK	12	EZ18CSN.CSK1 (S3NM18KLWFD.EC6GEEU)
Standard		SJ	12	EZ12CYN.CSJ1 (S3NM12JA3FD.EC6GEEU)
Standard		SJ	12	EZ12CSN.CSJ1 (S3NM12JAWFD.EC6GEEU)

1. Models Line Up

1.2 Outdoor Unit

Power Supply	Picture	Chassis	Nominal Capacity (kBtu/h)	Model Name
1 Ø , 220~240 V , 50 Hz		U12A	12	EZ09CYU.CA31 (S3UM09JA3FD.EC6GEEU)
1 Ø , 220~240 V , 50 Hz		U12A	12	EZ09CSU.CA31 (S3UM09JAWFD.EC6GEEU)
1 Ø , 220~240 V , 50 Hz		U24A	24	EZ24CYU.C241 (S3UM24K23FD.EC6GEEU)
1 Ø , 220~240 V , 50 Hz		U18A	12	EZ18CYU.CL21 (S3UM18KL3FD.EC6GEEU)
1 Ø , 220~240 V , 50 Hz		U24A	24	EZ24CSU.C241 (S3UM24K2WFD.EC6GEEU)
1 Ø , 220~240 V , 50 Hz		U18A	12	EZ18CSU.CL21 (S3UM18KLWFD.EC6GEEU)
1 Ø , 220~240 V , 50 Hz		U12A	12	EZ12CYU.CA31 (S3UM12JA3FD.EC6GEEU)
1 Ø , 220~240 V , 50 Hz		U12A	12	EZ12CSU.CA31 (S3UM12JAWFD.EC6GEEU)

3. Specifications

Buyer Model	Set (Indoor / Outdoor)		Unit	EZ12CYS.SSJ (EZ12CYN.CSJ1 / EZ12CYU.CA31)		
Factory Model				S3-M12JA3FD.EC6GEEU (S3NM12JA3FD.EC6GEEU / S3UM12JA3FD.EC6GEEU)		
Capacity	Cooling	Min ~ Rated ~ Max	kW	0.890	3.500	4.040
			Btu/h	3,039	11,950	13,794
			kJ/h	-	-	-
	Cooling (T3)	Min ~ Rated ~ Max	kW	-	-	-
			Btu/h	-	-	-
			kJ/h	-	-	-
	Heating	Min ~ Rated ~ Max	kW	0.890	3.710	5.100
			Btu/h	3,039	12,658	17,414
kJ/h			-	-	-	
Heating -7°C	Max	kW	-	3.000	-	
		W	200	1,080	1,400	
Power Input	Cooling	Min ~ Rated ~ Max	W	-	-	-
	Cooling (T3)	Min ~ Rated ~ Max	W	195	950	1,600
	Heating	Min ~ Rated ~ Max	W	1.10	4.70	6.00
Running Current	Cooling	Min ~ Rated ~ Max	A	-	-	-
	Cooling (T3)	Min ~ Rated ~ Max	A	-	-	-
	Heating	Min ~ Rated ~ Max	A	1.10	4.30	7.00
EER			WW	-	3.24	-
EER (T3)			(Btu/h)/W	-	11.06	-
SEER			(kJ/h)/W	-	-	-
SEER			WW	-	-	-
COP			(Btu/h)/W	-	-	-
COP			-	-	6.6	-
SCOP			WW	-	3.91	-
P design C / P design H			(Btu/h)/W	-	13.32	-
Energy Label Grade			(kJ/h)/W	-	-	-
Annual Energy Consumption			-	-	4	-
Weighted EER			kW	-	3.5 / 2.5	-
Power Supply			-	-	A++ / A+	-
Available Voltage Range			kWh/year	-	185.6 / 874.9	-
Power Factor			(Btu/h)/W	-	-	-
Moisture Removal			WW	-	-	-
Indoor	Air Flow Rate	Cooling, SH/ H/ M/ L	Ø, V, Hz	-	1, 220-240, 50	-
		Heating, SH/ H/ M/ L	V	-	187 ~ 276	-
	Sound Pressure Level	Cooling, SH/ H/ M/ L / SL	%	-	97.0 / 97.0	-
		Heating, SH/ H/ M/ L	l/h	-	1.30	-
	Sound Power Level	Net	m³/min	-	12.5 / 10.0 / 7.5 / 4.2	-
		Shipping	m³/min	-	13.0 / 10.0 / 7.2 / 5.6	-
	Dimensions (W × H × D)	Net	dB(A)	-	45 / 41 / 35 / 27 / 19	-
		Shipping	dB(A)	-	45 / 41 / 35 / 27	-
	Weight	Net	dB(A)	-	59	-
Shipping		dB(A)	-	837 x 308 x 189	-	
Outdoor	Exterior Color Code	Net	mm	-	892 x 381 x 240	-
		Shipping	mm	-	8.3	-
	Air Flow Rate	Net	kg	-	10.5	-
		Shipping	kg	-	Munsell 7.5BG 10/2 (RAL 9016)	-
	Fan Motor Speed	Cooling, Min ~ Max	-	-	27.0	-
		Heating, Min ~ Max	rpm	-	230 ~ 1000	-
	Sound Pressure Level	Cooling, Rated	rpm	-	230 ~ 1000	-
		Heating, Rated	dB(A)	-	48	-
	Sound Power Level	Cooling, Rated	dB(A)	-	50	-
		Heating, Rated	dB(A)	-	65	-
	Dimensions (W × H × D)	Net	mm	-	717 x 495 x 230	-
		Shipping	mm	-	837 x 536 x 317	-
	Weight	Net	kg	-	23.2	-
		Shipping	kg	-	24.7	-
	Max. Fuse Size	Net	A	-	15	-
		Shipping	A	-	Munsell 9.54Y 8.34/1.31 (RAL 9001)	-
Operation Range	Cooling	°C DB	-	-10 ~ 48	-	
	Heating	°C DB	-	-15 ~ 24	-	
	Heating	°C WB	-	-15 ~ 18	-	
Circuit Breaker			A	-	15	-
Power Supply to Unit			-	-	Outdoor	-
Power and Communication Cable			No. × mm²	-	4 x 1	-
Piping	Size	Liquid	mm	-	ø 6.35	-
		Gas	mm	-	ø 9.52	-
	Connections Method	Indoor / Outdoor	-	-	Flared / Flared	-
Drain Hose Size			O.D, I.D	mm	21.5, 16	-
Between Indoor & Outdoor	Piping Length	Min / Standard / Max	m	-	3 / 7.5 / 15	-
		No Charge	m	-	7.5	-
	Max. Elevation Difference	-	m	-	7	-
		Piping Connection Heat Insulation	-	-	-	Both liquid and gas pipes
Note • - : No Relation • All power supply and communication cables and circuit breaker must comply with applicable local and national codes. • Exterior color code is approximate value. • It is difficult to measure air flow rate of sleep because of small values. • Maximum heating capacity is for heating operation without any frost. • Fan motor speed could vary ±20 rpm according to the operating conditions. • It may cause reliability, performance, noise, and vibration problem, unless meeting the range of connecting pipe length. Keep the minimum piping length by making loops, although indoor unit and outdoor unit are close. • This product contains fluorinated greenhouse gases. • Some specifications may be changed without notifications due to our policy of innovation. • Test conditions are based on EN 14511 and EN 14825.						

3. Specifications

Buyer Model	Set (Indoor / Outdoor)		Unit	EZ12CYS.SSJ (EZ12CYN.CSJ1 / EZ12CYU.CA31)
Factory Model				S3-M12JA3FD.EC6GEEU (S3NM12JA3FD.EC6GEEU / S3UM12JA3FD.EC6GEEU)
Refrigerant	Type		-	R32
	Pre Charge		kg	0.700
	Additional Charge		g/m	20
	Control		-	Electronic Expansion Valve
	Global Warming Potential		-	675
	t-CO ₂ eq		-	0.473
Defrost Method			-	Reverse Cycle
Tool Code (Chassis)		Indoor / Outdoor	-	SJ / U12A
Compressor	Type		-	Twin Rotary
	Model		-	DST102MAA
	Motor Type		-	BLDC
	Oil Type / Maker		-	PVE (FW68D) / IDEMITSU
	Oil Charge		cc	280
	O.L.P. Name		-	-
	Manufacturer / Country of Origin		-	LG Electronics / China
Fan (Indoor)	Type		-	Cross Flow Fan
	Motor Output		W	30
Fan (Outdoor)	Type		-	Propeller Fan
	Motor Type		-	BLDC
	Motor Output		W	43
	Motor Insulation		-	Class E
	Motor Enclosure / Ingress Protection		-	TEAO / IPX4
Heat Exchanger	Evaporator	Material, Tube / Fin	-	Cu / Al
		(ø x Row x Column x FPI x L) x Qty.	#1	(ø7 x 2 x 15 x 21 x 616.8) x 1
		(ø x Row x Column x FPI x L) x Qty.	#2	-
		(ø x Row x Column x FPI x L) x Qty.	#3	-
		(ø x Row x Column x FPI x L) x Qty.	#4	-
		Corrosion Protection	-	PCM
	Condenser	Fin Type	-	Slit
		Material, Tube / Fin	-	Cu / Al
		(ø x Row x Column x FPI x L) x Qty.	#1	(ø7 x 2 x 22 x 18 x 667) x 1
		(ø x Row x Column x FPI x L) x Qty.	#2	-
		Corrosion Protection	-	Gold
Fin Type		-	Corrugate	
Note • - : No Relation • All power supply and communication cables and circuit breaker must comply with applicable local and national codes. • Exterior color code is approximate value. • It is difficult to measure air flow rate of sleep because of small values. • Maximum heating capacity is for heating operation without any frost. • Fan motor speed could vary ±20 rpm according to the operating conditions. • It may cause reliability, performance, noise, and vibration problem, unless meeting the range of connecting pipe length. Keep the minimum piping length by making loops, although indoor unit and outdoor unit are close. • This product contains fluorinated greenhouse gases. • Some specifications may be changed without notifications due to our policy of innovation. • Test conditions are based on EN 14511 and EN 14825.				

4. Function List

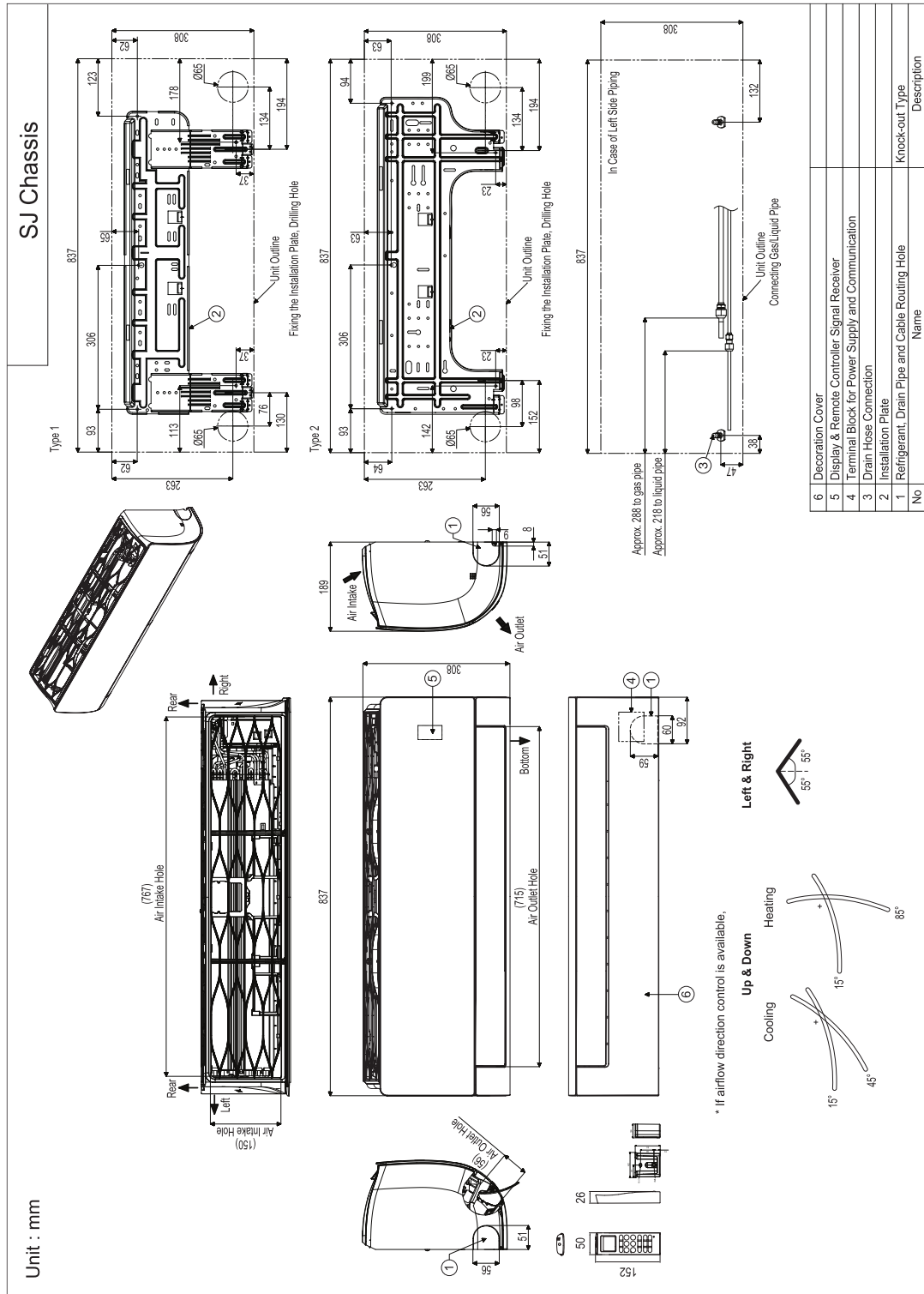
Category	Function	EZ12CYS.SSJ S3-M12JA3FD.EC6GEEU
Air Flow	Air Supply Outlet	1
	Airflow Direction Control (Left & Right)	5 Steps
	Airflow Direction Control (Up & Down)	6 Steps
	Auto Swing (Left & Right)	O
	Auto Swing (Up & Down)	O
	Fan Speed Steps (Fan / Cool / Heat)	6 / 6 / 6
	Natural Wind (Auto Wind)	O
	Jet Cool / Jet Heat (Power Wind)	O / O
Air Purifying	Comfort Air	O
	AI Air	X
	Prefilter (Washable)	O
	Fine Dust Filter(Micro Dust Filter)	X
	Ultra Fine Dust Filter / PM 1.0 Sensor	X / X
Installation	Allergy Filter	X
	Plasmaster Ionizer	X
Reliability	Drain Pump	X
	Hot Start	O
	Self Diagnosis	O
	De-ice Control (Defrost)	O
Convenience	Dry (Dehumidification) Operation	O
	Auto Changeover	O
	Auto Operation (Artificial Intelligence)	X
	Auto Cleaning (Coil Dry)	O
	Auto Restart Operation	O
	Child Lock ¹	O
	Forced Operation	O
	Group Control ¹	X
	Sleep Mode	12hr
	Timer 24hr (On/Off) / 7hr (Off)	O / O
	Timer (Weekly) ¹	O
	Two Thermistor Control ¹	O
	Low Ambient Operation	O
	Overheating Protection	O
	Low Heating	O
	Voice Control	X
	Outdoor Silent Mode	O
	Mosquito Away	X
	Smart Diagnosis	O
	Indoor Unit Display Type	Number Display
	Indoor Unit Display Light	On/Off
	Energy Display	O
	Air Quality Indicator (Dust Sensor)	X
	Sleep Timer+	X
	Comfort Humidity Control	X
Energy Saving	Energy Saving	X
	Energy Control	Active Energy Control
	Gen Mode	X
	AI kW Manager	O
Individual Control	Wired Remote Controller (Premium) ²	X
	Wired Remote Controller (Standard) ²	PQRCVSL0(QW) / PREMTB(0/B)01
	Wired Remote Controller (Simple with Mode Selection) ²	PQRCVCL0Q(W)
	Wired Remote Controller (Simple without Mode Selection) ²	PQRCHCA0Q(W)
	Handheld Wireless Controller (See Remote Controller Section)	AKB30086219
	Setting Temperature Range (Cooling)	16~30 °C (60~86 °F)
CAC Network Function	Setting Temperature Range (Heating)	16~30 °C (60~86 °F)
	General Central Controller (Non LGAP)	X
	Network Solution (LGAP)	O
	Dry Contact ²	PDRYCB000,PDRYCB100,PDRYCB400
	PDI (Power Distribution Indicator) ²	X
	Outdoor Unit PI 485 ²	X
Special Function Kit	Wi-Fi ²	Embedded
	Water Level Sensor Connection ²	X
	Wind Baffle Kit ²	X
	Sump Heater	X
	Sheath Heater ²	X
	Crank Case Heater	X
Others	Smart Inverter Monitoring System (SIMs) ²	PSWMOZ3
	Mode Lock	Cooling Only or Heating Only
	DRED (Demand Response Enabling Device)	X
Hygiene	UV Nano	X
	Heat Exchanger Cleaning (Freeze Cleaning)	X
	All Cleaning	X

Note

- O : Applied, X : Not applied
- Filters are optional in some specific areas.
- ¹ : This function can be operated only when the wired remote controller is connected. The applicability of each function depends on the above table.
- ² : Optional accessories must be purchased separately. If shown as "Embedded", this function is included in product.
- The function Wi-Fi is only compatible with 2.4 GHz band. (802.11 b/g/n)
- Some specifications may be changed without notifications due to our policy of innovation.

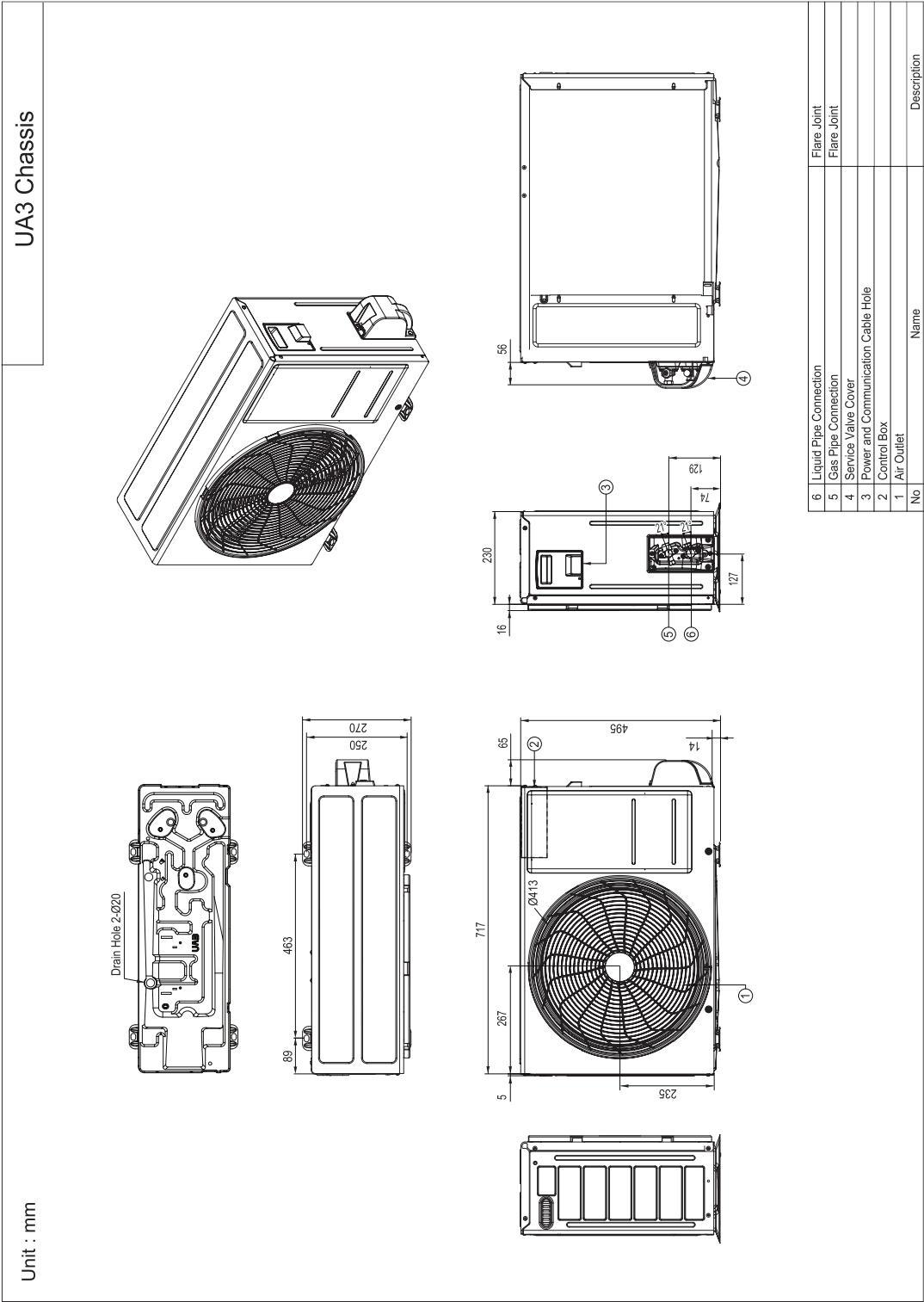
5. Dimensional Drawings

EZ12CYN.CSJ1 (S3NM12JA3FD.EC6GEEU)



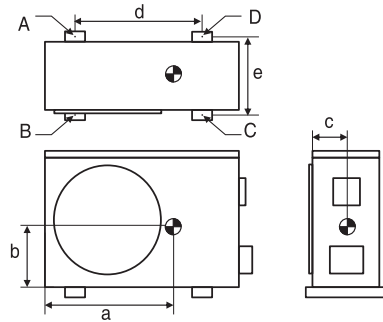
5. Dimensional Drawings

EZ12CYU.CA31 (S3UM12JA3FD.EC6GEEU)



5. Dimensional Drawings

5.3 Corner Weight and Center of Gravity Dimension for Outdoor Unit



Model	Tool	Weight (kg)		Center of Gravity (mm)			Leg (mm)		Corner Weight (kg)			
		Shipping	Net	a	b	c	d	e	A	B	C	D
EZ09CYU.CA31	U12A	24.7	23.2	475	219	113	463	256	1.7	2.2	9.9	9.4
EZ09CSU.CA31	U12A	24.7	23.2	475	219	113	463	256	1.7	2.2	9.9	9.4
EZ24CYU.C241	U24A	46.5	43.0	565	260	150	586	366	5.1	6.9	16.4	14.6
EZ18CYU.CL21	U18A	34.1	32.0	507	237	143	558	330	4.4	4.6	11.6	11.4
EZ24CSU.C241	U24A	46.5	43.0	565	260	150	586	366	5.1	6.9	16.4	14.6
EZ18CSU.CL21	U18A	34.1	32.0	507	237	143	558	330	4.4	4.6	11.6	11.4
EZ12CYU.CA31	U12A	24.7	23.2	475	219	113	463	256	1.7	2.2	9.9	9.4
EZ12CSU.CA31	U12A	24.7	23.2	475	219	113	463	256	1.7	2.2	9.9	9.4

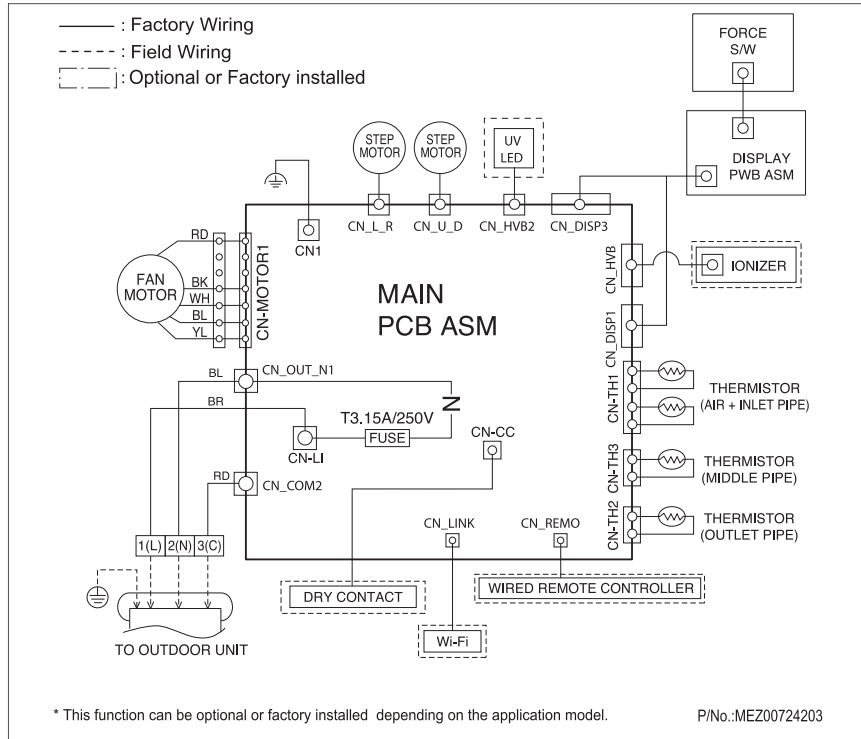
Model	Tool	Weight (lb.)		Center of Gravity (in.)			Leg (in.)		Corner Weight (lb.)			
		Shipping	Net	a	b	c	d	e	A	B	C	D
EZ09CYU.CA31	U12A	54.5	51.1	18-11/16	8-5/8	4-7/16	18-7/32	10-3/32	3.8	4.8	21.8	20.8
EZ09CSU.CA31	U12A	54.5	51.1	18-11/16	8-5/8	4-7/16	18-7/32	10-3/32	3.8	4.8	21.8	20.8
EZ24CYU.C241	U24A	102.5	94.8	22-1/4	10-1/4	5-29/32	23-1/16	14-13/32	11.2	15.3	36.2	32.1
EZ18CYU.CL21	U18A	75.2	70.5	19-31/32	9-11/32	5-5/8	21-31/32	13	9.7	10.1	25.6	25.1
EZ24CSU.C241	U24A	102.5	94.8	22-1/4	10-1/4	5-29/32	23-1/16	14-13/32	11.2	15.3	36.2	32.1
EZ18CSU.CL21	U18A	75.2	70.5	19-31/32	9-11/32	5-5/8	21-31/32	13	9.7	10.1	25.6	25.1
EZ12CYU.CA31	U12A	54.5	51.1	18-11/16	8-5/8	4-7/16	18-7/32	10-3/32	3.8	4.8	21.8	20.8
EZ12CSU.CA31	U12A	54.5	51.1	18-11/16	8-5/8	4-7/16	18-7/32	10-3/32	3.8	4.8	21.8	20.8

Note

- Design features and information of indoor and outdoor unit may be changed without notifications due to our policy of innovation.
- The center of gravity and corner weight may be different from the actual values because these are simulation results.

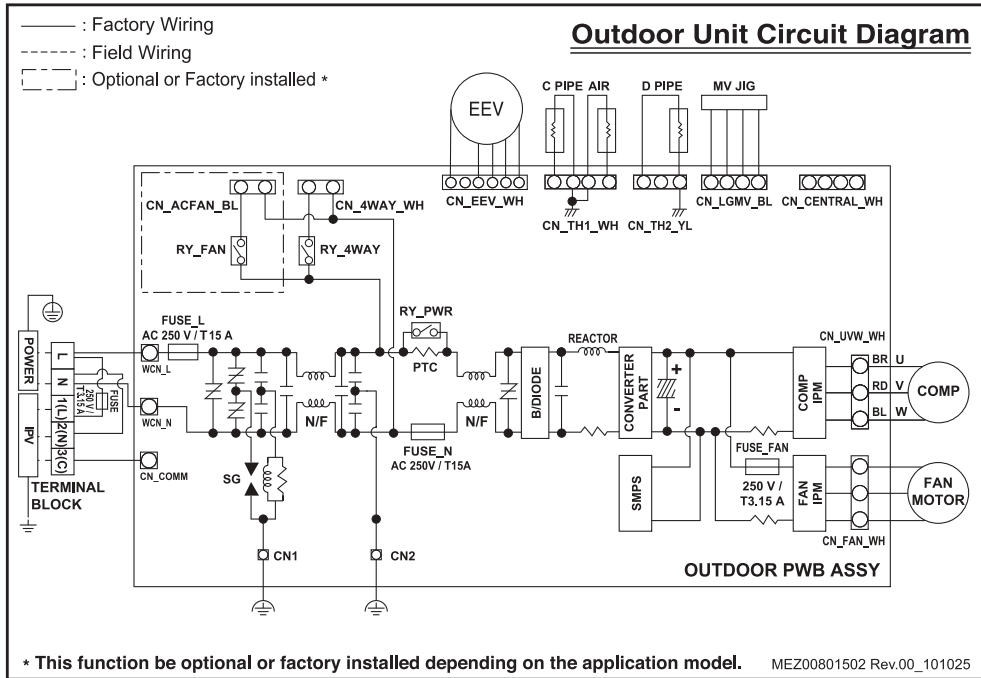
6. Wiring Diagrams

EZ12CYN.CSJ1 (S3NM12JA3FD.EC6GEEU)



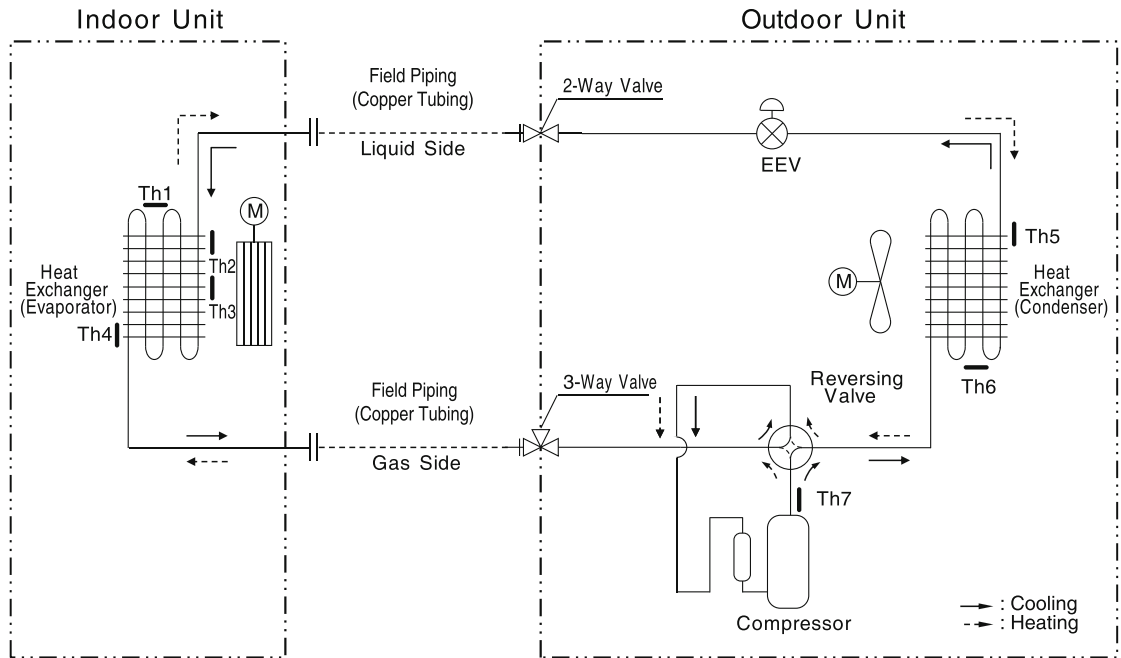
6. Wiring Diagrams

EZ12CYU.CA31 (S3UM12JA3FD.EC6GEEU)



7. Refrigerant Cycle Diagrams

EZ12CYS.SSJ (S3-M12JA3FD.EC6GEEU)



Loc.	Description	PCB Connector
Th1	Thermistor for indoor air temperature	CN-TH1 (Indoor)
Th2	Thermistor for evaporator inlet temperature	CN-TH1 (Indoor)
Th3	Thermistor for evaporator middle temperature	CN-TH3 (Indoor)
Th4	Thermistor for evaporator outlet temperature	CN-TH2 (Indoor)
Th5	Thermistor for outdoor air temperature	CN-TH1 (Outdoor)
Th6	Thermistor for condenser temperature	CN-TH1 (Outdoor)
Th7	Thermistor for discharge pipe temperature	CN-TH2 (Outdoor)

◆ Refrigerant Pipe Connection Port Diameters

Model	Gas		Liquid		Capillary Tube
	mm	inch	mm	inch	
EZ12CYS.SSJ	ø 9.52	ø 3/8	ø 6.35	ø 1/4	-

Appendix	Heat Exchanger	Propeller Fan	Cross Flow Fan	Compressor	Accumulator	Reversing Valve (4 Way Valve)
	EEV (Electronic Expansion Valve)	Capillary Tube	2-Way Valve 3-Way Valve	Temperature Sensor	Pressure Sensor	Pressure Switch
	Check Valve	Flare Joint	Muffler	Strainer		

9. Capacity Coefficient Factor

9.3 Additional Refrigerant Charge

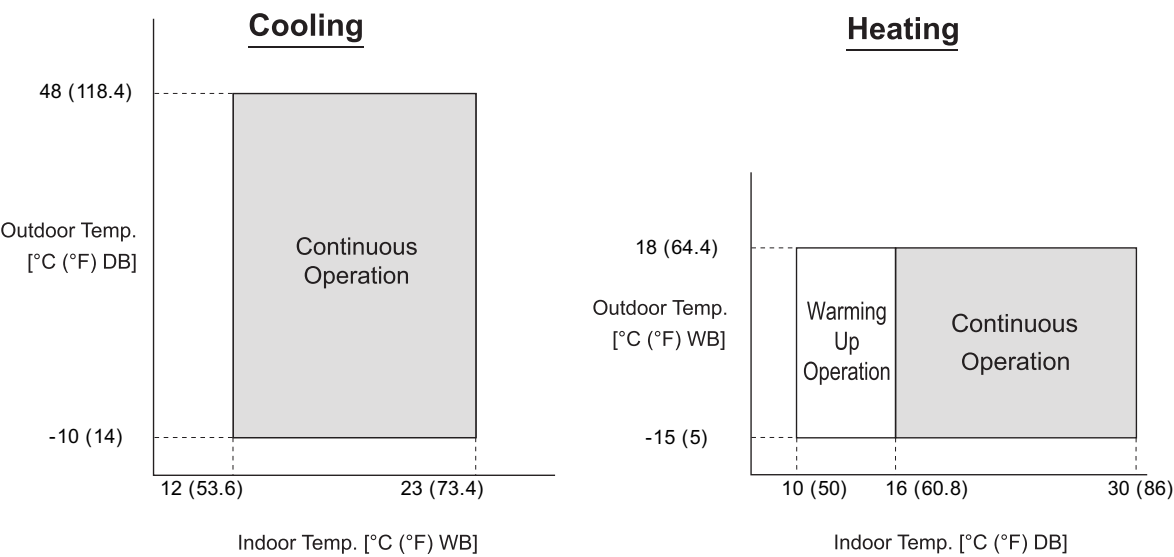
Model	Refrigerant Pipe Length												
	m	5	7.5	10	12.5	15	20	25	30	35	40	45	50
	ft	16.4	24.6	32.8	41.0	49.2	65.6	82.0	98.4	114.8	131.2	147.6	164.0
EZ09CYS.SSJ (S3-M09JA3FD.EC6GEEU)	Additional Charge [g (oz.)]	0	0	50 (1.8)	100 (3.6)	150 (5.4)	-	-	-	-	-	-	-
EZ09CSS.SSJ (S3-M09JAWFD.EC6GEEU)		0	0	50 (1.8)	100 (3.6)	150 (5.4)	-	-	-	-	-	-	-
EZ24CYS.SSK (S3-M24K23FD.EC6GEEU)		0	0	37.5 (1.3)	75 (2.6)	112.5 (3.9)	187.5 (6.6)	262.5 (9.2)	337.5 (11.8)	-	-	-	-
EZ18CYS.SSK (S3-M18KL3FD.EC6GEEU)		0	0	50 (1.8)	100 (3.6)	150 (5.4)	250 (9.0)	-	-	-	-	-	-
EZ24CSS.SSK (S3-M24K2WFD.EC6GEEU)		0	0	37.5 (1.3)	75 (2.6)	112.5 (3.9)	187.5 (6.6)	262.5 (9.2)	337.5 (11.8)	-	-	-	-
EZ18CSS.SSK (S3-M18KLWFD.EC6GEEU)		0	0	50 (1.8)	100 (3.6)	150 (5.4)	250 (9.0)	-	-	-	-	-	-
EZ12CYS.SSJ (S3-M12JA3FD.EC6GEEU)		0	0	50 (1.8)	100 (3.6)	150 (5.4)	-	-	-	-	-	-	-
EZ12CSS.SSJ (S3-M12JAWFD.EC6GEEU)		0	0	50 (1.8)	100 (3.6)	150 (5.4)	-	-	-	-	-	-	-

Note

- Capacity is based on standard length and maximum allowance length is on the basis of reliability.
- Equivalent Pipe Length = Actual Pipe Length + Number of Bends x 0.3
- Calculation : X g (oz.) = [(Refrigerant Pipe Length) - (No Charge Pipe Length)] × (Additional Refrigerant)
- There is no need to charge refrigerant till no charge pipe length based on reliability

10. Operation Range

EZ12CYS.SSJ (S3-M12JA3FD.EC6GEEU)



Note
The figures are based on the following conditions :
– Equivalent Piping Length : 7.5 m (24.6 ft.)
– Level Difference : 0 m (0 ft.)

14. Installation

14.8 Outdoor Unit Max External Static Pressure

Model	Tool	Air Flow Rate		Static Pressure	
		CMM	CFM	N / m ²	inWG
EZ09CYU.CA31	U12A	27	954	7.0760	0.0284
EZ09CSU.CA31	U12A	27	954	7.0760	0.0284
EZ24CYU.C241	U24A	49	1730	9.6388	0.0387
EZ18CYU.CL21	U18A	35	1236	9.2296	0.0371
EZ24CSU.C241	U24A	49	1730	9.6388	0.0387
EZ18CSU.CL21	U18A	35	1236	9.2296	0.0371
EZ12CYU.CA31	U12A	27	954	7.0760	0.0284
EZ12CSU.CA31	U12A	27	954	7.0760	0.0284