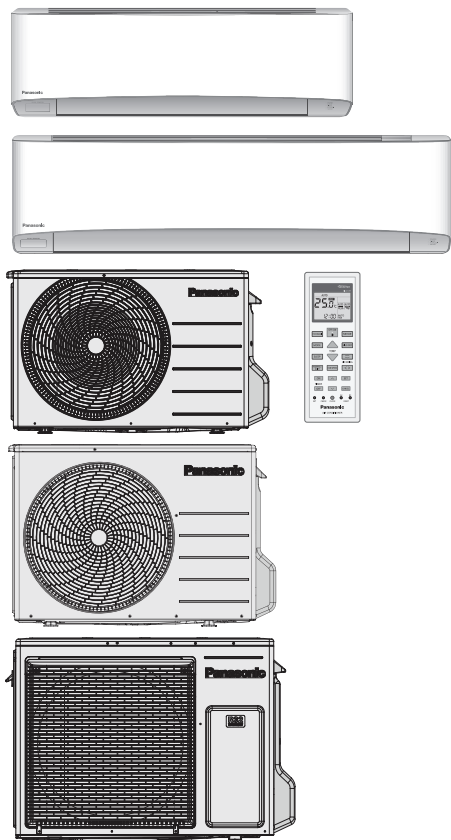


Service Manual

Air Conditioner



Indoor Unit
 CS-Z20TKEW
 CS-Z25TKEW
 CS-Z35TKEW
 CS-Z42TKEW
 CS-Z50TKEW
 CS-Z71TKEW
 CS-XZ20TKEW
 CS-XZ25TKEW
 CS-XZ35TKEW
 CS-XZ50TKEW

Outdoor Unit
 CU-Z20TKE
 CU-Z25TKE
 CU-Z35TKE
 CU-Z42TKE
 CU-Z50TKE
 CU-Z71TKE
 CU-Z20TKE
 CU-Z25TKE
 CU-Z35TKE
 CU-Z50TKE

Destination
 Europe
 Turkey

WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the products dealt with in this service information by anyone else could result in serious injury or death.

IMPORTANT SAFETY NOTICE

There are special components used in this equipment which are important for safety. These parts are marked by  in the Schematic Diagrams, Circuit Board Diagrams, Exploded Views and Replacement Parts List. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent shock, fire or other hazards. Do not modify the original design without permission of manufacturer.

PRECAUTION OF LOW TEMPERATURE

In order to avoid frostbite, be assured of no refrigerant leakage during the installation or repairing of refrigerant circuit.

CAUTION

R32 REFRIGERANT – This Air Conditioner contains and operates with refrigerant R32.

THIS PRODUCT MUST ONLY BE INSTALLED OR SERVICED BY QUALIFIED PERSONNEL.

Refer to Commonwealth, State, Territory and local legislation, regulations, codes, installation & operation manuals, before the installation, maintenance and/or service of this product.

⚠ CAUTION

Before performing any of the electrical installation works, please verify on which of the intended connection use. Generally there are 2 types of indoor-outdoor connections:

- Ⓐ Single Connection (Single Indoor Unit connects with Single Outdoor Unit)
- Ⓑ Multiple Connection (Multiple Indoor Unit connect with Single Outdoor Unit)

Both connections have different connecting methods. Any mismatch connections will result in malfunctions. The following illustration demonstrates the correct electrical works for both type.

Ⓐ (Single Connection)	Ⓑ (Multiple Connection)
Terminals on the outdoor unit Colour of wires (connection cable) Terminals on the indoor unit (Power supply cord) Terminals on the isolating devices (Disconnecting means)	Terminals on the outdoor unit Colour of wires (connection cable) Terminals on the indoor unit (Power supply cord) Terminals on the isolating devices (Disconnecting means) * Connection for multi inverter model (Outdoor power supply)
Please refer to the provided Installation Instructions for the detailed procedures for connecting cables to Indoor Unit.	

3. Specifications

Model			Indoor	CS-Z20TKEW / CS-XZ20TKEW			CS-Z25TKEW / CS-XZ25TKEW		
			Outdoor	CU-Z20TKE			CU-Z25TKE		
Performance Test Condition				EUROVENT			EUROVENT		
Power Supply			Phase, Hz	Single, 50			Single, 50		
			V	230			230		
				Min.	Mid.	Max.	Min.	Mid.	Max.
Cooling	Capacity		kW	0.75	2.05	2.40	0.85	2.50	3.20
			BTU/h	2560	6990	8180	2900	8530	10900
			Kcal/h	650	1760	2060	730	2150	2750
	Running Current		A	—	2.15	—	—	2.45	—
	Input Power		W	240	450	555	240	520	790
	Annual Consumption		kWh	—	225	—	—	260	—
	EER		W/W	3.13	4.56	4.32	3.54	4.81	4.05
			BTU/hW	10.67	15.53	14.74	12.08	16.40	13.80
			Kcal/hW	2.71	3.91	3.71	3.04	4.13	3.48
	ErP	Pdesign	kW	2.1			2.5		
		SEER	(W/W)	7.5			8.5		
		Annual Consumption	kWh	98			103		
		Class		A++			A+++		
	Power Factor		%	—	91	—	—	92	—
	Indoor Noise (H / L / QLo)		dB-A	37 / 24 / 19			39 / 25 / 19		
			Power Level dB	53 / —			55 / —		
	Outdoor Noise (H / L)		dB-A	45 / —			46 / —		
			Power Level dB	60 / —			61 / —		
Heating	Capacity		kW	0.70	2.80	4.00	0.80	3.40	5.00
			BTU/h	2390	9550	13600	2730	11600	17100
			Kcal/h	600	2410	3440	690	2920	4300
	Running Current		A	—	2.80	—	—	3.25	—
	Input Power		W	180	620	990	180	710	1.26k
	COP		W/W	3.89	4.52	4.04	4.44	4.79	3.97
			BTU/hW	13.28	15.40	13.74	15.17	16.34	13.57
			Kcal/hW	3.33	3.89	3.47	3.83	4.11	3.41
	ErP	Pdesign	kW	2.1			2.7		
		Tbivalent	°C	-10			-10		
		SCOP	(W/W)	4.7			5.1		
		Annual Consumption	kWh	626			741		
		Class		A++			A+++		
	Power Factor		%	—	96	—	—	95	—
	Indoor Noise (H / L / QLo)		dB-A	38 / 25 / 19			41 / 27 / 19		
			Power Level dB	54 / —			57 / —		
	Outdoor Noise (H / L)		dB-A	46 / —			47 / —		
			Power Level dB	61 / —			62 / —		
Low Temp. : Capacity (kW) / I.Power (W) / COP				2.90 / 870 / 3.33			3.62 / 1.12k / 3.23		
Extr Low Temp. : Capacity (kW) / I.Power (W) / COP				2.38 / 880 / 2.70			2.95 / 1.15k / 2.57		
Max Current (A) / Max Input Power (W)				4.40 / 990			5.6 / 1.26k		
Starting Current (A)				2.80			3.25		

Model				Indoor	CS-Z20TKEW / CS-XZ20TKEW	CS-Z25TKEW / CS-XZ25TKEW
				Outdoor	CU-Z20TKE	CU-Z25TKE
Compressor	Type				Hermetic Motor (Rotary)	Hermetic Motor (Rotary)
	Motor Type				Brushless (6 poles)	Brushless (4 poles)
	Output Power			W	650	700
Indoor Fan	Type				Cross-Flow Fan	Cross-Flow Fan
	Material				ASG20K1	ASG20K1
	Motor Type				DC / Transistor (8-poles)	DC / Transistor (8-poles)
	Input Power			W	44.9	44.9
	Output Power			W	40	40
	Speed	QLo	Cool	rpm	610	600
			Heat	rpm	610	620
		Lo	Cool	rpm	700	720
			Heat	rpm	780	860
		Me	Cool	rpm	880	930
			Heat	rpm	960	1080
		Hi	Cool	rpm	1060	1140
			Heat	rpm	1140	1300
		SHi	Cool	rpm	1090	1190
			Heat	rpm	1170	1350
Outdoor Fan	Type				Propeller Fan	Propeller Fan
	Material				PP	PP
	Motor Type				DC (8-poles)	DC (8-poles)
	Input Power			W	—	—
	Output Power			W	40	40
	Speed	Hi	Cool	rpm	780	820
			Heat	rpm	700	780
Moisture Removal				L/h (Pt/h)	1.3 (2.7)	1.5 (3.2)
Indoor Airflow	QLo	Cool	m³/min (ft³/min)	5.06 (179)	4.84 (171)	
		Heat	m³/min (ft³/min)	5.06 (179)	5.03 (178)	
	Lo	Cool	m³/min (ft³/min)	6.03 (213)	5.98 (211)	
		Heat	m³/min (ft³/min)	6.90 (244)	7.31 (258)	
	Me	Cool	m³/min (ft³/min)	7.98 (282)	7.97 (281)	
		Heat	m³/min (ft³/min)	8.84 (312)	9.40 (332)	
	Hi	Cool	m³/min (ft³/min)	9.90 (350)	10.00 (355)	
		Heat	m³/min (ft³/min)	10.80 (380)	11.50 (405)	
	SHi	Cool	m³/min (ft³/min)	10.24 (362)	10.44 (369)	
		Heat	m³/min (ft³/min)	11.11 (392)	11.96 (422)	
Outdoor Airflow	Hi	Cool	m³/min (ft³/min)	26.9 (950)	28.7 (1015)	
		Heat	m³/min (ft³/min)	26.9 (950)	28.7 (1015)	
Refrigeration Cycle	Control Device			Expansion Valve	Expansion Valve	
	Refrigerant Oil		cm³	FW50S (320)	FW50S (320)	
	Refrigerant Type		g (oz)	R32, 760 (26.8)	R32, 850 (30.0)	
F-Gas	GWP			675	675	
	CO2eq (ton) (Precharged Amount / Maximum Charged Amount)			0.513 / 0.564	0.574 / 0.624	
Dimension	Height (I/D / O/D)		mm (inch)	295 (11-5/8) / 542 (21-11/32)	295 (11-5/8) / 542 (21-11/32)	
	Width (I/D / O/D)		mm (inch)	919 (36-3/16) / 780 (30-23/32)	919 (36-3/16) / 780 (30-23/32)	
	Depth (I/D / O/D)		mm (inch)	194 (7-21/32) / 289 (11-13/32)	194 (7-21/32) / 289 (11-13/32)	
Weight	Net (I/D / O/D)		kg (lb)	9 (20) / 30 (66)	10 (22) / 31 (68)	

Model		Indoor	CS-Z20TKEW / CS-XZ20TKEW		CS-Z25TKEW / CS-XZ25TKEW	
		Outdoor	CU-Z20TKE		CU-Z25TKE	
Piping	Pipe Diameter (Liquid / Gas)	mm (inch)	6.35 (1/4) / 9.52 (3/8)		6.35 (1/4) / 9.52 (3/8)	
	Standard length	m (ft)	5.0 (16.4)		5.0 (16.4)	
	Length range (min – max)	m (ft)	3 (9.8) ~ 15 (49.2)		3 (9.8) ~ 15 (49.2)	
	I/D & O/D Height different	m (ft)	15.0 (49.2)		15.0 (49.2)	
	Additional Gas Amount	g/m (oz/ft)	10 (0.1)		10 (0.1)	
	Length for Additional Gas	m (ft)	7.5 (24.6)		7.5 (24.6)	
Drain Hose	Inner Diameter	mm	16.7		16.7	
	Length	mm	650		650	
Indoor Heat Exchanger	Fin Material		Aluminium (Pre Coat)		Aluminium (Pre Coat)	
	Fin Type		Slit Fin		Slit Fin	
	Row × Stage × FPI		2 × 15 × 21		2 × 15 × 21	
	Size (W × H × L)	mm	610 × 315 × 25.4		610 × 315 × 25.4	
Outdoor Heat Exchanger	Fin Material		Aluminium		Aluminium	
	Fin Type		Corrugated Fin		Corrugated Fin	
	Row × Stage × FPI		2 × 24 × 17		2 × 24 × 19	
	Size (W × H × L)	mm	36.4 × 504 × 713:684		36.4 × 504 × 824.2:793.7	
Air Filter	Material		Polypropelene		Polypropelene	
	Type		One-touch		One-touch	
Power Supply			Indoor		Indoor	
Power Supply Cord		A	Nil		Nil	
Thermostat			Electronic Contol		Electronic Contol	
Protection Device			Electronic Contol		Electronic Contol	
			Dry Bulb	Wet Bulb	Dry Bulb	Wet Bulb
Indoor Operation Range	Cooling	Maximum °C	32	23	32	23
		Minimum °C	16	11	16	11
	Heating	Maximum °C	30	–	30	–
		Minimum °C	16	–	16	–
Outdoor Operation Range	Cooling	Maximum °C	43	26	43	26
		Minimum °C	-10	–	-10	–
	Heating	Maximum °C	24	18	24	18
		Minimum °C	-15	-16	-15	-16

- Cooling capacities are based on indoor temperature of 27°C Dry Bulb (80.6°F Dry Bulb), 19.0°C Wet Bulb (66.2°F Wet Bulb) and outdoor air temperature of 35°C DRY BULB (95°F Dry Bulb), 24°C Wet Bulb (75.2°F Wet Bulb).
- Heating capacities are based on indoor temperature of 20°C Dry Bulb (68°F Dry Bulb) and outdoor air temperature of 7°C Dry Bulb (44.6°F Dry Bulb), 6°C Wet Bulb (42.8°F Wet Bulb).
- Heating low temperature capacity, Input Power and COP measured at 230 V, indoor temperature 20°C, outdoor 2/1°C.
- Heating extreme low temperature capacity, Input Power and COP measured at 230 V, indoor temperature 20°C, outdoor -7/-8°C.
- Standby power consumption ≤10.0w (when switched OFF by remote control, except under self protection control).
- Specifications are subjected to change without prior notice for further improvement.

Model			Indoor	CS-Z35TKEW / CS-XZ35TKEW			CS-Z42TKEW			
			Outdoor	CU-Z35TKE			CU-Z42TKE			
Performance Test Condition				EUROVENT			EUROVENT			
Power Supply			Phase, Hz	Single, 50			Single, 50			
			V	230			230			
				Min.	Mid.	Max.	Min.	Mid.	Max.	
Cooling	Capacity		kW	0.85	3.50	4.00	0.85	4.20	5.00	
			BTU/h	2900	11900	13600	2900	14300	17100	
			Kcal/h	730	3010	3440	730	3610	4300	
	Running Current		A	—	3.85	—	—	5.50	—	
	Input Power		W	240	830	1.05k	260	1.24k	1.57k	
	Annual Consumption		kWh	—	415	—	—	620	—	
	EER		W/W	3.54	4.22	3.81	3.27	3.39	3.18	
			BTU/hW	12.08	14.34	12.95	11.15	11.53	10.89	
			Kcal/hW	3.04	3.63	3.28	2.81	2.91	2.74	
	ErP	Pdesign	kW	3.5			4.2			
		SEER	(W/W)	8.5			6.9			
		Annual Consumption	kWh	144			213			
		Class		A+++			A++			
	Power Factor		%	—	94	—	—	98	—	
	Indoor Noise (H / L / QLo)		dB-A	42 / 28 / 19			43 / 31 / 25			
			Power Level dB	58 / —			59 / —			
	Outdoor Noise (H / L)		dB-A	48 / —			49 / —			
			Power Level dB	63 / —			64 / —			
	Heating	Capacity		kW	0.80	4.00	5.80	0.80	5.30	6.80
				BTU/h	2730	13600	19800	2730	18100	23200
Kcal/h				690	3440	4990	690	4560	5850	
Running Current		A	—	4.20	—	—	6.40	—		
Input Power		W	180	900	1.50k	190	1.44k	1.94k		
COP		W/W	4.44	4.44	3.87	4.21	3.68	3.51		
		BTU/hW	15.17	15.11	13.20	14.37	12.57	11.96		
		Kcal/hW	3.83	3.82	3.33	3.63	3.17	3.02		
ErP		Pdesign	kW	3.2			3.6			
		Tbivalent	°C	-10			-10			
		SCOP	(W/W)	5.1			4.0			
		Annual Consumption	kWh	878			1260			
		Class		A+++			A+			
Power Factor		%	—	93	—	—	98	—		
Indoor Noise (H / L / QLo)		dB-A	43 / 33 / 19			43 / 35 / 29				
		Power Level dB	59 / —			59 / —				
Outdoor Noise (H / L)		dB-A	50 / —			51 / —				
		Power Level dB	65 / —			66 / —				
Low Temp. : Capacity (kW) / I.Power (W) / COP				4.20 / 1.33k / 3.16			4.93 / 1.72k / 2.87			
Extr Low Temp. : Capacity (kW) / I.Power (W) / COP				3.40 / 1.38k / 2.46			4.11 / 1.73k / 2.38			
Max Current (A) / Max Input Power (W)				7.8 / 1.50k			8.5 / 1.94k			
Starting Current (A)				4.20			6.40			

Model				Indoor	CS-Z35TKEW / CS-XZ35TKEW	CS-Z42TKEW
				Outdoor	CU-Z35TKE	CU-Z42TKE
Compressor	Type				Hermetic Motor (Rotary)	Hermetic Motor (Rotary)
	Motor Type				Brushless (4 poles)	Brushless (6 poles)
	Output Power			W	700	700
Indoor Fan	Type				Cross-Flow Fan	Cross-Flow Fan
	Material				ASG20K1	ASG20K1
	Motor Type				DC / Transistor (8-poles)	DC / Transistor (8-poles)
	Input Power			W	44.9	44.9
	Output Power			W	40	40
	Speed	QLo	Cool	rpm	600	720
			Heat	rpm	620	890
		Lo	Cool	rpm	800	870
			Heat	rpm	1020	1080
		Me	Cool	rpm	1010	1070
			Heat	rpm	1210	1220
		Hi	Cool	rpm	1220	1270
			Heat	rpm	1400	1370
		SHi	Cool	rpm	1270	1320
			Heat	rpm	1450	1420
Outdoor Fan	Type				Propeller Fan	Propeller Fan
	Material				PP	PP
	Motor Type				DC (8-poles)	DC (8-poles)
	Input Power			W	—	—
	Output Power			W	40	40
	Speed	Hi	Cool	rpm	870	900
			Heat	rpm	890	910
Moisture Removal				L/h (Pt/h)	2.0 (4.2)	2.4 (5.1)
Indoor Airflow	QLo	Cool	m³/min (ft³/min)	4.84 (171)	5.98 (211)	
		Heat	m³/min (ft³/min)	5.03 (178)	7.59 (268)	
	Lo	Cool	m³/min (ft³/min)	6.74 (238)	7.40 (261)	
		Heat	m³/min (ft³/min)	8.83 (312)	9.40 (332)	
	Me	Cool	m³/min (ft³/min)	8.73 (308)	9.30 (328)	
		Heat	m³/min (ft³/min)	10.63 (375)	10.73 (379)	
	Hi	Cool	m³/min (ft³/min)	10.70 (380)	11.20 (395)	
		Heat	m³/min (ft³/min)	12.40 (440)	12.30 (435)	
	SHi	Cool	m³/min (ft³/min)	11.20 (396)	11.68 (412)	
		Heat	m³/min (ft³/min)	12.91 (456)	12.63 (446)	
Outdoor Airflow	Hi	Cool	m³/min (ft³/min)	34.4 (1215)	33.3 (1175)	
		Heat	m³/min (ft³/min)	35.6 (1255)	33.7 (1190)	
Refrigeration Cycle	Control Device			Expansion Valve	Expansion Valve	
	Refrigerant Oil		cm³	FW50S (320)	FW50S (320)	
	Refrigerant Type		g (oz)	R32, 910 (32.1)	R32, 870 (30.7)	
F-Gas	GWP			675	675	
	CO2eq (ton) (Precharged Amount / Maximum Charged Amount)			0.614 / 0.665	0.587 / 0.638	
Dimension	Height (I/D / O/D)		mm (inch)	295 (11-5/8) / 619 (24-3/8)	295 (11-5/8) / 619 (24-3/8)	
	Width (I/D / O/D)		mm (inch)	919 (36-3/16) / 824 (32-15/32)	919 (36-3/16) / 824 (32-15/32)	
	Depth (I/D / O/D)		mm (inch)	194 (7-21/32) / 299 (11-25/32)	194 (7-21/32) / 299 (11-25/32)	
Weight	Net (I/D / O/D)		kg (lb)	10 (22) / 34 (75)	10 (22) / 32 (71)	

Model		Indoor	CS-Z35TKEW / CS-XZ35TKEW		CS-Z42TKEW	
		Outdoor	CU-Z35TKE		CU-Z42TKE	
Piping	Pipe Diameter (Liquid / Gas)	mm (inch)	6.35 (1/4) / 9.52 (3/8)		6.35 (1/4) / 12.70 (1/2)	
	Standard length	m (ft)	5.0 (16.4)		5.0 (16.4)	
	Length range (min – max)	m (ft)	3 (9.8) ~ 15 (49.2)		3 (9.8) ~ 15 (49.2)	
	I/D & O/D Height different	m (ft)	15.0 (49.2)		15.0 (49.2)	
	Additional Gas Amount	g/m (oz/ft)	10 (0.1)		10 (0.1)	
	Length for Additional Gas	m (ft)	7.5 (24.6)		7.5 (24.6)	
Drain Hose	Inner Diameter	mm	16.7		16.7	
	Length	mm	650		650	
Indoor Heat Exchanger	Fin Material		Aluminium (Pre Coat)		Aluminium (Pre Coat)	
	Fin Type		Slit Fin		Slit Fin	
	Row × Stage × FPI		2 × 15 × 21		2 × 15 × 21	
	Size (W × H × L)	mm	610 × 315 × 25.4		610 × 315 × 25.4	
Outdoor Heat Exchanger	Fin Material		Aluminium		Aluminium	
	Fin Type		Corrugated Fin		Corrugated Fin	
	Row × Stage × FPI		2 × 28 × 17		2 × 28 × 17	
	Size (W × H × L)	mm	36.38 × 588 × 856.3:827.7		36.38 × 588 × 606.6	
Air Filter	Material		Polypropelene		Polypropelene	
	Type		One-touch		One-touch	
Power Supply			Indoor		Indoor	
Power Supply Cord		A	Nil		Nil	
Thermostat			Electronic Contol		Electronic Contol	
Protection Device			Electronic Contol		Electronic Contol	
			Dry Bulb	Wet Bulb	Dry Bulb	Wet Bulb
Indoor Operation Range	Cooling	Maximum °C	32	23	32	23
		Minimum °C	16	11	16	11
	Heating	Maximum °C	30	–	30	–
		Minimum °C	16	–	16	–
Outdoor Operation Range	Cooling	Maximum °C	43	26	43	26
		Minimum °C	-10	–	-10	–
	Heating	Maximum °C	24	18	24	18
		Minimum °C	-15	-16	-15	-16

1. Cooling capacities are based on indoor temperature of 27°C Dry Bulb (80.6°F Dry Bulb), 19.0°C Wet Bulb (66.2°F Wet Bulb) and outdoor air temperature of 35°C DRY BULB (95°F Dry Bulb), 24°C Wet Bulb (75.2°F Wet Bulb).
2. Heating capacities are based on indoor temperature of 20°C Dry Bulb (68°F Dry Bulb) and outdoor air temperature of 7°C Dry Bulb (44.6°F Dry Bulb), 6°C Wet Bulb (42.8°F Wet Bulb).
3. Heating low temperature capacity, Input Power and COP measured at 230 V, indoor temperature 20°C, outdoor 2/1°C.
4. Heating extreme low temperature capacity, Input Power and COP measured at 230 V, indoor temperature 20°C, outdoor -7/-8°C.
5. Standby power consumption ≤10.0w (when switched OFF by remote control, except under self protection control).
6. Specifications are subjected to change without prior notice for further improvement.

Model			Indoor	CS-Z50TKEW / CS-XZ50TKEW			CS-Z71TKEW		
			Outdoor	CU-Z50TKE			CU-Z71TKE		
Performance Test Condition				EUROVENT			EUROVENT		
Power Supply			Phase, Hz	Single, 50			Single, 50		
			V	230			230		
				Min.	Mid.	Max.	Min.	Mid.	Max.
Cooling	Capacity		kW	0.98	5.00	6.00	0.98	7.10	8.50
			BTU/h	3340	17100	20500	3340	24200	29000
			Kcal/h	840	4300	5160	840	6110	7310
	Running Current		A	—	6.30	—	—	9.70	—
	Input Power		W	280	1.41k	1.95k	420	2.17k	2.90k
	Annual Consumption		kWh	—	705	—	—	1085	—
	EER		W/W	3.50	3.55	3.08	2.33	3.27	2.93
			BTU/hW	11.93	12.13	10.51	7.95	11.15	10.00
			Kcal/hW	3.00	3.05	2.65	2.00	2.82	2.52
	ErP	Pdesign	kW	5.0			7.1		
		SEER	(W/W)	7.9			6.5		
		Annual Consumption	kWh	222			382		
		Class		A++			A++		
	Power Factor		%	—	97	—	—	97	—
	Indoor Noise (H / L / QLo)		dB-A	44 / 37 / 30			47 / 38 / 30		
			Power Level dB	60 / —			63 / —		
	Outdoor Noise (H / L)		dB-A	47 / —			52 / —		
			Power Level dB	62 / —			66 / —		
Heating	Capacity		kW	0.98	5.80	8.00	0.98	8.60	10.20
			BTU/h	3340	19800	27300	3340	29300	34800
			Kcal/h	840	4990	6880	840	7400	8770
	Running Current		A	—	6.50	—	—	10.30	—
	Input Power		W	340	1.44k	2.53k	400	2.35k	2.95k
	COP		W/W	2.88	4.03	3.16	2.45	3.66	3.46
			BTU/hW	9.82	13.75	10.79	8.35	12.47	11.80
			Kcal/hW	2.47	3.47	2.72	2.10	3.15	2.97
	ErP	Pdesign	kW	4.2			5.5		
		Tbivalent	°C	-10			-10		
		SCOP	(W/W)	4.7			4.2		
		Annual Consumption	kWh	1251			1833		
		Class		A++			A+		
	Power Factor		%	—	96	—	—	99	—
	Indoor Noise (H / L / QLo)		dB-A	44 / 37 / 30			47 / 38 / 30		
			Power Level dB	60 / —			63 / —		
	Outdoor Noise (H / L)		dB-A	47 / —			54 / —		
			Power Level dB	62 / —			68 / —		
Low Temp. : Capacity (kW) / I.Power (W) / COP				5.80 / 2.24k / 2.59			7.39 / 2.52k / 2.93		
Extr Low Temp. : Capacity (kW) / I.Power (W) / COP				4.80 / 2.10k / 2.29			6.31 / 2.50k / 2.52		
Max Current (A) / Max Input Power (W)				11.1 / 2.53k			15.6 / 3.38k		
Starting Current (A)				6.50			10.30		

Model				Indoor	CS-Z50TKEW / CS-XZ50TKEW		CS-Z71TKEW	
				Outdoor	CU-Z50TKE		CU-Z71TKE	
Compressor		Type			Hermetic Motor (Rotary)		Hermetic Motor (Rotary)	
		Motor Type			Brushless (4 poles)		Brushless (4 poles)	
		Output Power		W	900		1.70k	
Indoor Fan	Type				Cross-Flow Fan		Cross-Flow Fan	
	Material				ASG33		ASG33	
	Motor Type				DC / Transistor (8-poles)		DC / Transistor (8-poles)	
	Input Power			W	89.0		105.0	
	Output Power			W	40		40	
	Speed	QLo	Cool	rpm	730		800	
			Heat	rpm	760		800	
		Lo	Cool	rpm	900		950	
			Heat	rpm	950		980	
		Me	Cool	rpm	1000		1080	
			Heat	rpm	1080		1140	
		Hi	Cool	rpm	1100		1210	
			Heat	rpm	1210		1300	
		SHi	Cool	rpm	1150		1320	
			Heat	rpm	1260		1400	
Outdoor Fan	Type				Propeller Fan		Propeller Fan	
	Material				PP		PP	
	Motor Type				DC (8-poles)		DC (8-poles)	
	Input Power			W	—		—	
	Output Power			W	40		40	
	Speed	Hi	Cool	rpm	720		820	
			Heat	rpm	700		880	
Moisture Removal				L/h (Pt/h)	2.8 (5.9)		4.1 (8.7)	
Indoor Airflow		QLo	Cool	m³/min (ft³/min)	11.89 (420)		12.09 (427)	
			Heat	m³/min (ft³/min)	12.48 (441)		12.09 (427)	
		Lo	Cool	m³/min (ft³/min)	15.24 (538)		14.91 (527)	
			Heat	m³/min (ft³/min)	16.23 (573)		15.47 (546)	
		Me	Cool	m³/min (ft³/min)	17.21 (608)		17.35 (613)	
			Heat	m³/min (ft³/min)	18.79 (664)		18.48 (653)	
		Hi	Cool	m³/min (ft³/min)	19.20 (680)		19.80 (700)	
			Heat	m³/min (ft³/min)	21.30 (750)		21.50 (760)	
		SHi	Cool	m³/min (ft³/min)	20.17 (712)		21.87 (772)	
Heat	m³/min (ft³/min)		22.33 (789)		23.37 (825)			
Outdoor Airflow		Hi	Cool	m³/min (ft³/min)	39.7 (1400)		44.70 (1580)	
			Heat	m³/min (ft³/min)	38.6 (1365)		45.80 (1615)	
Refrigeration Cycle		Control Device			Expansion Valve		Expansion Valve	
		Refrigerant Oil		cm³	FW50S (450)		FW50S (800)	
		Refrigerant Type		g (oz)	R32, 1.11k (39.2)		R32, 1.37k (48.4)	
F-Gas		GWP			675		675	
		CO2eq (ton) (Precharged Amount / Maximum Charged Amount)			0.749 / 0.876		0.925 / 1.262	
Dimension		Height (I/D / O/D)		mm (inch)	302 (11-29/32) / 695 (27-3/8)		302 (11-29/32) / 695 (27-3/8)	
		Width (I/D / O/D)		mm (inch)	1120 (44-1/8) / 875 (34-15/32)		1120 (44-1/8) / 875 (34-15/32)	
		Depth (I/D / O/D)		mm (inch)	236 (9-5/16) / 320 (12-5/8)		236 (9-5/16) / 320 (12-5/8)	
Weight		Net (I/D / O/D)		kg (lb)	12 (26) / 42 (93)		13 (29) / 49 (108)	

Model		Indoor	CS-Z50TKEW / CS-XZ50TKEW		CS-Z71TKEW	
		Outdoor	CU-Z50TKE		CU-Z71TKE	
Piping	Pipe Diameter (Liquid / Gas)	mm (inch)	6.35 (1/4) / 12.70 (1/2)		6.35 (1/4) / 15.88 (5/8)	
	Standard length	m (ft)	5.0 (16.4)		5.0 (16.4)	
	Length range (min – max)	m (ft)	3 (9.8) ~ 20 (65.6)		3 (9.8) ~ 30 (98.4)	
	I/D & O/D Height different	m (ft)	15.0 (49.2)		20.0 (65.6)	
	Additional Gas Amount	g/m (oz/ft)	15 (0.2)		25 (0.3)	
	Length for Additional Gas	m (ft)	7.5 (24.6)		10.0 (32.8)	
Drain Hose	Inner Diameter	mm	16.7		16.7	
	Length	mm	650		650	
Indoor Heat Exchanger	Fin Material		Aluminium (Pre Coat)		Aluminium (Pre Coat)	
	Fin Type		Slit Fin		Slit Fin	
	Row × Stage × FPI		2 × 17 × 21		2 × 17 × 21	
	Size (W × H × L)	mm	836.5 × 357 × 25.4		836.5 × 357 × 25.4	
Outdoor Heat Exchanger	Fin Material		Aluminium		Aluminium	
	Fin Type		Corrugated Fin (Pre Coat)		Corrugated Fin (Pre Coat)	
	Row × Stage × FPI		2 × 31 × 19		2 × 31 × 19	
	Size (W × H × L)	mm	36.4 × 651 × 854.5:824.5		36.4 × 651 × 904.5:874.5	
Air Filter	Material		Polypropelene		Polypropelene	
	Type		One-touch		One-touch	
Power Supply			Indoor		Indoor	
Power Supply Cord		A	Nil		Nil	
Thermostat			Electronic Contol		Electronic Contol	
Protection Device			Electronic Contol		Electronic Contol	
			Dry Bulb	Wet Bulb	Dry Bulb	Wet Bulb
Indoor Operation Range	Cooling	Maximum °C	32	23	32	23
		Minimum °C	16	11	16	11
	Heating	Maximum °C	30	–	30	–
		Minimum °C	16	–	16	–
Outdoor Operation Range	Cooling	Maximum °C	43	26	43	26
		Minimum °C	-10	–	-10	–
	Heating	Maximum °C	24	18	24	18
		Minimum °C	-15	-16	-15	-16

- Cooling capacities are based on indoor temperature of 27°C Dry Bulb (80.6°F Dry Bulb), 19.0°C Wet Bulb (66.2°F Wet Bulb) and outdoor air temperature of 35°C DRY BULB (95°F Dry Bulb), 24°C Wet Bulb (75.2°F Wet Bulb).
- Heating capacities are based on indoor temperature of 20°C Dry Bulb (68°F Dry Bulb) and outdoor air temperature of 7°C Dry Bulb (44.6°F Dry Bulb), 6°C Wet Bulb (42.8°F Wet Bulb).
- Heating low temperature capacity, Input Power and COP measured at 230 V, indoor temperature 20°C, outdoor 2/1°C.
- Heating extreme low temperature capacity, Input Power and COP measured at 230 V, indoor temperature 20°C, outdoor -7/-8°C.
- Standby power consumption ≤10.0w (when switched OFF by remote control, except under self protection control).
- Specifications are subjected to change without prior notice for further improvement.

- **Multi Split Combination Possibility:**

- A single outdoor unit enables air conditioning of up to two separate rooms for CU-2E12SBE, CU-2E15SBE, CU-2E18SBE.
- A single outdoor unit enables air conditioning of up to three separate rooms for CU-3E23SBE, CU-3E18PBE.

CONNECTABLE INDOOR UNIT			CU-2E12SBE		CU-2E15SBE		CU-2E18SBE		CU-3E23SBE			CU-3E18PBE		
ROOM			A	B	A	B	A	B	A	B	C	A	B	C
Wall	1.6kW	CS-MZ16TKE	●	●	●	●	●	●	●	●	●	●	●	●
	2.0kW	CS-Z20TKEW CS-XZ20TKEW	●	●	●	●	●	●	●	●	●	●	●	●
	2.5kW	CS-Z25TKEW CS-XZ25TKEW	●	●	●	●	●	●	●	●	●	●	●	●
	3.5kW	CS-Z35TKEW CS-XZ35TKEW	●	●	●	●	●	●	●	●	●	●	●	●
	4.2kW	CS-Z42TKEW	—	—	—	—	●	●	●	●	●	●	●	●
	5.0kW	CS-Z50TKEW CS-XZ50TKEW	—	—	—	—	●	●	●	●	●	●	●	●
	7.1kW	CS-Z71TKEW	—	—	—	—	—	—	—	—	—	—	—	—
Capacity range of connectable units			From 3.2kW to 5.6kW		From 3.2kW to 5.6kW		From 3.2kW to 7.5kW		From 4.8kW to 10.0kW			From 4.8kW to 9.0kW		
Pipe length	1 room maximum pipe length (m)		20		20		20		25			25		
	Allowable elevation (m)		10		10		10		15			15		
	Total allowable pipe length (m)		30		30		30		60			50		
	Total pipe length for maximum chargeless length (m)		20		20		20		30			30		
	Additional gas amount over chargeless length (g/m)		15		15		15		20			20		
Note: “●” : Available														
Remarks for CU-2E12SBE / CU-2E15SBE / CU-2E18SBE 1. The total nominal cooling capacity of indoor unit that will be connected to outdoor unit must be within connectable capacity range of indoor unit. (as shown in the table above) Example: The indoor units' combination below is possible to connect to CU-2E15SBE. (Total nominal capacity of indoor units is between 3.2kW to 5.6kW) 1) Two CS-Z20TKEW only. (Total nominal cooling capacity is 4.0kW)														
Remarks for CU-3E23SBE 1. The total nominal cooling capacity of indoor unit that will be connected to outdoor unit must be within connectable capacity range of indoor unit. (as shown in the table above) Example: The indoor units' combination below is possible to connect to CU-3E23SBE. (Total nominal capacity of indoor units is between 4.8kW to 10.0kW) 1) Two CS-Z25TKEW only. (Total nominal cooling capacity is 5.0kW)														

- **Multi Split Combination Possibility:**

- A single outdoor unit enables air conditioning of up to four separate rooms for CU-4E23PBE, CU-4E27PBE.
- A single outdoor unit enables air conditioning of up to five separate rooms for CU-5E34PBE.

CONNECTABLE INDOOR UNIT			CU-4E23PBE				CU-4E27PBE				CU-5E34PBE				
ROOM			A	B	C	D	A	B	C	D	A	B	C	D	E
Wall	1.6kW	CS-MZ16TKE	●	●	●	●	●	●	●	●	●	●	●	●	●
	2.0kW	CS-Z20TKEW CS-XZ20TKEW	●	●	●	●	●	●	●	●	●	●	●	●	●
	2.5kW	CS-Z25TKEW CS-XZ25TKEW	●	●	●	●	●	●	●	●	●	●	●	●	●
	3.5kW	CS-Z35TKEW CS-XZ35TKEW	●	●	●	●	●	●	●	●	●	●	●	●	●
	4.2kW	CS-Z42TKEW	●	●	●	●	●	●	●	●	●	●	●	●	●
	5.0kW	CS-Z50TKEW CS-XZ50TKEW	●	●	●	●	●	●	●	●	●	●	●	●	●
	7.1kW	CS-Z71TKEW	—	—	—	—	●	●	●	●	●	●	●	●	●
Capacity range of connectable units			From 4.8kW to 11.0kW				From 4.8kW to 13.6kW				From 4.8kW to 17.5kW				
Pipe length	1 room maximum pipe length (m)		25				25				25				
	Allowable elevation (m)		15				15				15				
	Total allowable pipe length (m)		70				70				80				
	Total pipe length for maximum chargeless length (m)		40				45				45				
	Additional gas amount over chargeless length (g/m)		20				20				20				
Note: “●” : Available															
Remarks for CU-4E23PBE / CU-4E27PBE / CU-5E34PBE															
1. The total nominal cooling capacity of indoor unit that will be connected to outdoor unit must be within connectable capacity range of indoor unit. (as shown in the table above) Example: The indoor units' combination below is possible to connect to CU-4E27PBE. (Total nominal capacity of indoor units is between 4.5kW to 13.6kW) 1) Two CS-Z25TKEW only. (Total nominal cooling capacity is 5.0kW)															

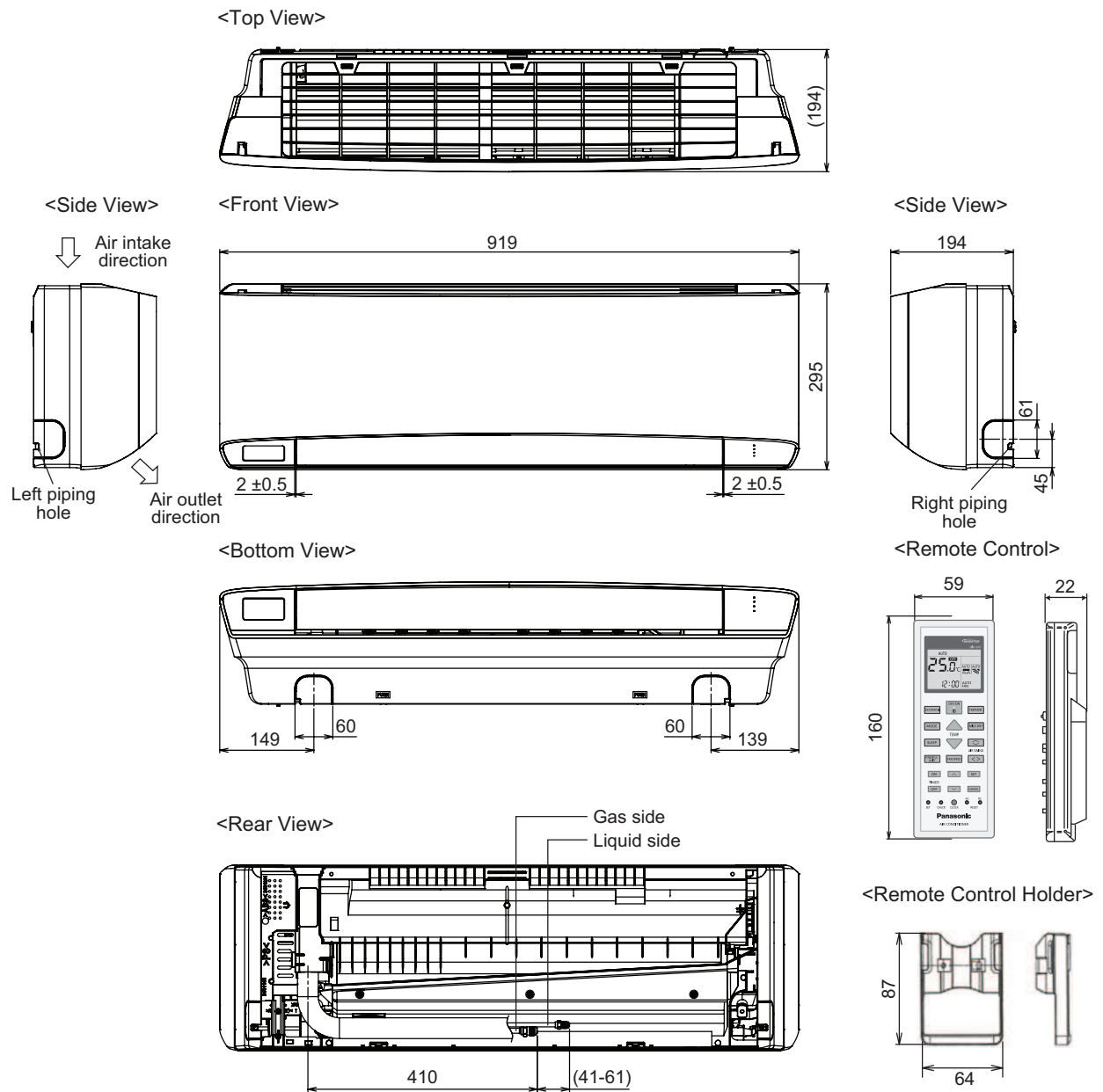
4. Features

- **Inverter Technology**
 - Wider output power range
 - Energy saving
 - Quick Cooling
 - Quick Heating
 - More precise temperature control
- **Environment Protection**
 - Non-ozone depletion substances refrigerant (R32)
- **Long Installation Piping**
 - Long piping up to 15 meters (0.75 ~ 1.75HP), 20 meters (2.0HP) and 30 meters (2.5HP) during single split connection only
- **Easy to use remote control**
- **Quality Improvement**
 - Random auto restart after power failure for safety restart operation
 - Gas leakage protection
 - Prevent compressor reverse cycle
 - Inner protector to protect compressor
 - Noise prevention during soft dry operation
- **Operation Improvement**
 - Quiet mode to reduce the indoor unit operating sound
 - Powerful mode to reach the desired room temperature quickly
 - 24-hour timer setting
- **Serviceability Feature**
 - Activation and Deactivation Method for Heating Only Mode
 - Breakdown Self Diagnosis function

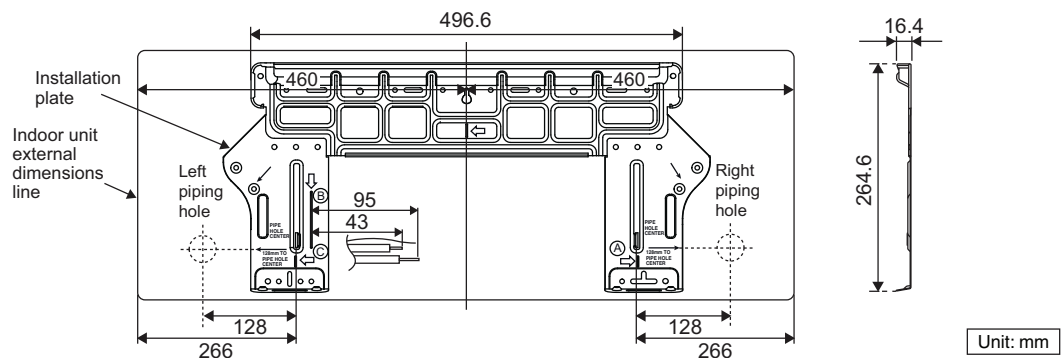
6. Dimensions

6.1 Indoor Unit

6.1.1 CS-Z20TKEW CS-Z25TKEW CS-Z35TKEW CS-Z42TKEW CS-XZ20TKEW CS-XZ25TKEW CS-XZ35TKEW

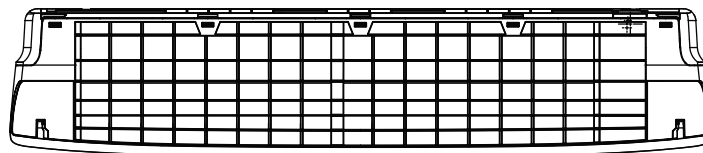


Relative position between the indoor unit and the installation plate <Front View>

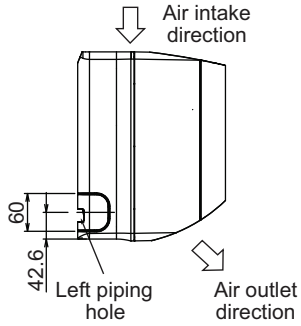


6.1.2 CS-Z50TKEW CS-Z71TKEW CS-XZ50TKEW

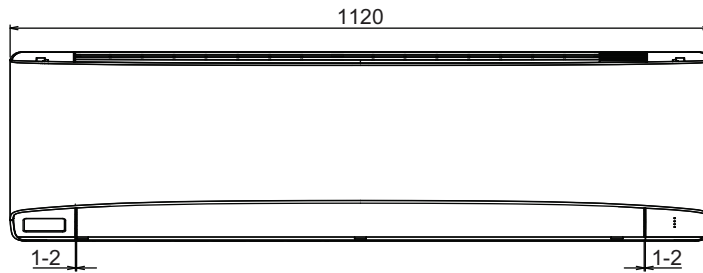
<Top View>



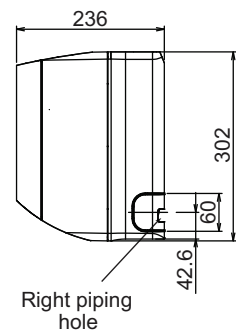
<Side View>



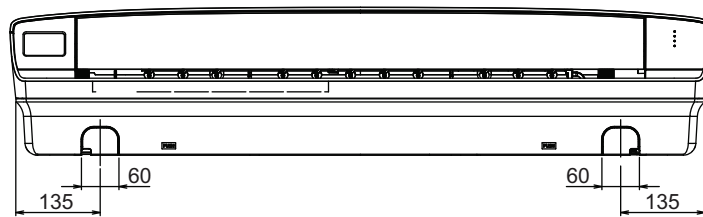
<Front View>



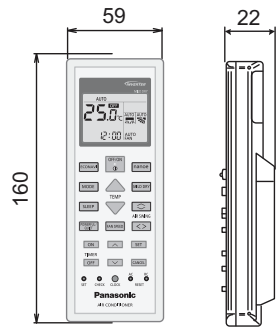
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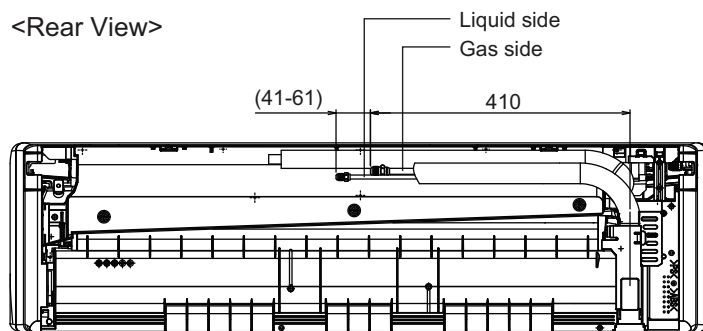
<Bottom View>



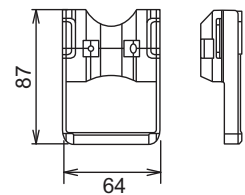
<Remote Control>



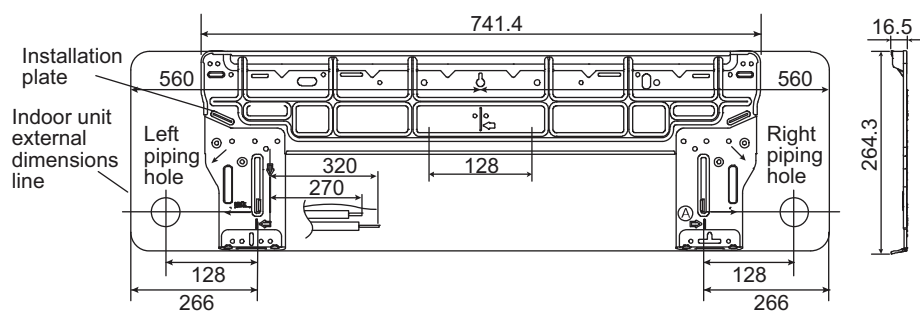
<Rear View>



<Remote Control Holder>



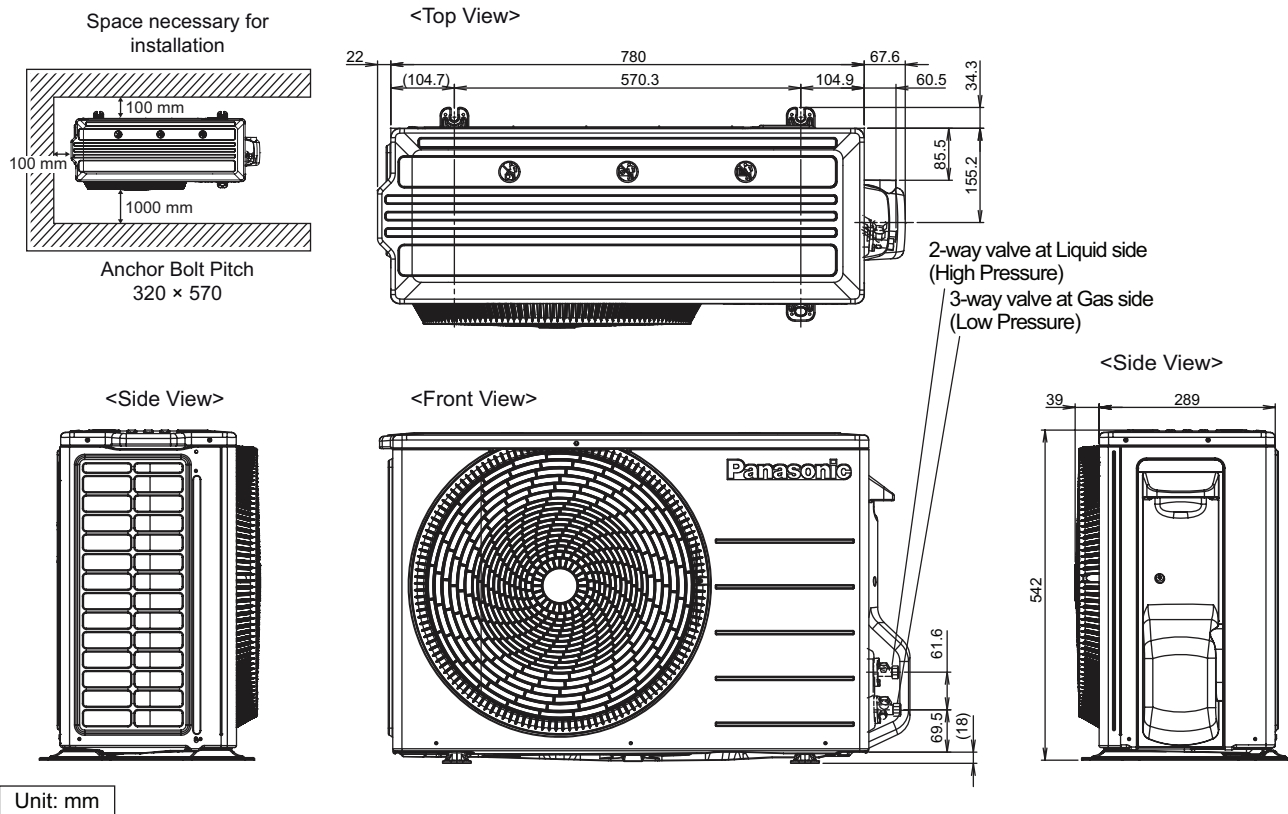
Relative position between the indoor unit and the installation plate <Front View>



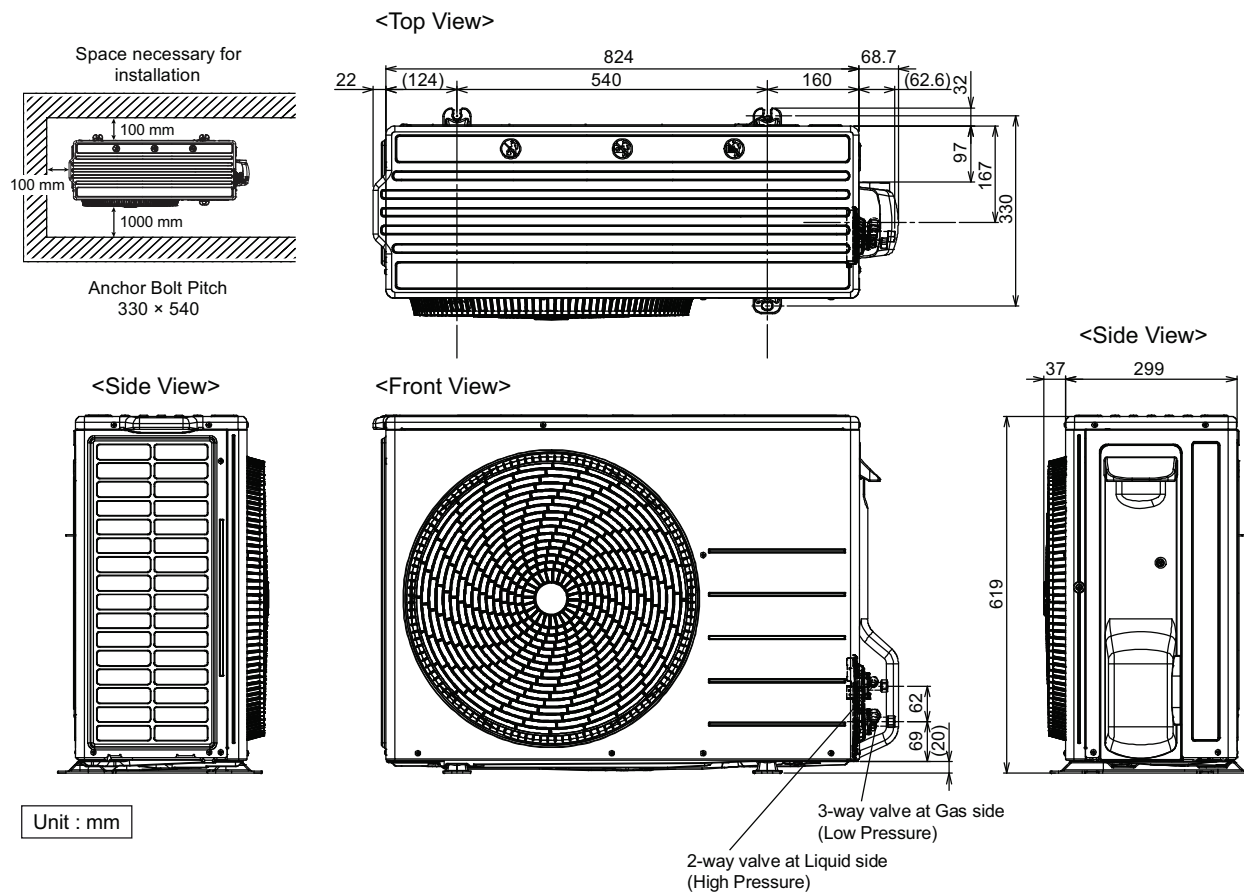
Unit: mm

6.2 Outdoor Unit

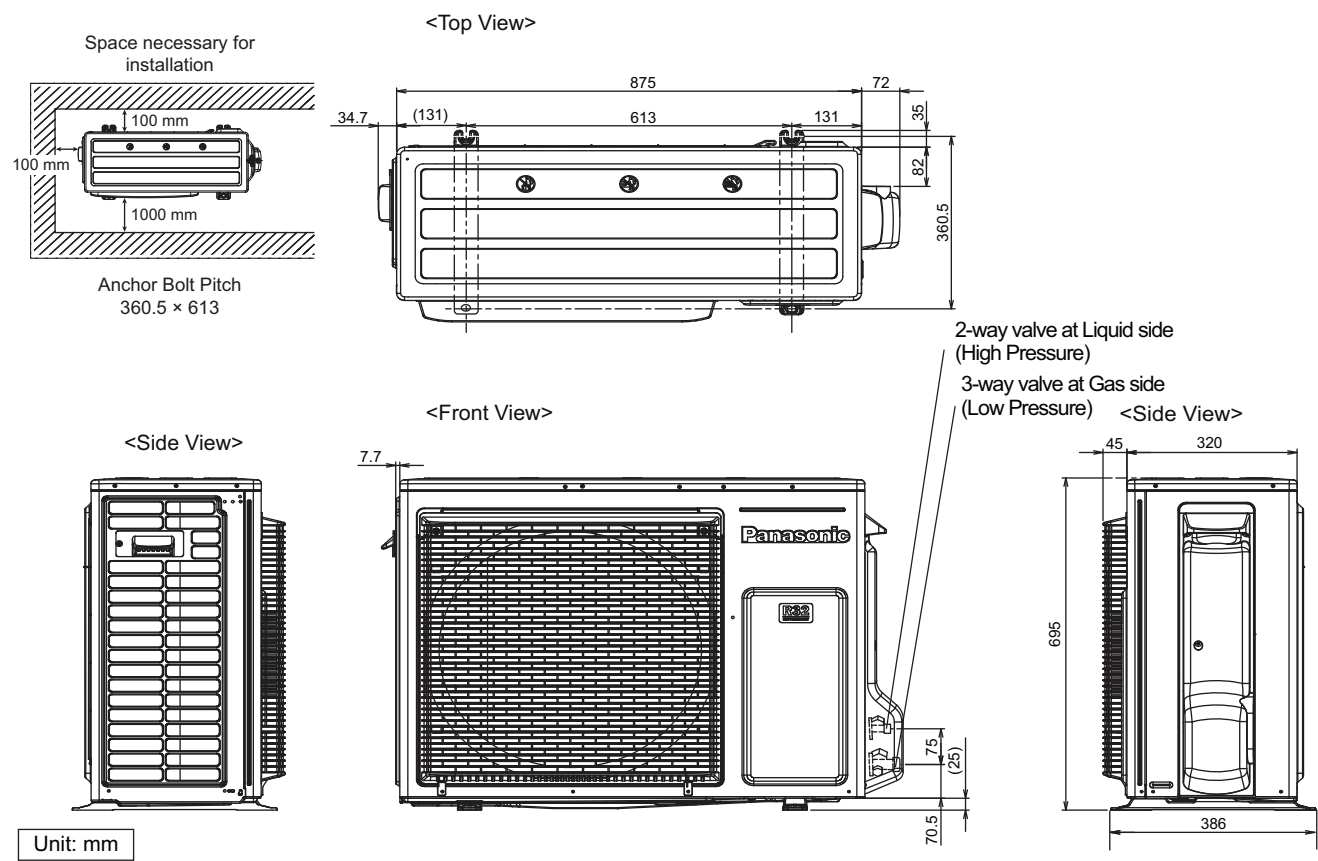
6.2.1 CU-Z20TKE CU-Z25TKE



6.2.2 CU-Z35TKE CU-Z42TKE

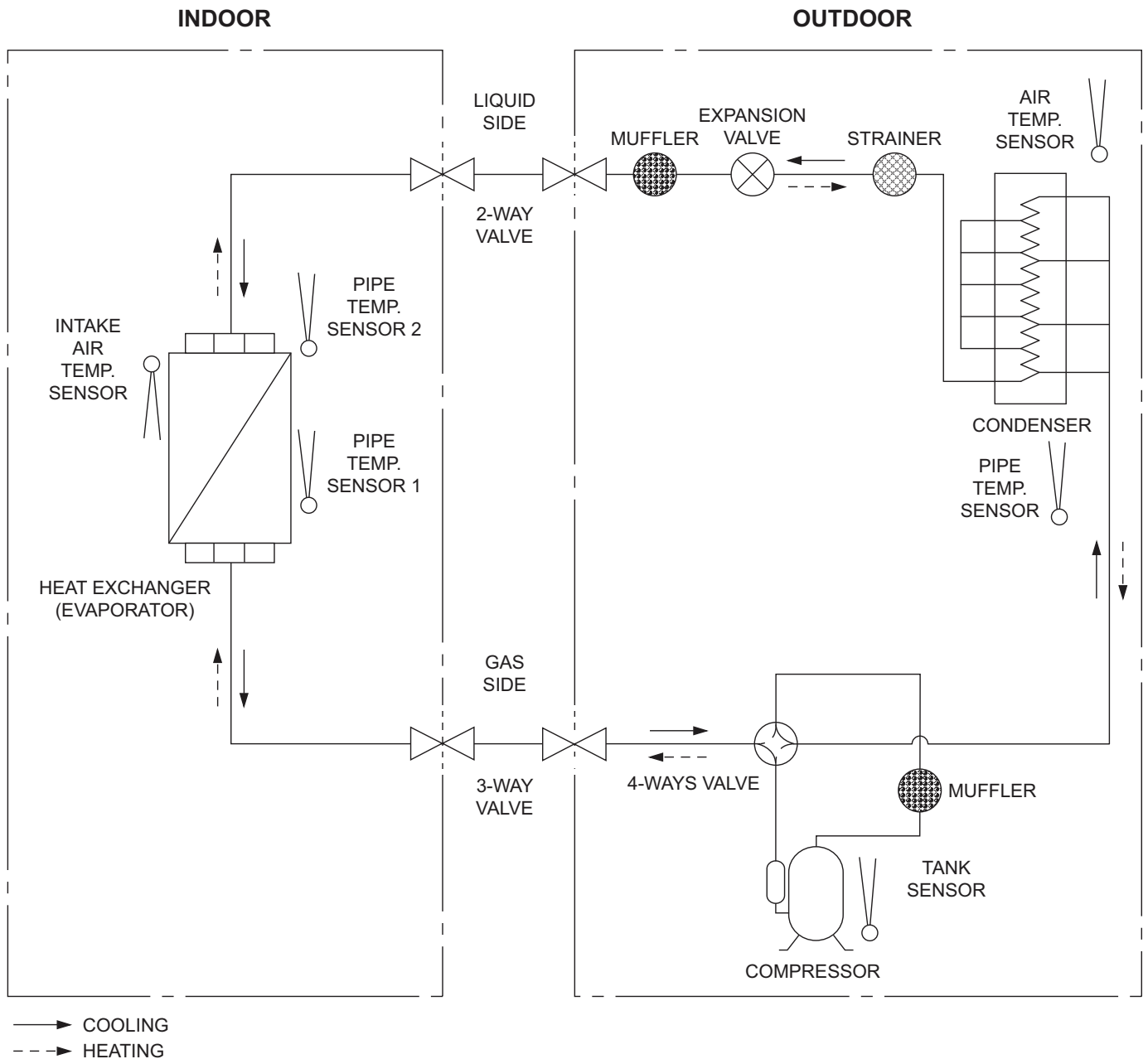


6.2.3 CU-Z50TKE CU-Z71TKE

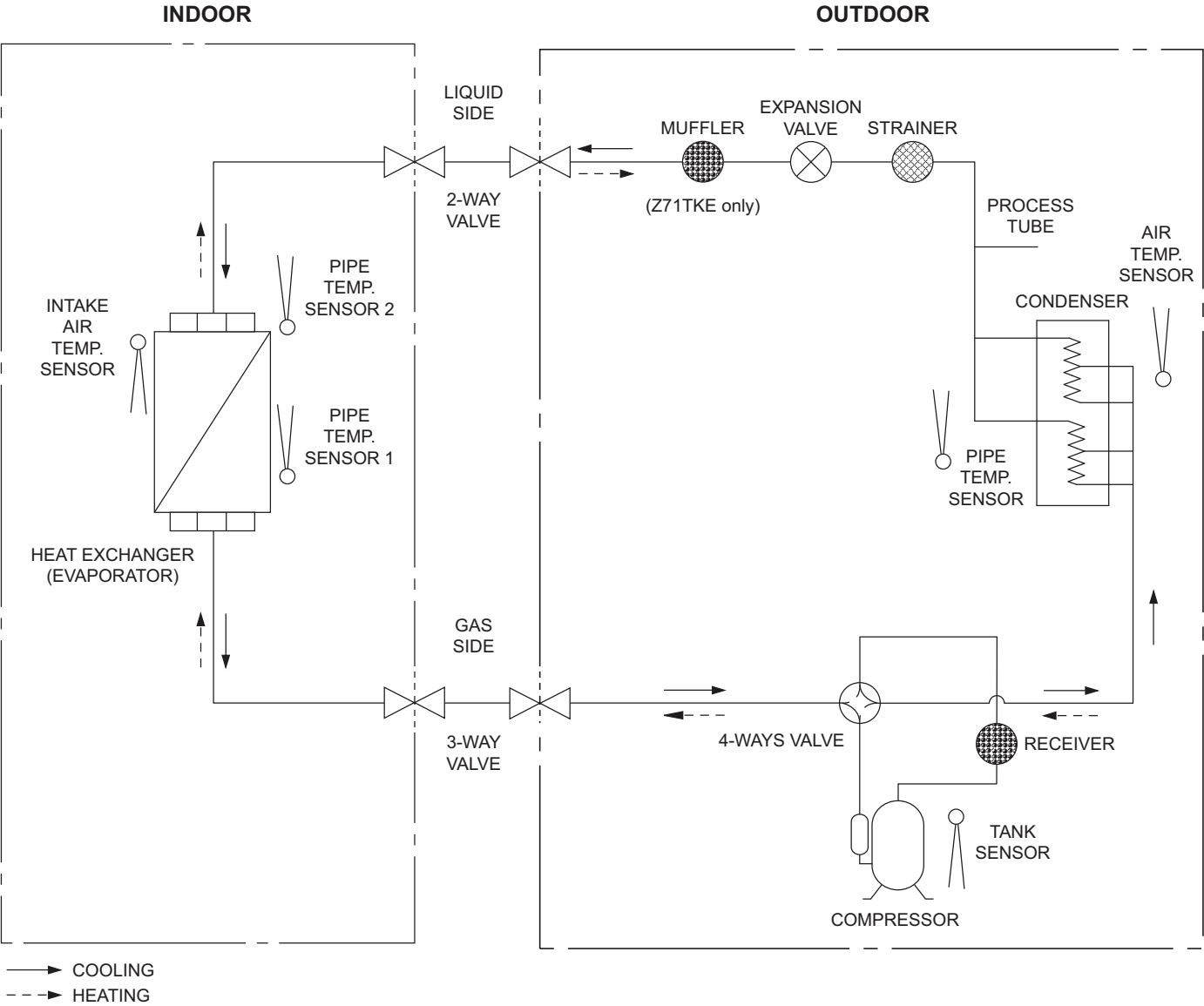


7. Refrigeration Cycle Diagram

7.1 CS-Z20TKEW CU-Z20TKE CS-Z25TKEW CU-Z25TKE CS-Z35TKEW CU-Z35TKE CS-Z42TKEW CU-Z42TKE CS-XZ20TKEW CU-Z20TKE CS-XZ25TKEW CU-Z25TKE CS-XZ35TKEW CU-Z35TKE

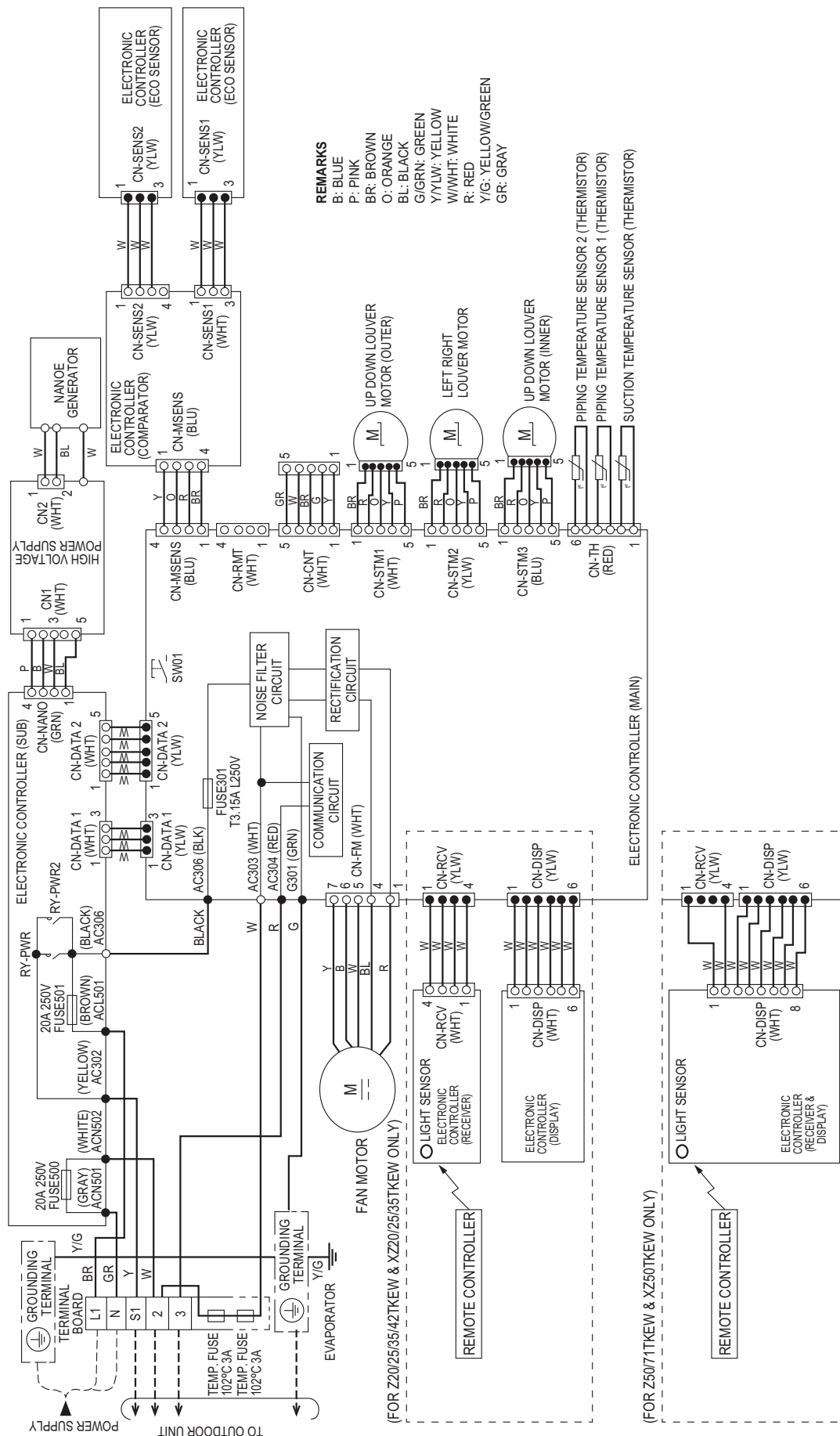


7.2 CS-Z50TKEW CU-Z50TKE CS-Z71TKEW CU-Z71TKE
CS-XZ50TKEW CU-Z50TKE



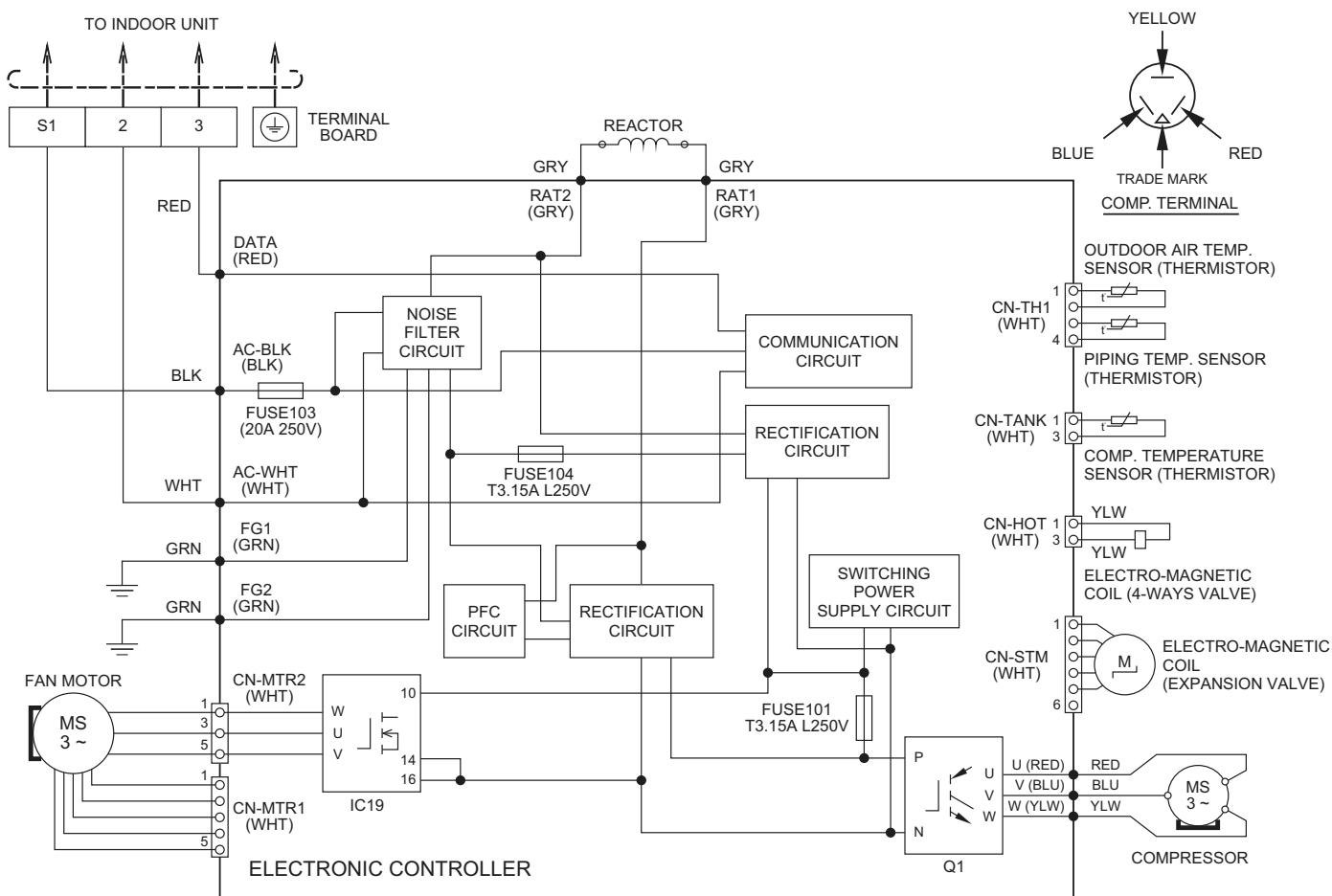
9. Wiring Connection Diagram

9.1 Indoor Unit



9.2 Outdoor Unit

9.2.1 CU-Z20TKE



REMARKS

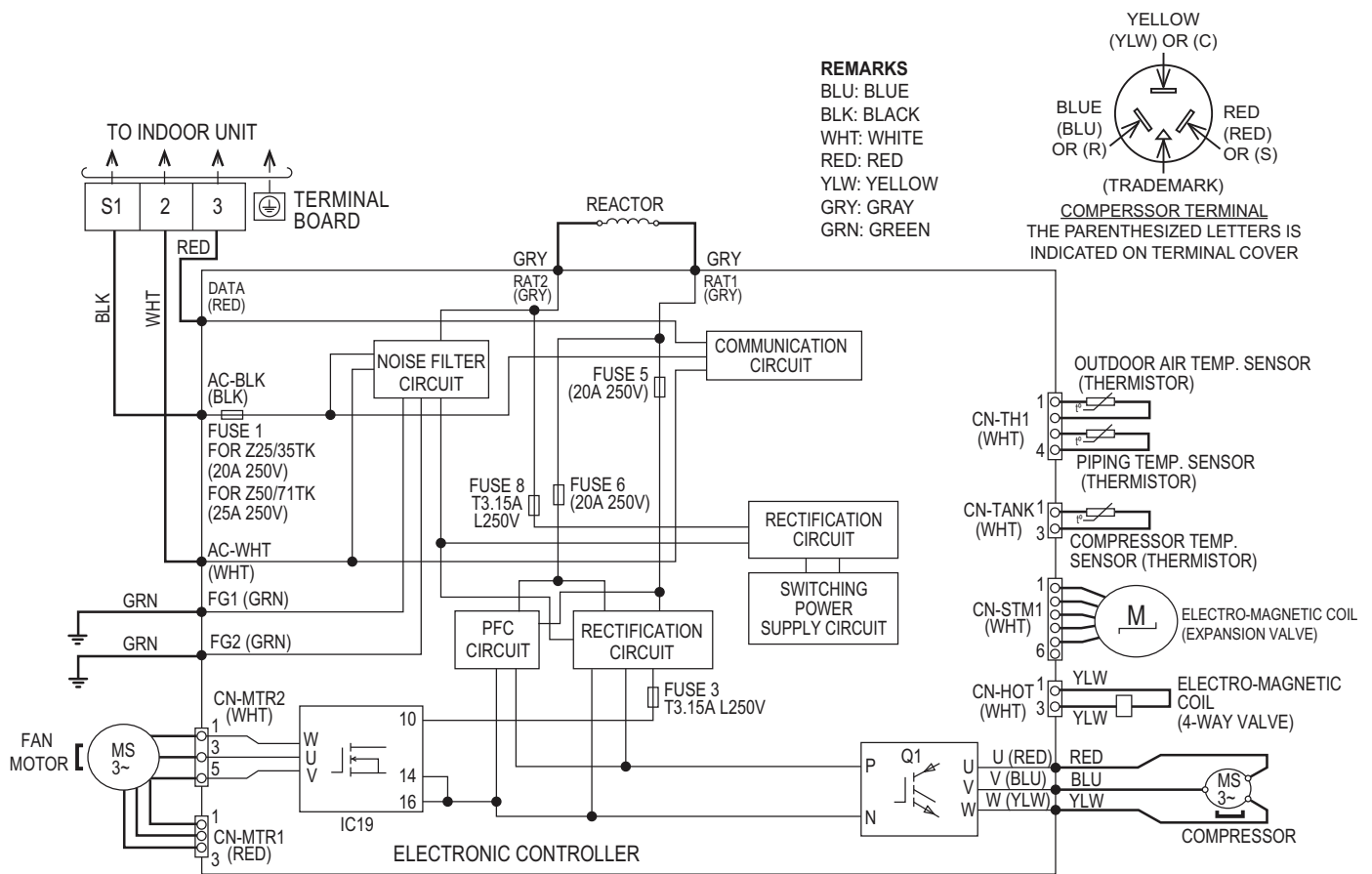
BLUE: (BLU) BLACK: (BLK) WHITE: (WHT) RED: (RED)
YELLOW: (YLW) GRAY: (GRY) GREEN: (GRN) ORANGE: (ORG)

Resistance of Compressor Windings

MODEL	CU-Z20TKE
CONNECTION	9RS092XAA21 (Ω)
U-V	1.152
U-W	1.152
V-W	1.152

Note: Resistance at 20°C of ambient temperature.

9.2.2 CU-Z25TKE CU-Z35TKE CU-Z50TKE CU-Z71TKE

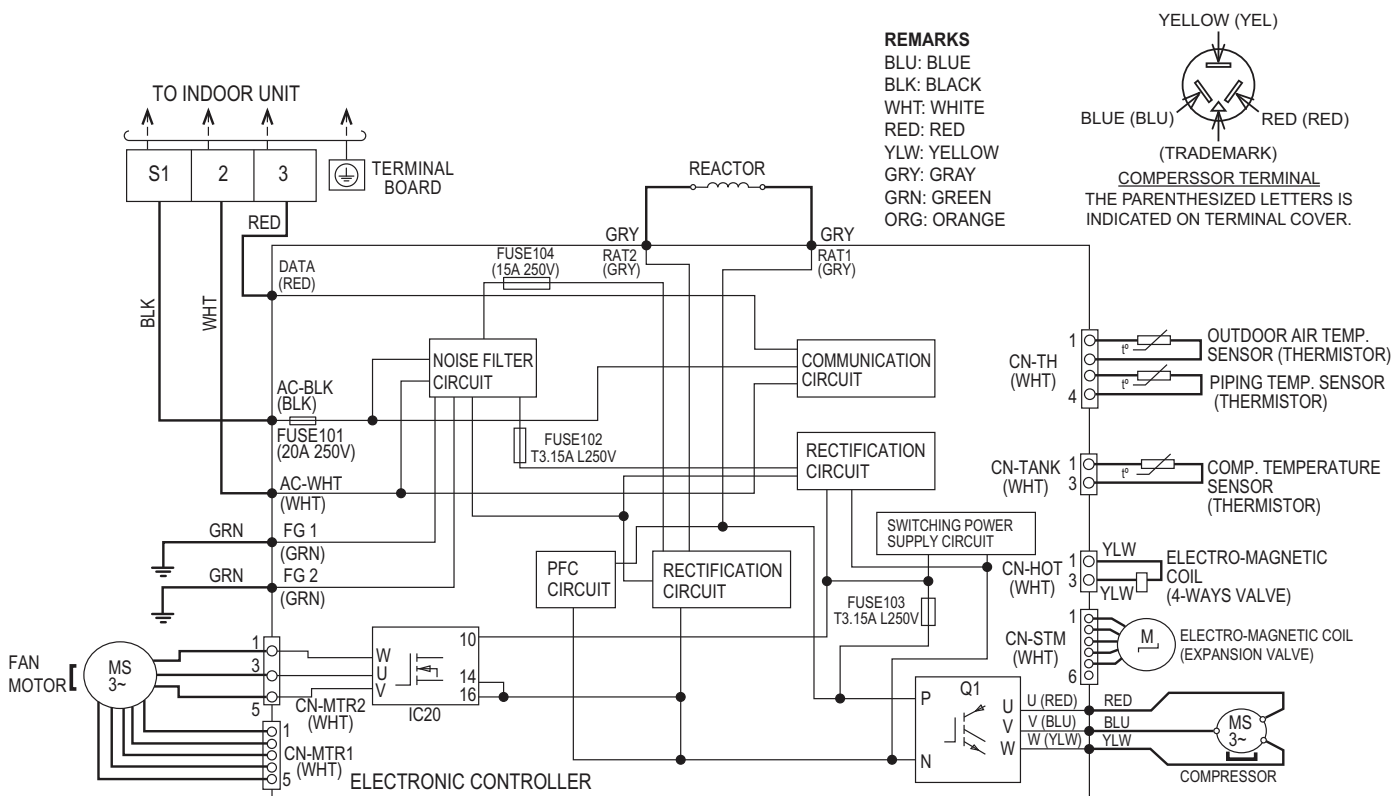


Resistance of Compressor Windings

MODEL	CU-Z25TKE / CU-Z35TKE	CU-Z50TKE	CU-Z71TKE
CONNECTION	9RS102XGA21 (Ω)	9RD132XAA21 (Ω)	9KD240XBA21 (Ω)
U-V	1.741	1.897	0.720
U-W	1.765	1.907	0.726
V-W	1.711	1.882	0.708

Note: Resistance at 20°C of ambient temperature.

9.2.3 CU-Z42TKE



Resistance of Compressor Windings

MODEL	CU-Z42TKE
CONNECTION	9RS102XEA21 (Ω)
U-V	1.211
U-W	1.211
V-W	1.211

Note: Resistance at 20°C of ambient temperature.

20. Technical Data

Technical data provided are based on the air conditioner running under free frequency.

20.1 Cool Mode Performance Data

Unit setting: Standard piping length, Hi Fan, Cool mode at 16°C Voltage: 230V

20.1.1 CS-Z20TKEW/CU-Z20TKE CS-XZ20TKEW/CU-Z20TKE

Indoor (°C)		Outdoor DB (°C)																				
DB	WB	-10			-7			0			5			16			25			35		
		TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP
27	19.0	2284	2100	330	2294	2114	328	2304	2083	330	2238	2095	384	2519	2262	262	2349	2211	348	2050	2040	450
	22.0	2519	1690	334	2479	1688	363	2491	1684	353	2591	1727	306	2775	1837	251	2574	1736	344	2295	1627	452
23	15.7	2040	2020	353	2055	2034	338	2035	2014	369	2047	2027	360	2270	2247	271	2105	2084	351	1862	1844	450
	18.4	2255	1676	330	2271	1673	319	2287	1684	330	2201	1655	376	2413	1752	264	2297	1729	349	2065	1621	450
20	13.3	1812	1794	404	1795	1777	338	1938	1919	353	1880	1862	369	2135	2114	277	1939	1920	353	1730	1713	449
	15.8	2058	1654	353	2052	1650	334	2040	1630	371	2001	1607	388	2245	1742	271	2092	1675	351	1876	1575	450

(Dry bulb value based on 46% humidity)

20.1.2 CS-Z25TKEW/CU-Z25TKE CS-XZ25TKEW/CU-Z25TKE

Indoor (°C)		Outdoor DB (°C)																				
DB	WB	-10			-7			0			5			16			25			35		
		TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP
27	19.0	2785	2548	381	2798	2564	379	2809	2527	381	2729	2542	444	3072	2744	303	2864	2682	402	2500	2475	520
	22.0	3072	2050	386	3023	2048	419	3038	2044	408	3160	2096	354	3384	2229	290	3139	2106	397	2799	1974	522
23	15.7	2488	2463	408	2506	2481	390	2481	2456	427	2496	2471	416	2768	2741	313	2568	2542	406	2271	2249	520
	18.4	2751	2033	382	2770	2030	369	2789	2043	382	2684	2007	435	2942	2125	306	2801	2097	403	2518	1967	521
20	13.3	2209	2187	467	2189	2167	390	2363	2340	408	2293	2270	426	2604	2578	320	2365	2341	408	2110	2089	519
	15.8	2510	2007	407	2503	2002	386	2488	1978	429	2440	1950	448	2738	2113	313	2551	2033	406	2288	1911	520

(Dry bulb value based on 46% humidity)

20.1.3 CS-Z35TKEW/CU-Z35TKE CS-XZ35TKEW/CU-Z35TKE

Indoor (°C)		Outdoor DB (°C)																				
DB	WB	-10			-7			0			5			16			25			35		
		TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP
27	19.0	3899	2779	609	3917	2796	605	3933	2756	609	3821	2772	709	4301	2992	484	4010	2925	642	3500	2699	830
	22.0	4301	2236	616	4232	2234	670	4253	2229	651	4424	2285	564	4738	2430	463	4394	2297	634	3918	2153	833
23	15.7	3483	2751	652	3509	2740	623	3474	2714	681	3495	2694	664	3876	2893	500	3595	2803	648	3180	2685	830
	18.4	3851	2218	609	3878	2214	589	3904	2228	609	3757	2189	694	4119	2318	488	3921	2287	643	3525	2145	831
20	13.3	3093	2573	745	3065	2540	623	3309	2696	652	3210	2602	680	3646	2890	511	3311	2734	651	2954	2561	828
	15.8	3513	2188	650	3504	2184	617	3483	2157	684	3416	2126	715	3834	2304	499	3571	2217	647	3204	2084	831

(Dry bulb value based on 46% humidity)

20.1.4 CS-Z42TKEW/CU-Z42TKE

Indoor (°C)		Outdoor DB (°C)																					
DB	WB	-10			-7			0			5			16			25			35			
		TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	
27	19.0	4679	3212	910	4701	3233	904	4720	3185	910	4586	3204	1059	5162	3459	723	4812	3381	959	4200	3120	1240	
	22.0	5161	2585	920	5079	2582	1000	5104	2576	973	5308	2642	843	5685	2810	692	5273	2655	948	4702	2489	1245	
23	15.7	4179	3180	974	4210	3167	930	4168	3137	1018	4194	3114	993	4651	3344	747	4314	3240	968	3816	3104	1240	
	18.4	4621	2563	910	4654	2559	880	4685	2576	910	4509	2530	1037	4943	2679	729	4706	2644	961	4230	2480	1241	
20	13.3	3712	2975	1113	3678	2936	931	3970	3117	974	3852	3008	1016	4375	3340	763	3973	3160	972	3544	2961	1237	
	15.8	4216	2530	972	4205	2524	921	4180	2493	1022	4100	2458	1068	4600	2664	745	4285	2562	967	3844	2409	1241	

(Dry bulb value based on 46% humidity)

20.1.5 CS-Z50TKEW/CU-Z50TKE CS-XZ50TKEW/CU-Z50TKE

Indoor (°C)		Outdoor DB (°C)																				
DB	WB	-10			-7			0			5			16			25			35		
		TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP
27	19.0	5646	4542	1038	5762	4547	934	5808	4598	950	5729	4586	924	5859	4612	872	5439	4396	1103	5000	4254	1410
	22.0	6394	3708	914	6429	3702	854	6289	3671	982	6210	3589	974	6442	3676	833	5970	3474	1118	5501	3326	1428
23	15.7	5281	4540	940	5294	4555	867	5140	4459	975	5292	4565	898	5097	4378	900	4876	4213	1113	4542	4232	1410
	18.4	5718	3688	887	5728	3684	924	5536	3589	1031	5739	3672	930	5600	3506	877	5328	3459	1133	4949	3314	1423
20	13.3	4097	3963	774	4056	3994	824	3860	3821	646	3489	3454	524	4966	4916	920	4491	4109	1117	4219	4037	1407
	15.8	5140	3541	1017	4345	3121	807	4513	3162	777	4020	2982	553	5212	3485	897	4852	3353	1141	4498	3219	1423

(Dry bulb value based on 46% humidity)

20.1.6 CS-Z71TKEW/CU-Z71TKE

Indoor (°C)		Outdoor DB (°C)																				
DB	WB	-10			-7			0			5			16			25			35		
		TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP
27	19.0	8017	5673	1597	8181	5679	1438	8248	5742	1462	8135	5728	1422	8319	5761	1341	7724	5491	1697	7100	5313	2170
	22.0	9079	4631	1407	9129	4624	1315	8931	4585	1512	8818	4483	1499	9147	4591	1282	8477	4339	1720	7811	4154	2197
23	15.7	7499	5671	1447	7518	5689	1334	7298	5568	1500	7515	5701	1382	7238	5468	1386	6923	5262	1713	6450	5285	2170
	18.4	8119	4607	1365	8133	4601	1422	7860	4482	1587	8149	4586	1431	7953	4378	1349	7565	4321	1744	7027	4139	2191
20	13.3	5817	4950	1191	5760	4988	1268	5481	4964	995	4954	4470	806	7052	6981	1417	6377	5132	1719	5992	5041	2165
	15.8	7299	4423	1566	6170	3898	1241	6408	3949	1195	5709	3725	851	7402	4353	1381	6889	4187	1755	6387	4020	2190

(Dry bulb value based on 46% humidity)

TC - Total Cooling Capacity (W)

SHC - Sensible Heat Capacity (W)

IP - Input Power (W)

20.2 Heat Mode Performance Data

Unit setting: Standard piping length, Hi Fan, Heat mode at 30°C Voltage: 230V

20.2.1 CS-Z20TKEW/CU-Z20TKE CS-XZ20TKEW/CU-Z20TKE

Indoor (°C)	Outdoor WB (°C)									
DB	-15		-7		2		7		12	
	TC	IP	TC	IP	TC	IP	TC	IP	TC	IP
24	1963	883	2166	886	2817	850	2615	621	2783	618
20	1966	835	2380	880	2900	870	2800	620	2896	618
16	1853	790	2455	842	2919	828	2989	619	3069	617

20.2.2 CS-Z25TKEW/CU-Z25TKE CS-XZ25TKEW/CU-Z25TKE

Indoor (°C)	Outdoor WB (°C)									
DB	-15		-7		2		7		12	
	TC	IP	TC	IP	TC	IP	TC	IP	TC	IP
24	2340	1225	2685	1157	3516	1094	3175	711	3380	707
20	2344	1159	2950	1150	3620	1120	3400	710	3516	707
16	2209	1097	3042	1101	3643	1066	3630	709	3727	706

20.2.3 CS-Z35TKEW/CU-Z35TKE CS-XZ35TKEW/CU-Z35TKE

Indoor (°C)	Outdoor WB (°C)									
DB	-15		-7		2		7		12	
	TC	IP	TC	IP	TC	IP	TC	IP	TC	IP
24	2850	1405	3095	1389	4080	1299	3735	901	3976	897
20	2854	1329	3400	1380	4200	1330	4000	900	4137	897
16	2690	1258	3507	1321	4227	1266	4270	899	4384	895

20.2.4 CS-Z42TKEW/CU-Z42TKE

Indoor (°C)	Outdoor WB (°C)									
DB	-15		-7		2		7		12	
	TC	IP	TC	IP	TC	IP	TC	IP	TC	IP
24	3422	1590	3741	1741	4789	1680	4950	1442	5269	1435
20	3427	1504	4110	1730	4930	1720	5300	1440	5481	1435
16	3230	1424	4239	1656	4962	1637	5658	1439	5809	1432

20.2.5 CS-Z50TKEW/CU-Z50TKE CS-XZ50TKEW/CU-Z50TKE

Indoor (°C)	Outdoor WB (°C)									
DB	-15		-7		2		7		12	
	TC	IP	TC	IP	TC	IP	TC	IP	TC	IP
24	3983	1950	4352	2104	5583	2250	5441	1439	5597	1433
20	4117	1879	4800	2100	5800	2240	5800	1440	6054	1433
16	4448	1779	4964	2096	6226	1902	5713	1432	6475	1439

20.2.6 CS-Z71TKEW/CU-Z71TKE

Indoor (°C)	Outdoor WB (°C)									
DB	-15		-7		2		7		12	
	TC	IP	TC	IP	TC	IP	TC	IP	TC	IP
24	4538	2049	5721	2505	7114	2532	8068	2349	8298	2338
20	4690	1974	6310	2500	7390	2520	8600	2350	8977	2338
16	5067	1869	6526	2495	7933	2140	8471	2337	9601	2348

TC - Total Cooling Capacity (W)

SHC - Sensible Heat Capacity (W)

IP - Input Power (W)

21. Service Data

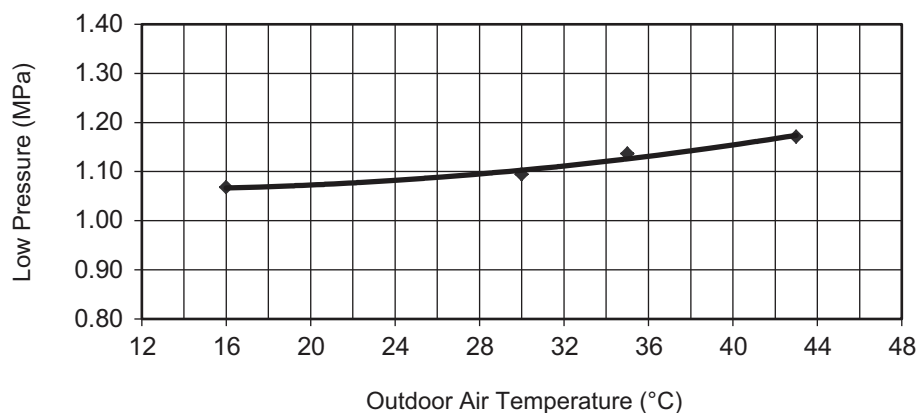
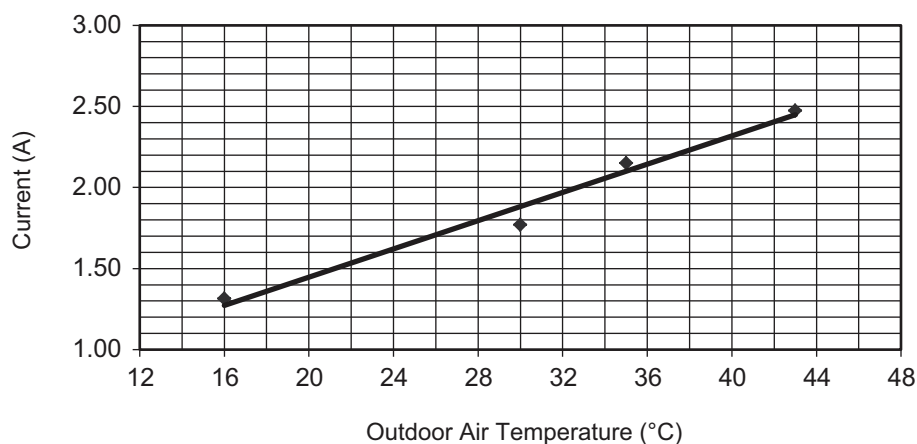
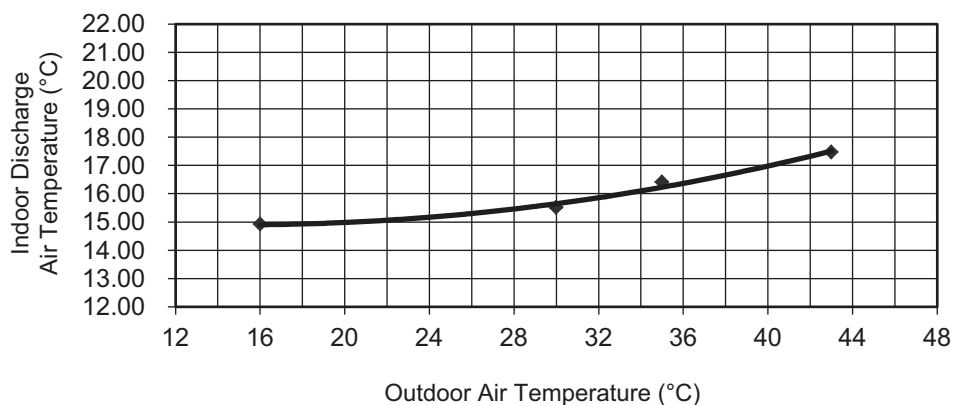
Service data provided are based on the air conditioner running under rated frequency during forced cooling / forced heating mode.

21.1 Cool Mode Outdoor Air Temperature Characteristic

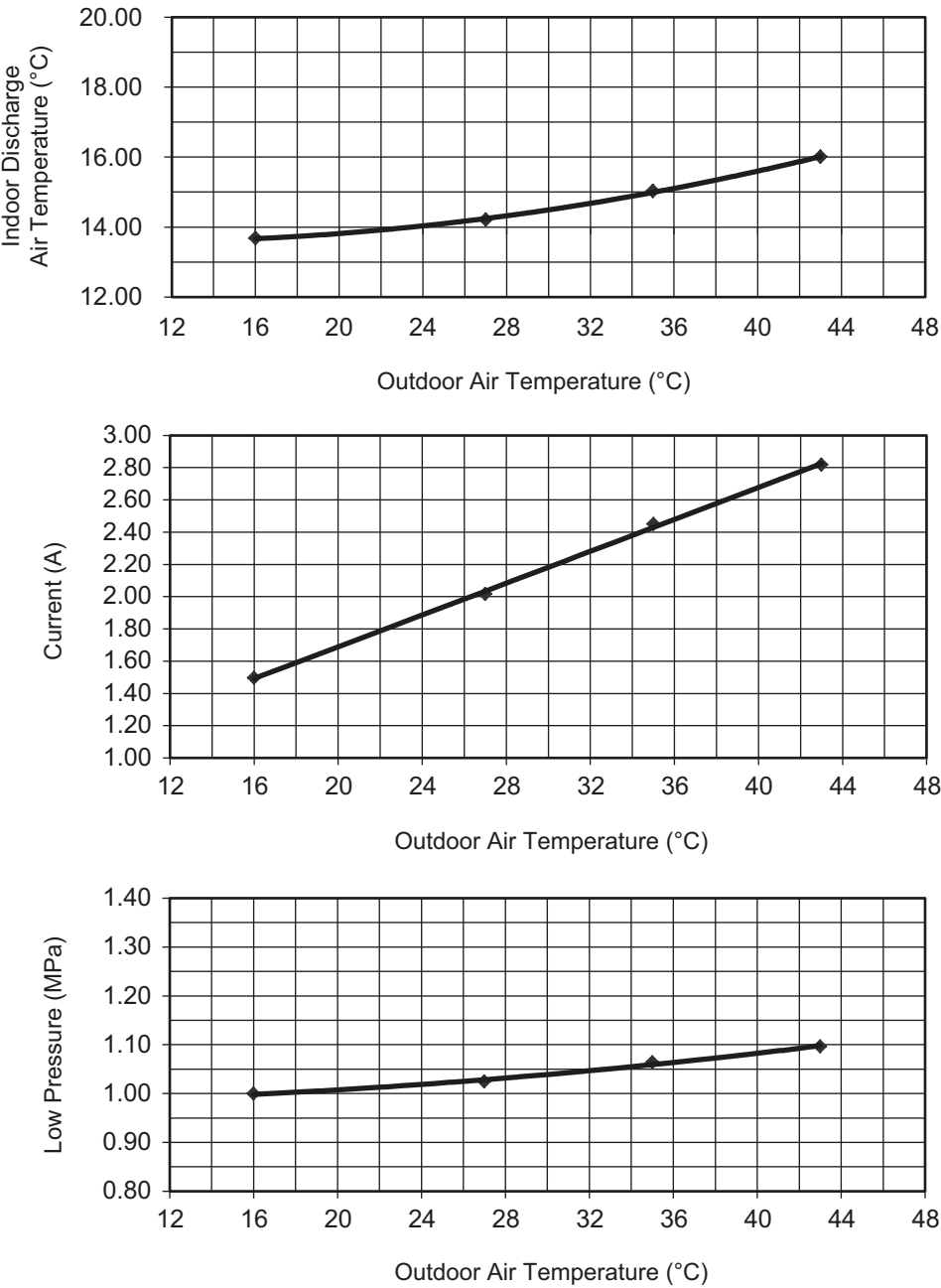
Condition

- Indoor room temperature: 27°C Dry Bulb/19°C Wet Bulb
- Unit setting: Standard piping length, forced cooling at 16°C, Hi fan
- Compressor frequency: Rated for cooling operation
- Piping length: 5m
- Voltage: 230V

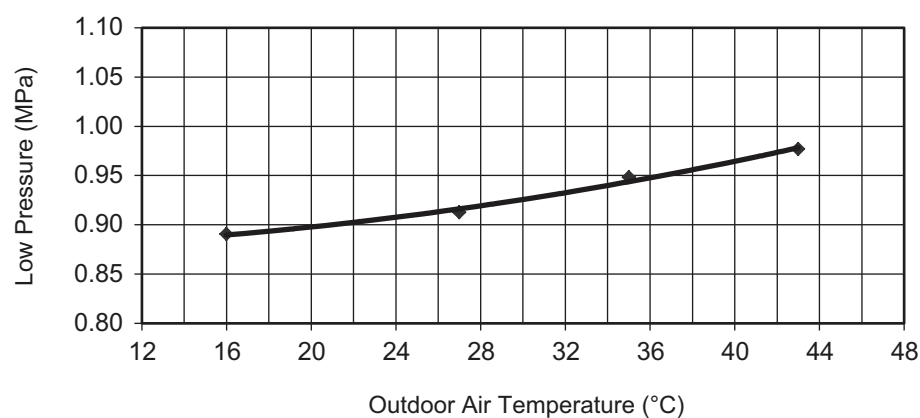
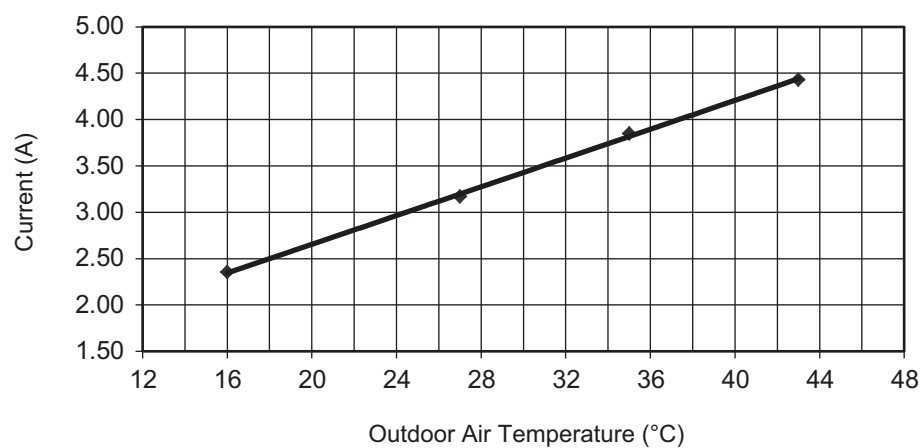
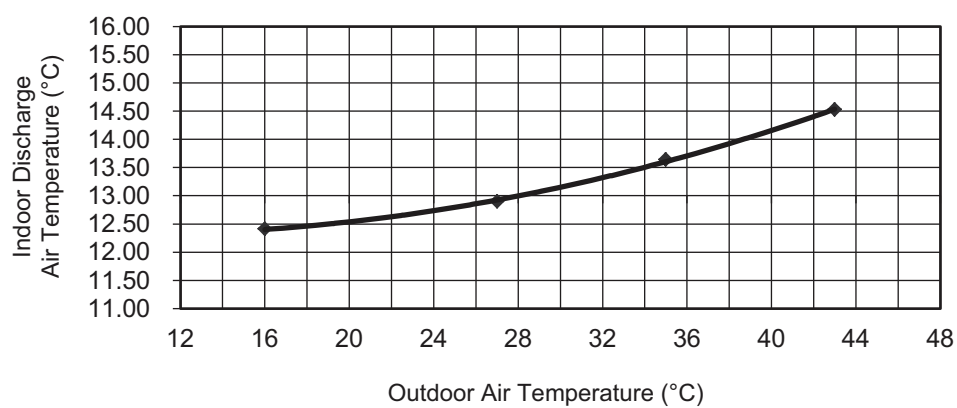
21.1.1 CS-Z20TKEW CU-Z20TKE CS-XZ20TKEW CU-Z20TKE



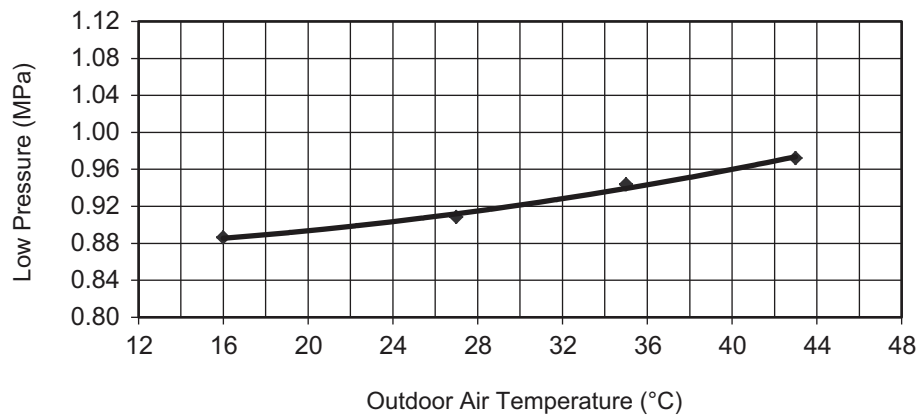
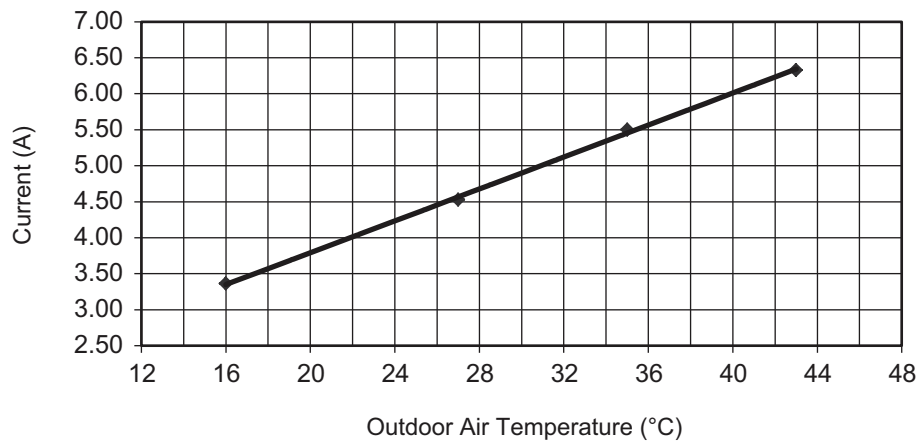
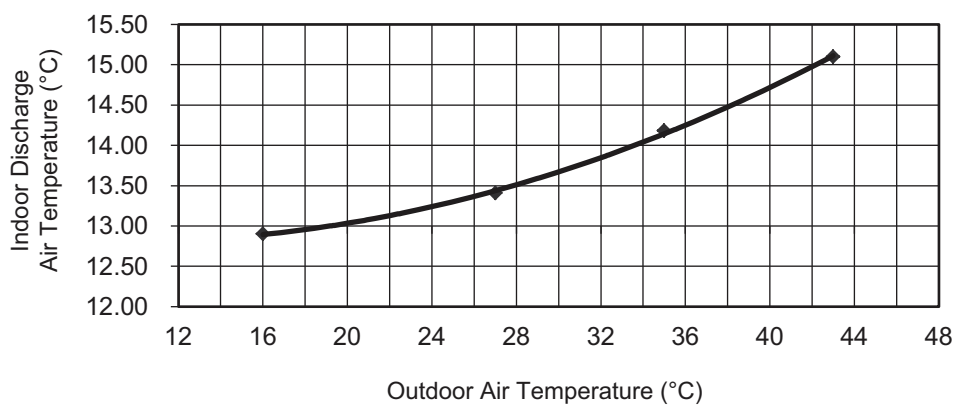
21.1.2 CS-Z25TKEW CU-Z25TKE CS-XZ25TKEW CU-Z25TKE



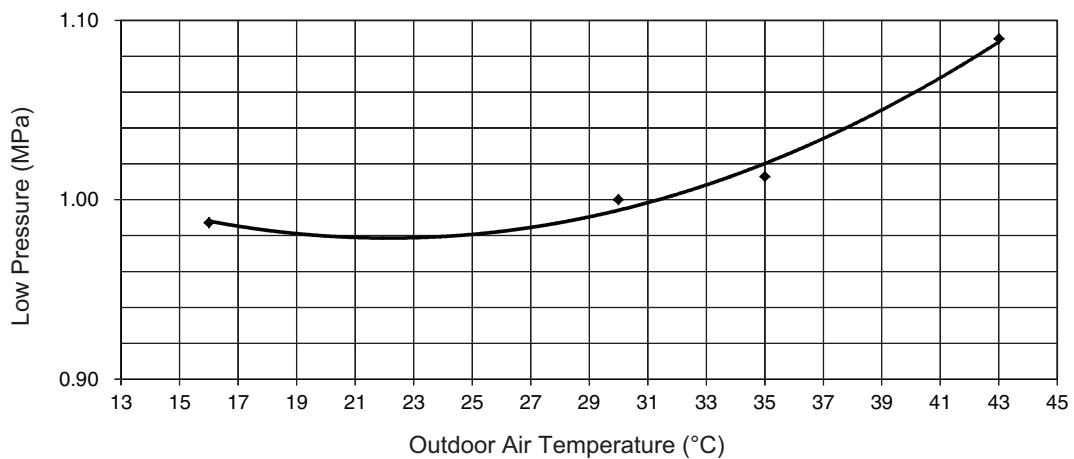
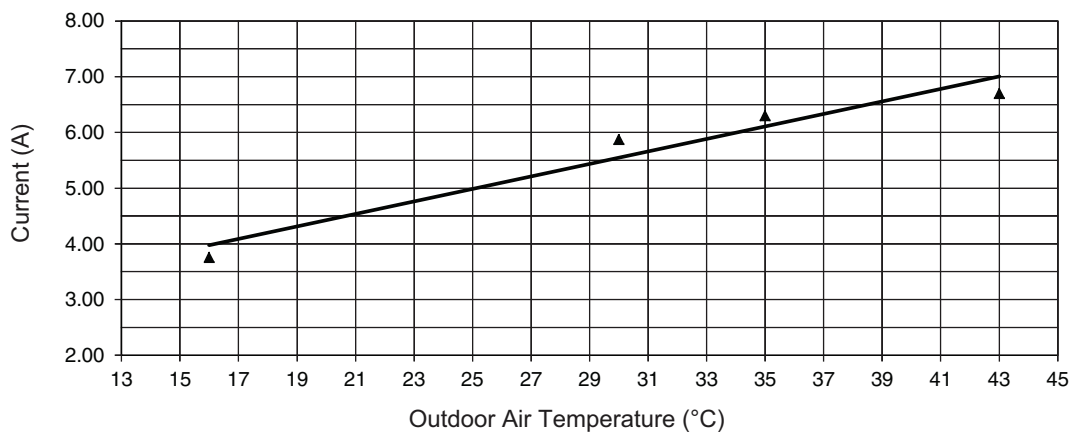
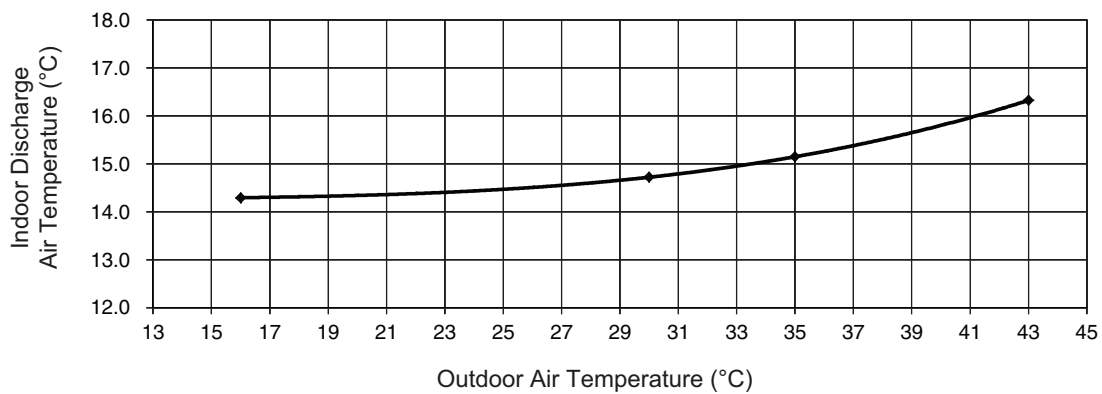
21.1.3 CS-Z35TKEW CU-Z35TKE CS-XZ35TKEW CU-Z35TKE



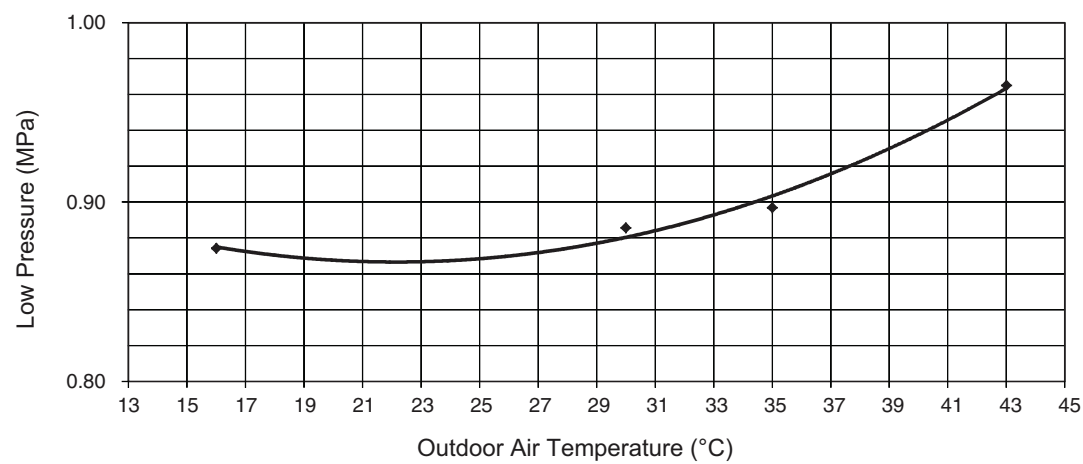
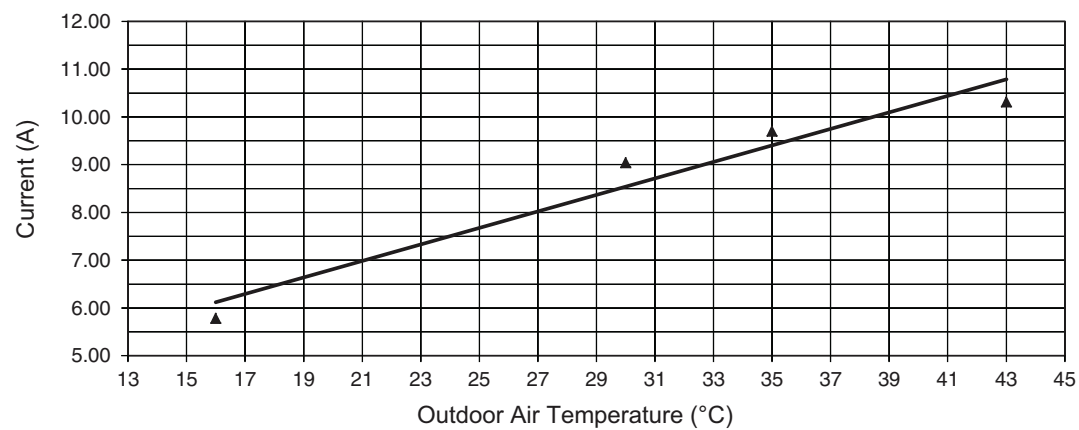
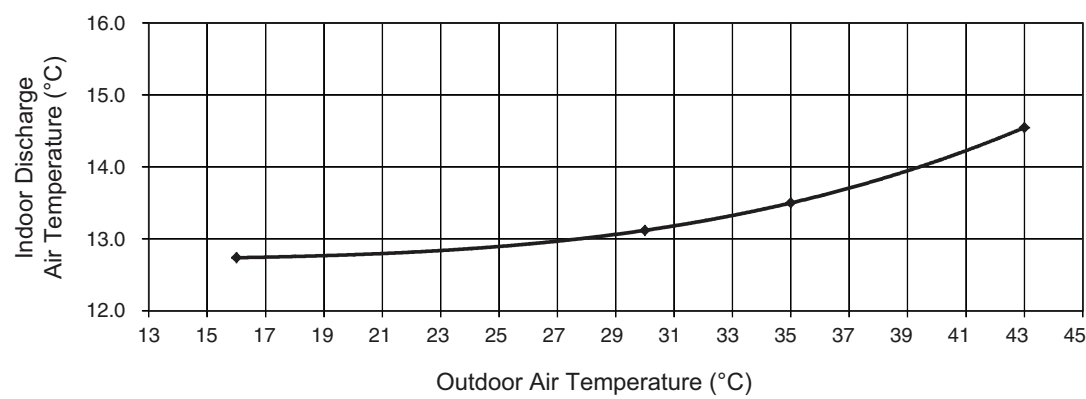
21.1.4 CS-Z42TKEW CU-Z42TKE



21.1.5 CS-Z50TKEW CU-Z50TKE CS-XZ50TKEW CU-Z50TKE



21.1.6 CS-Z71TKEW CU-Z71TKE

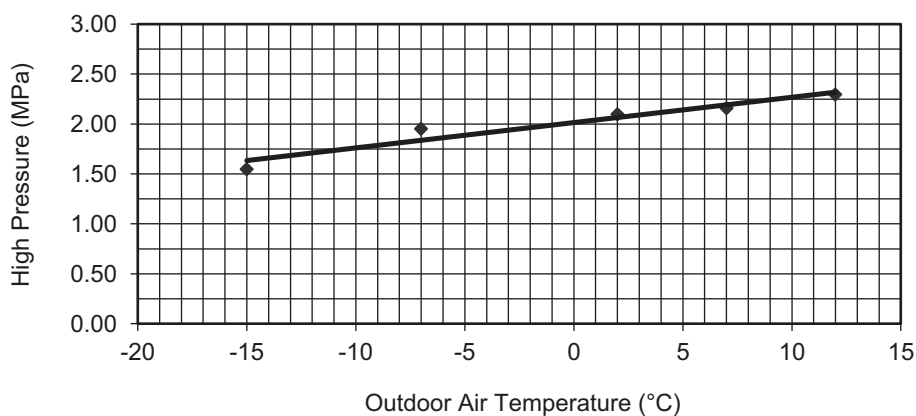
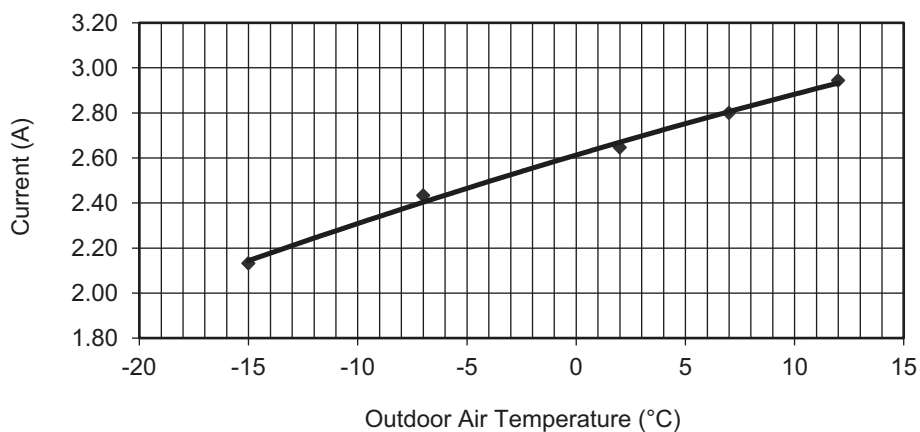
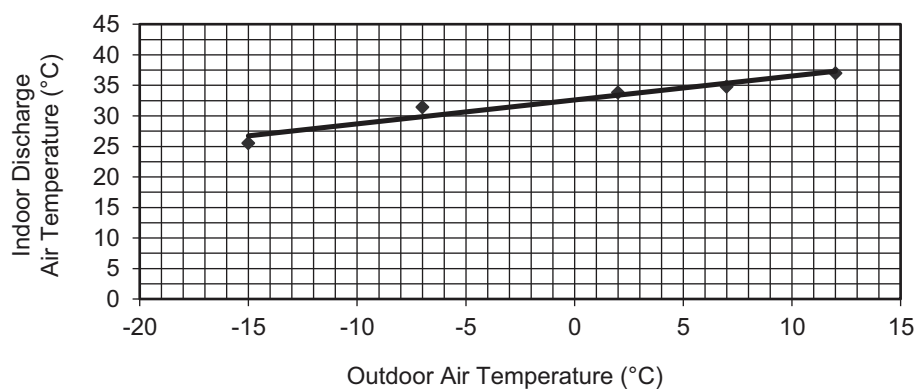


21.2 Heat Mode Outdoor Air Temperature Characteristic

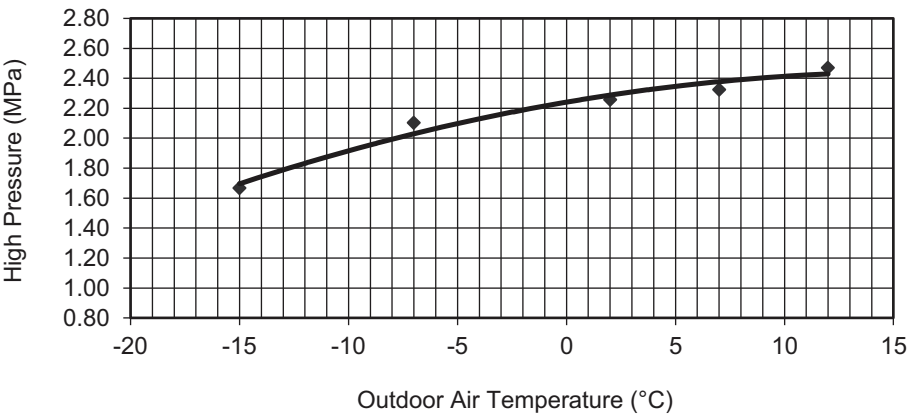
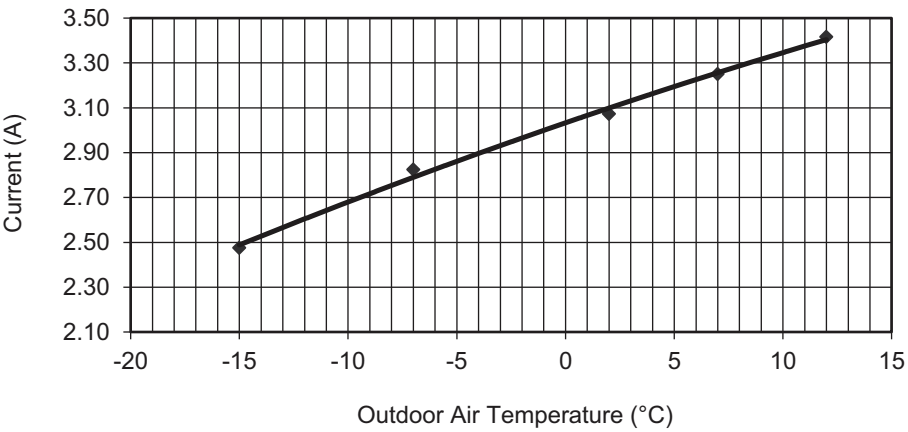
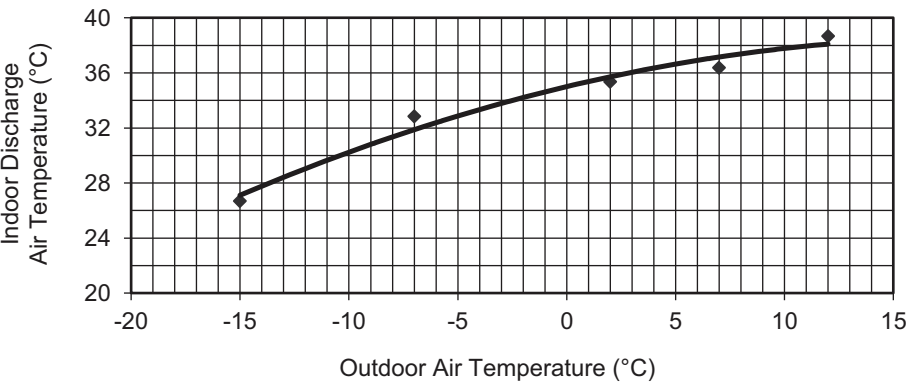
Condition

- Indoor room temperature: 20°C Dry Bulb/ -°C Wet Bulb
- Unit setting: Standard piping length, forced heating at 30°C, Hi fan
- Compressor frequency: Rated for Heating operation
- Piping length: 5m
- Voltage: 230V

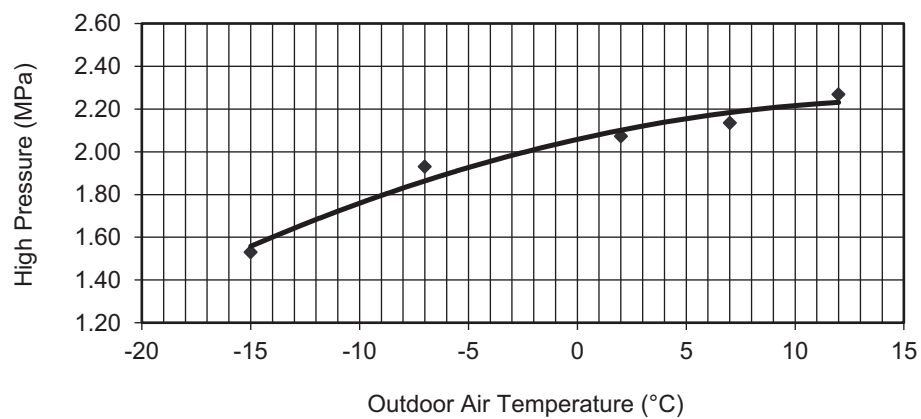
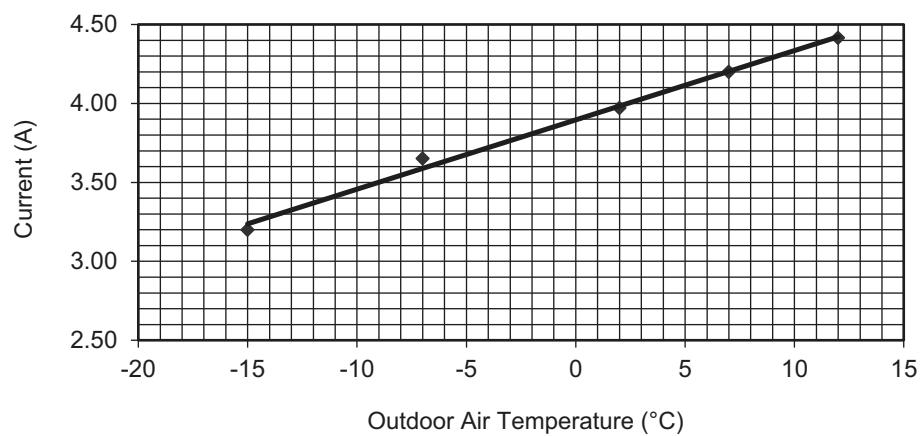
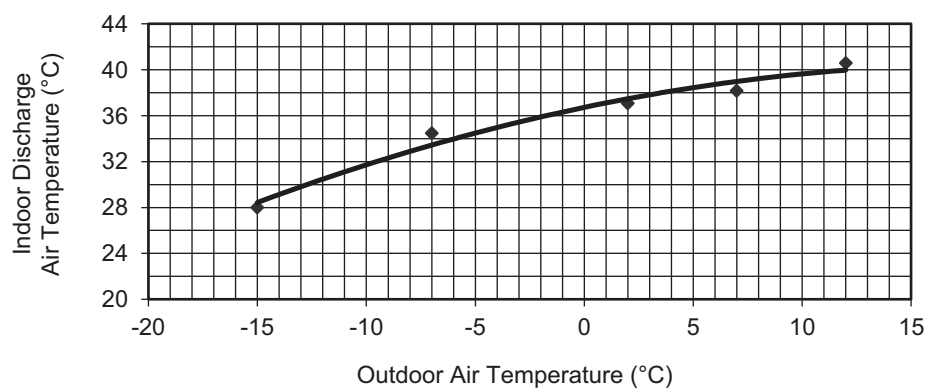
21.2.1 CS-Z20TKEW CU-Z20TKE CS-XZ20TKEW CU-Z20TKE



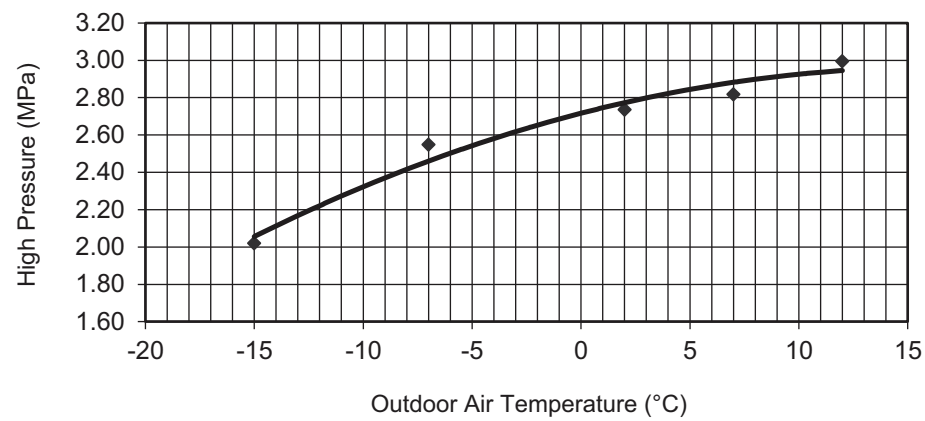
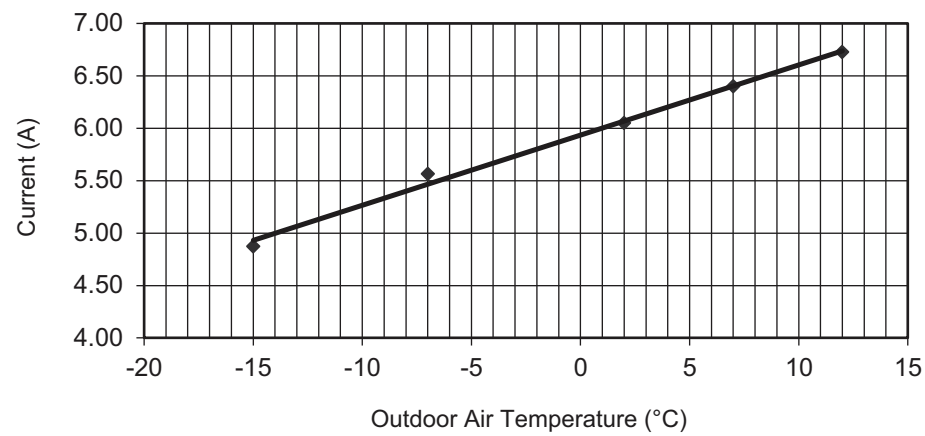
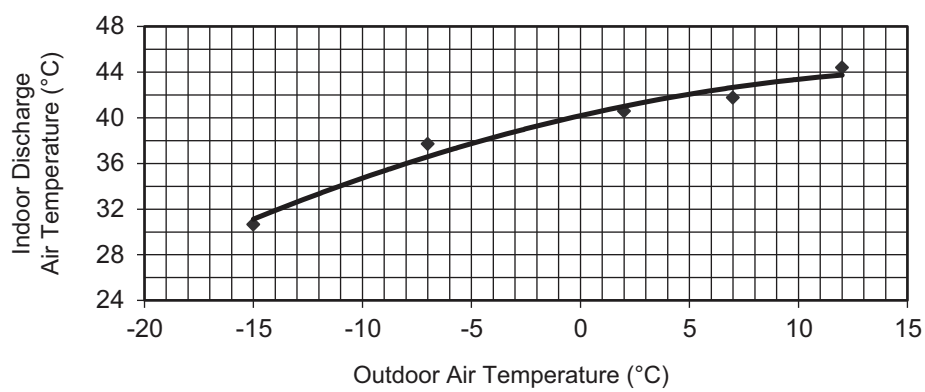
21.2.2 CS-Z25TKEW CU-Z25TKE CS-XZ25TKEW CU-Z25TKE



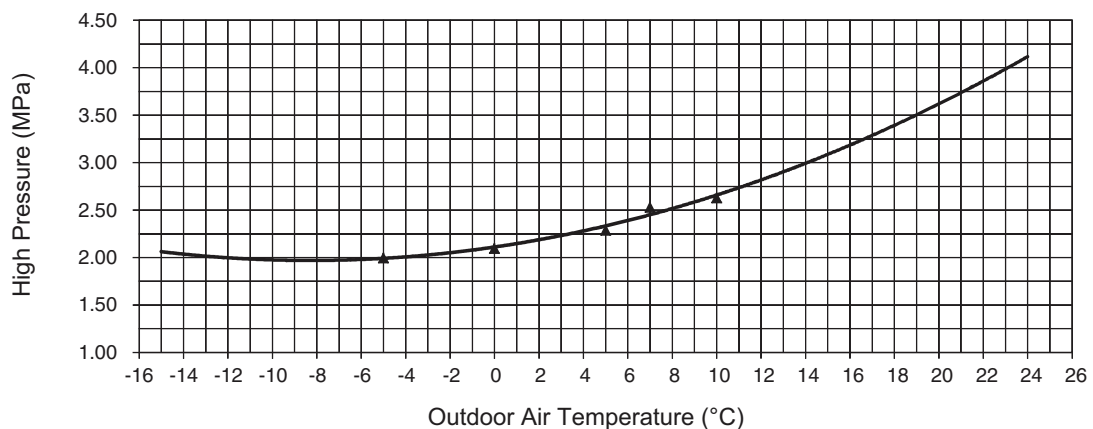
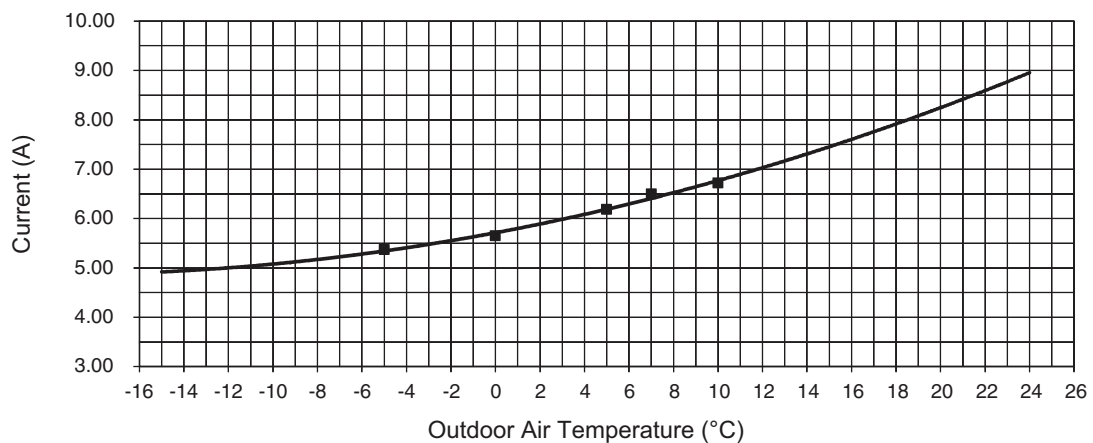
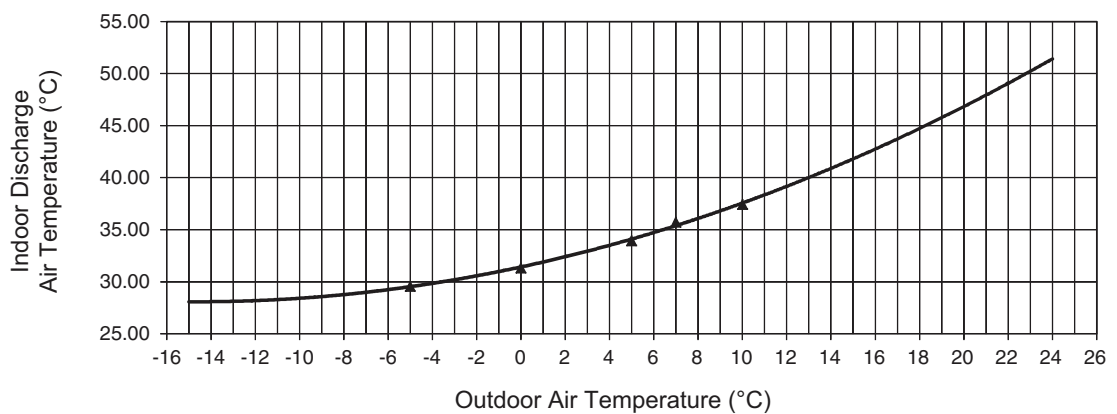
21.2.3 CS-Z35TKEW CU-Z35TKE CS-XZ35TKEW CU-Z35TKE



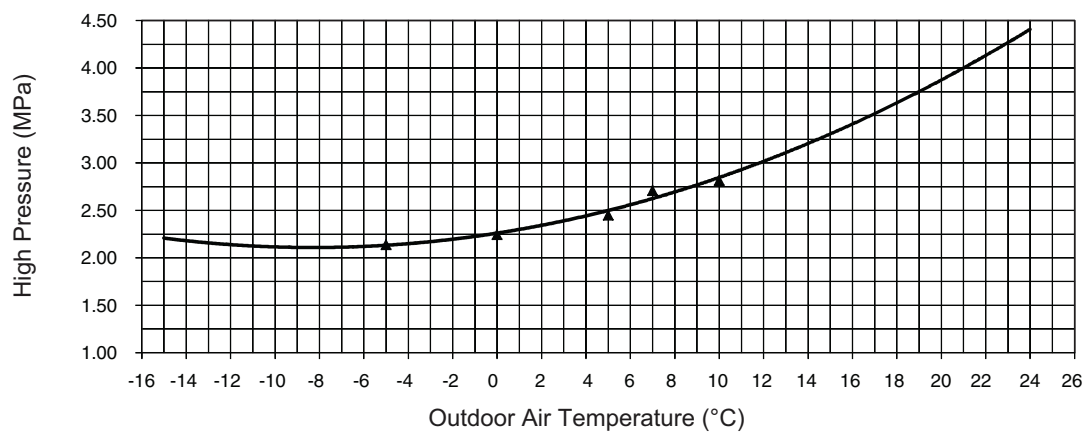
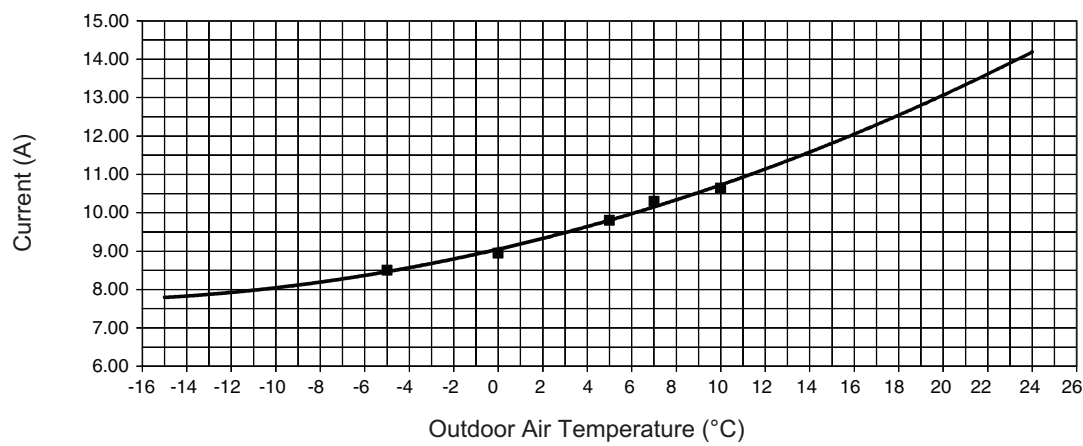
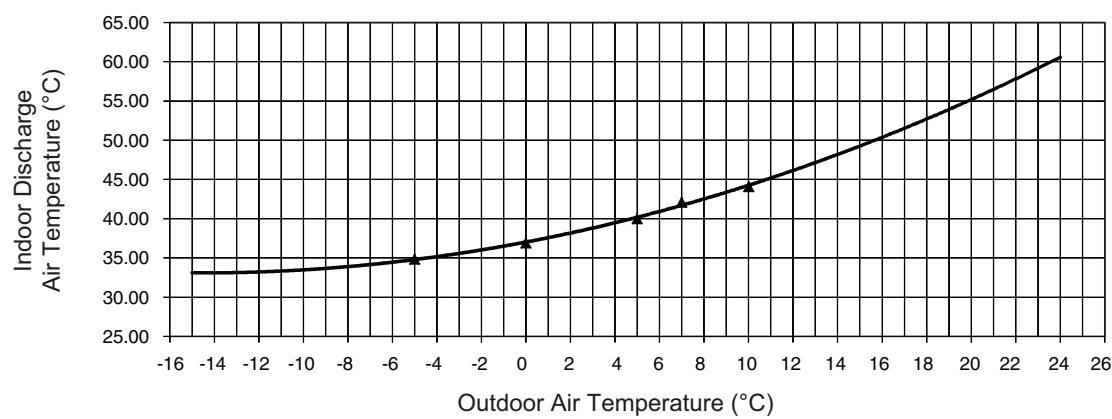
21.2.4 CS-Z42TKEW CU-Z42TKE



21.2.5 CS-Z50TKEW CU-Z50TKE CS-XZ50TKEW CU-Z50TKE



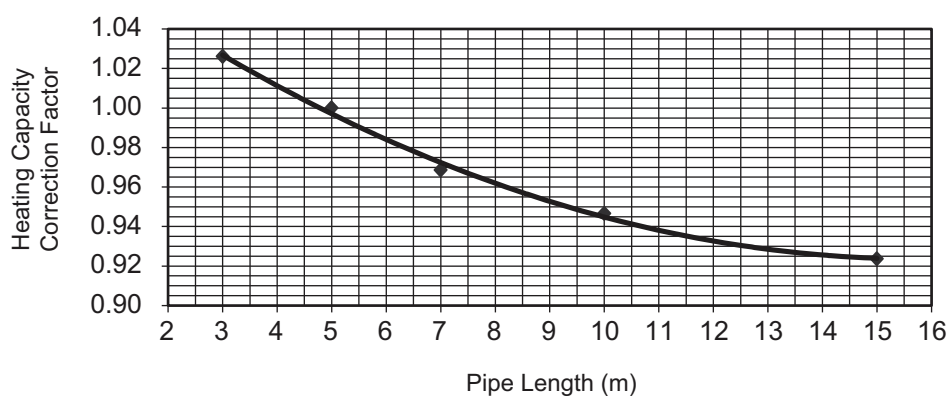
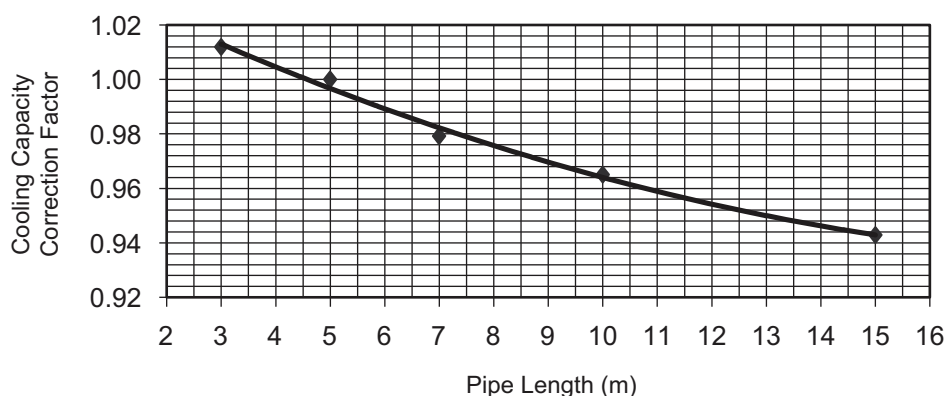
21.2.6 CS-Z71TKEW CU-Z71TKE



21.3 Piping Length Correction Factor

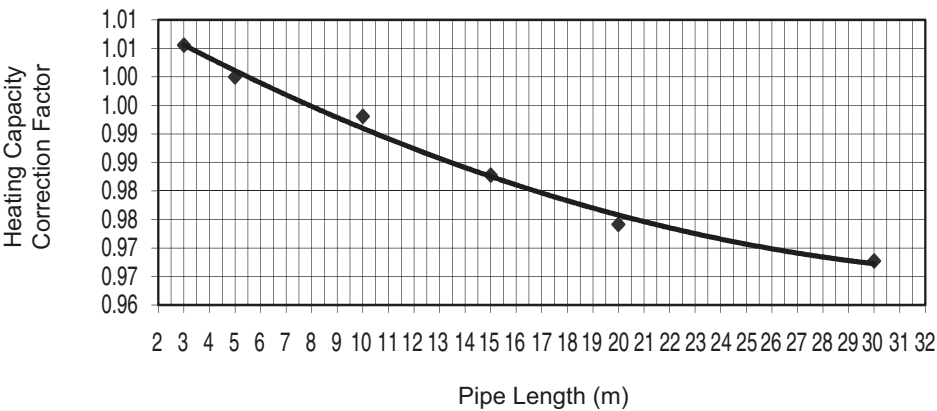
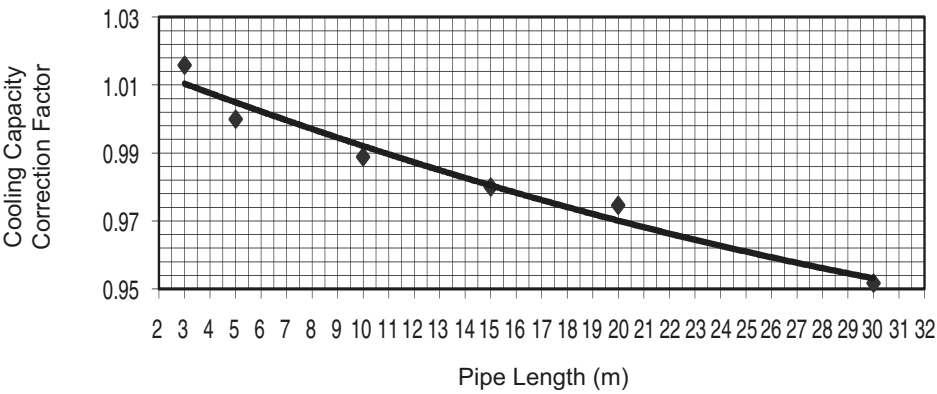
The characteristic of the unit has to be corrected in accordance with the piping length.

21.3.1 CS-Z20TKEW CU-Z20TKE CS-Z25TKEW CU-Z25TKE CS-Z35TKEW CU-Z35TKE CS-Z42TKEW CU-Z42TKE CS-XZ20TKEW CU-Z20TKE CS-XZ25TKEW CU-Z25TKE CS-XZ35TKEW CU-Z35TKE



Note: The graphs show the factor after added right amount of additional refrigerant.

21.3.2 CS-Z50TKEW CU-Z50TKE CS-Z71TKEW CU-Z71TKE CS-XZ50TKEW CU-Z50TKE



Note: The graphs show the factor after added right amount of additional refrigerant.
Maximum piping length for Z50TKE is 20 meters.
Maximum piping length for Z71TKE is 30 meters.