

4 Way Cassette

YKCA-YKHA 18 to 48

SERVICE MANUAL



YKCA-YKHA 18 · YKCA-YKHA 24
YKCA-YKHA 36 · YKCA-YKHA 48



SM-YKCA-YKHA-18-48GB 0508

How to read the model?

Y K H A 12 F S A* A A A**

Range:

- F = Floor standing
- H = High wall
- M = Master range
- P = Portable
- Y = YORK
- R = Everest front

Family:

- A = Efficiency Ultra
- E = Eco Ultra
- H = Alps
- J = Atlas
- K = Cassette
- L = Ultra
- M = Multi Ultra
- R = Multi Inverter
- V = Inverter Ultra
- U = Ducted unit
- O = Floor / Ceiling

Type:

- C = Set - Cooling only
- D = Outdoor - Cooling only
- E = Indoor - Cooling only
- H = Set - Heat pump
- J = Outdoor Heat pump
- K = Indoor Heat pump
- M = Multi Ultra
- R = Multi Inverter
- V = Inverter Ultra
- U = Ducted unit
- O = Floor / Ceiling

Refrigerant type:

- A = R22
- B = R407C
- C = R410A

Generation:

- A = First
- R = New remote

Voltages:

- A = (Out) 220-240/1/50 - (In) 220-240/1/50
- C = (Out) 380/3/50 - (In) 220-240/1/50

Indoor options:

- A = Standard
- J = Bio Screen filter
- ** Omit for outdoor units

Outdoor options:

- A = Standard
- B = Low Ambient Kit
- C = Power outdoor
- * Omit for indoor units

Indoors:

- A = Free matching multi
- S = Single
- T = Duct High Static
- U = Duct standard case

Compressor type:

- A = AC Inverter
- D = DC Inverter
- F = Fixed
- M = Multi

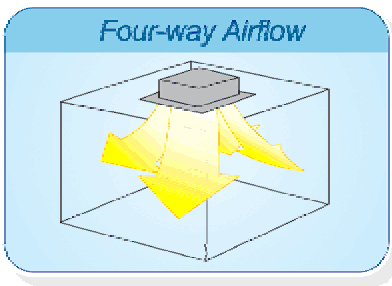
Capacity Btu/h

Four Way Cassette Type

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1. Features

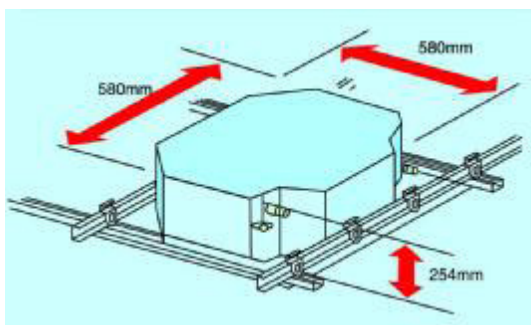
- (1) Low operation noise
 - Streamline plate ensures quietness
 - Creates natural and comfortable environment
- (2) Efficient cooling
 - Equal, fast and wide—range cooling



- (3) The adoption of the most advanced 3- Dimensional Screw fan
 - Reduces the air resistance passing through
 - Smooths the air flow
 - Makes air speed distribution to the heat exchange uniform
- (4) Fresh air makes life healthier and more comfortable.



- (4) Improvement for easy installation and maintenance (only available for small four-way cassette)
 - Little space is required for installation into a shallow ceiling
 - Because of the compactness and weight reduction of the main unit and panel, all models can be installed without a hoist



The sketch map of installation (compact type)

2. Specification

Compact type

Model			YKCA 18	YKHA 18
Power supply		Ph-V-Hz	1,220-240V,50Hz	1,220-240V,50Hz
Cooling	Capacity	Btu/h	18000	18000
	Input	W	2050	2050
	Rated current	A	8.5	9.8
	EER	Btu/w.h	8.8	8.8
Heating	Capacity	Btu/h	/	20500
	Input	W	/	2150
	Rated current	A	/	10.5
	COP	Btu/w.h	/	9.5
Moisture Removal		l/h	1.9	1.9
Max. input consumption		W	2600	2600
Max. input current		A	13.5	13.5
Compressor	Model		PH330X2CS-8	PH330X2CS-8
	Type		ROTARY	ROTARY
	Brand		TOSHIBA	TOSHIBA
	Supplier		MIDEA-TOSHIBA	MIDEA-TOSHIBA
	Capacity	Btu/h	18834	18834
	Input	W	1870	1870
	Rated current(RLA)	A	8.75	8.75
	Locked rotor Amp(LRA)	A	36.8	36.8
	Thermal protector		INNER	INNER
	Capacitor	uF	50/370 μF/V	50/370 μF/V
	Refrigerant oil	ml	ESTER OIL VG74 750	ESTER OIL VG74 750
Indoor fan motor	Model		YDK45-4F	YDK45-4F
	Input	W	63	63
	Capacitor	uF	2.5μF/450V	2.5μF/450V
	Speed(hi/lo)	r/min	930/830/660	930/830/660
Indoor coil	a.Number of rows		2	2
	b.Tube pitch(a)x row pitch(b)	mm	21X13.37	21X13.37
	c.Fin spacing	mm	1.3	1.3
	d.Fin type		Hydrophilic aluminium	Hydrophilic aluminium
	e.Tube outer dia.and type	mm	Ø 7 innergroove tube	Ø 7 innergroove tube
	f.Coil length x height x width	mm	1185×210×26.74	1185×210×26.74
	g.Number of circuits		5	5
Indoor air flow (Hi/Lo)		m ³ /h	860/760	860/760
Indoor noise level (Hi/Lo)		dB(A)	43/40	43/40
Indoor unit	Dimension (W*H*D)(body)	mm	580×254×580	580×254×580
	Packing (W*H*D)(body)	mm	750x340×750	750x340×750

	Dimension (W*H*D)(panel)	mm	650x30x650	650x30x650
	Packing (W*H*D)(panel)	mm	715x115x715	715x115x715
	Net/Gross weight(body)	kg	21/30	21/30
	Net/Gross weight(panel)	kg	3/5	3/5
Outdoor fan motor	Model		YDK53-6GC	YDK53-6GC
	Input	W	110/104/98	110/104/98
	Capacitor	uF	2.5 uF/450V	2.5uF/450V
	Speed (hi)	r/min	750	750
Outdoor coil	a.Number of rows		2	2
	b.Tube pitch(a)x row pitch(b)	mm	25.4×22	25.4×22
	c.Fin spacing	mm	1.7	1.7
	d.Fin type (code)		Unhydrophilic aluminium	Hydrophilic aluminium
	e.Tube outer dia.and type	mm	Ø9.53, Innergroove tube	Ø9.53 innergroove tube
	f.Coil length x height x width	mm	775×660×44	775×660×44
	g.Number of circuits		3	3
Outdoor air flow		m ³ /h	2400	2400
Outdoor noise level		dB(A)	48	48
Outdoor unit	Dimension(W*H*D)	mm	845×695×335	845×695×335
	Packing (W*H*D)	mm	970X770X395	970X770X395
	Net/ Gross weight	kg	52/56	53/57
Refrigerant type/Quantity		g	R22/1150	R22/1950
Design pressure		MPa	2.6/1.2	2.8/1.2
Refrigerant piping	Liquid/ Gas side	mm(inch)	Ø6.35/Ø12.7	Ø 6.35/Ø12.7
	Max. pipe length	m	20	20
	Max. difference in level	m	10	10
Operation temp		°C	17~30	17~30
Ambient temp		°C	18~45	-7~45
Application area		m ²	34-49	34-49
Qty'per 20' /40' /40'HQ	indoor		119/249/252	119/249/252
	outdoor		68/144/216	68/144/216
	set		47/107/117	47/107/117

Notes:

1. Nominal cooling capacities are based on the following conditions:

Indoor temp: 27°CDB, 19°CWB; Outdoor temp: 35°CDB; Equivalent ref. Piping: 7.5m(horizontal)

2. Nominal heating capacities are based on the following conditions:

Indoor temp: 20°CDB; Outdoor temp: 7°CDB, 6°CWB; Equivalent ref. Piping: 7.5m(horizontal)

3. Actual noise level may differ, depending on the room structure, etc, since these noise values are from an anechoic room.

Normal type

Model			YKCA 18	YKHA 18
Power supply		Ph-V-Hz	1,220-240V,50	1,220-240V,50
Cooling	Capacity	Btu/h	18000	18000
	Capacity	kW	5.2	5.2
	Input	W	2000	2000
	Rated current	A	10	10
	EER	Btu/w.h	8.5	9
Heating	Capacity	Btu/h	/	20500
	Capacity	kW	/	6
	Input	W	/	2000
	Rated current	A	/	10
	COP	Btu/w.h	/	10.3
Moisture Removal		l/h	1.9	1.9
Max. input consumption		W	2600	2600
Max. input current		A	12	13.7
Compressor	Model		PH330X2CS-8	PH330X2CS-8
	Type		ROTARY	ROTARY
	Brand		MIDEA-TOSHIBA	MIDEA-TOSHIBA
	Supplier		MIDEA-TOSHIBA (Guangdong)	MIDEA-TOSHIBA (Guangdong)
	Capacity	Btu/h	18834	18834
	Input	W	1870	1870
	Rated current(RLA)	A	8.75	8.75
	Locked rotor Amp(LRA)	A	36.8	36.8
	Thermal protector		INNER	INNER
	Capacitor	uF	50/370 μF/V	50/370 μF/V
	Refrigerant oil	ml	ESTER OIL VG74 750	ESTER OIL VG74 750
Indoor fan motor	Model		YDK54-6	YDK54-6
	Input	W	97	97
	Capacitor	uF	3.5 uF /450v	3.5 uF /450v
	Speed (hi/lo)	r/min	560/465/360	560/465/360
Indoor coil	Coil length x height x width	mm	2000×170×27	2000×170×27
Indoor air flow (Hi/Lo)		m ³ /h	1000/830	1000/830
Indoor noise level (Hi/Lo)		dB(A)	43/40	43/40
Indoor unit	Dimension (W*H*D)(body)	mm	840X240X840	840X240X840
	Packing (W*H*D)(body)	mm	1020X330X930	1020X330X930

	Dimension(W*H*D)(panel)	mm	950X40X950	950X40X950
	Packing (W*H*D)(panel)	mm	1030X145X1030	1030X145X1030
	Net/Gross weight(body)	kg	36/46	36/46
	Net/Gross weight(panel)	kg	6/11	6/11
Outdoor fan motor	Model		YDK53-6GC	YDK53-6GC
	Input	W	98	98
	Capacitor	uF	2.0 uF /450v	2.0 uF /450v
	Speed (hi/lo)	r/min	640/440	640/440
Outdoor air flow		m3/h	2000	2000
Outdoor noise level		dB(A)	52	52
Outdoor unit	Dimension(W*H*D)	mm	845X695X335	845X695X335
	Packing (W*H*D)	mm	970X770X395	970X770X395
	Net/ Gross weight	kg	52/57	57/62
Refrigerant type/Quantity		g	R22/1150	R22/1850
Design pressure		MPa	2.6/1.2	2.6/1.2
Refrigerant piping	Liquid side	mm(inch)	Ø6.35(1/4")	Ø6.35(1/4")
	Gas side	mm(inch)	Ø12.7(1/2")	Ø12.7(1/2")
	Max. pipe length	m	20	20
	Max. difference in level	m	10	10
Operation temp		°C	17~30	17~30
Ambient temp		°C	18~45	-7~45
Application area		m ²	30-40	30-40
Qty'per 20' /40' /40'HQ		set	34/74/86	34/74/86

Notes:

1. Nominal cooling capacities are based on the following conditions:

Indoor temp: 27°CDB, 19°CWB; Outdoor temp: 35°CDB; Equivalent ref. Piping: 7.5m(horizontal)

2. Nominal heating capacities are based on the following conditions:

Indoor temp: 20°CDB; Outdoor temp: 7°CDB, 6°CWB; Equivalent ref. Piping: 7.5m(horizontal)

3. Actual noise level may differ, depending on the room structure, etc, since these noise values are from an anechoic room.

Model			YKCA 24	YKHA 24
Power supply		Ph-V-Hz	1,220-240V,50	1,220-240V,50Hz
Cooling	Capacity	Btu/h	24000	24000
	Capacity	kW	7	7
	Input	W	3050	3050
	Rated current	A	15	15
	EER	Btu/w.h	8.7	8.2
Heating	Capacity	Btu/h	/	28000
	Capacity	kW	/	8.2
	Input	W	/	2950
	Rated current	A	/	14
	COP	Btu/w.h	/	9.6
Moisture Removal		l/h	2.4	2.4
Max. input consumption		W	4000	3900
Max. input current		A	19.5	21
Compressor	Model		THU33WC6-U	THU33WC6-U
	Type		Rotary	ROTARY
	Brand		HITACHI	Hitachi
	Supplier		SHANGHAI HITACHI	Hitachi(shanghai)
	Capacity	Btu/h	28490	28490
	Input	W	2650	2650
	Rated current(RLA)	A	12.6	12.6
	Locked rotor Amp(LRA)	A	62	62
	Thermal protector		Internal	INNER
	Capacitor	uF	60μF/400V(220V) 60μF/450V(240V)	60μF/400V(220V) 60μF/450V(240V)
	Refrigerant oil	ml	SUNISO-4GSI 1050	SUNISO-4GSI 1050
Indoor fan motor	Model		YDK55-6	YDK55-6
	Input	W	128	128
	Capacitor	uF	3.5 uF /450v	3.5 uF /450v
	Speed (hi/lo)	r/min	680/600/330	680/600/330
Indoor coil	Coil length x height x width	mm	2000×170×27	2000×170×27
Indoor air flow (Hi/Lo)		m ³ /h	1050/900	1050/900
Indoor noise level (Hi/Lo)		dB(A)	43/40	43/40
Indoor unit	Dimension (W*H*D)(body)	mm	840X240X840	840X240X840
	Packing (W*H*D)(body)	mm	1020X330X930	1020X330X930

	Dimension(W*H*D)(panel)	mm	950X40X950	950X40X950
	Packing (W*H*D)(panel)	mm	1030X145X1030	1030X145X1030
	Net/Gross weight(body)	kg	36/46	36/46
	Net/Gross weight(panel)	kg	6/11	6/11
Outdoor fan motor	Model		YDK53-6K	YDK65-6C1
	Input	W	130	137.8
	Capacitor	uF	3.0 uF /450v	3.5 uF /450v
	Speed (hi/lo)	r/min	750	800/550
Outdoor air flow		m3/h	3000	3000
Outdoor noise level		dB(A)	52	52
Outdoor unit	Dimension(W*H*D)	mm	895X860X330	895X860X330
	Packing (W*H*D)	mm	1043X915X395	1043X915X395
	Net/ Gross weight	kg	62/64	68/70
Refrigerant type/Quantity		g	R22/1450	R22/2600
Design pressure		MPa	2.6/1.2	2.6/1.2
Refrigerant piping	Liquid side	mm(inch)	Ø9.53(3/8")	Ø9.53(3/8")
	Gas side	mm(inch)	Ø16(5/8")	Ø16(5/8")
	Max. pipe length	m	20	20
	Max. difference in level	m	10	10
Operation temp		°C	17~30	17~30
Ambient temp		°C	18~45	-7~45
Application area		m ²	40-56	40-56
Qty'per 20' /40' /40'HQ		set	30/63/66	30/63/66

Notes:

1. Nominal cooling capacities are based on the following conditions:

Indoor temp: 27°CDB, 19°CWB; Outdoor temp: 35°CDB; Equivalent ref. Piping: 7.5m(horizontal)

2. Nominal heating capacities are based on the following conditions:

Indoor temp: 20°CDB; Outdoor temp: 7°CDB, 6°CWB; Equivalent ref. Piping: 7.5m(horizontal)

3. Actual noise level may differ, depending on the room structure, etc, since these noise values are from an anechoic room.

Model			YKCA 36	YKHA 36
Power supply		Ph-V-Hz	1,220-240V,50Hz	1,220-240V,50Hz
Cooling	Capacity	Btu/h	36000	36000
	Capacity	kW	10.7	10.7
	Input	W	4400	4400
	Rated current	A	21	21
	EER	Btu/w.h	8.3	8.3
Heating	Capacity	Btu/h	/	40000
	Capacity	kW	/	11.7
	Input	W	/	4500
	Rated current	A	/	8
	COP	Btu/w.h	/	8.9
Moisture Removal		l/h	4	4
Max. input consumption		W	5500	5500
Max. input current		A	35	35
Compressor	Model		ZR47K3-PFJ-522	ZR47K3-PFJ-522
	Type		SCROLL	SCROLL
	Brand		Copeland	Copeland
	Supplier		Copeland(Suzhou)	Copeland(Suzhou)
	Capacity	Btu/h	39000	39000
	Input	W	3510	3510
	Rated current(RLA)	A	16.8	16.8
	Locked rotor Amp(LRA)	A	264	264
	Thermal protector		INNER	INNER
	Capacitor	uF	/	/
	Refrigerant oil	ml	SONTEX 200 LT 1242	SONTEX 200 LT 1242
Indoor fan motor	Model		YDK56-6	YDK56-6
	Input	W	144	144
	Capacitor	uF	3.5 uF /450v	3.5 uF /450v
	Speed (hi/lo)	r/min	680/600/330	680/600/330
Indoor coil	Coil length x height x width	mm	2000×250×27	2000×250×27
Indoor air flow (Hi/Lo)		m ³ /h	1600/1420	1600/1420
Indoor noise level (Hi/Lo)		dB(A)	47/44	47/44
Indoor unit	Dimension (W*H*D)(body)	mm	840X310X840	840X310X840
	Packing (W*H*D)(body)	mm	1020X400X930	1020X400X930

	Dimension(W*H*D)(panel)	mm	950X40X950	950X40X950
	Packing (W*H*D)(panel)	mm	1030X145X1030	1030X145X1030
	Net/Gross weight(body)	kg	40/50	40/50
	Net/Gross weight(panel)	kg	6/11	6/11
Outdoor fan motor	Model		YDK250-6D	YDK250-6D
	Input	W	296	296
	Capacitor	uF	10 uF /450V	10 uF /450V
	Speed (hi/lo)	r/min	740	740
Outdoor air flow		m3/h	5000	5000
Outdoor noise level		dB(A)	57	57
Outdoor unit	Dimension(W*H*D)	mm	990X960X360	990X960X360
	Packing (W*H*D)	mm	1120X1090X435	1120X1090X435
	Net/ Gross weight	kg	86/98	88/100
Refrigerant type/Quantity		g	R22/1700	R22/3100
Design pressure		MPa	2.6/1.2	2.6/1.2
Refrigerant piping	Liquid side	mm(inch)	Ø 12.7(1/2")	Ø 12.7(1/2")
	Gas side	mm(inch)	Ø 19(3/4")	Ø 19(3/4")
	Max. pipe length	m	25	25
	Max. difference in level	m	10	10
Operation temp		°C	17~30	17~30
Ambient temp		°C	18~45	-7~45
Application area		m ²	80-105	80-105
Qty'per 20' /40' /40'HQ		set	25/55/67	25/55/67

Notes:

1. Nominal cooling capacities are based on the following conditions:

Indoor temp: 27°CDB, 19°CWB; Outdoor temp: 35°CDB; Equivalent ref. Piping: 7.5m(horizontal)

2. Nominal heating capacities are based on the following conditions:

Indoor temp: 20°CDB; Outdoor temp: 7°CDB, 6°CWB; Equivalent ref. Piping: 7.5m(horizontal)

3. Actual noise level may differ, depending on the room structure, etc, since these noise values are from an anechoic room.

Model			YKCA 36	YKHA 36
Power supply		Ph-V-Hz	3N,380V,50Hz	3N,380V,50Hz
Cooling	Capacity	Btu/h	36000	36000
	Capacity	kW	10.7	10.7
	Input	W	4400	4400
	Rated current	A	7.8	7.8
	EER	Btu/w.h	8.3	8.3
Heating	Capacity	Btu/h	/	40000
	Capacity	kW	/	11.7
	Input	W	/	4500
	Rated current	A	/	8
	COP	Btu/w.h	/	8.9
Moisture Removal		l/h	4	4
Max. input consumption		W	5500	5500
Max. input current		A	10	10
Compressor	Model		C-SB303H8A	C-SB303H8A
	Type		SCROLL	SCROLL
	Brand		Sanyo	Sanyo
	Supplier		Sanyo(dalian)	Sanyo(dalian)
	Capacity	Btu/h	40262	40262
	Input	W	3650	3650
	Rated current(RLA)	A	6.5	6.5
	Locked rotor Amp(LRA)	A	42	42
	Thermal protector		Internal	INNER
	Capacitor	uF	—	/
	Refrigerant oil	ml	3GS 1360	3GS 1360
Indoor fan motor	Model		YDK56-6	YDK56-6
	Input	W	144	144
	Capacitor	uF	3.5 uF /450v	3.5 uF /450v
	Speed (hi/lo)	r/min	680/600/330	680/600/330
Indoor coil	Coil length x height x width	mm	2000×250×27	2000×250×27
Indoor air flow (Hi/Lo)		m ³ /h	1600/1420	1600/1420/
Indoor noise level (Hi/Lo)		dB(A)	47/44	47/44
Indoor unit	Dimension (W*H*D)(body)	mm	840X310X840	840X310X840
	Packing (W*H*D)(body)	mm	1020X400X930	1020X400X930

	Dimension(W*H*D)(panel)	mm	950X40X950	950X40X950
	Packing (W*H*D)(panel)	mm	1030X145X1030	1030X145X1030
	Net/Gross weight(body)	kg	40/50	40/50
	Net/Gross weight(panel)	kg	6/11	6/11
Outdoor fan motor	Model		YDK250-6D	YDK250-6D
	Input	W	296	296
	Capacitor	uF	10 uF /450V	10 uF /450V
	Speed (hi/lo)	r/min	740	740
Outdoor air flow		m3/h	5000	5000
Outdoor noise level		dB(A)	57	57
Outdoor unit	Dimension(W*H*D)	mm	990X960X360	990X960X360
	Packing (W*H*D)	mm	1120X1090X435	1120X1090X435
	Net/ Gross weight	kg	86/98	88/100
Refrigerant type/Quantity		g	R22/1700	R22/3100
Design pressure		MPa	2.6/1.2	2.6/1.2
Refrigerant piping	Liquid side	mm(inch)	Ø 12.7(1/2")	Ø 12.7(1/2")
	Gas side	mm(inch)	Ø 19(3/4")	Ø 19(3/4")
	Max. pipe length	m	25	25
	Max. difference in level	m	10	10
Operation temp		°C	17~30	17~30
Ambient temp		°C	18~45	-7~45
Application area		m ²	80-105	80-105
Qty'per 20' /40' /40'HQ		set	25/55/67	25/55/67

Notes:

1. Nominal cooling capacities are based on the following conditions:

Indoor temp: 27°CDB, 19°CWB; Outdoor temp: 35°CDB; Equivalent ref. Piping: 7.5m(horizontal)

2. Nominal heating capacities are based on the following conditions:

Indoor temp: 20°CDB; Outdoor temp: 7°CDB, 6°CWB; Equivalent ref. Piping: 7.5m(horizontal)

3. Actual noise level may differ, depending on the room structure, etc, since these noise values are from an anechoic room.

Model			YKCA 48	YKHA 48
Power supply		Ph-V-Hz	3N,380V,50Hz	3N,380V,50Hz
Cooling	Capacity	Btu/h	48000	48000
	Capacity	kW	14	14
	Input	W	5400	5400
	Rated current	A	9.2	9.2
	EER	Btu/w.h	8.9	8.9
Heating	Capacity	Btu/h	/	53000
	Capacity	kW	/	15.5
	Input	W	/	5500
	Rated current	A	/	9.4
	COP	Btu/w.h	/	9.7
Moisture Removal		l/h	4.4	4.4
Max. input consumption		W	6000	5800
Max. input current		A	11.5	10.5
Compressor	Model		VR61KF-TFP-542	VR61KF-TFP-542
	Type		SCROLL	SCROLL
	Brand		Copeland	Copeland
	Supplier		Copeland(Suzhou)	Copeland(Suzhou)
	Capacity	Btu/h	51000	51000
	Input	W	4636	4636
	Rated current(RLA)	A	9.4	9.4
	Locked rotor Amp(LRA)	A	61	61
	Thermal protector		Internal	INNER
	Capacitor	uF	/	/
	Refrigerant oil	ml	3GS 1360	3GS 1360
Indoor fan motor	Model		YDK56-6	YDK56-6
	Input	W	144	144
	Capacitor	uF	3.5 uF /450v	3.5 uF /450v
	Speed (hi/lo)	r/min	680/600/330	680/600/330
Indoor coil	Coil length x height x width	mm	2000×250×27	2000×250×27
Indoor air flow (Hi/Lo)		m ³ /h	1750/1500	1750/1500
Indoor noise level (Hi/Lo)		dB(A)	47/44	47/44
Indoor unit	Dimension (W*H*D)(body)	mm	840X310X840	840X310X840
	Packing (W*H*D)(body)	mm	1020X400X930	1020X400X930
	Dimension(W*H*D)(panel)	mm	950X40X950	950X40X950

	Packing (W*H*D)(panel)	mm	1030X145X1030	1030X145X1030
	Net/Gross weight(body)	kg	40/50	40/50
	Net/Gross weight(panel)	kg	6/11	6/11
Outdoor fan motor	Model		YDK250-6D	YDK250-6D
	Input	W	296	296
	Capacitor	uF	10 uF /450V	10 uF /450V
	Speed (hi/lo)	r/min	740	740
Outdoor air flow		m3/h	5000	5000
Outdoor noise level		dB(A)	57	57
Outdoor unit	Dimension(W*H*D)	mm	990X960X360	990X960X360
	Packing (W*H*D)	mm	1120X1090X435	1120X1090X435
	Net/ Gross weight	kg	88/100	90/102
Refrigerant type/Quantity		g	R22/1700	R22/3100
Design pressure		MPa	2.6/1.2	2.6/1.2
Refrigerant piping	Liquid side	mm(inch)	Ø 12.7(1/2")	Ø 12.7(1/2")
	Gas side	mm(inch)	Ø 19(3/4")	Ø 19(3/4")
	Max. pipe length	m	25	25
	Max. difference in level	m	10	10
Operation temp		°C	17~30	17~30
Ambient temp		°C	18~45	-7~45
Application area		m ²	80-105	80-105
Qty'per 20' /40' /40'HQ		set	25/55/67	25/55/67

Notes:

1. Nominal cooling capacities are based on the following conditions:

Indoor temp: 27°CDB, 19°CWB; Outdoor temp: 35°CDB; Equivalent ref. Piping: 7.5m(horizontal)

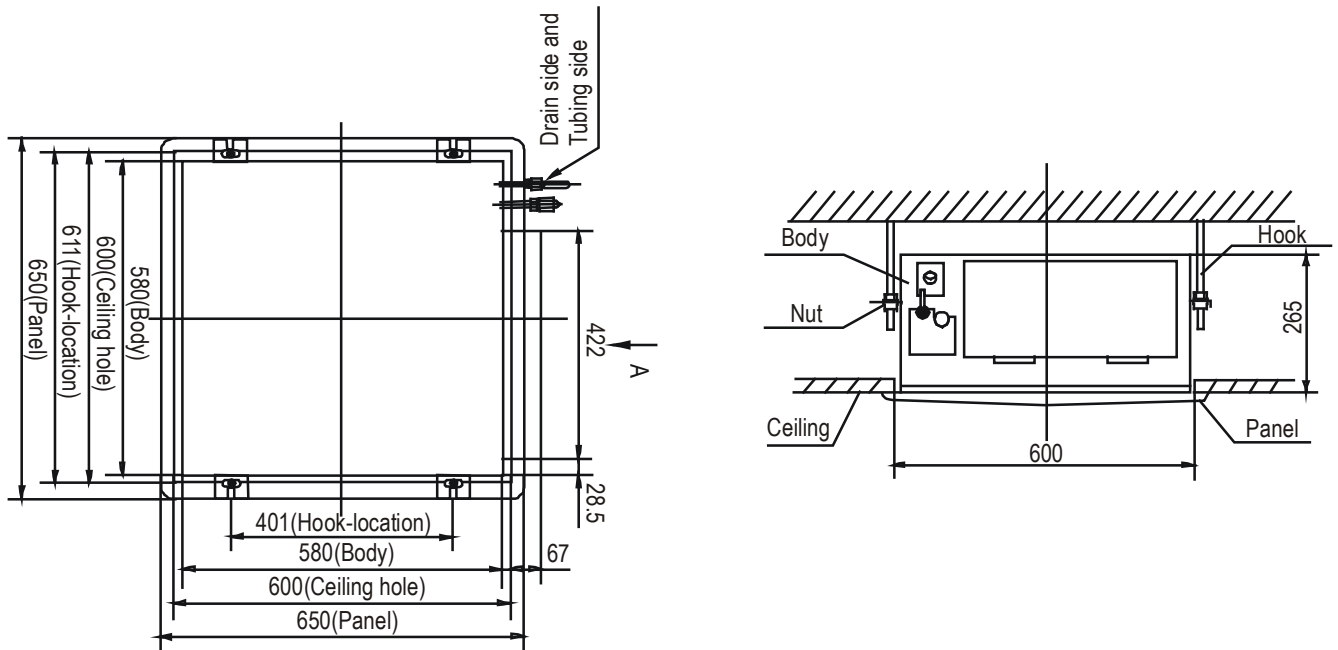
2. Nominal heating capacities are based on the following conditions:

Indoor temp: 20°CDB; Outdoor temp: 7°CDB, 6°CWB; Equivalent ref. Piping: 7.5m(horizontal)

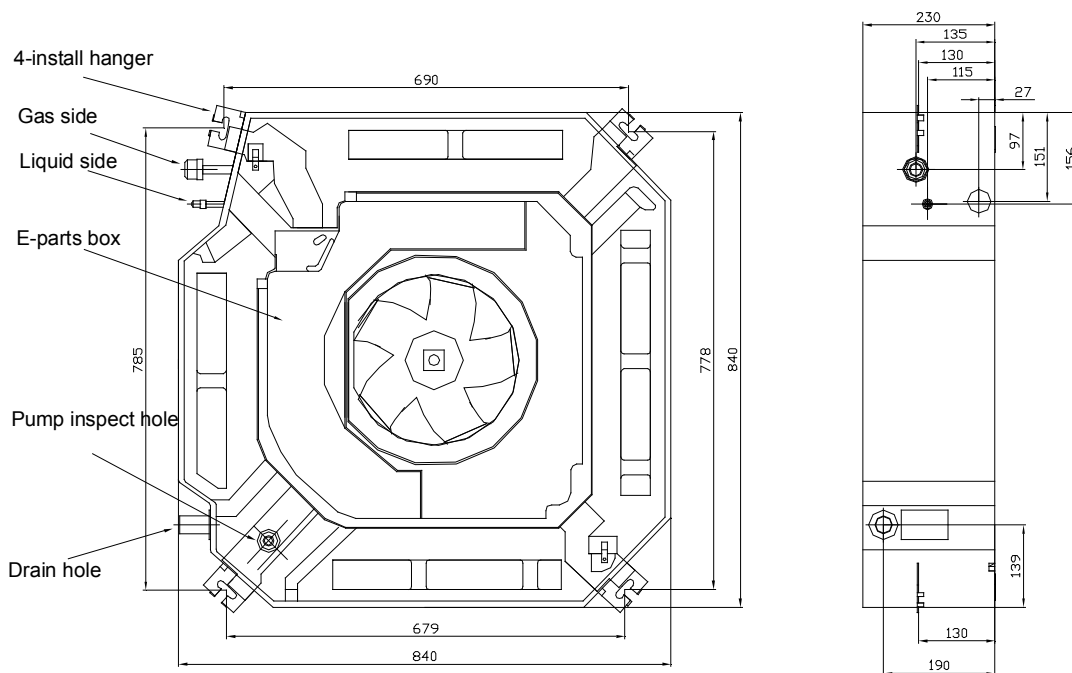
3. Actual noise level may differ, depending on the room structure, etc, since these noise values are from an anechoic room.

3. Dimensions

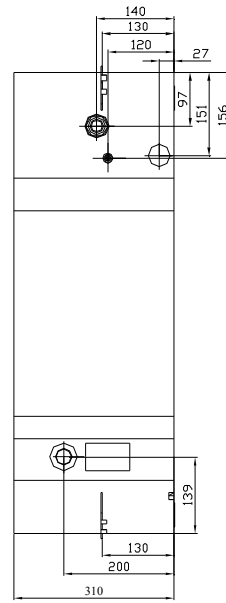
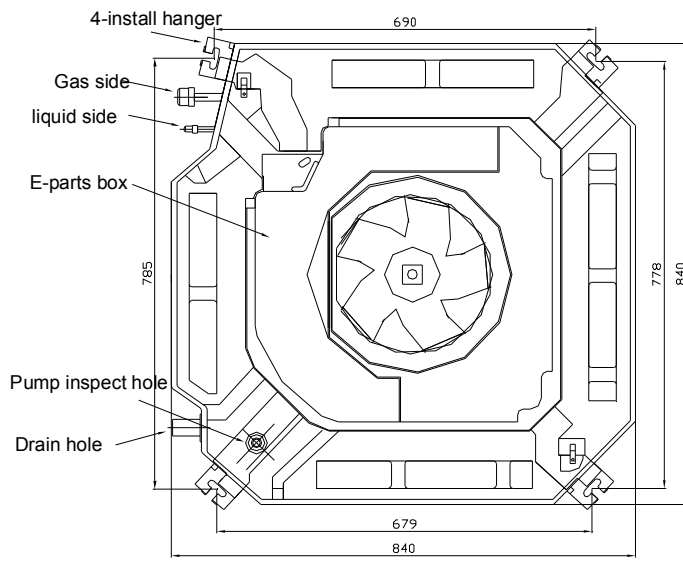
YKCA-YKHA 18 (compact)



YKCA-YKHA 18 / YKCA-YKHA 24

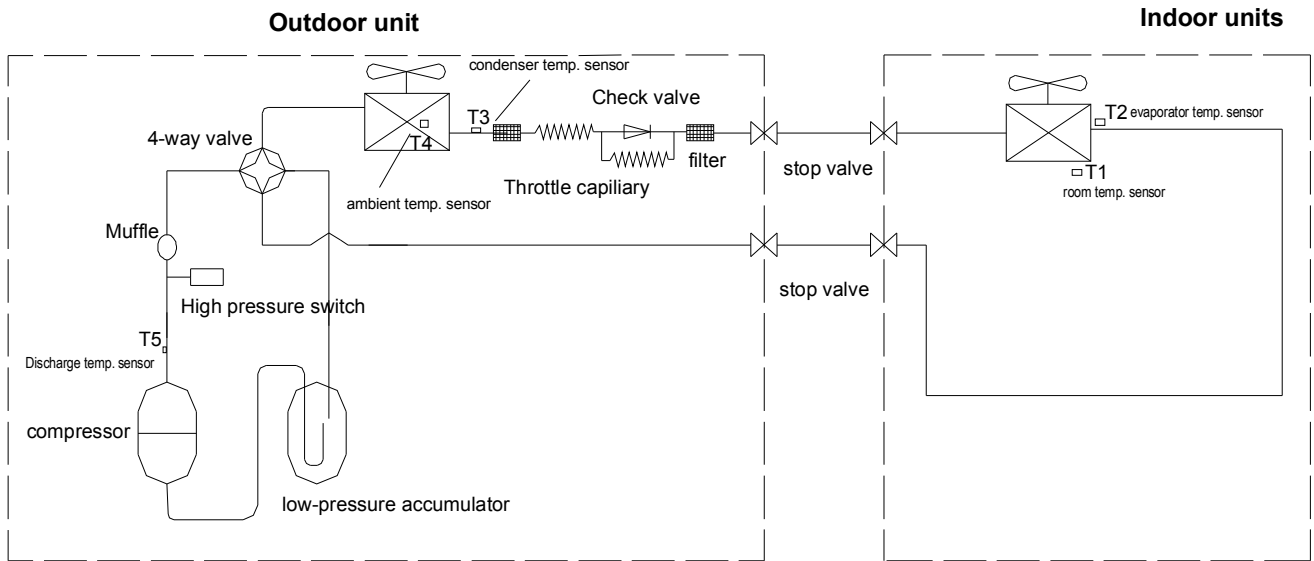


YKCA-YKHA 36 / YKCA-YKHA 48

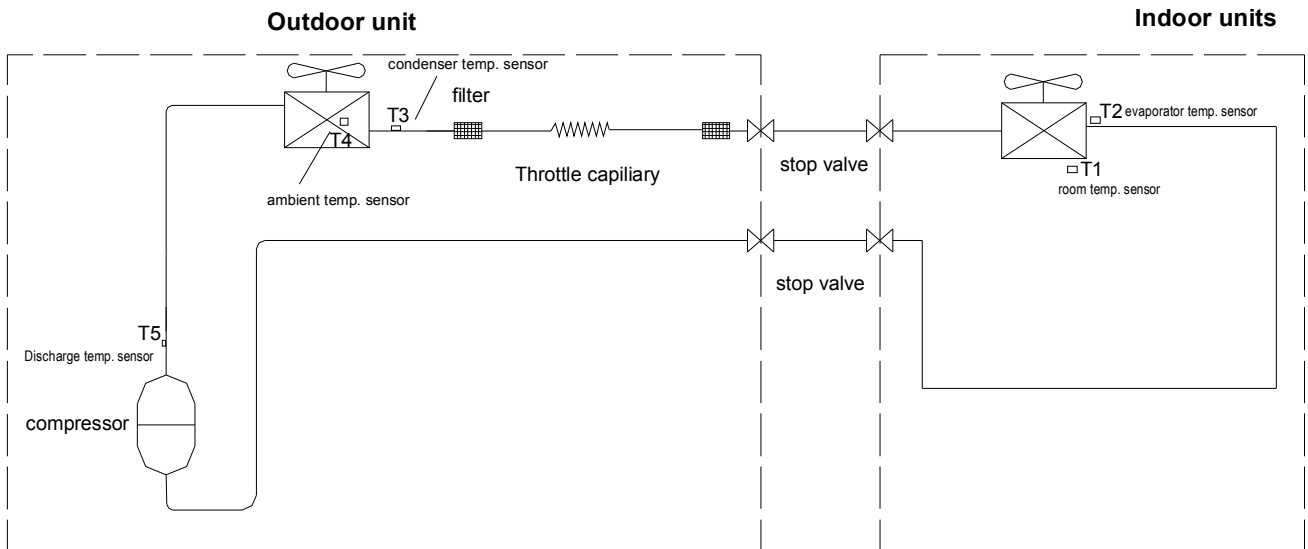


4. Piping Diagrams

Heat pump



Cooling only



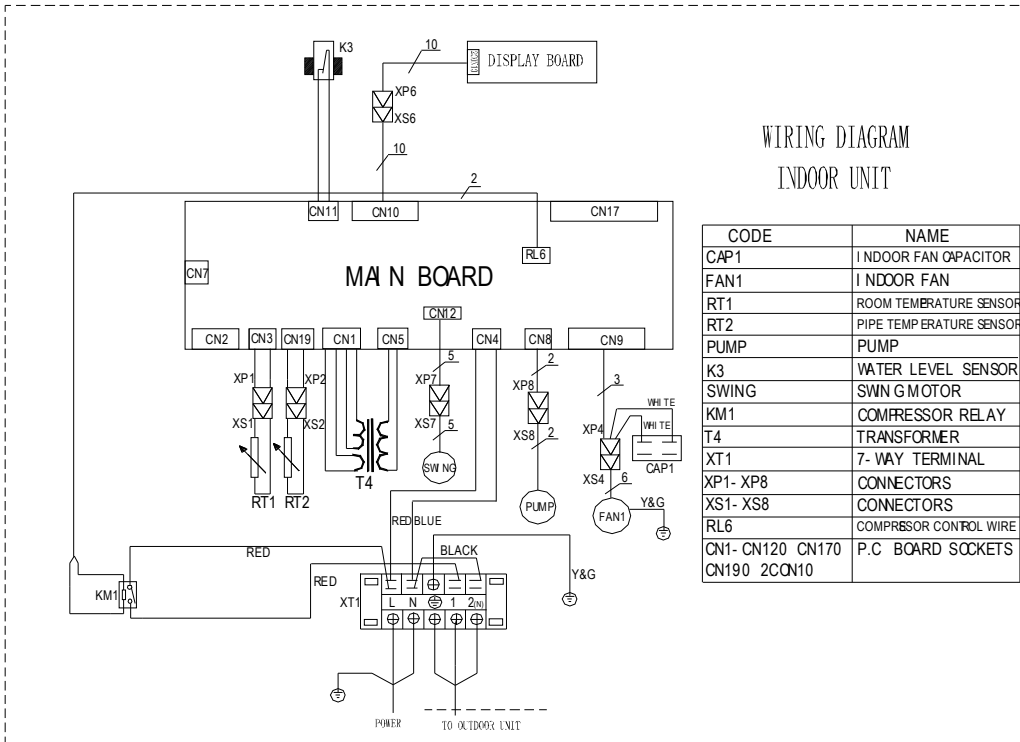
Remark:

1. For YKJ-18 and YKJ-24, accumulator is not included.
2. For YKJ-36 and YKJ-48, check valve and auxiliary capillary is not included.

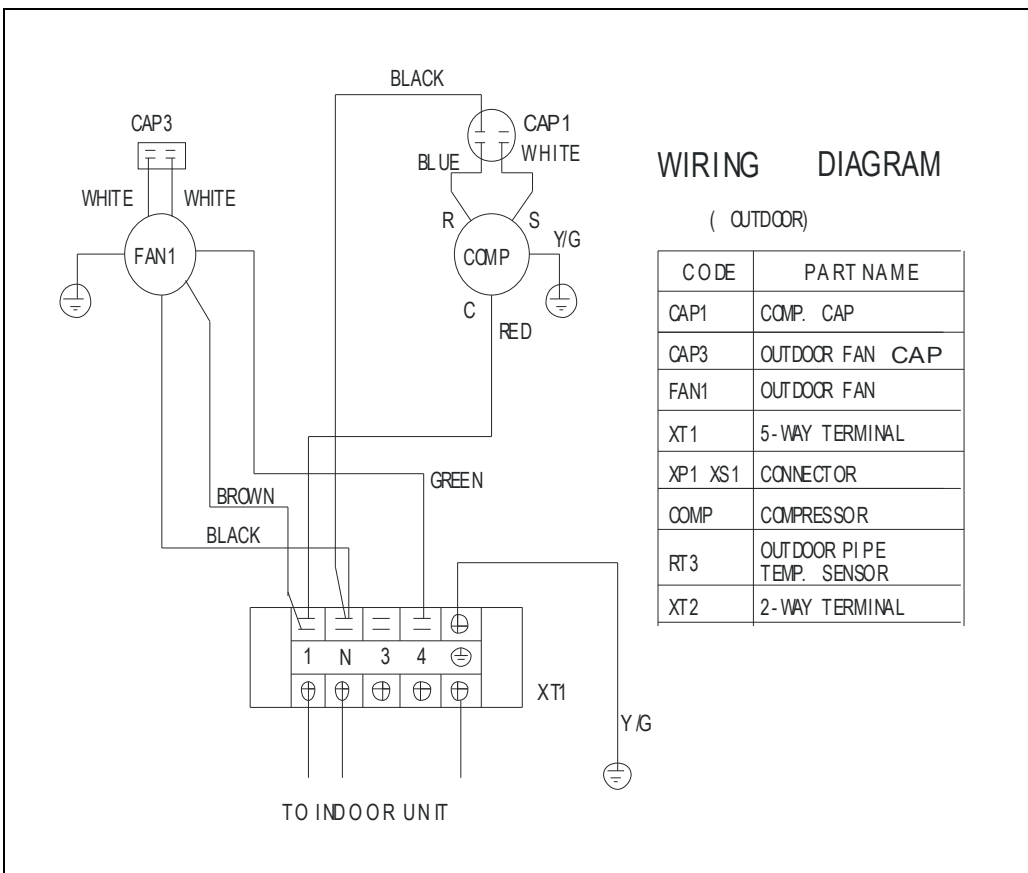
5. Wiring Diagrams

YKCA 18 (compact)

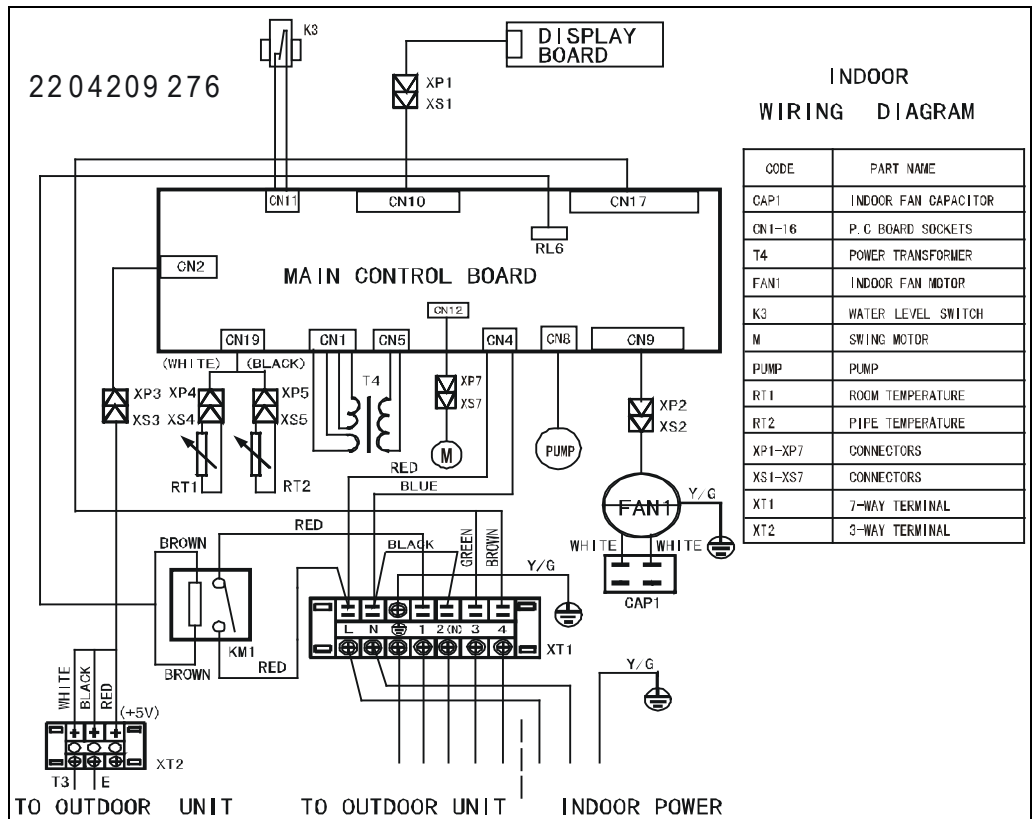
Indoor unit



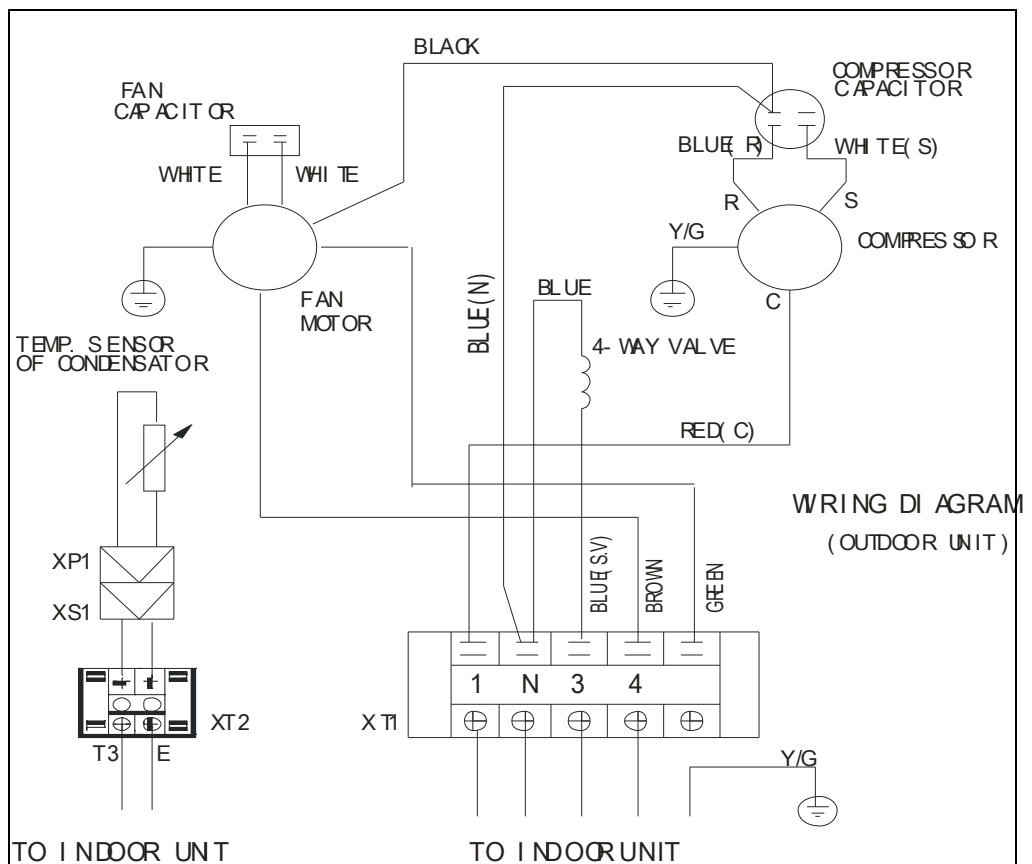
Outdoor unit



YKHA 18 (compact) Indoor unit

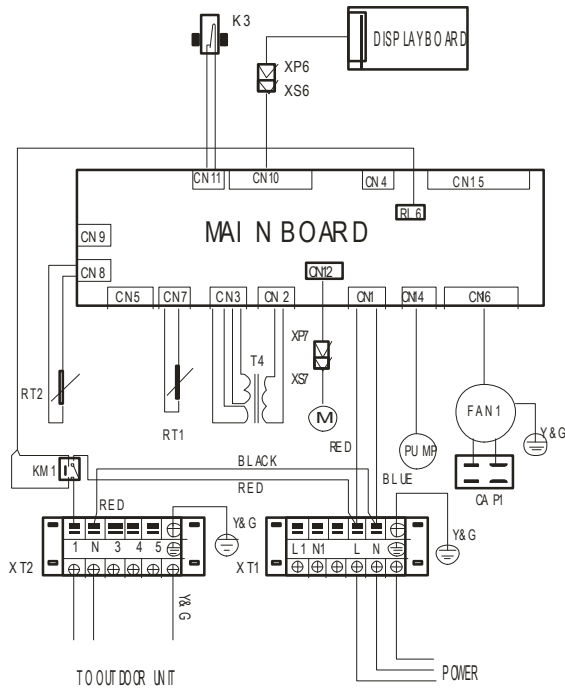


Outdoor unit



YKCA 18 Indoor unit

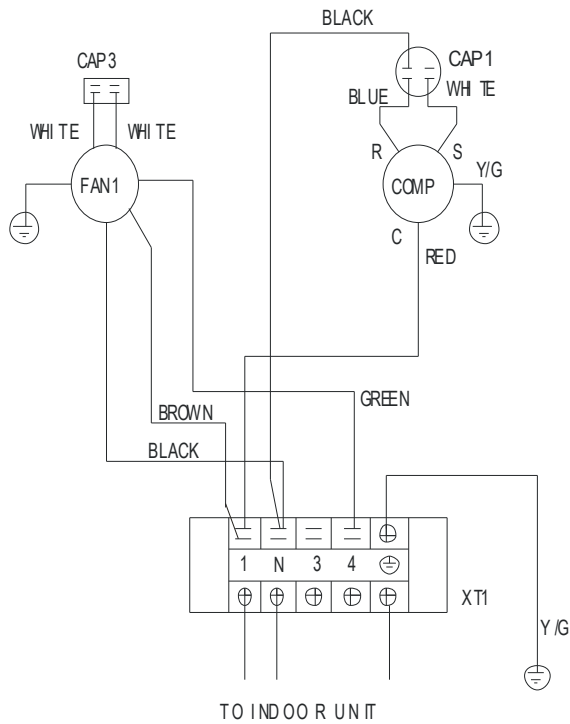
2204249000



WIRING DIAGRAM
INDOOR UNIT

CODE	PART NAME
CAP1	INDOOR FAN CAPACITOR
CN1 - 16	P. C BOARD SOCKETS
FAN1	INDOOR FAN
K3	WATER LEVEL SENSOR
KM1	RELAY
M	SWING MOTOR
PUMP	PUMP
RT1	ROOM TEMPERATURE SENSOR
RT2	PIPE TEMPERATURE SENSOR
XF6, XF7	CONNECTORS
XS6, XS7	CONNECTORS
XT1, XT2	6-WAY TERMINAL
T4	TRANSFORMER
RL6	COMPRESSOR CONTROL WIRE

Outdoor unit

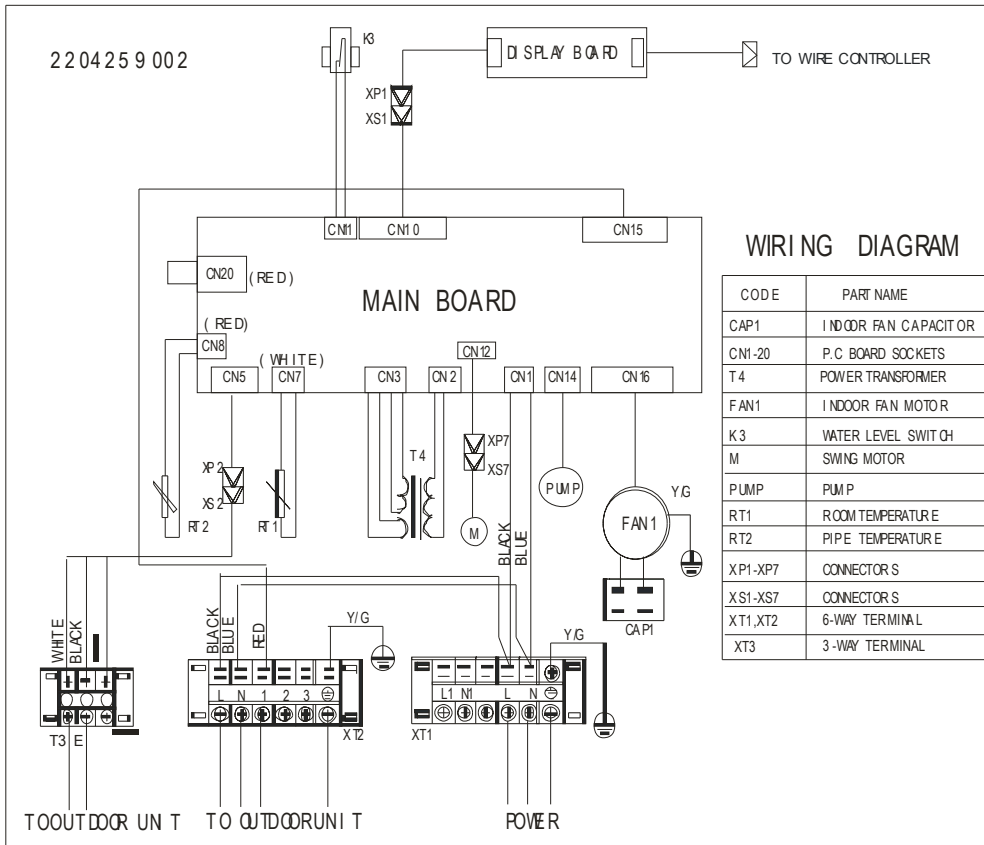


WIRING DIAGRAM

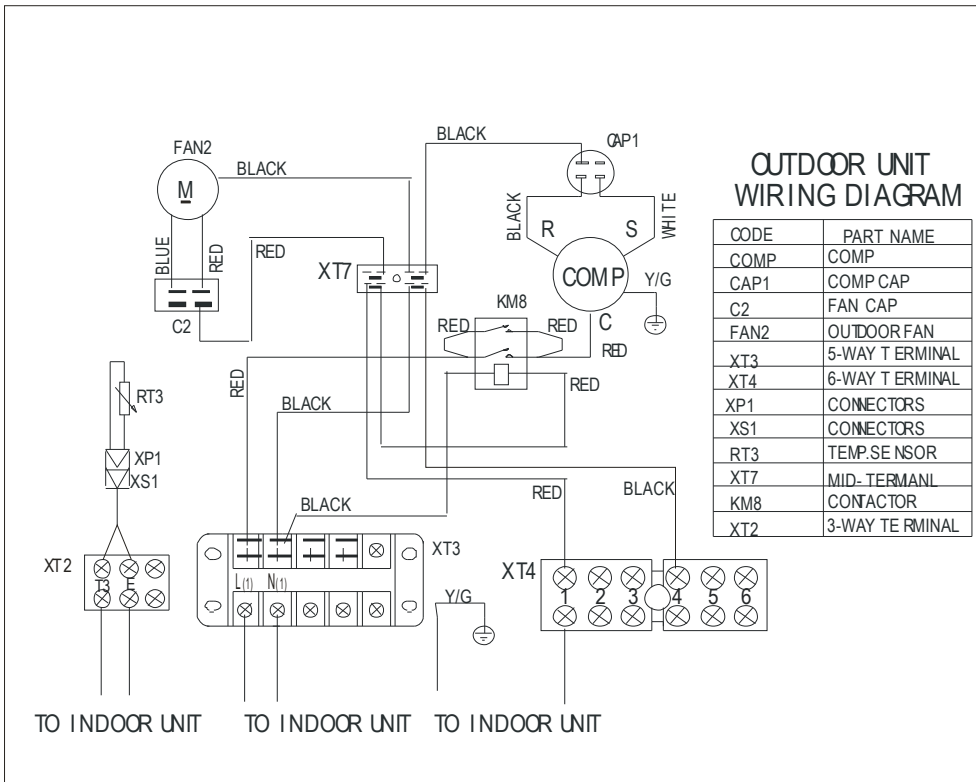
(OUTDOOR)

CODE	PART NAME
CAP1	COMP. CAP
CAP3	OUTDOOR FAN CAP
FAN1	OUTDOOR FAN
XT1	5-WAY TERMINAL
XP1 XS1	CONNECTOR
COMP	COMPRESSOR
RT3	OUTDOOR PIPE TEMP. SENSOR
XT2	2-WAY TERMINAL

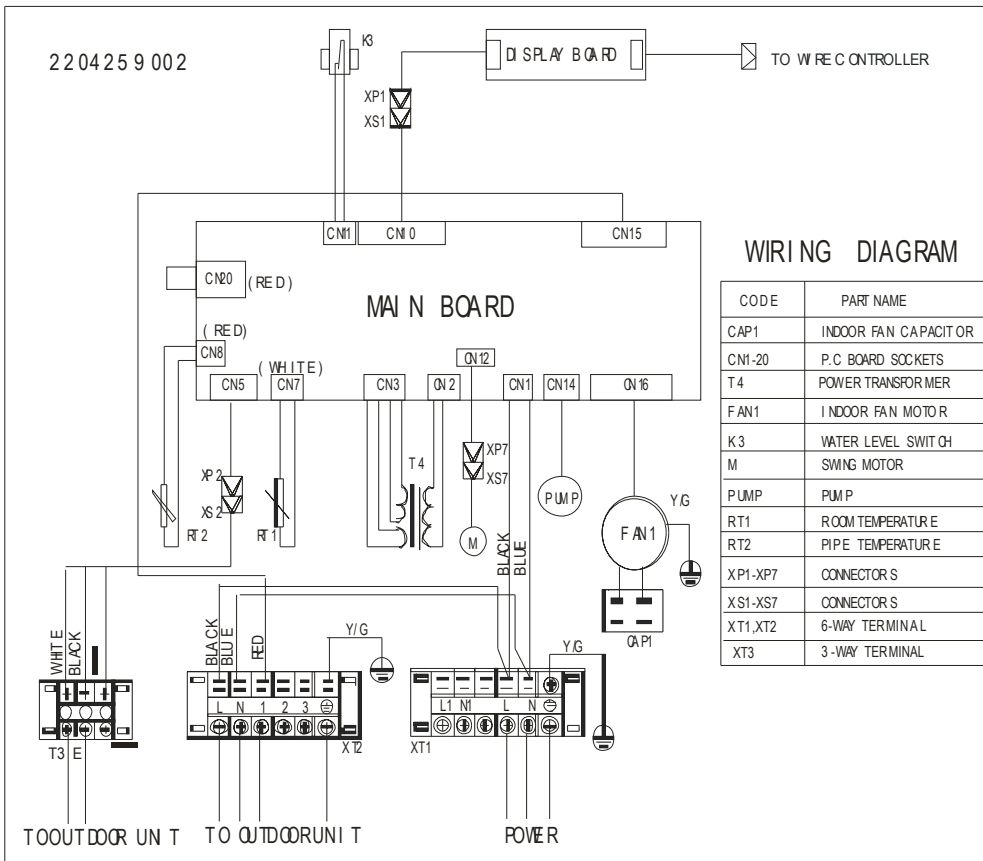
YKCA 24 Indoor unit



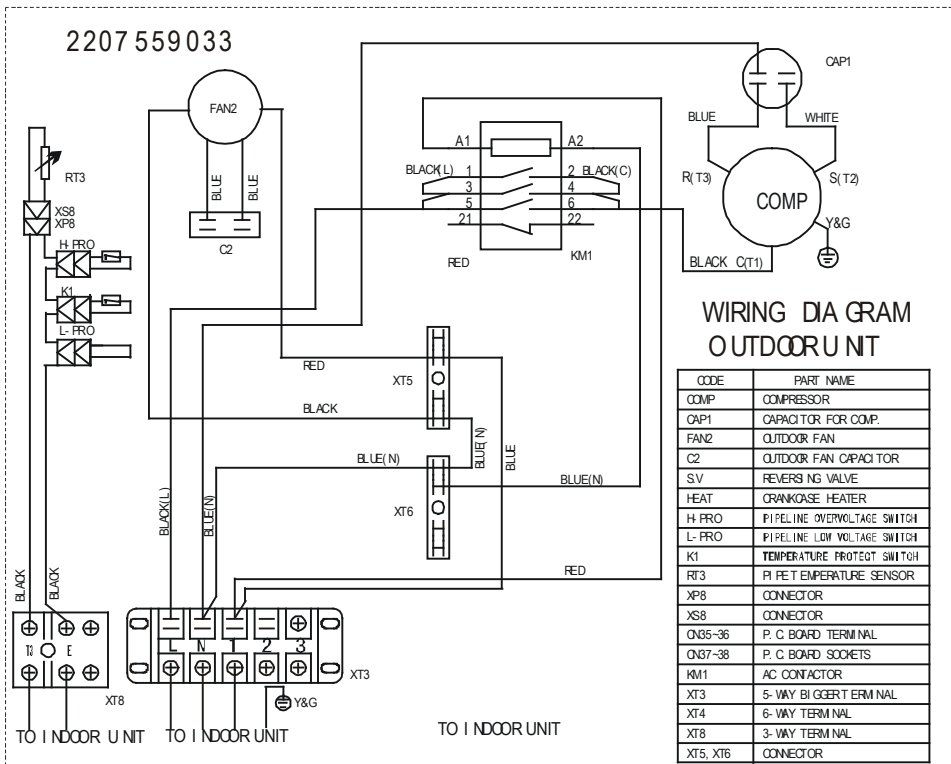
Outdoor unit



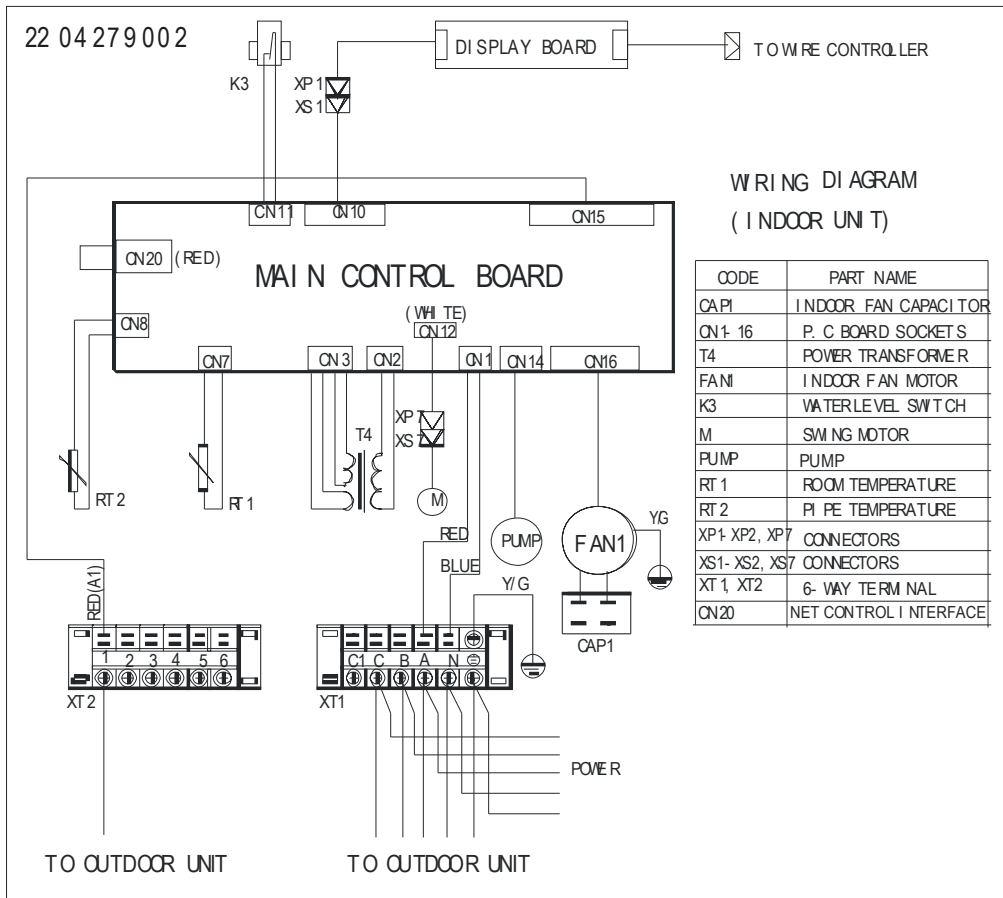
YKCA 36 (1 phase) Indoor unit



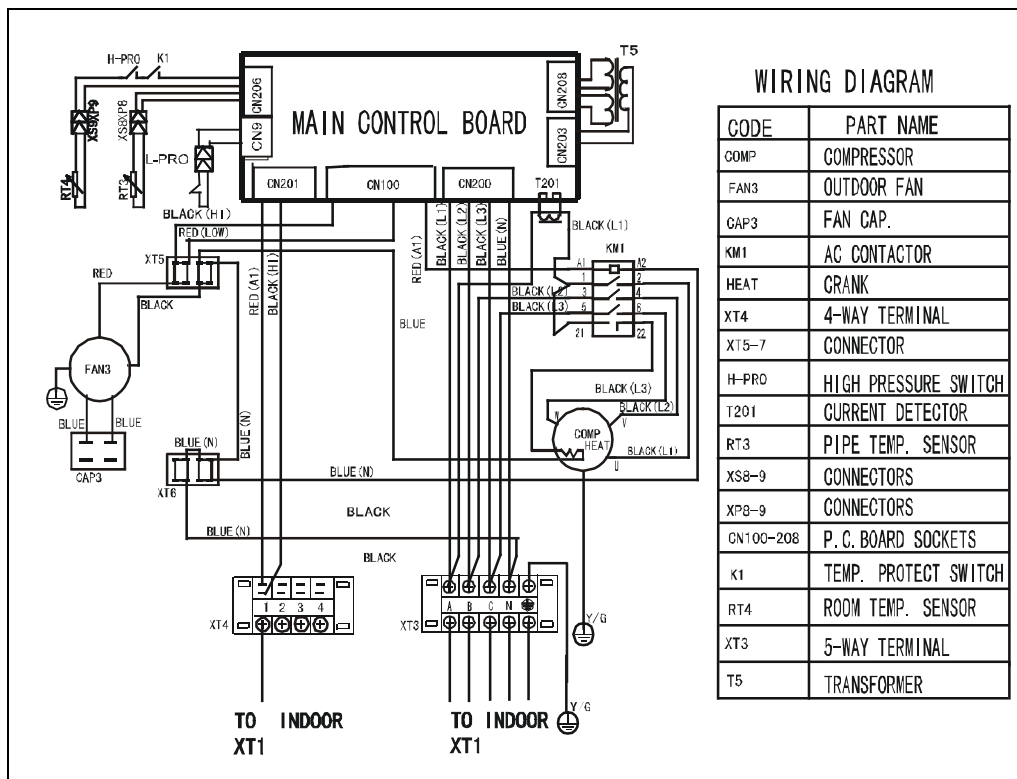
Outdoor unit



YKCA 36 (3 phase) Indoor unit

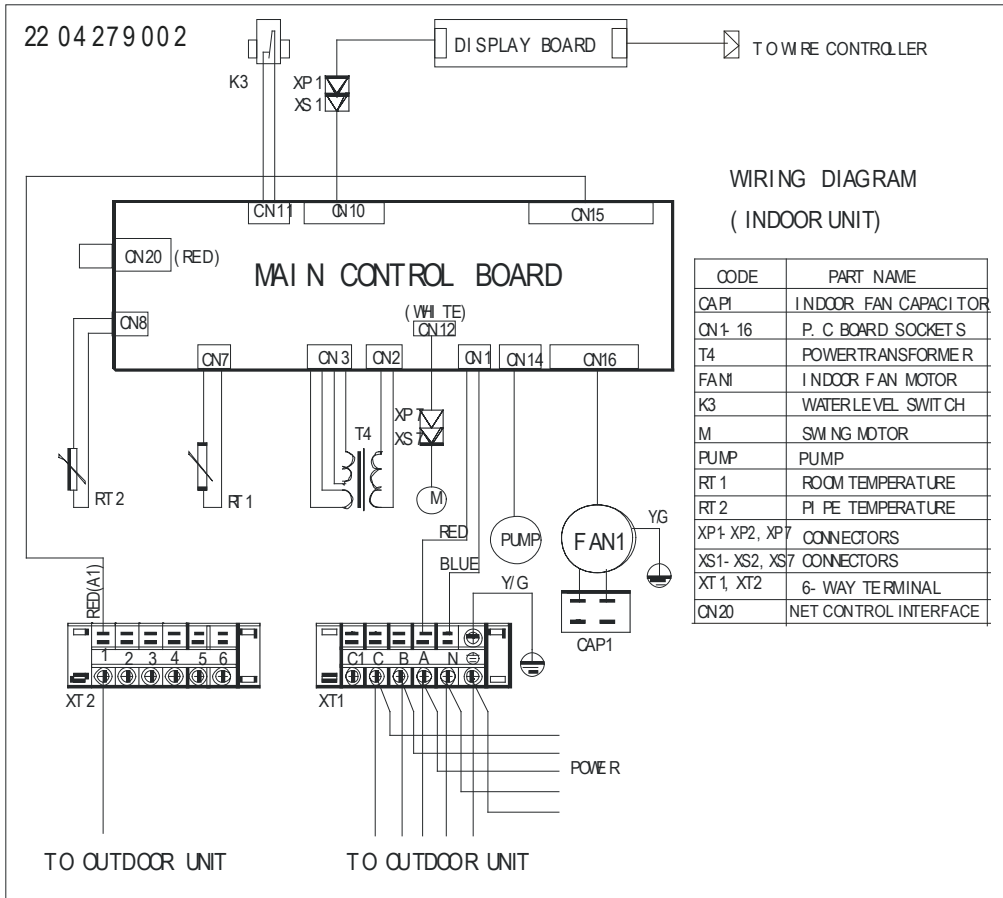


Outdoor unit

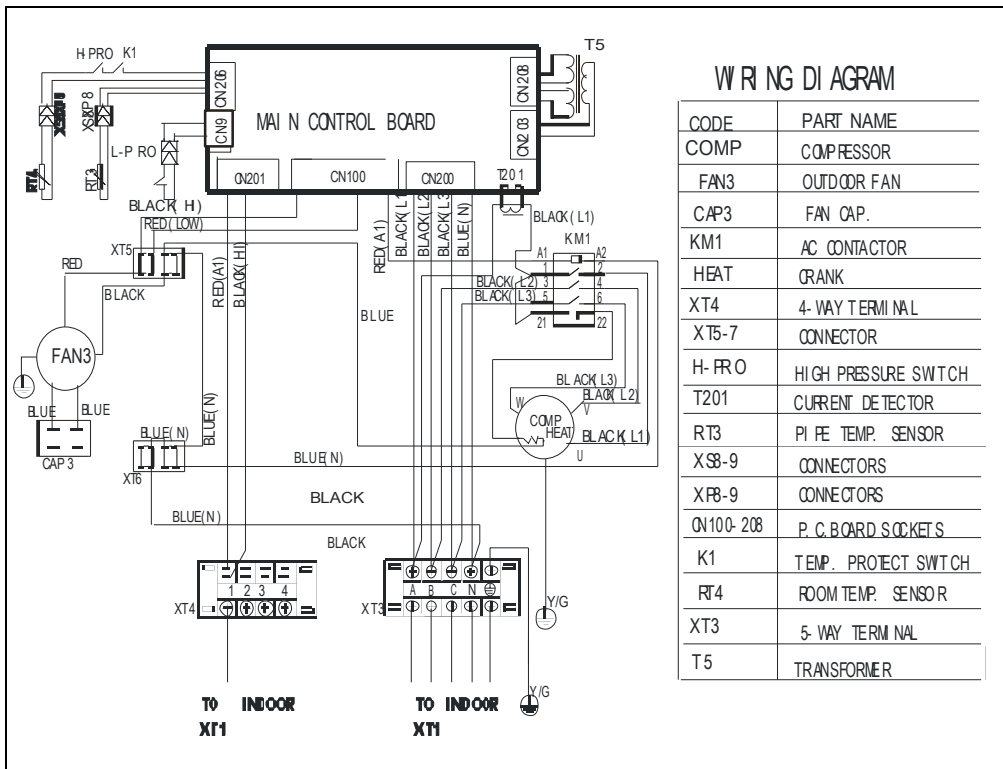


YKCA 48

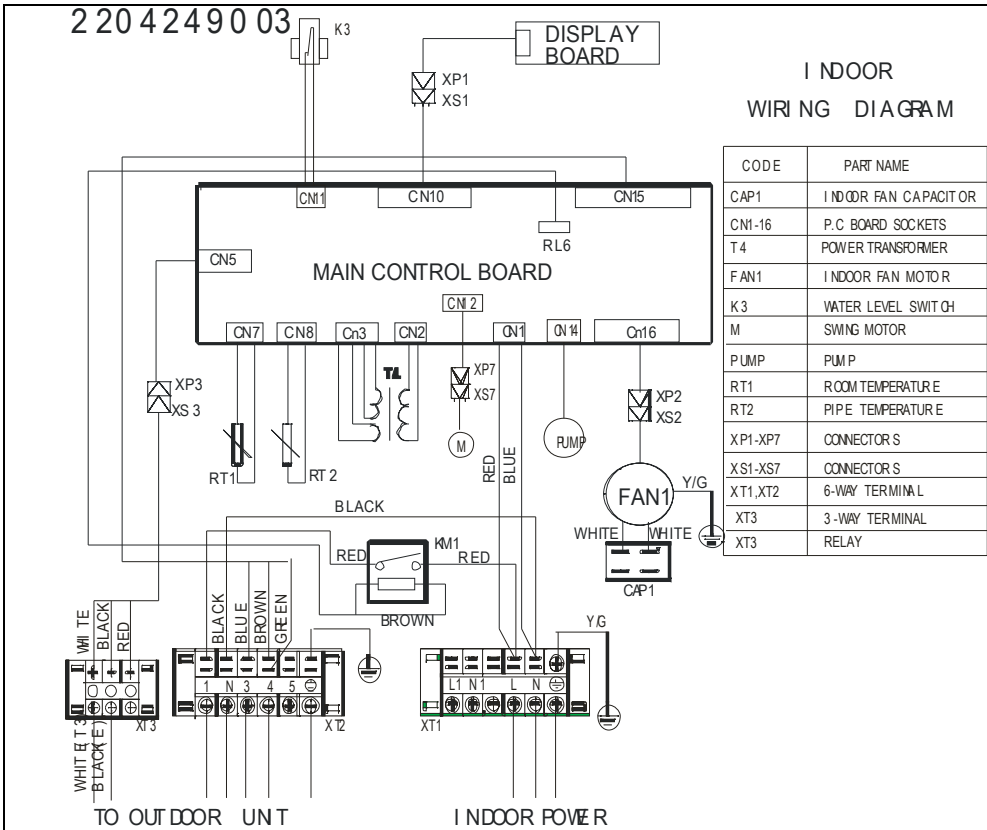
Indoor unit



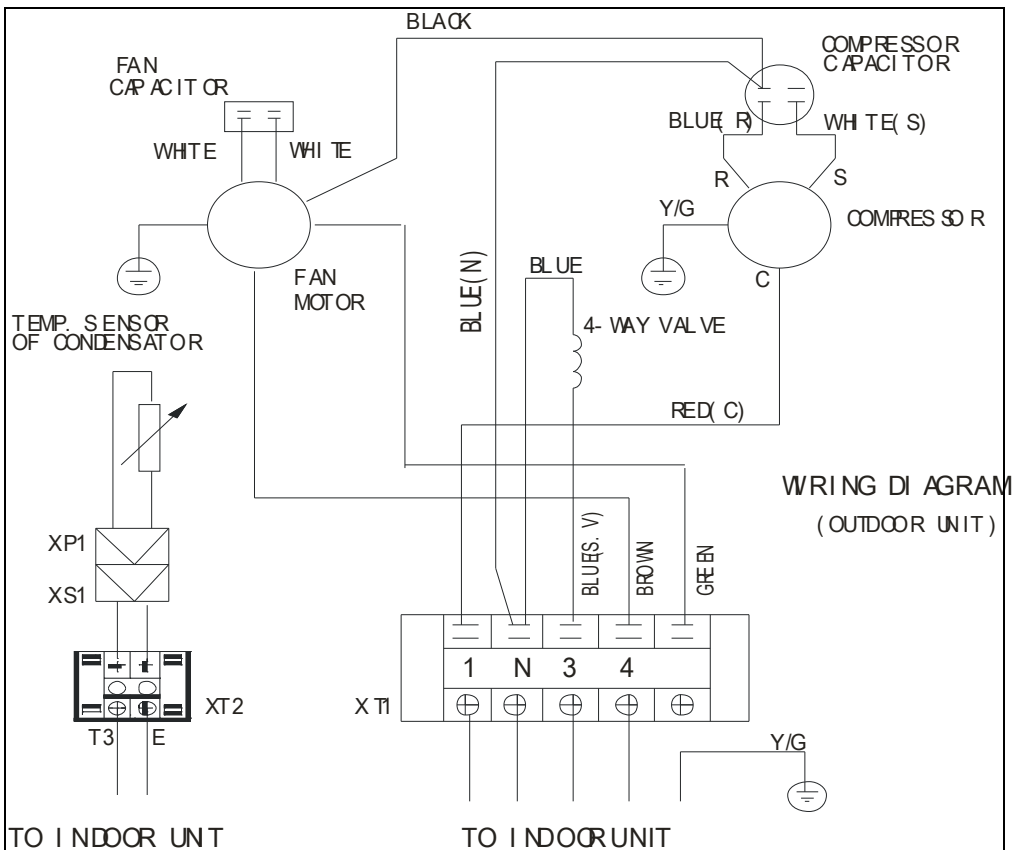
Outdoor unit



YKHA 18
Indoor unit:

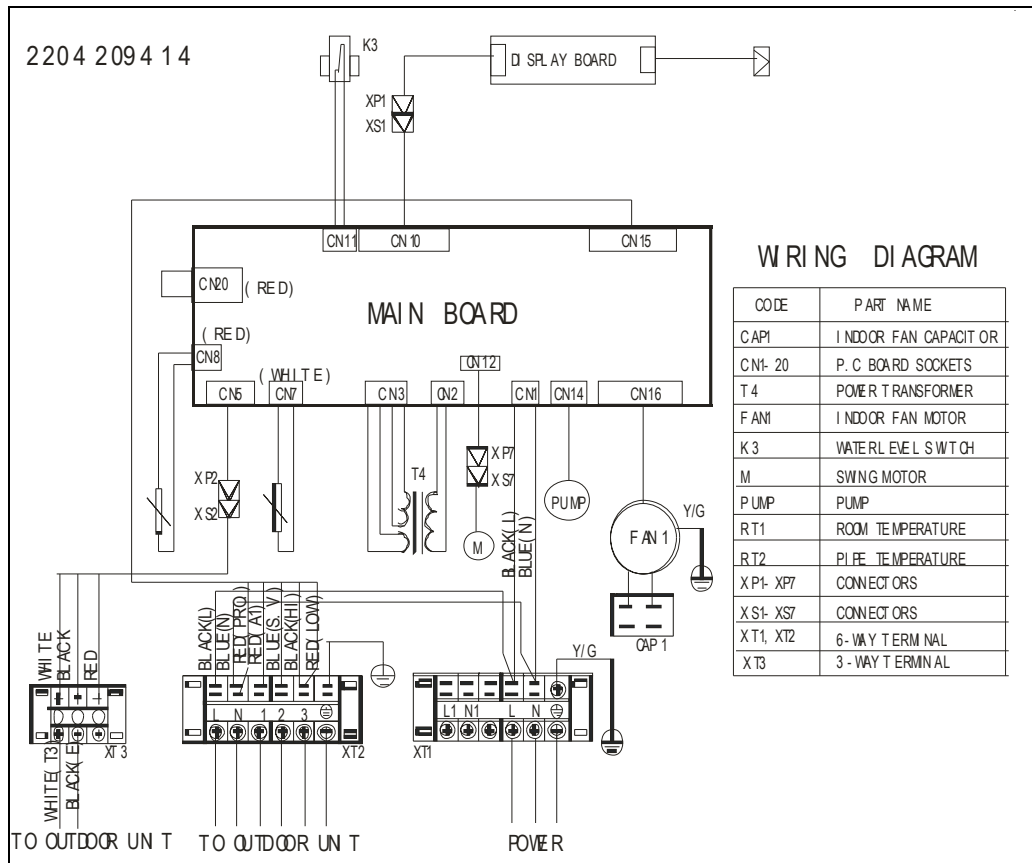


Outdoor unit:

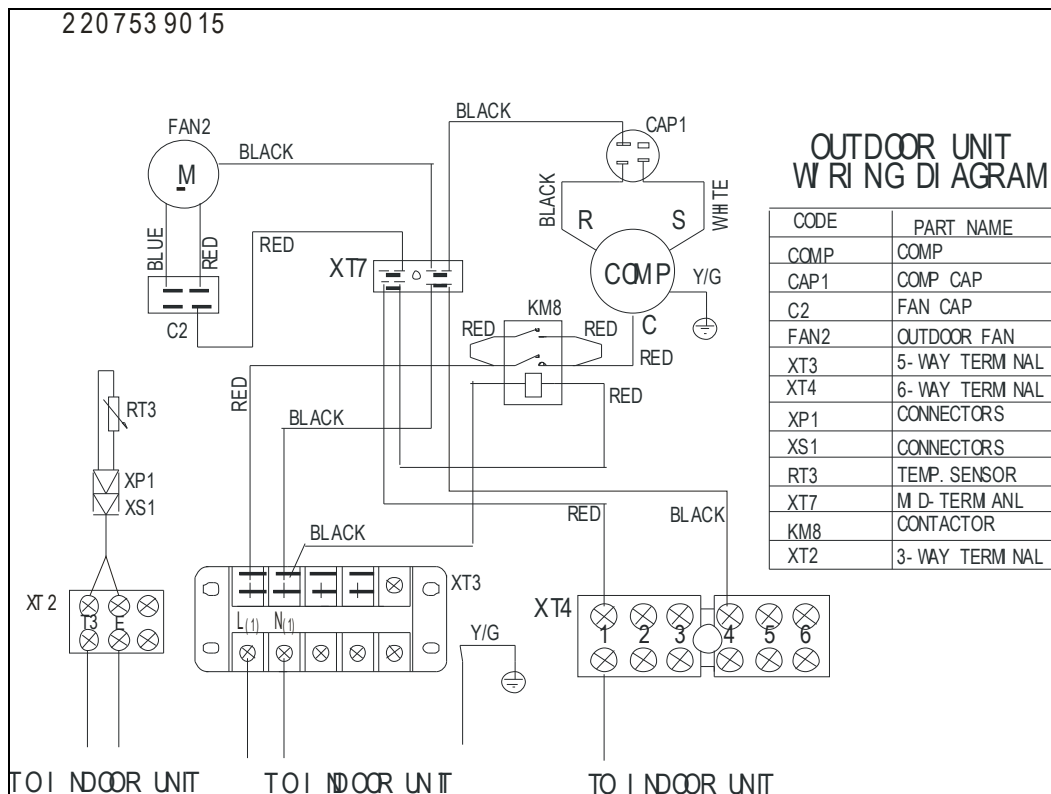


YKHA 24 (1 phase)

Indoor unit:

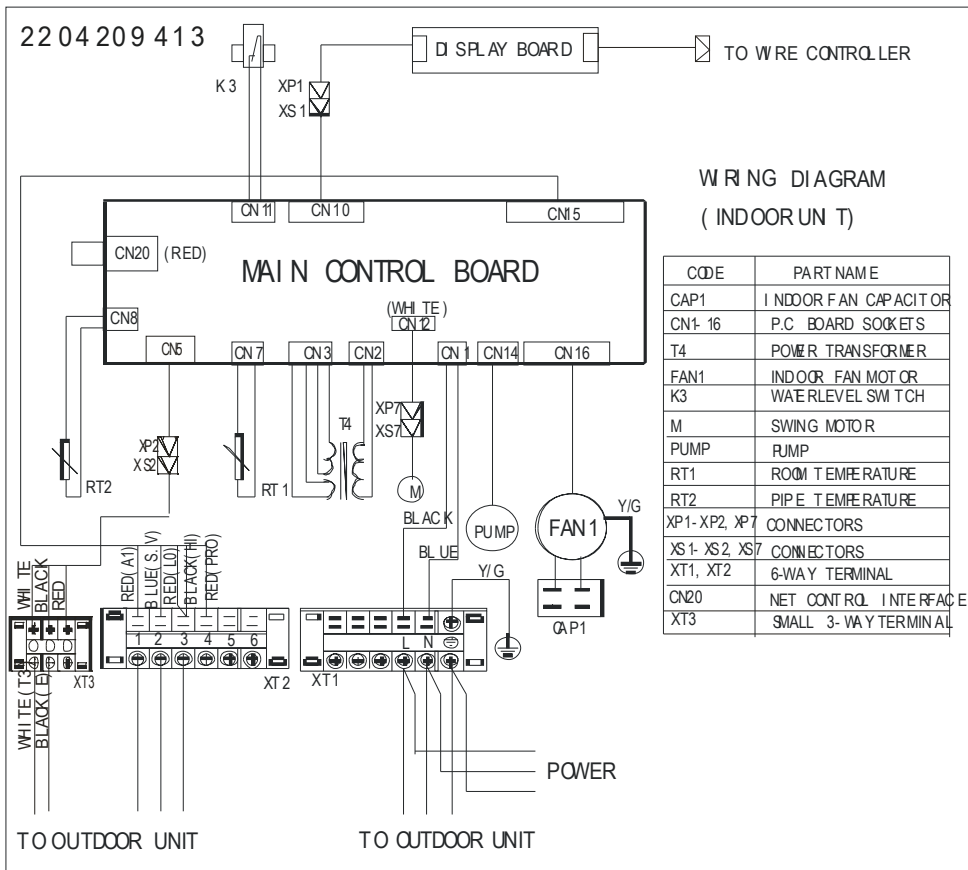


Outdoor unit:

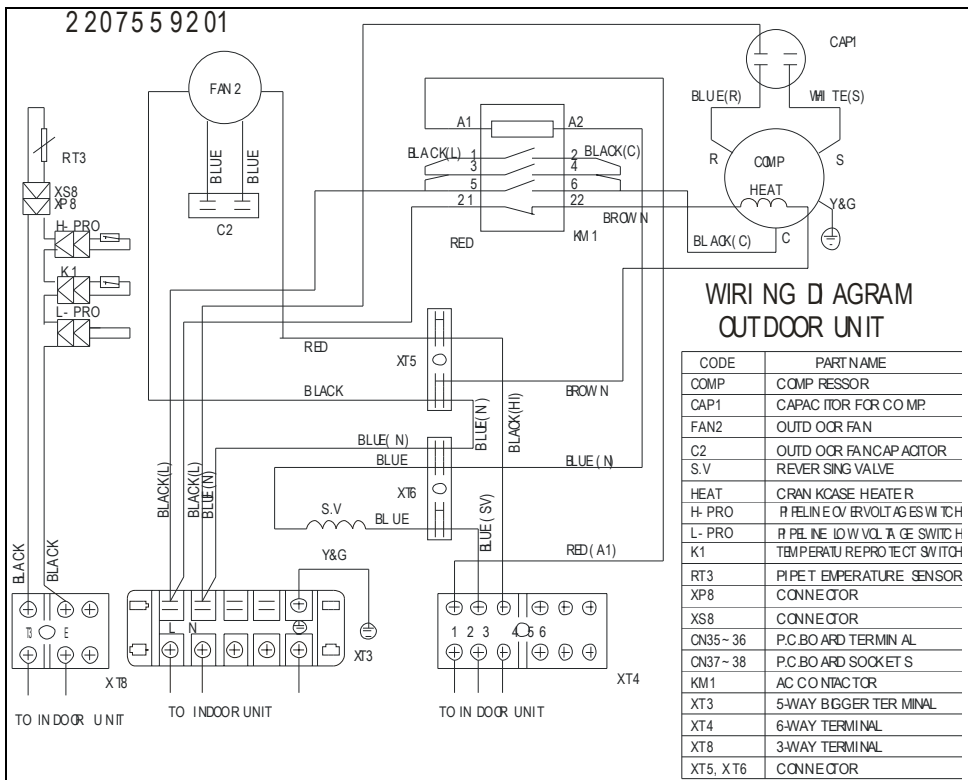


YKHA 36 (1 phase)

Indoor unit:

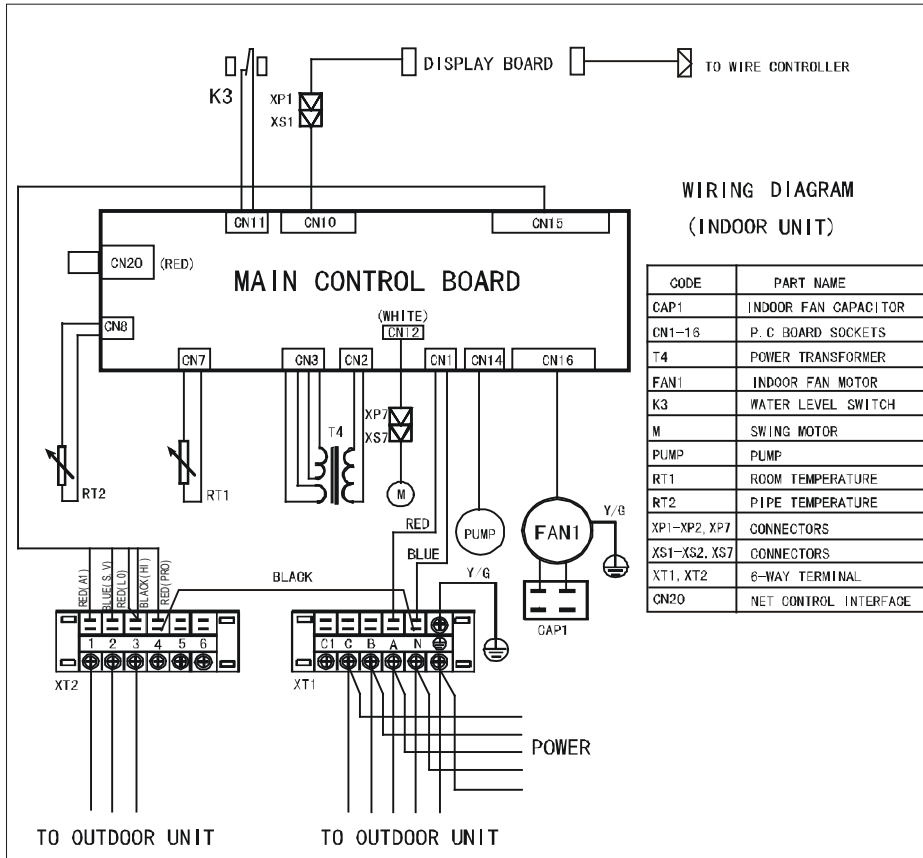


Outdoor unit:

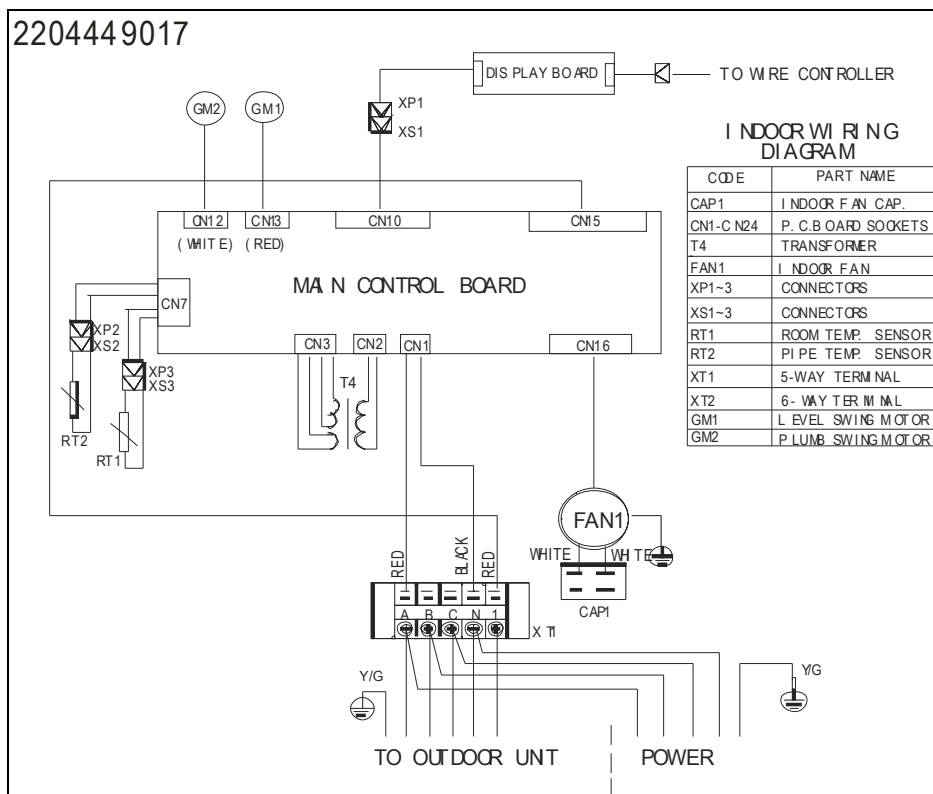


YKHA 36 (3 phase)

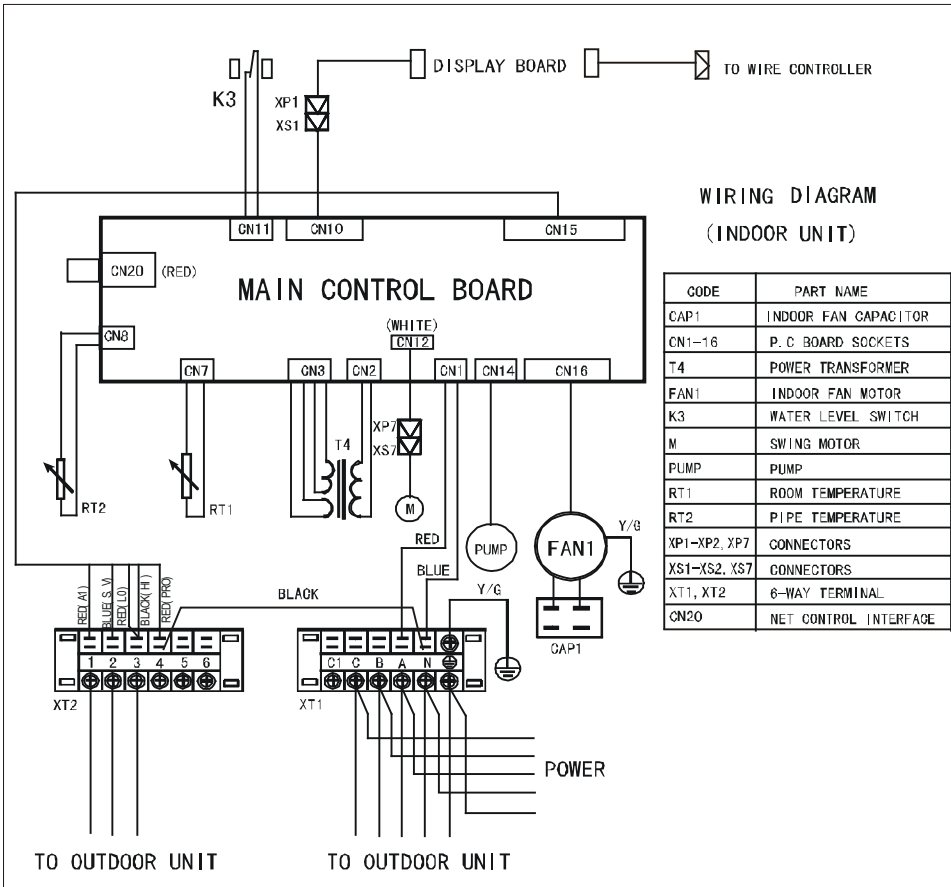
Indoor unit:



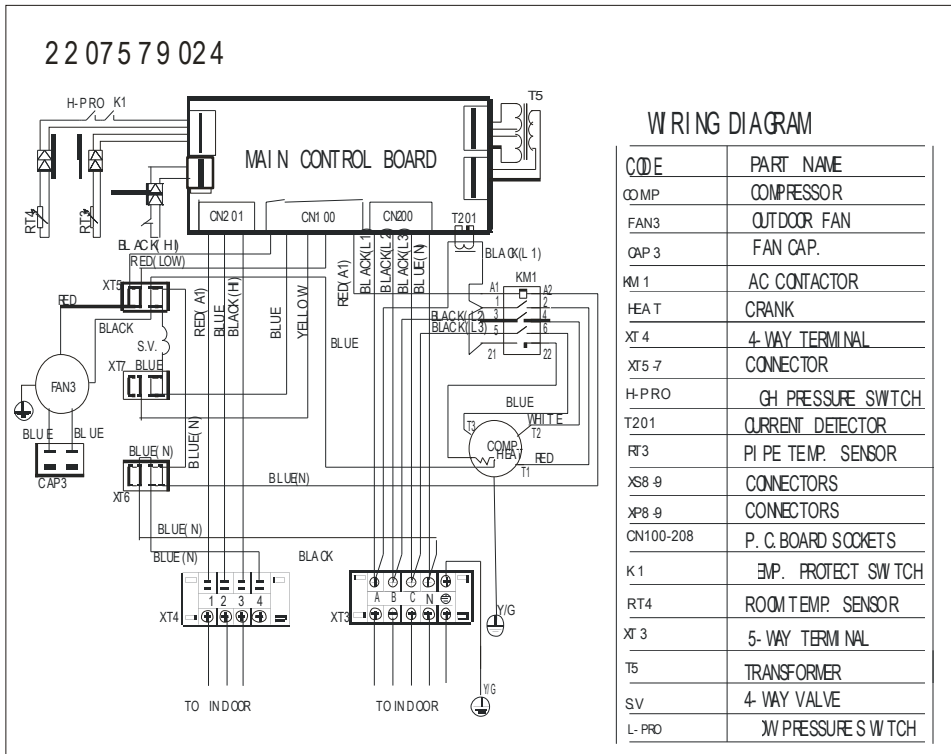
Outdoor unit:



YKHA 48
Indoor unit:



Outdoor unit:



6. Capacity Tables

Model: YKCA-YKHA 18 (compact)

COOLING		OUTDOOR TEMPERATURE DRY					
Indoor Conditions		21°C	25°C	30°C	35°C	40°C	45°C
		21°C D 15°C W	Total capacity kW	5.12	4.90	4.72	4.45
Sensitive capacity kW	4.10		3.92	3.78	3.56	3.42	3.31
Input kW.	1.29		1.48	1.66	1.85	2.03	2.21
24°C D 17°C W	Total capacity kW	5.61	5.36	5.17	4.88	4.68	4.53
	Sensitive capacity kW	4.49	4.29	4.13	3.90	3.74	3.63
	Input kW.	1.36	1.56	1.75	1.95	2.14	2.34
27°C D 19°C W	Total capacity kW	6.10	5.83	5.62	5.30	5.09	4.93
	Sensitive capacity kW	4.88	4.66	4.49	4.24	4.07	3.94
	Input kW.	1.44	1.64	1.85	2.05	2.26	2.46
32°C D 23°C W	Total capacity kW	7.01	6.70	6.46	6.10	5.85	5.67
	Sensitive capacity kW	5.61	5.36	5.17	4.88	4.68	4.53
	Input kW.	1.65	1.89	2.12	2.36	2.59	2.83

Model: YKHA 18 (compact)

HEATING		OUTDOOR CONDITIONS							
Indoor Conditions		24°C D	12°C D	7°C D	4°C D	0°C D	-5°C D	-7°C D	-15°C D
		18°C W	11°C W	6°C W	3°C W	-1°C W	-6°C W	-8°C W	-16°C W
15°C	Capacity kW	10.35	8.28	6.90	6.21	5.87	5.18	4.83	4.49
	Input kW.	3.54	2.83	2.36	2.24	2.12	2.00	1.89	1.65
18°C	Capacity kW	9.72	7.78	6.48	5.83	5.51	4.86	4.54	4.21
	Input kW.	3.32	2.66	2.21	2.10	1.99	1.88	1.77	1.55
20°C	Capacity kW	9.00	7.20	6.00	5.40	5.10	4.50	4.20	3.90
	Input kW.	3.08	2.46	2.05	1.95	1.85	1.74	1.64	1.44
22°C	Capacity kW	8.28	6.62	5.52	4.97	4.69	4.14	3.86	3.59
	Input kW.	2.83	2.26	1.89	1.79	1.70	1.60	1.51	1.32
27°C	Capacity kW	7.20	5.76	4.80	4.32	4.08	3.60	3.36	3.12
	Input kW.	2.46	1.97	1.64	1.56	1.48	1.39	1.31	1.15

Model: YKCA-YKHA 18

COOLING		OUTDOOR TEMPERATURE DRY					
Indoor Conditions		21°C	25°C	30°C	35°C	40°C	45°C
		21°C D 15°C W	Total capacity kW	5.12	4.90	4.72	4.45
Sensitive capacity kW	4.10		3.92	3.78	3.56	3.42	3.31
Input kW.	1.26		1.44	1.62	1.80	1.98	2.16
24°C D 17°C W	Total capacity kW	5.61	5.36	5.17	4.88	4.68	4.53
	Sensitive capacity kW	4.49	4.29	4.13	3.90	3.74	3.63
	Input kW.	1.33	1.52	1.71	1.90	2.09	2.28
27°C D 19°C W	Total capacity kW	6.10	5.83	5.62	5.30	5.09	4.93
	Sensitive capacity kW	4.88	4.66	4.49	4.24	4.07	3.94
	Input kW.	1.40	1.60	1.80	2.00	2.20	2.40
32°C D 23°C W	Total capacity kW	7.01	6.70	6.46	6.10	5.85	5.67
	Sensitive capacity kW	5.61	5.36	5.17	4.88	4.68	4.53
	Input kW.	1.61	1.84	2.07	2.30	2.53	2.76

Model: YKHA 18

HEATING		OUTDOOR CONDITIONS							
Indoor Conditions		24°C D	12°C D	7°C D	4°C D	0°C D	-5°C D	-7°C D	-15°C D
		18°C W	11°C W	6°C W	3°C W	-1°C W	-6°C W	-8°C W	-16°C W
15°C	Capacity kW	10.35	8.28	6.90	6.21	5.87	5.18	4.83	4.49
	Input kW.	3.38	2.70	2.25	2.14	2.03	1.92	1.80	1.58
18°C	Capacity kW	9.72	7.78	6.48	5.83	5.51	4.86	4.54	4.21
	Input kW.	3.18	2.54	2.12	2.01	1.91	1.80	1.69	1.48
20°C	Capacity kW	9.00	7.20	6.00	5.40	5.10	4.50	4.20	3.90
	Input kW.	2.94	2.35	1.96	1.86	1.76	1.67	1.57	1.37
22°C	Capacity kW	8.28	6.62	5.52	4.97	4.69	4.14	3.86	3.59
	Input kW.	2.70	2.16	1.80	1.71	1.62	1.53	1.44	1.26
27°C	Capacity kW	7.20	5.76	4.80	4.32	4.08	3.60	3.36	3.12
	Input kW.	2.35	1.88	1.57	1.49	1.41	1.33	1.25	1.10

Model: YKCA-YKHA 24

COOLING		OUTDOOR TEMPERATURE DRY					
Indoor Conditions		21°C	25°C	30°C	35°C	40°C	45°C
		21°C D 15°C W	Total capacity kW	7.05	6.75	6.50	6.13
Sensitive capacity kW	5.64		5.40	5.20	4.91	4.71	4.56
Input kW.	1.92		2.19	2.46	2.74	3.01	3.28
24°C D 17°C W	Total capacity kW	7.72	7.39	7.12	6.72	6.45	6.25
	Sensitive capacity kW	6.18	5.91	5.70	5.37	5.16	5.00
	Input kW.	2.02	2.31	2.60	2.89	3.18	3.47
27°C D 19°C W	Total capacity kW	8.40	8.03	7.74	7.30	7.01	6.79
	Sensitive capacity kW	6.72	6.42	6.19	5.84	5.61	5.43
	Input kW.	2.13	2.43	2.74	3.04	3.34	3.65
32°C D 23°C W	Total capacity kW	9.65	9.23	8.90	8.40	8.06	7.81
	Sensitive capacity kW	7.72	7.39	7.12	6.72	6.45	6.25
	Input kW.	2.45	2.80	3.15	3.50	3.85	4.20

Model: YKHA 24

HEATING		OUTDOOR CONDITIONS							
Indoor Conditions		24°C D	12°C D	7°C D	4°C D	0°C D	-5°C D	-7°C D	-15°C D
		18°C W	11°C W	6°C W	3°C W	-1°C W	-6°C W	-8°C W	-16°C W
15°C	Capacity kW	14.32	11.45	9.55	8.59	8.11	7.16	6.68	6.20
	Input kW.	5.09	4.07	3.39	3.22	3.05	2.88	2.71	2.37
18°C	Capacity kW	13.45	10.76	8.96	8.07	7.62	6.72	6.27	5.83
	Input kW.	4.78	3.82	3.19	3.03	2.87	2.71	2.55	2.23
20°C	Capacity kW	12.45	9.96	8.30	7.47	7.06	6.23	5.81	5.40
	Input kW.	4.43	3.54	2.95	2.80	2.66	2.51	2.36	2.07
22°C	Capacity kW	11.45	9.16	7.64	6.87	6.49	5.73	5.35	4.96
	Input kW.	4.07	3.26	2.71	2.58	2.44	2.31	2.17	1.90
27°C	Capacity kW	9.96	7.97	6.64	5.98	5.64	4.98	4.65	4.32
	Input kW.	3.54	2.83	2.36	2.24	2.12	2.01	1.89	1.65

Model: YKCA-YKHA 36

COOLING		OUTDOOR TEMPERATURE DRY					
Indoor Conditions		21°C	25°C	30°C	35°C	40°C	45°C
		21°C D 15°C W	Total capacity kW	10.34	9.89	9.53	8.99
Sensitive capacity kW	8.27		7.91	7.62	7.19	6.90	6.69
Input kW.	2.77		3.17	3.56	3.96	4.36	4.75
24°C D 17°C W	Total capacity kW	11.32	10.83	10.43	9.84	9.45	9.15
	Sensitive capacity kW	9.06	8.66	8.35	7.88	7.56	7.32
	Input kW.	2.93	3.34	3.76	4.18	4.60	5.02
27°C D 19°C W	Total capacity kW	12.31	11.77	11.34	10.70	10.27	9.95
	Sensitive capacity kW	9.84	9.42	9.07	8.56	8.22	7.96
	Input kW.	3.08	3.52	3.96	4.40	4.84	5.28
32°C D 23°C W	Total capacity kW	14.15	13.54	13.04	12.31	11.81	11.44
	Sensitive capacity kW	11.32	10.83	10.43	9.84	9.45	9.15
	Input kW.	3.54	4.05	4.55	5.06	5.57	6.07

Model: YKHA 36

HEATING		OUTDOOR CONDITIONS							
Indoor Conditions		24°C D	12°C D	7°C D	4°C D	0°C D	-5°C D	-7°C D	-15°C D
		18°C W	11°C W	6°C W	3°C W	-1°C W	-6°C W	-8°C W	-16°C W
15°C	Capacity kW	20.18	16.15	13.46	12.11	11.44	10.09	9.42	8.75
	Input kW.	7.76	6.21	5.18	4.92	4.66	4.40	4.14	3.62
18°C	Capacity kW	18.95	15.16	12.64	11.37	10.74	9.48	8.85	8.21
	Input kW.	7.29	5.83	4.86	4.62	4.37	4.13	3.89	3.40
20°C	Capacity kW	17.55	14.04	11.70	10.53	9.95	8.78	8.19	7.61
	Input kW.	6.75	5.40	4.50	4.28	4.05	3.83	3.60	3.15
22°C	Capacity kW	16.15	12.92	10.76	9.69	9.15	8.07	7.53	7.00
	Input kW.	6.21	4.97	4.14	3.93	3.73	3.52	3.31	2.90
27°C	Capacity kW	14.04	11.23	9.36	8.42	7.96	7.02	6.55	6.08
	Input kW.	5.40	4.32	3.60	3.42	3.24	3.06	2.88	2.52

Model: YKCA-YKHA 48

COOLING		OUTDOOR TEMPERATURE DRY					
Indoor Conditions		21°C	25°C	30°C	35°C	40°C	45°C
		21°C D 15°C W	Total capacity kW	13.62	13.03	12.55	11.84
Sensitive capacity kW	10.90		10.42	10.04	9.48	9.10	8.81
Input kW.	3.40		3.89	4.37	4.86	5.35	5.83
24°C D 17°C W	Total capacity kW	14.92	14.27	13.75	12.97	12.45	12.06
	Sensitive capacity kW	11.93	11.42	11.00	10.38	9.96	9.65
	Input kW.	3.59	4.10	4.62	5.13	5.64	6.16
27°C D 19°C W	Total capacity kW	16.22	15.51	14.95	14.10	13.54	13.11
	Sensitive capacity kW	12.97	12.41	11.96	11.28	10.83	10.49
	Input kW.	3.78	4.32	4.86	5.40	5.94	6.48
32°C D 23°C W	Total capacity kW	18.65	17.84	17.19	16.22	15.57	15.08
	Sensitive capacity kW	14.92	14.27	13.75	12.97	12.45	12.06
	Input kW.	4.35	4.97	5.59	6.21	6.83	7.45

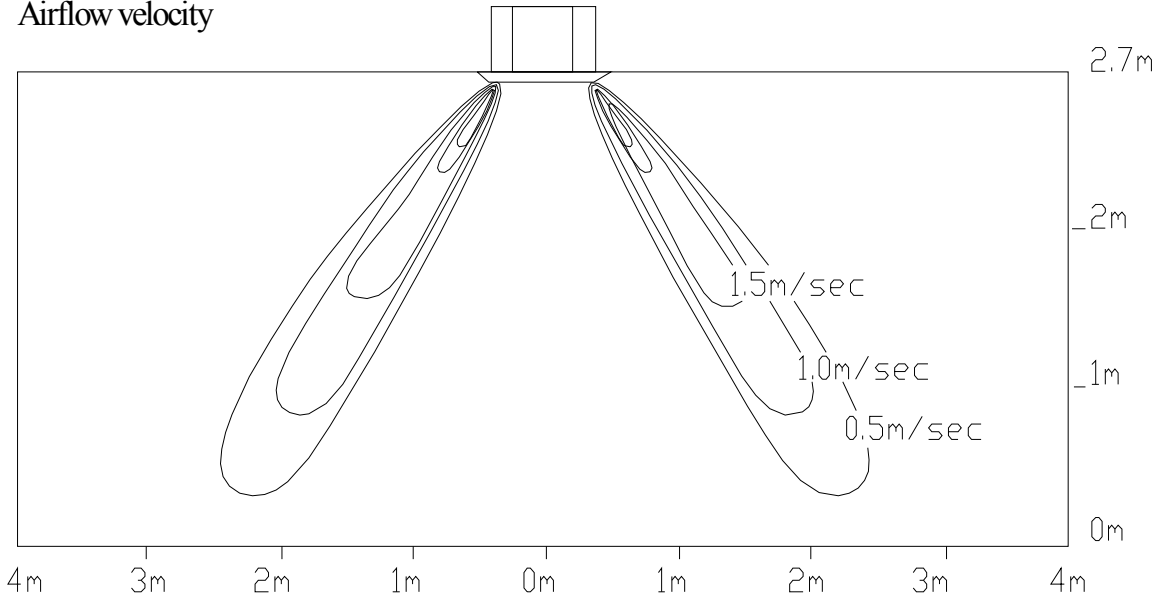
Model: YKHA 48

HEATING		OUTDOOR CONDITIONS							
Indoor Conditions		24°C D	12°C D	7°C D	4°C D	0°C D	-5°C D	-7°C D	-15°C D
		18°C W	11°C W	6°C W	3°C W	-1°C W	-6°C W	-8°C W	-16°C W
15°C	Capacity kW	26.91	21.53	17.94	16.15	15.25	13.46	12.56	11.66
	Input kW.	9.49	7.59	6.33	6.01	5.69	5.38	5.06	4.43
18°C	Capacity kW	25.27	20.22	16.85	15.16	14.32	12.64	11.79	10.95
	Input kW.	8.91	7.13	5.94	5.64	5.35	5.05	4.75	4.16
20°C	Capacity kW	23.40	18.72	15.60	14.04	13.26	11.70	10.92	10.14
	Input kW.	8.25	6.60	5.50	5.23	4.95	4.68	4.40	3.85
22°C	Capacity kW	21.53	17.22	14.35	12.92	12.20	10.76	10.05	9.33
	Input kW.	7.59	6.07	5.06	4.81	4.55	4.30	4.05	3.54
27°C	Capacity kW	18.72	14.98	12.48	11.23	10.61	9.36	8.74	8.11
	Input kW.	6.60	5.28	4.40	4.18	3.96	3.74	3.52	3.08

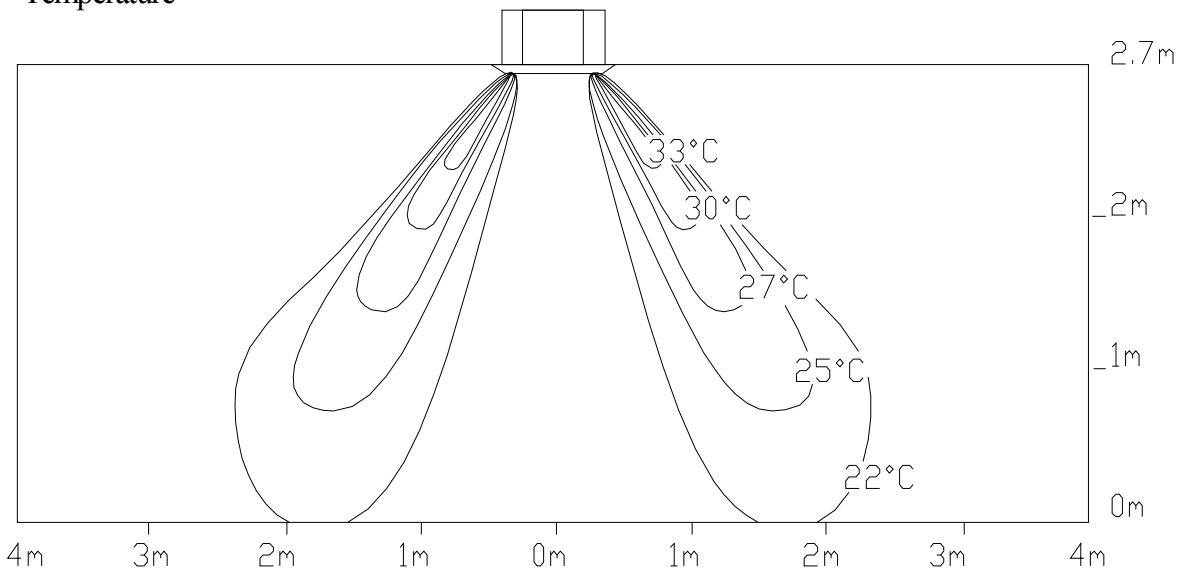
7. Air Velocity and Temperature Distributions (Reference Data)

Discharge angle 60°

Airflow velocity



Temperature



8. Electric Characteristics

Indoors power supply wiring

Model	Indoor Units				Power Supply		Indoor fan motor		Power input(W)	
	Hz	Voltage	Min.	Max.	MCA	MFA	kW	FLA	Cooling	Heating
YKCA 18 (compact)	50	220-240	198	264	10.6	30	0.06	0.29	2050	
YKHA 18 (compact)					10.6	30	0.06	0.29	2050	2100
YKCA 18					12.4	30	0.10	0.35	2050	
YKHA 18					12.4	30	0.10	0.35	2050	2100
YKCA 24					18.7	60	0.12	0.54	3000	
YKHA 24					18.7	60	0.12	0.54	3000	2950
YKCA 36					26	80	0.14	0.62	4400	
YKHA 36					26	80	0.14	0.62	4400	4500
YKCA 36		380	342	418	9.8	20	0.14	0.62	4400	
YKHA 36					9.8	20	0.14	0.62	4400	4500
YKCA 48					11.5	30	0.14	0.62	5400	
YKHA 48					11.5	30	0.14	0.62	5400	5500

Symbols:

MCA: Min. Circuit Amps.

MFA: Max. Fuse Amps..

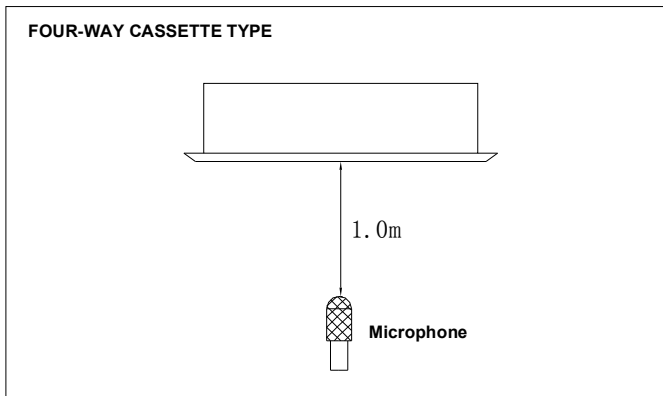
FLA: Full Load Amps.

Kw: Rate Motor Output

Notes:

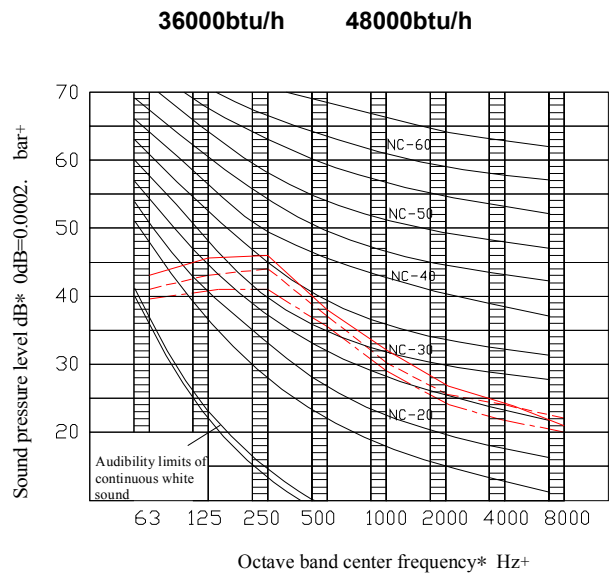
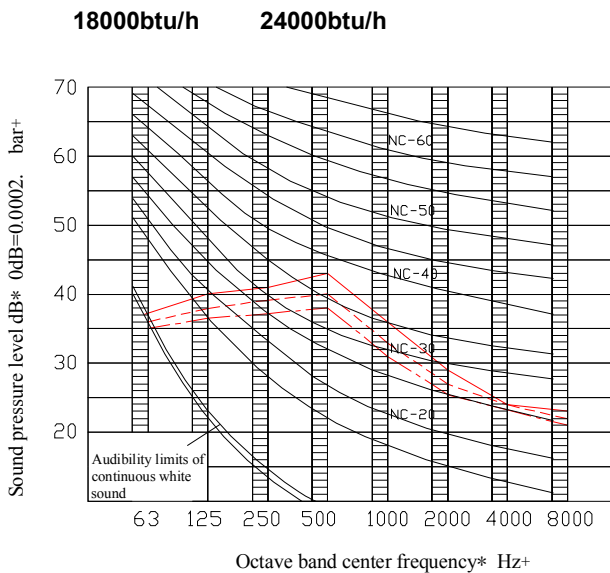
5. Voltage range should not over the value of above table.
6. Maximum allowable voltage variation between phase is 2%
7. Selection wire size based on the larger value of MCA.
8. MCA/MFA
 $MCA = 1.25 \times FLA$
 $MFA \leq 4 \times FLA$
 (Next lower standard fuse rating min. 15A)
5. Instead of fuse, circuit breaker is also acceptable.

9. Sound Levels



- High speed airflow
- - - - - Medium speed airflow
- Low speed airflow

Model	Noise level under three speeds of fan		
	H	M	L
YKCA-YKHA 18	43	41	38
YKCA-YKHA 24	43	41	38
YKCA-YKHA 36	46	44	41
YKCA-YKHA 48	46	44	41





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