

# Super **MULTI** FULL DC INVERTER

**VRF ALL INVERTER**  
**FULL DC COMPRESSORS AND DC FAN MOTORS**  
**INDOOR & OUTDOOR UNIT**

up to  
**90HP**



Wall Mounted



Ceiling Concealed  
 • Medium Static Pressure  
 • High Static Pressure



Ceiling Cassette  
 • Four-way Compact  
 • Four-way Standard



Ceiling Cassette  
 • One-way  
 • Two-way



Ceiling & Floor Mounted  
 Convertible



Fresh Air Processing Unit



**HIGH EER**  
 up to 14.78  
 High Energy Savings



**EASY MAINTENANCE**  
 With self diagnosis function to assist service engineers during troubleshooting



**SILENT OPERATION**  
 Quiet design enables it to run at a comfortable 45dB(A) sound level



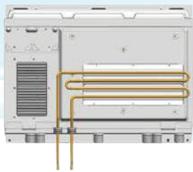
**CAPACITY UP TO 90HP**  
 12 Types ODU Capacity  
 30 Maximum ODU Combination  
 90Hp Maximum Combination ODU Capacity



**POWERFUL TOTAL MANAGEMENT**  
 Web access function allows to view system operation anytime from external devices through the internet



**IMPROVED LIFESPAN**  
 Duty cycling of outdoor units helps extend compressor's lifespan. In one combination, any outdoor unit can run as the master outdoor unit to equalize compressor duty and ensure even load distribution

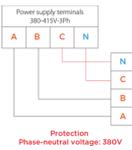
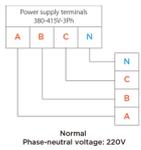


### Refrigerant Cooling PCB

The VRF uses refrigerant cooling technology to cool the electric box. It decreases the average temperature of electric control components by about 8C, guaranteeing the stable and safe running of the system.

### Real-time Refrigerant Amount Monitoring

The temperature and pressure of the refrigerant can be monitored real-time by the outdoor unit. When the level of refrigerant is too low or too high, this can cause unit damage and poor performance. VRF outdoor unit can detect excessive or insufficient amounts of refrigerant to ensure consistent performance.

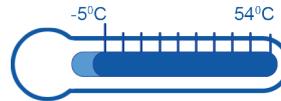


### Electrical Protections

Special internal protection circuitry is designed to protect system from wrong power supply in case of a wrong connection of the 3-Phase electricity wiring

### Wide Operating Range

The VRF can operate stably in a wide ambient temperature: from -50C to 54C in cooling mode

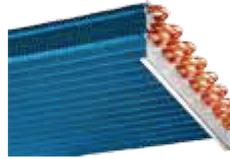


### Fan Motor

Standard Products:  
72h of neutral salt mist



Heavy Anti-corrosion Products:  
240h of neutral salt mist



### Heat Exchanger Aluminum Foil

Standard Products:  
72h of neutral salt mist

Heavy Anti-corrosion Products  
1000h of neutral salt mist  
140h of acid salt mist



### Screws/Bolts/Gaskets

Standard Products:  
300h of neutral salt mist

Heavy Anti-corrosion Products:  
720h of neutral salt mist



### Heat Exchanger Copper Pipe

Standard Products:  
24h of neutral salt mist

Heavy Anti-corrosion Products:  
120h of neutral salt mist



### Painted Sheet Metal

Standard Products:  
500h of neutral salt mist  
1000h of moisture and heating test  
500h of light aging test

Heavy Anti-corrosion Products:  
1000h of neutral salt mist  
2000h of moisture and heating test  
720h of light aging test



### Electronic Control Box Case

Standard Products:  
96h of neutral salt mist

Heavy Anti-corrosion Products:  
240h of neutral salt mist

## Outdoor Unit Line-Up

The flexibility of large outdoor capacity combination ranges from 8HP up to 90HP in 2HP increment. Modular system allows up to 3 outdoor unit combination.



8HP, 10HP, 12HP, 14HP, 16HP  
Single Fan



18HP, 20HP, 22HP  
Dual Fan



24HP, 26HP, 28HP, 30HP  
Dual Fan

## Indoor Unit Line-Up

Type	Model	KW HP	1.8	2.2	2.8	3.6	4.5	5.6	7.1	8.0	9.0	10.0	11.2	12.5	14.0	16.0	20.0	25.0	28.0	
			0.6	0.8	1.0	1.3	1.6	2.0	2.5	3.0	3.2	3.6	4.0	4.5	5.0	6.0	7.1	8.0	10.0	
One-way Cassette	KV XXCAS1-MA2		●	●	●	●	●	●	●											
Two-way Cassette	KV XXCAS2-MA2			●	●	●	●	●	●											
Four-way Cassette	KV XXCAS-MA2				●	●	●	●	●	●	●	●	●		●	●				
Four-way Cassette: Compact	KV XXCAS4-MA2			●	●	●	●													
Ceiling Concealed Duct: MSP	KV XXCON-MA2MS			●	●	●	●	●	●	●	●		●		●					
Ceiling Concealed Duct: HSP	KV XXCON-MA2HS								●	●	●		●		●	●	●	●	●	●
Ceiling & Floor Mounted Convertible	KV XXCM-MA2					●	●	●	●	●	●		●		●	●				
Wall Mounted	KV XXWM-MA2			●	●	●	●	●	●	●	●									
Fresh Air Processing Unit	KV XXCON-MA2FA													●	●		●	●	●	

## Heat Recovery Ventilator (HRV)

Type	Model	CAPACITY (CMH)								
Heat Recovery Ventilator	HRV-XX		200	300	400	500	800	1000	1500	2000

# Outdoor Unit Line-Up 380V-60HZ-3PH

Model		KV252OD-MB2X3	KV280OD-MB2X3	KV335OD-MB2X3	KV400OD-MB2X3	KV450OD-MB2X3	KV500OD-MB2X3	
Power Supply	V/Hz/Ph	380/60/3	380/60/3	380/60/3	380/60/3	380/60/3	380/60/3	
Cooling	Capacity	HP	8	10	12	14	16	18
		kW	22.4	28.0	33.5	40.0	45.0	50.0
		Btu/h	76,500	96,600	114,400	136,600	153,700	170,800
	Power Input	kW	5.17	6.81	9.13	10.58	12.26	14.88
	EER	Btu/W-hr	14.79	14.04	12.53	12.91	12.54	11.48
Maximum Quantity of Connected Indoor Unit		13	16	20	23	26	29	
Airflow Rate	m <sup>3</sup> /h	10,000	10,000	11,000	12,000	12,000	12,600	
Sound Pressure Level	dB(A)	57	58	60	60	61	62	
Liquid Pipe Size (Diameter)	mm(in)	Ø12.7 (Ø1/2)	Ø12.7 (Ø1/2)	Ø15.9 (Ø5/8)	Ø15.9 (Ø5/8)	Ø15.9 (Ø5/8)	Ø191 (Ø3/4)	
Gas Pipe Size (Diameter)	mm(in)	Ø25.4 (Ø1)	Ø25.4 (Ø1)	Ø28.6 (Ø1 1/8)	Ø31.8 (Ø1 1/4)	Ø31.8 (Ø1 1/4)	Ø31.8 (Ø1 1/4)	
Net Dimensions (WxHxD)	mm	960x1,615x765	960x1,615x765	960x1,615x765	960x1,615x765	960x1,615x765	1,250x1,615x765	
Net Weight/Gross Weight	Kg	188/204	188/204	188/204	197/213	197/213	278/297	

Model		KV560OD-MB2X3	KV615OD-MB2X3	KV670OD-MB2X3	KV730OD-MB2X3	KV785OD-MB2X3	KV850OD-MB2X3	
Power Supply	V/Hz/Ph	380/60/3	380/60/3	380/60/3	380/60/3	380/60/3	380/60/3	
Cooling	Capacity	HP	20	22	24	26	28	30
		kW	56.0	61.5	67.0	73.0	78.5	85.0
		Btu/h	191,300	210,000	228,800	249,300	268,100	290,300
	Power Input	kW	17.66	20.23	20.68	23.40	26.08	29.51
	EER	Btu/W-hr	10.83	10.38	11.06	10.65	10.30	9.84
Maximum Quantity of Connected Indoor Unit		33	36	39	43	46	50	
Airflow Rate	m <sup>3</sup> /h	12,600	12,200	19,600	19,600	20,600	20,600	
Sound Pressure Level	dB(A)	63	63	64	64	64	64	
Liquid Pipe Size (Diameter)	mm(in)	Ø191 (Ø3/4)	Ø191 (Ø3/4)	Ø191 (Ø3/4)	Ø22.2 (Ø7/8)	Ø22.2 (Ø7/8)	Ø22.2 (Ø7/8)	
Gas Pipe Size (Diameter)	mm(in)	Ø31.8 (Ø1 1/4)	Ø38.1 (Ø1 1/2)					
Net Dimensions (WxHxD)	mm	1,250x1,615x765	1,250x1,615x765	1,585x1,615x765	1,585x1,615x765	1,585x1,615x765	1,585x1,615x765	
Net Weight/Gross Weight	Kg	278/297	278/297	338/362	338/362	338/362	338/362	

NOTES:  
 (1) Indoor air temperature 27° DB / 19° WB; outdoor temperature: 35° DB, equivalent refrigerant piping length 75m with zero level difference.  
 (2) Diameters given are those of unit's accessories.  
 (3) Sound pressure level is measured at a position 1m in front of the unit and 1.3m above the floor in a semi-anechoic chamber.  
 (4) Specifications are subject to change without prior notice for continuous product improvement.  
 (5) Koppel is a registered trademark of Koppel, Inc.

# Outdoor Unit Line-Up 220V-60HZ-3PH

Model		KV252OD-MC2X3	KV280OD-MC2X3	KV335OD-MC2X3	KV400OD-MC2X3	KV450OD-MC2X3	KV500OD-MC2X3	
Power Supply	V/Hz/Ph	220/60/3	220/60/3	220/60/3	220/60/3	220/60/3	220/60/3	
Cooling	Capacity	HP	8	10	12	14	16	18
		kW	22.4	28.0	33.5	40.0	45.0	50.0
		Btu/h	76,500	95,600	114,400	136,600	153,700	170,800
	Power Input	kW	5.25	7.10	8.90	10.30	12.00	13.70
	EER	Btu/W-hr	14.57	13.46	12.85	12.26	12.81	12.47
Maximum Quantity of Connected Indoor Unit		13	16	20	23	26	29	
Airflow Rate	m <sup>3</sup> /h	10,400	10,400	10,800	11,600	11,600	12,000	
Sound Pressure Level	dB(A)	57	58	60	60	61	62	
Liquid Pipe Size (Diameter)	mm(in)	Ø12.7 (Ø1/2)	Ø12.7 (Ø1/2)	Ø12.7 (Ø1/2)	Ø15.9 (Ø5/8)	Ø15.9 (Ø5/8)	Ø15.9 (Ø5/8)	
Gas Pipe Size (Diameter)	mm(in)	Ø25.4 (Ø1)	Ø25.4 (Ø1)	Ø28.6 (Ø1 1/8)	Ø31.8 (Ø1 1/4)	Ø31.8 (Ø1 1/4)	Ø31.8 (Ø1 1/4)	
Net Dimensions (WxHxD)	mm	960x1,615x765	960x1,615x765	960x1,615x765	960x1,615x765	960x1,615x765	1,250x1,615x765	
Net Weight/Gross Weight	Kg	193/209	193/209	193/209	200/216	200/216	296/313	

Model		KV560OD-MC2X3	KV615OD-MC2X3	KV670OD-MC2X3	KV730OD-MC2X3	KV785OD-MC2X3	KV850OD-MC2X3	
Power Supply	V/Hz/Ph	220/60/3	220/60/3	220/60/3	220/60/3	220/60/3	220/60/3	
Cooling	Capacity	HP	20	22	24	26	28	30
		kW	56.0	61.5	67.0	73.0	78.5	85.0
		Btu/h	191,300	210,000	228,800	249,300	268,100	290,300
	Power Input	kW	16.50	19.65	20.10	22.2	24.18	27.51
	EER	Btu/W-hr	11.59	10.69	11.38	11.23	11.09	10.55
Maximum Quantity of Connected Indoor Unit		33	36	39	43	46	50	
Airflow Rate	m <sup>3</sup> /h	12,200	12,200	19,600	19,600	20,600	20,600	
Sound Pressure Level	dB(A)	63	63	64	64	64	64	
Liquid Pipe Size (Diameter)	mm(in)	Ø15.9 (Ø5/8)	Ø15.9 (Ø5/8)	Ø191 (Ø3/4)	Ø191 (Ø3/4)	Ø191 (Ø3/4)	Ø191 (Ø3/4)	
Gas Pipe Size (Diameter)	mm(in)	Ø31.8 (Ø1 1/4)	Ø31.8 (Ø1 1/4)	Ø31.8 (Ø1 1/4)	Ø34.9 (Ø1 3/8)	Ø34.9 (Ø1 3/8)	Ø34.9 (Ø1 3/8)	
Net Dimensions (WxHxD)	mm	1,250x1,615x765	1,250x1,615x765	1,585x1,615x765	1,585x1,615x765	1,585x1,615x765	1,585x1,615x765	
Net Weight/Gross Weight	Kg	296/313	296/313	352/376	352/376	352/376	352/376	

NOTES:  
 (1) Indoor air temperature 27° DB / 19° WB; outdoor temperature: 35° DB, equivalent refrigerant piping length 75m with zero level difference.  
 (2) Diameters given are those of unit's accessories.  
 (3) Sound pressure level is measured at a position 1m in front of the unit and 1.3m above the floor in a semi-anechoic chamber.  
 (4) Specifications are subject to change without prior notice for continuous product improvement.  
 (5) Koppel is a registered trademark of Koppel, Inc.

**Head Office & Manufacturing Plant**  
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**Customer Service & Parts Sales Center**  
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 Brgy. Wack-wack, Mandaluyong City  
 Tel. No.: (02) 8823-8883  
 Loc. 316 to 322

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 J.P. Cabaguio Avenue, Davao City  
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**Cagayan de Oro**  
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 Cugman Highway,  
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**Iloilo**  
 Door 8 and 9 NSB Bldg.  
 Rizal Street, Lapuz, Iloilo City  
 Tel. No.: (033) 330-2926

# Indoor Unit Line-Up



## One-way Cassette

Model		KV18CAS1-MA2	KV22CAS1-MA2	KV28CAS1-MA2	KV36CAS1-MA2	KV45CAS1-MA2	KV56CAS1-MA2	KV71CAS1-MA2
Power Supply	V/Hz/Ph	220-240/60/1	220-240/60/1	220-240/60/1	220-240/60/1	220-240/60/1	220-240/60/1	220-240/60/1
Cooling	Capacity	KW	1.8	2.2	2.8	3.6	4.5	5.6
		Btu/h	6,100	7,500	9,600	12,300	15,400	19,100
	Power Input	W	25	25	30	30	40	48
Airflow Rate	m <sup>3</sup> /h	275-523	275-523	315-573	315-573	476-693	549-792	592-933
Sound Pressure Level	dB(A)	30-37	30-37	34-39	34-39	35-41	36-42	37-44
Main Body	Net Dimension (WxHxD)	mm	1,054×153×425	1,054×153×425	1,054×153×425	1,054×153×425	1,275×189×450	1,275×189×450
	Net Weight/Gross Weight	Kg	11.8/15.3	11.8/15.3	12.3/15.8	12.3/15.8	16.1/20.4	16.4/20.7
	Net Dimension (WxHxD)	mm	1,180×25×465	1,180×25×465	1,180×25×465	1,180×25×465	1,350×25×505	1,350×25×505
Panel	Net Weight/Gross Weight	Kg	3.5/5.2	3.5/5.2	3.5/5.2	3.5/5.2	4/5.4	4/5.4
	Liquid/Gas Pipe Size (Diameter)	mm	Ø6.35/Ø12.7	Ø6.35/Ø12.7	Ø6.35/Ø12.7	Ø6.35/Ø12.7	Ø6.35/Ø12.7	Ø9.53/Ø15.9

NOTES:  
 (1) Indoor temperature 27°C DB / 19°C WB; Outdoor temperature: 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.  
 (2) Sound pressure level is measured 1.4m below the unit in a semi-anechoic chamber.

(3) Unit body dimensions given are the largest external dimensions of the unit, including hanger attachments.  
 (4) Specifications are subject to change without prior notice for continuous product improvement.  
 (5) Koppel is a registered trademark of Koppel, Inc.

## Two-way Cassette

Model		KV22CAS2-MA2	KV28CAS2-MA2	KV36CAS2-MA2	KV45CAS2-MA2	KV56CAS2-MA2	KV71CAS2-MA2
Power Supply	V/Hz/Ph	220-240/60/1	220-240/60/1	220-240/60/1	220-240/60/1	220-240/60/1	220-240/60/1
Cooling	Capacity	KW	2.2	2.8	3.6	4.5	5.6
		Btu/h	7,500	9,600	12,300	15,400	19,100
	Power Input	W	35	40	40	50	69
Airflow Rate	m <sup>3</sup> /h	410-654	410-654	458-725	550-850	670-980	770-1,200
Sound Pressure Level	dB(A)	24-33	24-33	25-35	30-37	30-39	34-44
Main Body	Net Dimension (WxHxD)	mm	1,172×299×591	1,172×299×591	1,172×299×591	1,172×299×591	1,172×299×591
	Net Weight/Gross Weight	Kg	33.5/42	33.5/42	33.5/42	35/43.5	35/43.5
	Net Dimension (WxHxD)	mm	1,430×53×680	1,430×53×680	1,430×53×680	1,430×53×680	1,430×53×680
Panel	Net Weight/Gross Weight	Kg	10.5/15	10.5/15	10.5/15	10.5/15	10.5/15
	Liquid/Gas Pipe Size (Diameter)	mm	Ø6.35/Ø12.7	Ø6.35/Ø12.7	Ø6.35/Ø12.7	Ø6.35/Ø12.7	Ø9.53/Ø15.9

NOTES:  
 (1) Indoor temperature 27°C DB / 19°C WB; Outdoor temperature: 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.  
 (2) Sound pressure level is measured 1.4m below the unit in a semi-anechoic chamber.

(3) Unit body dimensions given are the largest external dimensions of the unit, including hanger attachments.  
 (4) Specifications are subject to change without prior notice for continuous product improvement.  
 (5) Koppel is a registered trademark of Koppel, Inc.

## Four-way Cassette

Model		KV28CAS-MA2	KV36CAS-MA2	KV45CAS-MA2	KV56CAS-MA2	KV71CAS-MA2	KV80CAS-MA2
Power Supply	V/Hz/Ph	220-240/60/1	220-240/60/1	220-240/60/1	220-240/60/1	220-240/60/1	220-240/60/1
Cooling	Capacity	KW	2.8	3.6	4.5	5.6	7.1
		Btu/h	9,600	12,300	15,400	19,100	24,200
	Power Input	W	40	45	50	60	70
Airflow Rate	m <sup>3</sup> /h	542-801	542-801	635-893	635-893	671-977	774-1,203
Sound Pressure Level	dB(A)	23-32	23-32	26-35	26-35	27-35	28-36
Main Body	Net Dimension (WxHxD)	mm	840×230×840	840×230×840	840×230×840	840×230×840	840×230×840
	Net Weight/Gross Weight	Kg	21.3/25.8	21.3/25.8	23.2/27.6	23.2/27.6	23.2/27.6
	Net Dimension (WxHxD)	mm	950×70×950	950×70×950	950×70×950	950×70×950	950×70×950
Panel	Net Weight/Gross Weight	Kg	5.8/7.9	5.8/7.9	5.8/7.9	5.8/7.9	5.8/7.9
	Liquid/Gas Pipe Size (Diameter)	mm	Ø6.35/Ø12.7	Ø6.35/Ø12.7	Ø6.35/Ø12.7	Ø9.53/Ø15.9	Ø9.53/Ø15.9

Model		KV90CAS-MA2	KV100CAS-MA2	KV112CAS-MA2	KV140CAS-MA2	KV160CAS-MA2
Power Supply	V/Hz/Ph	220-240/60/1	220-240/60/1	220-240/60/1	220-240/60/1	220-240/60/1
Cooling	Capacity	KW	9.0	10.0	11.2	14.0
		Btu/h	30,700	34,100	38,200	47,800
	Power Input	W	100	150	160	170
Airflow Rate	m <sup>3</sup> /h	970-1,349	1,100-1,700	1,100-1,700	1,150-1,800	1,350-2,100
Sound Pressure Level	dB(A)	28-37	34-43	34-43	37-45	37-46
Main Body	Net Dimension (WxHxD)	mm	840×300×840	840×300×840	840×300×840	840×300×840
	Net Weight/Gross Weight	Kg	28.4/33.8	28.4/33.8	28.4/33.8	30.7/35.8
	Net Dimension (WxHxD)	mm	950×70×950	950×70×950	950×70×950	950×70×950
Panel	Net Weight/Gross Weight	Kg	5.8/7.9	5.8/7.9	5.8/7.9	5.8/7.9
	Liquid/Gas Pipe Size (Diameter)	mm	Ø9.53/Ø15.9	Ø9.53/Ø15.9	Ø9.53/Ø15.9	Ø9.53/Ø15.9

NOTES:  
 (1) Indoor temperature 27°C DB / 19°C WB; Outdoor temperature: 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.  
 (2) Sound pressure level is measured 1.4m below the unit in a semi-anechoic chamber.

(3) Unit body dimensions given are the largest external dimensions of the unit, including hanger attachments.  
 (4) Specifications are subject to change without prior notice for continuous product improvement.  
 (5) Koppel is a registered trademark of Koppel, Inc.

## Four-way Cassette: Compact

Model		KV22CAS4-MA2	KV28CAS4-MA2	KV36CAS4-MA2	KV45CAS4-MA2
Power Supply	V/Hz/Ph	220-240/60/1	220-240/60/1	220-240/60/1	220-240/60/1
Cooling	Capacity	KW	2.2	2.8	3.6
		Btu/h	7,500	9,600	12,300
	Power Input	W	35	35	40
Airflow Rate	m <sup>3</sup> /h	405-576	405-576	400-604	
Sound Pressure Level	dB(A)	22-35	22-34	28-41	
Main Body	Net Dimension (WxHxD)	mm	630×260×570	630×260×570	630×260×570
	Net Weight/Gross Weight	Kg	18/23.5	18/23.5	19.2/24.7
	Net Dimension (WxHxD)	mm	647×50×647	647×50×647	647×50×647
Panel	Net Weight/Gross Weight	Kg	2.5/4.5	2.5/4.5	2.5/4.5
	Liquid/Gas Pipe Size (Diameter)	mm	Ø6.35/Ø12.7	Ø6.35/Ø12.7	Ø6.35/Ø12.7

NOTES:  
 (1) Indoor temperature 27°C DB / 19°C WB; Outdoor temperature: 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.  
 (2) Sound pressure level is measured 1.4m below the unit in a semi-anechoic chamber.

(3) Unit body dimensions given are the largest external dimensions of the unit, including hanger attachments.  
 (4) Specifications are subject to change without prior notice for continuous product improvement.  
 (5) Koppel is a registered trademark of Koppel, Inc.

## Ceiling Concealed Ducted: Medium Static Pressure

Model		KV22CON-MA2MS	KV28CON-MA2MS	KV36CON-MA2MS	KV45CON-MA2MS	KV56CON-MA2MS
Power Supply	V/Hz/Ph	220-240/60/1	220-240/60/1	220-240/60/1	220-240/60/1	220-240/60/1
Cooling	Capacity	KW	2.2	2.8	3.6	4.5
		Btu/h	7,500	9,600	12,300	15,400
	Power Input	W	40	40	45	92
Airflow Rate	m <sup>3</sup> /h	300-520	300-520	370-580	400-800	
External Static Pressure	Pa	10 (0-50)	10 (0-50)	10 (0-50)	10 (0-50)	
Sound Pressure Level	dB(A)	23-32	23-32	25-33	25-36	
Unit Net Dimension (WxHxD)	mm	780×210×500	780×210×500	780×210×500	1,000×210×500	
Unit Net Weight/Gross Weight	Kg	18/21	18/21	18/21	21.5/25	
Liquid/Gas Pipe Size (Diameter)	mm	Ø6.35/Ø12.7	Ø6.35/Ø12.7	Ø6.35/Ø12.7	Ø6.35/Ø12.7	

Head Office & Manufacturing Plant  
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 Brgy. Wack-wack, Mandaluyong City  
 Tel. No.: (02) 8823-8883  
 Loc. 316 to 322

Davao  
 J.P. Cabaguio Avenue, Davao City  
 Tel. No.: (082) 221-6419  
 Fax No.: (082) 221-6418

Cebu  
 Door 1&2 Rozen Bldg.  
 A. Cortez Avenue, Mandaue City  
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Cagayan de Oro  
 Whse 1-7878 Ravago Bldg.,  
 Cugman Highway,  
 Cagayan de Oro City  
 Tel. No.: (088) 880-6326

Iloilo  
 Door 8 and 9 NSB Bldg.  
 Rizal Street, Lapuz, Iloilo City  
 Tel. No.: (033) 330-2926

Model		KV71CON-MA2MS	KV80CON-MA2MS	KV90CON-MA2MS	KV112CON-MA2MS	KV140CON-MA2MS
Power Supply	V/Hz/Ph	220-240/60/1	220-240/60/1	220-240/60/1	220-240/60/1	220-240/60/1
Cooling	Capacity	KW	71	8	9	11.2
	Power Input	Btu/h	24,200	27,300	30,700	38,200
Airflow Rate	m <sup>3</sup> /h	680-1,000	780-1,260	780-1,260	1,080-1,500	1,360-1,960
External Static Pressure	Pa	10 (0~50)	20 (10~100)	20 (10~100)	20 (10~100)	40 (30~150)
Sound Pressure Level	dB(A)	28-37	28-37	28-37	33-39	33-41
Unit Net Dimension (WxHxD)	mm	1,220x210x500	1,230x270x775	1,230x270x775	1,230x270x775	1,290x300x865
Unit Net Weight/Gross Weight	Kg	27.5/31.5	36.5/44.5	37/45	37/45	46.5/55.5
Liquid/Gas Pipe Size (Diameter)	mm	Ø9.53/Ø15.9	Ø9.53/Ø15.9	Ø9.53/Ø15.9	Ø9.53/Ø15.9	Ø9.53/Ø15.9

NOTES:  
 (1) Indoor temperature 27°C DB / 19°C WB; Outdoor temperature: 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.  
 (2) Setting external static pressure outside the unit's operational static pressure range may lead to higher noise levels and lower airflow rate. For the optimal external static pressure range refer to the unit's installation manual.  
 (3) Sound pressure level is measured 1.4m below the unit in a semi-anechoic chamber.  
 (4) Unit body dimensions given are the largest external dimensions of the unit, including hanger attachments.  
 (5) Specifications are subject to change without prior notice for continuous product improvement.  
 (6) Koppel is a registered trademark of Koppel, Inc.

## Ceiling Concealed Ducted: High Static Pressure

Model		KV71CON-MA2HS	KV80CON-MA2HS	KV90CON-MA2HS	KV112CON-MA2HS	KV140CON-MA2HS	KV160CON-MA2HS
Power Supply	V/Hz/Ph	220-240/60/1	220-240/60/1	220-240/60/1	220-240/60/1	220-240/60/1	220-240/60/1
Cooling	Capacity	KW	71	8	9	11.2	14
	Power Input	Btu/h	24,200	27,300	30,700	38,200	47,800
Airflow Rate	m <sup>3</sup> /h	1,160-1,380	1,160-1,380	1,140-1,420	1,350-1,870	1,600-2,240	1,880-2,660
External Static Pressure	Pa	100 (30~200)	100 (30~200)	100 (30~200)	100 (30~200)	100 (30~200)	100 (30~200)
Sound Pressure Level	dB(A)	42-46	42-46	45-50	45-50	48-53	50-54
Unit Net Dimension (WxHxD)	mm	965x423x690	965x423x690	965x423x690	965x423x690	1,322x423x691	1,322x423x691
Unit Net Weight/Gross Weight	Kg	41/47	41/47	51/57	51/57	68/76	68/76
Liquid/Gas Pipe Size (Diameter)	mm	Ø9.53/Ø15.9	Ø9.53/Ø15.9	Ø9.53/Ø15.9	Ø9.53/Ø15.9	Ø9.53/Ø15.9	Ø9.53/Ø15.9

Model		KV200CON-MA2HS	KV250CON-MA2HS	KV280CON-MA2HS	KV400CON-MA2HS	KV450CON-MA2HS	KV560CON-MA2HS
Power Supply	V/Hz/Ph	220-240/60/1	220-240/60/1	220-240/60/1	220-240/60/1	220-240/60/1	220-240/60/1
Cooling	Capacity	KW	20	25	28	40	45
	Power Input	Btu/h	68,200	85,300	95,500	136,500	153,600
Airflow Rate	m <sup>3</sup> /h	3,730-4,330	3,730-4,330	3,730-4,330	4,400-6,500	4,400-6,500	5,000-7,400
External Static Pressure	Pa	170 (30~250)	170 (30~250)	170 (30~250)	300 (100~400)	300 (100~400)	300 (100~400)
Sound Pressure Level	dB(A)	50-57	50-57	50-57	52-60	52-60	51-59
Unit Net Dimension (WxHxD)	mm	1,454x515x931	1,454x515x931	1,454x515x931	2,005x929x670	2,005x929x670	2,005x929x670
Unit Net Weight/Gross Weight	Kg	130/142	130/142	130/142	210/235	210/235	218/248
Liquid/Gas Pipe Size (Diameter)	mm	Ø12.7/Ø22.2	Ø12.7/Ø22.2	Ø12.7/Ø22.2	Ø15.9/Ø28.6	Ø15.9/Ø28.6	Ø15.9/Ø28.6

NOTES:  
 (1) Indoor temperature 27°C DB / 19°C WB; Outdoor temperature: 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.  
 (2) Setting external static pressure outside the unit's operational static pressure range may lead to higher noise levels and lower airflow rate. For the optimal external static pressure range refer to the unit's installation manual.  
 (3) Sound pressure level is measured 1.4m below the unit in a semi-anechoic chamber.  
 (4) Unit body dimensions given are the largest external dimensions of the unit, including hanger attachments.  
 (5) Specifications are subject to change without prior notice for continuous product improvement.  
 (6) Koppel is a registered trademark of Koppel, Inc.

## Ceiling & Floor Mounted Convertible

Model		KV36CM-MA2	KV45CM-MA2	KV56CM-MA2	KV71CM-MA2	KV80CM-MA2	KV90CM-MA2	KV112CM-MA2	KV140CM-MA2	KV160CM-MA2
Power Supply	V/Hz/Ph	220-240/60/1	220-240/60/1	220-240/60/1	220-240/60/1	220-240/60/1	220-240/60/1	220-240/60/1	220-240/60/1	220-240/60/1
Cooling	Capacity	KW	3.6	4.5	5.6	7.1	8.0	9.0	11.2	14.0
	Power Input	Btu/h	12,300	15,400	19,100	24,200	27,200	30,700	38,200	47,800
Airflow Rate	m <sup>3</sup> /h	420-550	500-800	500-800	500-800	1,050-1,280	1,050-1,280	1,580-1,890	1,580-1,890	1,800-2,300
Sound Pressure Level	dB(A)	36-40	38-43	38-43	38-43	40-45	40-45	42-47	42-47	44-50
Unit Net Dimension (WxHxD)	mm	990x660x203	990x660x203	990x660x203	990x660x203	1,280x660x203	1,280x660x203	1,670x680x244	1,670x680x244	1,670x680x244
Unit Net Weight/Gross Weight	Kg	27/33	28/34	28/34	28/34	35/41	35/41	48/58	48/58	48/58
Liquid/Gas Pipe Size (Diameter)	mm	Ø6.35/Ø12.7	Ø6.35/Ø12.7	Ø9.53/Ø15.9	Ø9.53/Ø15.9	Ø9.53/Ø15.9	Ø9.53/Ø15.9	Ø9.53/Ø15.9	Ø9.53/Ø15.9	Ø9.53/Ø15.9

NOTES:  
 (1) Indoor temperature 27°C DB / 19°C WB; Outdoor temperature: 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.  
 (2) Sound pressure level is measured in a semi-anechoic chamber.  
 (3) Unit body dimensions given are the largest external dimensions of the unit, including hanger attachments.  
 (4) Specifications are subject to change without prior notice for continuous product improvement.  
 (5) Koppel is a registered trademark of Koppel, Inc.

## Wall Mounted

Model		KV22WM-MA2	KV28WM-MA2	KV36WM-MA2	KV45WM-MA2	KV56WM-MA2	KV71WM-MA2	KV80WM-MA2	KV90WM-MA2
Power Supply	V/Hz/Ph	220-240/60/1	220-240/60/1	220-240/60/1	220-240/60/1	220-240/60/1	220-240/60/1	220-240/60/1	220-240/60/1
Cooling	Capacity	KW	2.2	2.8	3.6	4.5	5.6	7.1	8.0
	Power Input	Btu/h	7,500	9,600	12,300	15,400	19,100	24,200	27,300
Airflow Rate	m <sup>3</sup> /h	356-422	316-417	488-656	424-594	547-747	809-1195	809-1195	867-1421
Sound Pressure Level	dB(A)	29-31	29-31	30-33	31-35	34-38	36-44	36-44	38-48
Unit Net Dimension (WxHxD)	mm	835x280x203	835x280x203	990x315x223	990x315x223	990x315x223	1,194x343x262	1,194x343x262	1,194x343x262
Unit Net Weight/Gross Weight	Kg	8.4/12.1	9.5/13.1	11.4/15.5	12.8/16.9	12.8/16.9	17.0/22.4	17.0/22.4	17.0/22.4
Liquid/Gas Pipe Size (Diameter)	mm	Ø6.35/Ø12.7	Ø6.35/Ø12.7	Ø6.35/Ø12.7	Ø6.35/Ø12.7	Ø9.53/Ø15.9	Ø9.53/Ø15.9	Ø9.53/Ø15.9	Ø9.53/Ø15.9

NOTES:  
 (1) Indoor temperature 27°C DB / 19°C WB; Outdoor temperature: 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.  
 (2) Unit body dimensions given are the largest external dimensions of the unit, including hanger attachments.  
 (3) Specifications are subject to change without prior notice for continuous product improvement.  
 (4) Koppel is a registered trademark of Koppel, Inc.

## Fresh Air Processing Unit

Model		KV125CON-MA2FA	KV140CON-MA2FA	KV200CON-MA2FA	KV250CON-MA2FA	KV280CON-MA2FA	KV450CON-MA2FA	KV560CON-MA2FA
Power Supply	V/Hz/Ph	220-240/60/1	220-240/60/1	220-240/60/1	220-240/60/1	220-240/60/1	220-240/60/1	220-240/60/1
Cooling	Capacity	KW	12.5	14.0	20.0	25.0	28.0	45.0
	Power Input	Btu/h	480	480	850	850	850	1,080
Airflow Rate	m <sup>3</sup> /h	1,500-2,000	1,500-2,000	2,000-3,000	2,000-3,000	2,000-3,000	3,052-4,556	4,483-6,754
External Static Pressure	Pa	180 (30~200)	180 (30~200)	200 (30~250)	200 (30~250)	200 (30~250)	300 (100~400)	300 (100~400)
Sound Pressure Level	dB(A)	42-48	42-48	43-50	43-50	43-50	48-58	50-59
Unit Net Dimension (WxHxD)	mm	1,322x423x691	1,322x423x691	1,454x515x931	1,454x515x931	1,454x515x931	2,005x929x670	2,005x929x670
Unit Net Weight/Gross Weight	Kg	68/76	68/76	130/142	130/142	130/142	195/215	218/248
Liquid/Gas Pipe Size (Diameter)	mm	Ø9.53/Ø15.9	Ø9.53/Ø15.9	Ø12.7/Ø22.2	Ø12.7/Ø22.2	Ø12.7/Ø22.2	Ø15.9/Ø28.6	Ø15.9/Ø28.6

NOTES:  
 (1) Indoor temperature 27°C DB / 19°C WB; Outdoor temperature: 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.  
 (2) Setting external static pressure outside the unit's operational static pressure range may lead to higher noise levels and lower airflow rate. For the optimal external static pressure range refer to the unit's installation manual.  
 (3) Sound pressure level is measured 1.4m below the unit in a semi-anechoic chamber.  
 (4) Specifications are subject to change without prior notice for continuous product improvement.  
 (5) Koppel is a registered trademark of Koppel, Inc.