SAMPLE SIZE COMBINATIONS AND PERFORMANCE DATA

WMMS-30CH-V2B(59)2- Cooling Performance Nominal

Indoor Unit Combinations	Total Capacity	Room A	Room B	Room C	Room D	Capacity Rating-Btu/h (Min.~Max.)	Input Power Rating-Watts (Min.~Max.)
9K	9K	10880				10880 (9180~12240)	1050 (1000~1300)
12K	12K	11900				11900 (9180~14960)	1050 (1000~1500)
18K	18K	17000				17000 (11220~22780)	1400 (1000~2600)
9+9K	18K	8500	8500			17000 (11220~22780)	1400 (1000~2600)
9+12K	21K	8500	11900			20400 (11220~26520)	1800 (1000~3300)
12+12K	24K	11900	11900			23800 (11220~27880)	2300 (1000~3800)
9+18K	27K	8840	15300			24140 (11220~32300)	2200 (1000~4600)
12+18K	30K	11900	12240			24140 (11220~32300)	2200 (1000~4600)

WMMS-30CH-V2B(59)2- Heating Performance Nominal Data

Indoor Unit Combinations	Total Capacity	Room A	Room B	Room C	Room D	Capacity Rating-Btu/h (Min.~Max.)	Input Power Rating-Watts (Min.~Max.)
9K	9K		9860			9860 (6630~15980)	1100 (850~2450)
12K	12K			13260		13260 (6800~17000)	1450 (850~2500)
18K	18K	19720				19720 (8670~27880)	1850 (900~2950)
9+9K	18K	10880	10880			21760 (8670~29240)	2050 (900~2950)
9+12K	21K	10880	13600			24480 (8670~30600)	2300 (900~3300)
12+12K	24K	13260	13260			26520 (10200~32640)	2400 (900~3500)
9+18K	27K	12240	17000			26860 (10200~31620)	2400 (900~3500)
12+18K	30K	12240	15300			27540 (10540~33660)	

WMMS-36CH-V2B(59)2- Cooling Performance Nominal Data

Indoor Unit Combinations	Total Capacity	Room A	Room B	Room C	Room D	Capacity Rating-Btu/h (Min.~Max.)	Input Power Rating-Watts (Min.~Max.)
9+9K	18K	8500	8500			17000 (11220~22780)	1400 (1000~2600)
9+12K	21K	8500	11900			20400 (11220~26520)	1800 (1000~3300)
12+12K	24K	11900	11900			23800 (11220~27880)	2300 (1000~3800)
9+18K	27K	8840	15300			24140 (11220~32300)	2200 (1000~4600)
12+18K	30K	11900	12240			24140 (11220~32300)	2200 (1000~4600)
9+9+9K	27K	8075	8075	8075		24140 (11220~32300)	2200 (1000~4600)
9+9+12K	30K	7140	7140	9860		24140 (11220~32300)	2200 (1000~4600)
9+12+12K	33K	6460	8840	8840		24140 (11220~32640)	2200 (1000~4650)
12+12+12K	36K	8075	8075	8075		24140 (11220~32640)	2200 (1000~4650)
9+9+18K	36K	7480	7480	9180		24140 (11220~32640)	2200 (1000~4650)
9+12+18K	39K	7140	7820	9180		24140 (11220~32640)	2200 (1000~4650)
12+12+18K	42K	7820	7820	8500		24140 (11220~32640)	2200 (1000~4650)

WMMS-36CH-V2B(59)2- Heating Performance Nominal Data

Indoor Unit Combinations	Total Capacity	Room A	Room B	Room C	Room D	Capacity Rating-Btu/h (Min.~Max.)	Input Power Rating-Watts (Min.~Max.)
9+9K	18K	10880	10880			21760 (8670~29240)	2050 (900~2950)
9+12K	21K	10880	13600			24480 (8670~30600)	2300 (900~3300)
12+12K	24K	13260	13260			26520 (10200~32640)	2400 (900~3500)
9+18K	27K	12240	17000			26860 (10200~31620)	2400 (900~3500)
12+18K	30K	12240	15300			27540 (10540~33660)	2600 (900~3800)
9+9+9K	27K	9632	9632	9632		28900 (10540~37400)	2600 (900~3800)
9+9+12K	30K	9010	9010	10880		28900 (10540~37400)	2600 (900~3800)
9+12+12K	33K	7820	10880	10880		29580 (10540~37400)	2600 (900~3800)
9+9+18K	36K	7990	7990	13600		29580 (10540~37400)	2400 (1000~3900)
12+12+12K	36K	9860	9860	9860		29580 (10540~37400)	2350 (1000~4000)
9+12+18K	39K	7480	9180	12920		29580 (10540~37400)	2350 (1000~4000)
12+12+18K	42K	8500	8500	12580		29580 (10540~37400)	2400 (1000~4000)

WMMS-42CH-V2B(59)2-Cooling Performance Nominal Data

Indoor Unit Combinations	Total Capacity	Room A	Room B	Room C	Room D	Capacity Rating-Btu/h (Min.~Max.)	Input Power Rating-Watts (Min.~Max.)
9+9K	18K	8500	8500			10880 (9180~12240)	1400 (1000~2600)
9+12K	21K	8500	11900			11900 (9180~14960)	1800 (1000~3300)
12+12K	24K	11900	11900			20400 (11220~26520)	2200 (1000~4600)
9+18K	27K	8840	15300			17000 (11220~22780)	2300 (1000~3800)
12+18K	30K	11900	12240			17000 (11220~22780)	2200 (1000~4600)
9+9+9K	27K	8044	8044	8044		23800 (11220~27880)	2200 (1000~4600)
9+9+12K	30K	7140	7140	9860		24140 (11220~32300)	2200 (1000~4600)
9+12+12K	33K	6460	8840	8840		24140 (11220~32300)	2200 (1000~4650)
12+12+12K	36K	8044	8044	8044		24140 (11220~32300)	2200 (1000~4650)
9+9+18K	36K	7480	7480	9180		24140 (11220~32300)	2200 (1000~4650)
9+12+18K	39K	7140	7820	9180		24140 (11220~32640)	2200 (1000~4650)
12+12+18K	42K	7820	7820	8500		24140 (11220~32640)	2200 (1000~4650)
9+9+9+9K	36K	6800	6800	6800	6800	24140 (11220~32640)	2480 (1000~4650)
9+9+9+12K	39K	1750	1750	1750	2750	24140 (11220~32640)	2480 (1000~4650)
9+9+12+12K	42K	1500	1500	2500	2500	24140 (11220~32640)	2480 (1000~4700)
9+12+12+12K	45K	1700	2100	2100	2100	27200 (11220~32640)	2480 (1000~4700)

WMMS-42CH-V2B(59)2-Heating Performance Nominal Data

Indoor Unit Combinations	Total Capacity	Room A	Room B	Room C	Room D	Capacity Rating-Btu/h (Min.~Max.)	Input Power Rating-Watts (Min.~Max.)
9+9K	18K	10880	10880			21760 (8670~27880)	2050 (900~2950)
9+12K	21K	10880	13600			24480 (8670~28900)	2300 (900~3300)
12+12K	24K	13260	13260			27540 (10540~33660)	2400 (900~3500)
9+18K	27K	9860	17000			26520 (10200~31620)	2400 (900~3500)
12+18K	30K	12240	15300			26860 (10200~31620)	2400 (1000~3900)
9+9+9K	27K	9180	9180	9180		27540 (10540~33660)	2400 (1000~4000)
9+9+12K	30K	8500	8500	10540		27540 (10540~33660)	2400 (1000~4000)
9+12+12K	33K	7480	10370	10370		28220 (10540~33660)	2450 (1000~4000)
9+9+18K	36K	7990	7990	11560		27540 (10540~33660)	2400 (1000~4000)
12+12+12K	36K	9690	9690	9690		29070 (10540~33660)	2500 (1000~4000)
9+12+18K	39K	7480	9180	10880		27540 (10540~33660)	2400 (1000~4000)
12+12+18K	42K	8500	8500	10540		27540 (10540~33660)	2400 (1000~4000)
9+9+9+9K	36K	8160	8160	8160	8160	32640 (11220~37400)	2600 (1100~4200)
9+9+9+12K	39K	7480	7480	7480	10200	32640 (11220~37400)	2600 (1100~4200)
9+9+12+12K	42K	7140	7140	9180	9180	32640 (11220~37400)	2600 (1100~4200)
9+12+12+12K	45K	6120	8840	8840	8840	32640 (11220~37400)	2600 (1100~4200)

Important Notes:

1) In DC inverter multiple zone system, not all indoor units will need to work at rated capacity all the time. Zoning capability of mini split multiple system is one of the reasons it has higher energy efficiency than central system.
2) Instructions for selecting multiple-zone indoor and outdoor unit models, following these steps in a sequence:
   A. The installing HVAC contractor checks job site, collects all info. and uses commercially available cooling/heating load calculation program such as Wrightsoft Manual J to calculate each room's design cooling load and design heating load.
   B. Select the unit model of the most closest standard rating for each room. Keep in mind: HVAC equipment's cooling capacity/efficiency drops as ambient temperature rises, while its heating output capacity/efficiency drops as ambient temperature drops. Need to select a 2nd source heater as back-up heating to make up or replace heat pump during some cold hours when heat pump is not able to generate enough heat.
   C. Divide all rooms into # of thermal zones. In each thermal zone, all indoor units will be used working at standard capacity ratings most of time.
   D. Add up all the standard rating capacities of all indoor units in each thermal zone, and then find out the largest Zone Sub-total capacity.
   E. Then use the Sub-total capacity found in step D to match outdoor unit model that has the closest stand rating capacity.
   Example 1: A remodeling house project has 4 rooms A, B, C, D.
   Zone1: A 17,200 Btu/h design load pick 18K indoor unit, B 10,400 Btu/h design load pick 12K indoor unit, Sub-total for zone 1=18K+12K=30K.
   Zone 2: C 9,100 Btu/h design load pick 09K indoor unit, D 12,800 But/h design load pick 12K indoor unit, Sub-total for zone 2=9K+12K=21K.
   30K>21K, so outdoor unit WMMS-48CH-V2B(59)2 is the 1st choice and WMMS-42CH-V2B(59)2 the 2nd if pipes are less than 4x25'=100ft.
   Example 2: If all indoor units need to run at rating capacities ALL THE TIME(A,B,C,D are in one zone), then WMMS-60CH-V2B(59)2 should be selected.
4) All indoor units must work in same thermal mode. Shall not run cooling in one unit and heating in another one, or mode conflict error code E7 shows up.

YMGI Group, POB 1559, **YMGI Group (New Energy)**, POB 1668 O'Fallon, MO 63366, USA Tel:(866)833-3138 Fax:(866)377-3355 Web Site: www.ymgigroup.com Email: info@ymgigroup.com

SYMPHONY-CHOIR (59)2
DC Inverter Any Mix & Match-II

1 Outdoor Unit, to Work with Up to 5 Indoor Units

More Than 130 Indoor Unit Type/Size Combinations, of Four Styles: Wall, Ceiling, Ceiling/Floor, and Recessed Fan Coil Unit (Low Profile)
Crankcase Heater and/or De-ice/Snow Heater, Low Ambient Control for a Better Performance in Cold Weather

MANY ADVANTAGES OVER CONVENTIONAL CENTRAL SYSTEMS:

* Eliminate health issues from dust, mold or fugus which exists in central duct systems
* Reduce noise for quiet operation and more comfort
* Zone control and high energy efficiency to help save utility bills
* Removable by professional, if needed, to new location

INDOOR UNIT OPTIONS
(Run Same Mode on All Indoor Units)

YMGI, Engineered Comfort Products for A Sustainable and Efficient Green World!

APPLICATIONS:

* LIBRARIES
* HOTELS
* HOMES
* SUNROOMS
* CONDOS
* RESORTS
* GALLERIES
* NURSING HOMES
* APARTMENTS
* OFFICES
* RESTARAUNTS
* MOBILE HOMES

FEATURES:

* DC INVERTER
* ADAPTIVE SMART CONTROL
* HIGH EFFICIENCY
* QUICK COOLING AND HEATING
* INDEPENDENT DEHUMIDIFICATION
* INTELLIGENT DEFROSTING
* QUIET OPERATION
* SOFT START
* LOW VOLTAGE START
* STABLE OPERATION AT LOW FREQUENCY
* RANDOM PITCH CROSS FLOW FAN WHEEL
* WIDE ANGLE AIR DISTRIBUTION
* LONG AIR THROW
* WASHABLE FILTER
* AUTO DRYING & CLEANING
* DRY ANTI-MOLD COIL
* REMOTE CONTROL
* 12 OR 24-HOUR TIMER
* MEMORIES & AUTO RESTART
* PRE-HEATING PRIOR TO HEATING START
* OVERCORRECT & THERMAL PROTECTION
* SLEEP MODE
* ENHANCED COPPER/COIL
* PRE-CHARGED
* DIGITAL DISPLAY (LIGHT ON/OFF)
* EASY OPERATION
* EASY DIAGNOSIS & TROUBLE-SHOOTING
* THOROUGHLY TESTED
* RELIABLE QUALITY

ADD-ON ACCESSORIES:

* ADVANCED HEALTHY KIT (HEPA/Enzyme/Cold Catalyst Filter, Anion Generator)
* "U-TOUCH" REMOTE CONTROL
* REMOTE CONTROL LOCK
* BRACKETS (FOR OUTDOOR UNIT)
* FOOT RISERS (FOR OUTDOOR UNIT)
* COPPER/WIRE/ACC.SET (ACC. KIT)
* LINESET COVERS
* WINTER WIND BAFFLE

INDOOR UNIT-ANY ONE OR FEW OF FOLLOWING CONFIGURATIONS (TO CONNECT TO OUTDOOR UNIT)

INDOOR UNIT OPTION-CEILING MOUNT CASSETTE

EC

Notes:
Unit Appearance and Specifications Are Subject to Change for Continuous Improvement without Any Prior Notice.

Items	Unit / Conditions	WMMS-12EC-V2B(59)2	WMMS-18EC-V2B(59)2	WMMS-24EC-V2B(59)2
Power Supply	Voltage/Ph/Hz	208-230/1/60	208-230/1/60	208-230/1/60
	Allowed Voltage Range	187-253V	187-253V	187-253V
Cooling Capacity (Btu/h)	High/Standard/Low	13900/12000/5200	20800/17200/6200	26500/22800/9600
Heating Capacity (Btu/h)	ID 70/60, OD 47/43F	13000	18100	27400
	ID 70/60, OD 17/15F	11600	16200	23800
	ID 70/60, OD 17/5F	9000	13100	20600
SEER	Btu/h.W	16	16	16
HSPF	Btu/h.W	8.2	8.2	8.2
Duhumidifying Capacity	Pints/Hr.	2.96	3.8	5.28
Air Flow (CFM)	High/Medium/Low	353/312/245	353/312/245	694/522/366
Air-throw (Ft.)	Horizontal Installation	25-18 Upon Mounting Height/Speed/Temp.		
External Static Pressure	Water In.	0	0	0
Sound Level	Pressure dB(A) (H/M/L)	39/37/35	39/37/35	45/43/41
	Power dB(A) (H/M/L)	49/47/45	49/47/45	55/53/51
Fan Motor	Model	FN11T-2	FN11T-2	FN35B-1
	Shaft	Single	Single	Single
	Speed (RMP, H/M/L)	700/600/515	700/600/515	570/520/280
	Output (W)	11	11	50
	Input (W)	50	50	165
	Capacitor (uF)	1	1	3
Fan Wheel	Type-Piece	Centrifugal-1	Centrifugal-1	Centrifugal-1
	Diameter x Height (In.)	11.1 x 5.8	11.1 x 5.8	17.7 x 4.4
Swing/Step Motor	Model	MP35CB	MP35CB	MP35CB
	Piece	2	2	2
	Output (W)	2	2	2
Input Power of Ele. Heater	Type-W	NA	NA	NA
Electrical Protection Fuse	PCB / Transformer	T3.15A 250V / 0.2A		
Evaporator Coil	Type	Alu. Fin/Inner Grooved Copper Tube		
	Color	Blue	Blue	Blue
Copper Line Connections	Sealed by Dry Nitrogen	Yes	Yes	Yes
	Flare/Nut-Liuqid + Gas	1/4" + 3/8"	1/4" + 1/2"	3/8" + 5/8"
Drain Hose Connection	OD (In.)	1.22	1.22	1.22
Condensate Pump	Installed-Lift (In.)	Yes-25	Yes-25	Yes-25
Refrigerant Environmental Friendly	R410A	Yes	Yes	Yes
Filter	Type-Feature	Standard-Washable	Standard-Washable	Standard-Washable
	Size WxH (In.) - Qty.	13.56 x 13.13 - 1	13.56 x 13.13 - 1	21.38 x 21.34 - 1
Clean Coil Surface	Anti-Mildew Function	Yes	Yes	Yes
Pre-heating Function	Anti-Cold Blowing	Yes	Yes	Yes
Memory of Previous Set-ups	Power is Lost/Resumed	Yes	Yes	Yes
Auto-Restart Function	If Power is Resumed	Yes	Yes	Yes
Unit Dimensions	Net L x W x H (In.)	22.4 x 22.4 x 9.1	22.4 x 22.4 x 9.1	33.1 x 33.1 x 9.4
	Package L x W x H (In.)	33.4 x 28.7 x 12.2	33.4 x 28.7 x 12.2	37.8 x 37.8 x 12.2
Unit Weight	Net (LBs)	39.7	39.7	66
	Packaged (LBs)	50.7	50.7	84
Face Panel Dimensions	Net L x W x H (In.)	25.6 x 25.6 x 2	25.6 x 25.6 x 2	37.4 x 37.4 x 2.4
	Package L x W x H (In.)	28.7 x 26.4 x 4	28.7 x 26.4 x 4	40.9 x 40.4 x 4.5
Face Panel Weight	Net (LBs)	5.5	5.5	14
	Packaged (LBs)	8.1	8.1	22
Loading Capacity	20'/40'/40'HQ	102/209/246	102/209/246	72/72/144

INDOOR UNIT OPTION-WALL MOUNT

EW

Notes:
Unit Appearance and Specifications Are Subject to Change for Continuous Improvement without Any Prior Notice.

Items	Unit / Conditions	WMMS-09EW-V2B(59)2	WMMS-12EW-V2B(59)2	WMMS-18EW-V2B(59)2	WMMS-24EW-V2B(59)2
Power Supply	Voltage/Ph/Hz	208-230/1/60	208-230/1/60	208-230/1/60	208-230/1/60
	Allowed Voltage Range	187-253V	187-253V	187-253V	187-253V
Cooling Capacity (Btu/h)	High/Standard/Low	12000/9000/4400	14000/12000/4500	21500/17000/6800	26500/22800/9600
Heating Capacity (Btu/h)	Max./Min.	12500/3400	14500/3800	22500/9500	28500/9800
	ID 70/60, OD 47/43F	9500	13000	18700	27400
	ID 70/60, OD 17/15F	8800	11600	16600	23600
	ID 70/60, OD 17/5F	8000	9100	13800	20600
SEER	Btu/h.W	22-16	20-16	18-16	18-16
HSPF	Btu/h.W	9.8-8.2	9.6-8.2	10.2-8.2	10.2-8.2
Duhumidifying Capacity	Pints/Hr.	1.7	2.96	3.8	5.28
Air Flow (CFM)	High/Medium/Low	300/253/218	330/253/218	460/380/320	470/410/350
Air-throw (Ft.)	Horizontal Installation	35-30 Upon Mounting Height/Speed/Temp.			
External Static Pressure	Water In.	0	0	0	0
Sound Level	Pressure dB(A) (H/M/L)	34/30/26	36/32/26	45/42/40	48/46/44
	Power dB(A) (H/M/L)	44/40/36	46/42/36	55/52/50	58/56/54
Fan Motor	Model	FN20T-PG	FN20T-PG	FN20W-PG	FN25B-PG
	Shaft	Single	Single	Single	Single
	Speed (RMP, H/M/L)	1050/980/920	1050/980/920	1200/1050/900	1150/1000/850
	Output (W)	20	20	20	35
	RLA (AMP)	0.2	0.2	0.25	0.45
	Capacitor (uF)	1	1	1.5	2.5
Fan Wheel	Type-Piece	Cross Flow-1	Cross Flow-1	Cross Flow-1	Cross Flow-1
	Diameter x Width (In.)	Φ3.6 x 25.4	Φ3.6 x25.4	Φ3.9 x 28	Φ3.9 x 30
Swing/Step Motor	Model	MP24AA	MP24AA	MP28VB	MP35XX
	Piece	2	2	2	2
	Output (W)	2.4	2.4	2	2
Input Power of Ele. Heater	Type-W	NA	NA	NA	NA
Electrical Protection Fuse	PCB / Transformer	T3.15A 250V / 0.2A			
Evaporator Coil	Type	Alu. Fin/Inner Grooved Copper Tube			
	Color	Blue	Blue	Blue	Blue
Copper Line Connections	Sealed by Dry Nitrogen	Yes	Yes	Yes	Yes
	Flare/Nut-Liuqid + Gas	1/4" + 3/8"	1/4" + 3/8"	1/4" + 1/2"	1/4" + 5/8"
Drain Hose Connection	OD (In.)	0.67	0.67	0.67	0.67
Condensate Pump	Installed-Lift (In.)	NA	NA	NA	NA
Refrigerant Environmental Friendly	R410A	Yes	Yes	Yes	Yes
Filter	Type-Feature	Standard-Washable	Standard-Washable	Standard-Washable	Standard-Washable
	Qty.	2	2	2	2
Clean Coil Surface	Anti-Mildew Function	Yes	Yes	Yes	Yes
Pre-heating Function	Anti-Cold Blowing	Yes	Yes	Yes	Yes
Memory of Previous Set-ups	Power is Lost/Resumed	Yes	Yes	Yes	Yes
Auto-Restart Function	If Power is Resumed	Yes	Yes	Yes	Yes
Unit Dimensions	Net WxHxD (In.)	30.3 x 9.8 x 7.5	32.7 x 11.2 x 7.9	37 x 11.7 x 7.9	39.7 x 12.4 x 7.9
	Package WxHxD (In.)	33.7 x 13.0 x 10.4	35.7 x 15.2 x 10.7	39.8 x 15.0 x 11.2	42.2 x 15.6 x 12.3
Unit Weight	Net (LBs)	18.7	24.3	28.6	35.2
	Packaged (LBs)	27.5	30.8	37.4	46.3
Loading Capacity	20'/40'/40'HQ	378/792/890	240/480/540	207/431/488	200/410/450

INDOOR UNIT OPTION-CEILING/FLOOR MOUNT UNIVERSAL

EU

Notes:
Unit Appearance and Specifications Are Subject to Change for Continuous Improvement without Any Prior Notice.

Items	Unit / Conditions	WMMS-09EU-V2B(59)2	WMMS-12EU-V2B(59)2	WMMS-18EU-V2B(59)2	WMMS-24EU-V2B(59)2
Power Supply	Voltage/Ph/Hz	208-230/1/60	208-230/1/60	208-230/1/60	208-230/1/60
	Allowed Voltage Range	187-253V	187-253V	187-253V	187-253V
Cooling Capacity (Btu/h)	High/Standard/Low	10700/8500/4600	14100/11900/5900	21500/17000/6800	26500/22800/9600
Heating Capacity (Btu/h)	ID 70/60, OD 47/43F	9500	13100	18700	27400
	ID 70/60, OD 17/15F	8800	11600	16600	23600
	ID 70/60, OD 17/5F	8000	9100	13800	20600
SEER	Btu/h.W	16	16	16	16
HSPF	Btu/h.W	8.2	8.2	8.2	8.2
Duhumidifying Capacity	Pints/Hr.	1.7	2.96	3.8	5.28
Air Flow (CFM)	High/Medium/Low	383/324/265	383/324/265	559/412/294	736/530/412
Air-throw (Ft.)	Horizontal Installation	35-30 Upon Mounting Height/Speed/Temp.			
	Upright Installation	35-20 Upon Mounting Location/Speed/Temp.			
External Static Pressure	Water In.	0	0	0	0
Sound Level	Pressure dB(A) (H/M/L)	40/38/36	40/38/36	45/42/40	48/46/44
	Power dB(A) (H/M/L)	50/48/46	50/48/46	55/52/50	58/56/54
Fan Motor	Model	FG10A	FG10A	FG20E	FG50A
	Shaft	Double	Double	Double	Double
	Speed (RMP, H/M/L)	690/610/480	690/610/480	985/800/680	985/800/680
	Output (W)	15	15	20	40
	Input (W)	55	55	110	145
	Capacitor (uF)	1	1	2.5	2
Fan Wheel	Type-Piece	Centrifugal-2	Centrifugal-2	Centrifugal-4	Centrifugal-4
	Diameter x Width (In.)	5.5 x 4.1	5.5 x 4.1	5.5 x 4.1	5.5 x 4.1
Swing/Step Motor	Model	MP35CB	MP35CB	MP35CB	MP35CB
	Piece	2	2	2	2
	Output (W)	2	2	2	2
Input Power of Ele. Heater	Type-W	NA	NA	NA	NA
Electrical Protection Fuse	PCB/Transformer	T3.15A 250V / 0.2A			
Evaporator Coil	Type	Alu. Fin/Inner Grooved Copper Tube			
	Color	Blue or the Like	Blue or the Like	Blue or the Like	Blue or the Like
Copper Line Connections	Sealed by Dry Nitrogen	Yes	Yes	Yes	Yes
	Flare/Nut-Liuqid + Gas	1/4" + 3/8"	1/4" + 3/8"	1/4" + 1/2"	1/4" + 5/8"
Drain Hose Connection	OD (In.)	0.67	0.67	0.67	0.67
Condensate Pump	Installed-Lift (In.)	NA	NA	NA	NA
Refrigerant Environmental Friendly	R410A	Yes	Yes	Yes	Yes
Filter	Type-Feature	Standard-Washable	Standard-Washable	Standard-Washable	Standard-Washable
	Size WxH (In.) - Qty.	21.8 x 8.68 - 2	21.8 x 8.68 - 2	21.8 x 8.68 - 2	21.8 x 8.68 - 2
Clean Coil Surface	Anti-Mildew Function	Yes	Yes	Yes	Yes
Pre-heating Function	Anti-Cold Blowing	Yes	Yes	Yes	Yes
Memory of Previous Set-ups	Power is Lost/Resumed	Yes	Yes	Yes	Yes
Auto-Restart Function	If Power is Resumed	Yes	Yes	Yes	Yes
Unit Dimensions	Net WxHxD (In.)	48 x 27.6 x 8.9	48 x 27.6 x 8.9	48 x 27.6 x 8.9	48 x 27.6 x 8.9
	Package WxHxD (In.)	52.8 x 32.3 x 11.8	52.8 x 32.3 x 11.8	52.8 x 32.3 x 11.8	52.8 x 32.3 x 11.8
Unit Weight	Net (LBs)	88	88	88	99
	Packaged (LBs)	110	110	110	119
Loading Capacity	20'/40'/40'HQ	66/132/132	66/132/132	66/132/132	66/132/132

INDOOR UNIT OPTION - FAN COIL RECESSED MOUNT

EF

Notes:
Unit Appearance and Specifications Are Subject to Change for Continuous Improvement without Any Prior Notice.

Items	Unit / Conditions	WMMS-09EF-V2B(59)2	WMMS-12EF-V2B(59)2	WMMS-18EF-V2B(59)2	WMMS-24EF-V2B(59)2
Power Supply	Voltage/Ph/Hz	208-230/1/60	208-230/1/60	208-230/1/60	208-230/1/60
	Allowed Voltage Range	187-253V	187-253V	187-253V	187-253V
Cooling Capacity (Btu/h)	High/Standard/Low	10700/8500/4600	14100/11900/5900	21500/15300/6800	26500/23800/9600
Heating Capacity (Btu/h)	ID 70/60, OD 47/43F	9500	13100	18700	27400
	ID 70/60, OD 17/15F	8800	11600	16600	23600
	ID 70/60, OD 17/5F	8000	9100	13800	20600
SEER	Btu/h.W	16	16	16	16
HSPF	Btu/h.W	8.2	8.2	8.2	8.2
Duhumidifying Capacity	Pints/Hr.	1.7	2.96	3.8	5.28
Air Flow (CFM)	High/Medium/Low	260/180/150	320/240/180	410/350/295	590/440/320
Air-throw (Ft.)	Horizontal Installation	25-20 Upon Mounting Height/Speed/Temp.			
External Static Pressure	Water In.	0	0	0	0
Sound Level	Pressure dB(A) (H/M/L)	37/34/31	39/35/32	41/37/33	42/38/34
	Power dB(A) (H/M/L)	47/44/41	49/45/42	51/47/43	52/48/44
Fan Motor	Model	FG30A	FG40A	FG60A	FG20E
	Shaft	Double	Double	Double	Double
	Speed (RMP, H/M/L)	970/760/640	960/830/700	920/780/720	985/800/680
	Output (W)	40	49	75	2 x 45
	Input (W)	80	90	100	2 x 85
	Capacitor (uF)	1	3	3	3
Fan Wheel	Type-Piece	Centrifugal-2	Centrifugal-2	Centrifugal-2	Centrifugal-4
	Diameter x Width (In.)	5.5 x 5.3	5.5 x 5.3	5.5 x 5.3	5.5 x 5.3
Swing/Step Motor	Model	NA	NA	NA	NA
	Piece	NA	NA	NA	NA
	Output (W)	NA	NA	NA	NA
Input Power of Ele. Heater	Type-W	NA	NA	NA	NA
Electrical Protection Fuse	PCB/Transformer	T3.15A 250V / 0.2A			
Evaporator Coil	Type	Alu. Fin/Inner Grooved Copper Tube			
	Color	Blue	Blue	Blue	Blue
Copper Line Connections	Sealed by Dry Nitrogen	Yes	Yes	Yes	Yes
	Flare/Nut-Liuqid + Gas	1/4" + 3/8"	1/4" + 3/8"	1/4" + 1/2"	1/4" + 5/8"
Drain Hose Connection	OD (In.)	1	1	1	1
Condensate Pump	Installed-Lift (In.)	NA	NA	NA	NA
Refrigerant Environmental Friendly	R410A	Yes	Yes	Yes	Yes
Filter	Type-Feature	Standard-Washable	Standard-Washable	Standard-Washable	Standard-Washable
	Size WxH (In.) - Qty.	23.7 x 7.6 - 1	23.7 x 7.6 - 1	31.6 x 7.6 - 1	39.4 x 7.7 - 1
Clean Coil Surface	Anti-Mildew Function	Yes	Yes	Yes	Yes
Pre-heating Function	Anti-Cold Blowing	Yes	Yes	Yes	Yes
Memory of Previous Set-ups	Power is Lost/Resumed	Yes	Yes	Yes	Yes
Auto-Restart Function	If Power is Resumed	Yes	Yes	Yes	Yes
Unit Dimensions	Net WxHxD (In.)	27.6 x 24.2 x 7.9	27.6 x 24.2 x 7.9	35.4 x 24.2 x 7.9	43.3 x 24.2 x 7.9
	Package WxHxD (In.)	35.0 x 29.1 x 11.4	35.0 x 29.1 x 11.4	44.0 x 29.1 x 11.4	52.0 x 29.1 x 11.4
Unit Weight	Net (LBs)	48	51	59	68
	Packaged (LBs)	59	64	79	90
Loading Capacity	20'/40'/40'HQ	108/234/234	108/234/234	90/192/192	72/162/162

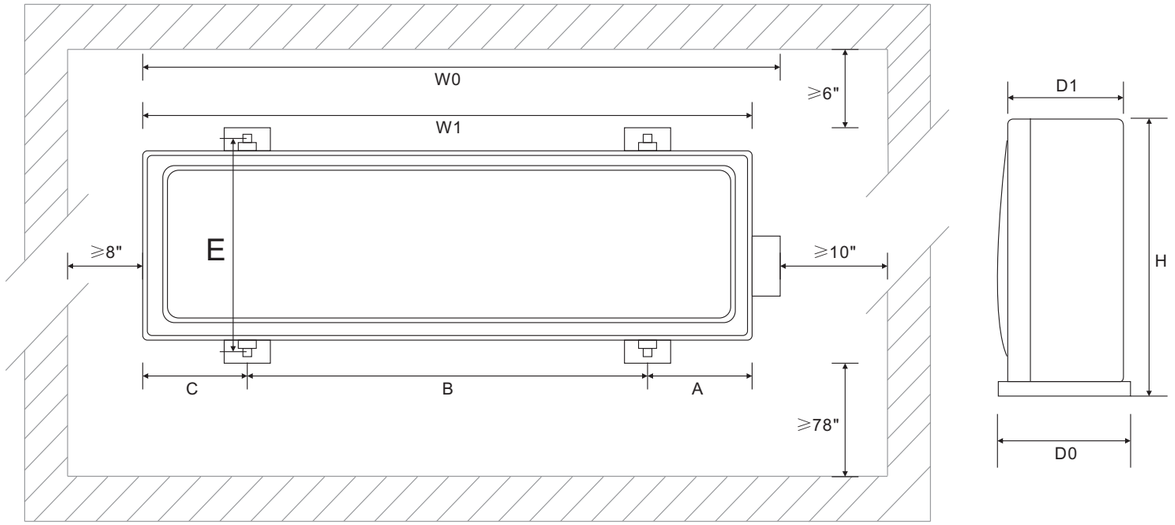
OUTDOOR UNIT SPECIFICATION AND ENGINEERING SUBMITTAL

Outdoor Unit Models		WMMS-30CH-V2B(59)2 (1 to 2)	WMMS-36CH-V2B(59)2 (1 to 3)	WMMS-42CH-V2B(59)2 (1 to 4)	WMMS-48CH-V2B(59)2 (1 to 4)	WMMS-60CH-V2B(59)2 (1 to 5)
Power Supply		208-230/1/60				
Cooling Capacity* (Btu/h)	Max. IDU Cap. Total 2)	30,000	36,000	48,000	57,000	72,000
	Rated 1)	18,000	24,000	28,000	30,000	42,000
	Min.	7,200	10,000	10,000	10,000	12,000
Total Power Input in Cooling Mode* (W)	Max.	2300	3300	4500	4500	5100
	Rated	1550	2250	2600	2600	3950
	Min.	650	800	900	1000	1200
SEER		16.0	16.0	16.0	16.0	16.0
HSPF		8.2	8.2	8.2	8.2	8.2
Heating Capacity* (Btu/h)	Max. IDU Cap. Total 2)	32,000	38,000	50,000	59,000	74,000
	Rated 1)	19,000	29,500	31,000	33,000	46,000
	Min.	6,500	9,000	9,000	9,000	10,000
Total Power Input in Heating Mode*	Max.	2400	3000	3500	3500	4800
	Rated	1750	2500	2920	2920	4400
	Min.	650	800	900	1000	1200
Liquid Valve Size		2 x 1/4"	3 x 1/4"	4 x 1/4"	4 x 1/4"	4 x 1/4" + 3/8"
Gas Valve Size		2 x 3/8"	3 x 3/8"	4 x 3/8"	4 x 3/8"	2x3/8"+2x1/2"+5/8"
Compressor Manufacturer/trademark		Sanyo / Mitsubishi / Others				
Compressor Oil		/ FV50S /	/ FV50S /	/ FV50S /	/ FV50S /	/ FV50S /
L.R.A. (A)		27	45	45	45	55
Compressor RLA (A)		8.4	9.7	9.7	10	13
Compressor Power Input (W)		1245	2200	2200	2200	3000
MCA (A)		15	20	20-All IDUs EW / 30-All IDUs EC or EU	30-All IDUs EW / 40-All IDUs EC or EU	40
Fuse or Circuit Breaker (HVAC Type)		30	30	30-All IDUs EW / 40-All IDUs EC or EU	40-All IDUs EW / 50-All IDUs EC or EU	40-All IDUs EW / 50-All IDUs EC or EU
Throttling Method		Electronic Expansion Valve				
Starting Method		Transducer starting				
Recommended Working Ambient Temp Ranges (F)		AC: 20 to 115 HP: 5 to 75				
Condenser		Aluminum fin-copper tube				
Output of Fan Motor (W)		60	60	60	60	140
Fan Motor RLA (A)		0.65	0.65	0.65	0.65	1.1
Fan Motor Capacitor (uF)		3	3.5	3.5	3.5	6
Air Flow Rate of Outdoor Unit		/	/	/	/	/
Fan Type-Piece		Axial fan 1	Axial fan 1	Axial fan 1	Axial fan 1	Axial fan 1
Fan Diameter (Inches)		18.1	18.1	18.1	18.1	22.5
Defrosting Method		Auto Defrost	Auto Defrost	Auto Defrost	Auto Defrost	Auto Defrost
Climate Type		T1	T1	T1	T1	T1
Isolation		I	I	I	I	I
Moisture Protection		IP24	IP24	IP24	IP24	IP24
Max. Operating Pressure at High Side (PSI)		550	550	550	550	550
Max. Operating Pressure at Low Side (PSI)		175	175	175	175	175
Sound Pressure Level dB (A) (H/L)		56/54	56/54	56/54	56/54	56/54
Sound Power Level dB (A) (H/L)		66/64	66/64	66/64	66/64	66/64
Dimensions of Outdoor Unit (W x H x D) (Inches)		33.3 x 27.0 x 11.8	37.4 X 27.5 X 15.5	37.2 X 27.6 X 15.75	37.4 X 27.5 X 15.5	42.25 X 43.5 X 17.5
Dimensions of Package (W x H x D) (Inches)		39.1 x 29.5 x 16.9	40.6 X 29.5 X 16.5	40.5 X 29.5 X 18.0	40.6 X 29.5 X 16.5	46.0 X 48.6 X 19.4
Net Weight /Gross Weight (LBs)		115 / 126	150 / 161	165 / 176	165 / 176	225 / 248
Refrigerant /Factory Pre-Charge for 25' (LBs)		R410A / 2.97	R410A / 4.84	R410A / 4.84	R410A / 4.84	R410A / 10.6
Loading Quantity	20' Container	87	80	80	80	50
	40' Container	183	170	170	170	100
	40' High Cube Container	183	170	170	170	100

IMPORTANT NOTES-ABOUT THE DC INVERTER SYSTEM'S VARIOUS PERFORMANCES:

1) The rated performance data printed on the unit nameplate are tested per AHRI 210/240 standards at standard indoor & outdoor conditions and standard installation set-up.
2) Actually the DC inverter outdoor unit will modulate to match whatever capacity needs called/requested from indoor unit side, to produce a wide range of capacities, minimum could be about 15% of the rated number and maximum could be around 160% of the rated number.
3) Once the DC inverter system is installed, each indoor unit's output and so the outdoor unit performance will all vary over the operation period: soft-starting, turbo quick cooling/heating, maintaining, defrosting, switching, and other condition changes.
4) Actual performance varies upon many factors such as indoor and outdoor temperatures, inter-connecting pipe length/ bending, elevation difference between indoor and outdoor units, refrigerant charging level, vacuum level, leakage, air or moisture or contamination level, foreign substance left in the piping, indoor filter clean level, indoor and outdoor coil conditions, and other factors such as zoning factor ZR (=max. zone capacity sub-total / all zone capacity total).

DIMENSIONS OF OUTDOOR UNITS AND INSTALLATION CLEARANCE



Dim.	WMMS-30CH-V2B (59)2	WMMS-36CH-V2B(59)2	WMMS-42CH-V2B(59)2	WMMS-48CH-V2B(59)2	WMMS-60CH-V2B(59)2
A	5.8	6.25	6.25	7.6	7.75
B	21.7	22.75	22.75	22.5	24.75
C	5.8	6.25	6.25	7.3	7.75
E	13.5	13.5	13.5	13.5	16.9
W1	33.3	35.25	35.25	37.4	40.25
W0	35.3	37.25	37.25	39.4	42.25
H	23.5	27.6	27.6	27.5	43.5
D1	12.75	13.5	13.5	13.5	14.0
D0	15.0	15.75	15.75	15.75	17.5

WMMS-30CH-V2B(59)2
(1 to 2)

WMMS-36CH-V2B(59)2
(1 to 3)

WMMS-42CH-V2B(59)2
(1 to 4)

WMMS-48CH-V2B(59)2
(1 to 4)

WMMS-60CH-V2B(59)2
(1 to 5)

Notes:
Unit Appearance and Specifications Are Subject to Change for Continuous Improvement without Any Prior Notice.

RECOMMENDED MATCHING INDOOR AND OUTDOOR UNITS (NOT ALL POSSIBILITIES BEING LISTED)

Indoor Unit Mix and Match Size Possibilities (Samples) for Outdoor Unit -WMMS-30CH-V2B(59)2-Varies Upon Thermal Zone #, See Notes in the Last Page

1 Indoor Unit		2 Indoor Units		3 Indoor Units	4 Indoor Units
09K	12K	09K+09K	09K+12K	Not allowed	Not allowed
18K	24K	12K+12K	12K+18K		

Indoor Unit Mix and Match Size Possibilities (Samples) for Outdoor Unit WMMS-36CH-V2B(59)2-Varies Upon Thermal Zone #, See Notes in the Last Page

1 Indoor Unit	2 Indoor Units		3 Indoor Units			4 Indoor Units
Not allowed	09K+12K	12K+12K	09K+09K+09K	09K+09K+12K	09K+09K+18K	Not allowed
	09K+18K	18K+18K	09K+12K+12K	09K+12K+18K	12K+12K+12K	

Indoor Unit Mix and Match Size Possibilities (Samples) for Outdoor Unit WMMS-42CH-V2B(59)2-Varies Upon Thermal Zone #, See Notes in the Last Page

1 Indoor Unit	2 Indoor Units		3 Indoor Units			4 Indoor Units		
Not allowed	12K+12K	09K+18K	9K+9K+9K	09K+09K+12K	09K+12K+12K	09K+09K+09K+09K	09K+09K+09K+12K	09K+09K+12K+12K
	12K+18K	12K+24K	9K+9K+18K	09K+12K+18K	12K+12K+18K	09K+12K+12K+12K	12K+12K+12K+12K	09K+09K+09K+18K
	18K+18K	18K+24K	12K+12K+12K	09K+09K+24K	09K+12K+24K	09K+09K+12K+18K		

Indoor Unit Mix and Match Size Possibilities (Samples) for Outdoor Unit WMMS-48CH-V2B(59)2-Varies Upon Thermal Zone #, See Notes in the Last Page

1 Indoor Unit	2 Indoor Units		3 Indoor Units			4 Indoor Units		
Not allowed	12K+18K	09K+24K	09K+09K+09K	09K+09K+12K	09K+12K+12K	09K+09K+09K+09K	09K+09K+09K+12K	09K+09K+09K+18K
	18K+18K	12K+24K	09K+09K+18K	12K+12K+12K	09K+12K+18K	09K+09K+12K+18K	09K+12K+12K+18K	12K+12K+12K+12K
	18K+24K	24K+24K	12K+12K+18K	09K+12K+24K	12K+12K+24K	09K+09K+12K+24K	09K+09K+12K+24K	09K+12K+12K+24K

Indoor Unit Mix and Match Size Possibilities (Samples) for Outdoor Unit WMMS-60CH-V2B(59)2-Varies Upon Thermal Zone #, See Notes in the Last Page

1 Indoor Unit	2 Indoor Units		3 Indoor Units			4 Indoor Units			5 Indoor Units	
Not allowed	12K+12K	12K+18K	09K+09K+09K	09K+09K+12K	09K+12K+12K	09K+09K+09K+12K	09K+09K+09K+09K	09K+09K+09K+18K	09K+09K+09K+09K+12K/18K/24K	09K+09K+09K+12K+12K/18K/24K
	18K+18K	12K+24K	09K+09K+18K	12K+12K+18K	09K+12K+18K	09K+09K+12K+18K	09K+12K+12K+18K	12K+12K+12K+12K	09K+09K+12K+12K+12K/18K/24K	09K+12K+12K+12K+12K/18K
	18K+24K	24K+24K	12K+12K+12K	12K+12K+24K	09K+12K+24K	09K+09K+12K+24K	09K+12K+12K+24K	12K+12K+12K+24K	12K+12K+12K+12K+12K/18K	09K+09K+12K+12K+18K
									09K+09K+12K+18K+18K	09K+12K+12K+18K+18K
									12K+12K+12K+18K+18K	

Important Notes:

* When the rated total capacity of all the indoor units exceeds the rated capacity of outdoor unit, each indoor unit may not output the rated capacity and one may differ from other, varying upon copper line size/length/bends, weather conditions, target-room temperature differences, frequency for all indoor indoors to be called for same thermal mode, etc.
* Must follow pipe length and refrigerant charge adjustment as instructed in the table below:

		Model	WMMS-30CH-V2B(59)2		WMMS-36CH-V2B(59)2			WMMS-42CH-V2B(59)2				WMMS-48CH-V2B(59)2				WMMS-60CH-V2B(59)2				
Valve sizes at outdoor unit	Liquid valve	In.	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	3/8	1/4	1/4	1/4	1/4	3/8
	Gas valve	In.	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8	1/2	5/8	3/8	3/8	1/2	1/2	5/8
Max. pipe length (add up length of all liquid lines only), if not upper sizing pipes		Ft.	150		200			230				260				300				
Max. elevation difference allowed between indoor and outdoor unit	Outdoor unit is installed above indoor unit	Ft.	60		60			70				80				80				
	Outdoor unit is installed blow indoor unit	Ft.	50		50			60				60				60				
Max. pipe length, if not upper-sizing copper lines, adding up all liquid lines only		Ft.	50		50			50				50				50				
Maximum / minimum pipe length-each indoor unit, upper-sizing line or not		Ft.	Maximum 100ft / Minimum 15ft																	
Refrigerant charge adjustment		OZ/Ft	If actual pipe length is different from the numbers listed above, +- 0.23 OZ/Ft.																	

* Factory refrigerant charge is for 25ft. each run. Need to adjust refrigerant by pressure and weight, if the copper line lengths are different from the numbers listed above. Temperature-pressure chart is in the manual and also on the unit.
* Should any indoor unit be 50' or more apart from the outdoor unit, need to upper-size copper lines to reduce capacity lose.
* Not all pairs of outdoor valves need to be connected at initial installation. But, there is a minimum amount of indoor units shall be connected (refer to the spec. sheet for details). Check and tight-close unused valves/nut/caps to keep from leakage.
* Steps to add additional indoor units: pump down, connect new indoor unit, positive and negative vacuum for leakage check, release refrigerant charge from outdoor unit to indoor unit, and conduct all function tests.

PIPE ADAPTOR

For example: whenever the outdoor unit gas valve of size 3/8" is to connect with indoor unit gas pipe of 1/2", one “3/8" female - 1/2"male adaptor” is needed in between. This pipe adaptor is packed separately and shall be installed at job site.