



Submittal Data Sheet: WMMS-48CH-U2B(59)6

OUTDOOR UNIT

**HEATS DOWN  
to -31°F**



**WMMS-48CH-U2B(59)6**  
2 to 4 zones

ACCESSORIES

- MOUNTING BRACKETS
- FOOT RISERS
- COPPER/WIRE/ACC.SET
- LINESET COVERS
- WINTER WIND BAFFLE

Model	WMMS-48CH-U2B(59)6	
Dimension of Outline (WxDxH)	in.	42.8x17.32x43.43
Dimension of Carton Box (LxWxH)	in.	45.47x18.9x43.9
Dimension of Package (LxWxH)	in.	45.59x19.02x48.62
Net Weight	lbs.	279.97
Gross Weight	lbs.	297.62
Liquid Pipe Valve Sizes	in.	4 x 1/4"
Gas Pipe Valve Sizes	in.	4 x 3/8"
Connection Pipe Connection Method		Flare Connection
R410A Refrigerant Charge	ft	131.23
Not Additional Gas Connection Pipe Length	oz	158.733
Connection Pipe Gas Additional Charge	g/m	20
Connection Pipe Max. Height Distance (indoor and outdoor)	ft	49.2
Max. equivalent connection pipe length (outdoor to last indoor)	ft	82.02

Job Name:		Tag #:	
Location		Date:	
General Contractor:		Mechanical Contractor:	
Sales Representative:		Sales Engineer:	
Submitted by:		Drawing #:	
Reference		PO #:	

The CHOIR (59)6 outdoor condensing unit can heat down to -22 °F at 80% efficiency, and has a 23 SEER rating. With a 48k Btu/h capacity it is capable of heating and cooling 2 to 4 zones. The (59)6 requires 208-230v, 1 phase, 60Hz power supply. Its compact design allows for installation on the ground, on a wall, or under a deck or a balcony.

Model	WMMS-48CH-U2B(59)6	
Cooling Capacity Min/Std/Max	Btu/h	8871 / 36000 / 40000
Heating Capacity Min/Std/Max	Btu/h	8871 / 36000 42514
EER	(Btu/h)/W	9.00
COP	(Btu/h)/W	10.96
SEER		23.00
HSPF		10.00
Air Flow Volume	CFM	3060.2
Sound Pressure Level	dB(A)	62
Sound Power Level	dB(A)	72
Rated Voltage / Frequency / Phase	V	208/230 / 60 / 1
Cross-sectional Area of Power Cable Conductor	mm2	8.4(AWG8)
Recommended Power Cable(Core)	N	3
Fuse Current	A	60
Circuit Breaker	A	60
Cooling Power Input / Heating Power Input	kW	4.02 / 3.3
Rated Power Input	kW	7.36
Cooling Current Input / Heating Current Input	A	17.48 / 14.35
Rated Current	A	32.00
Starting Current	A	5.00
Compressor Model1		QXAW-F518zX440C
Compressor Type1		Inverter Rotary
Compressor Capacity	W	/
Compressor Power Input	W	/
Compressor Rated Load Amp (RLA)	A	27
Compressor Locked Rotor Amp (L.R.A)	A	/
Compressor Thermal Protector		/
Compressor Crankcase	W	40
Compressor Refrigerant Oil Type		FV50S or equivalent
Compressor Refrigerant Oil Charge Volume	L	1.35
Chassis Electrical Heater Power Input	W	160
Chassis Electrical Heater Current	A	/
Fan Quantity / Type		1 / Axial-flow
Motor Model		SWZ150A
Motor Type		DC motor
Motor Insulation Class		B/E
Motor Safe Class		IPX4
Overload Protector		/
Motor Full Load Amp(FLA)	A	/
Fan Motor Drive Type		Direct drive
Fan Motor Speed	rpm	940
Fan Motor Power Output	W	90
Condenser Material		Aluminum Fin-copper Tube
Condenser Number of Rows x Pipe Diameter	in.	3 x 5/16"
Condenser Fin Type / Color		corrugated fin / Blue
Condenser Length(L) x Height(H) x Width(W)	mm	891x1056x57.15
Condenser Max. Allowable Pressure	MPa	10
Permissible Excessive Operating Pressure for the Discharge Side	MPa	4.3
Permissible Excessive Operating Pressure for the Suction Side	MPa	2.5
Maximum Allowable Pressure	MPa	4.3
High Presser Overload Protector	MPa	4.6
Low Presser Overload Protector	MPa	/
Cooling Operation Amb. Temperature Range	°F	-0.4~114.8
Heating Operation Amb. Temperature Range	°F	-31~75.2
Maximum drive IDU NO.	unit	4
Defrosting Method	--	Automatic Defrosting
Isolation		I
Moisture Protection	--	IPX4
Overload Protector		Current temperature control mechanical
Throttling Method		Electronic expansion valve
Low Ambient Cooling Function		YES
Defrosting Time Set Function		NO
Low Voltage Startup		YES
Compressor With Electric Heater		YES
Chassis With Electric Heater		YES



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## COOLING PERFORMANCE

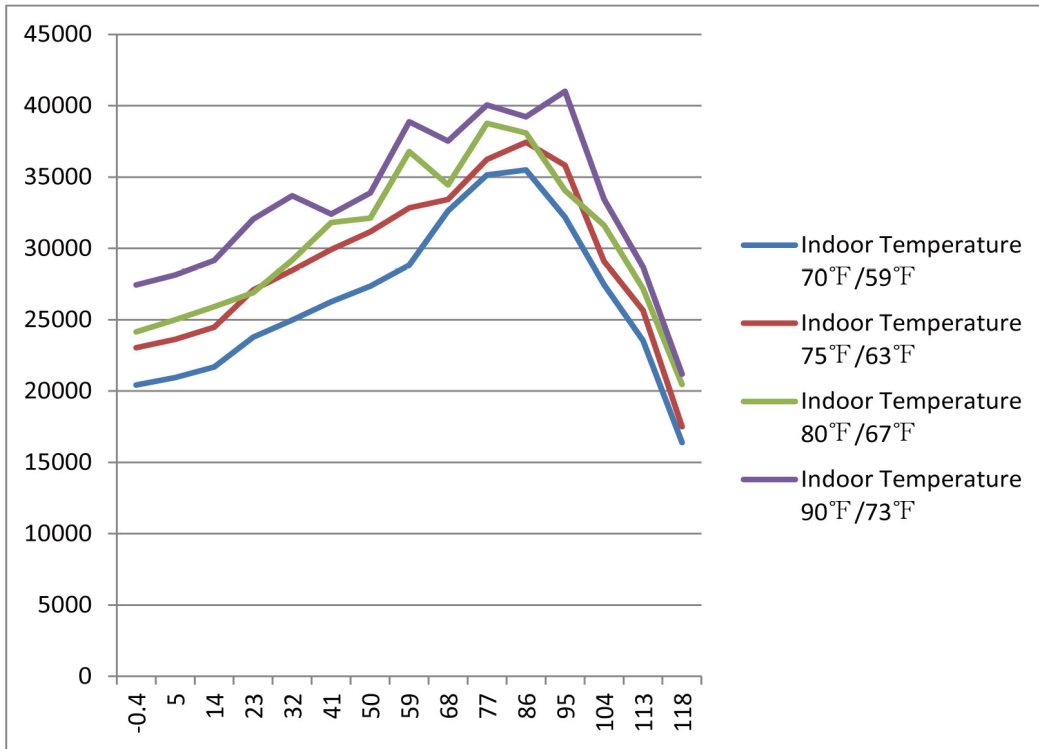
DB WB		Indoor Ambient Temperature											
		70°F (21°C) 59°F (15°C)			75°F (24°C) 63°F (17°C)			80°F (27°C) 67°F (19°C)			90°F (32°C) 73°F (23°C)		
		TC (BtuH)	SC (BtuH)	Input Power (watts)	TC (BtuH)	SC (BtuH)	Input Power (watts)	TC (BtuH)	SC (BtuH)	Input Power (watts)	TC (BtuH)	SC (BtuH)	Input Power (watts)
Outdoor Ambient Temperature (DB)	-0.4 (-18°C)	20,420	16,010	1200	23,030	18,060	1270	24,152	19,090	1320	27,430	21,510	1410
	5 (-15°C)	20,940	16,420	1200	23,620	18,530	1280	24,995	19,820	1320	28,130	22,030	1410
	14 (-10°C)	21,690	17,010	1220	24,470	19,190	1300	25,908	20,280	1340	29,150	22,860	1440
	23 (-5°C)	23,770	18,640	1220	27,080	21,240	1300	26,896	22,840	1330	32,040	25,130	1430
	32 (0°C)	24,979	19,588	1222	28,455	22,319	1291	29,178	22,943	1335	33,681	25,057	1395
	41 (5°C)	26,260	20,593	1285	29,914	23,463	1358	31,822	24,119	1403	32,409	26,342	1467
	50 (10°C)	27,355	21,451	1338	31,161	24,441	1414	32,125	25,124	1462	33,884	27,440	1528
	59 (15°C)	28,820	22,600	1410	32,830	25,750	1490	36,785	26,470	1540	38,860	28,910	1610
	68 (20°C)	32,620	29,556	2010	33,422	30,044	1995	34,444	31,733	2010	37,526	33,695	2025
	77 (25°C)	35,145	30,300	2450	36,240	31,409	2435	38,763	32,791	2440	40,040	34,872	2430
	86 (30°C)	35,486	30,368	3120	37,438	32,364	3125	38,082	33,012	3160	39,211	34,650	3185
	95 (35°C)	32,176	28,781	3300	35,827	31,255	3400	34,060	31,921	3335	41,014	34,275	3405
104 (40°C)	27,451	26,444	3075	29,095	28,543	3085	31,617	29,856	3115	33,452	32,671	3145	
113 (45°C)	23,544	23,203	2765	25,642	24,926	2790	27,174	25,779	2800	28,686	28,833	2825	
118 (48°C)	16,382	16,232	1856	17,504	17,242	1911	20,471	18,354	1986	21,186	19,923	2023	

## HEATING PERFORMANCE

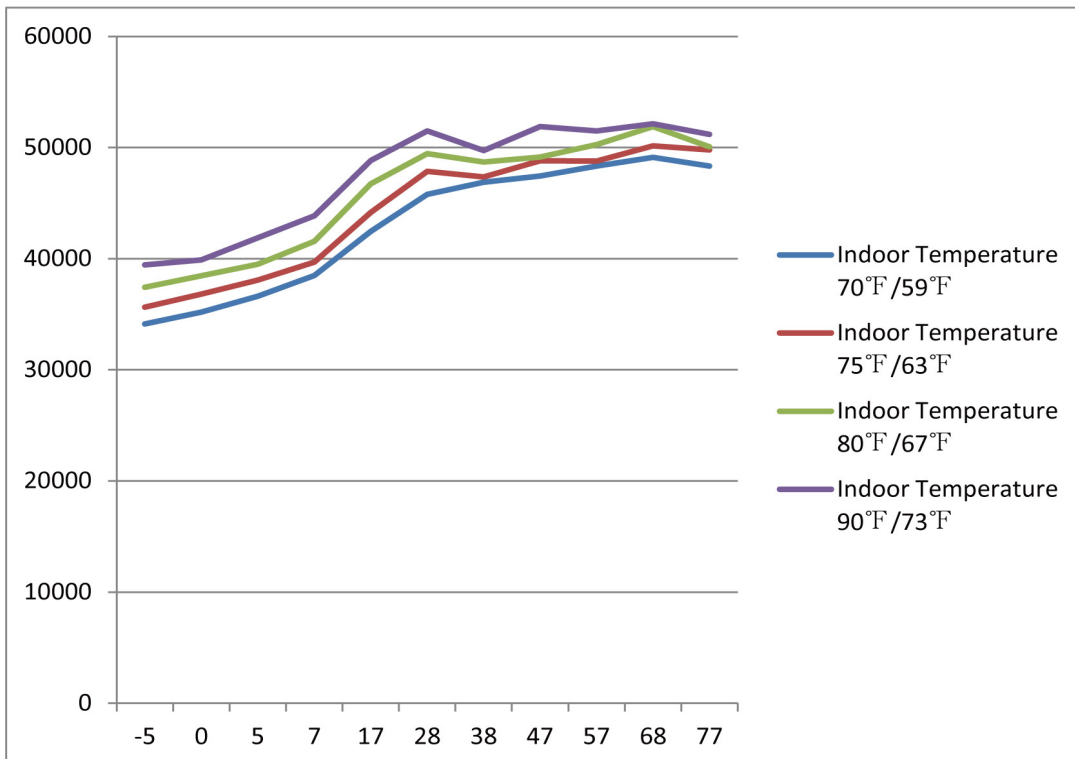
DB WB		Indoor Ambient Temperature											
		70°F (21°C) 59°F (15°C)			75°F (24°C) 63°F (17°C)			80°F (27°C) 67°F (19°C)			90°F (32°C) 73°F (23°C)		
		TC (BtuH)	SC (BtuH)	Input Power (watts)	TC (BtuH)	SC (BtuH)	Input Power (watts)	TC (BtuH)	SC (BtuH)	Input Power (watts)	TC (BtuH)	SC (BtuH)	Input Power (watts)
Outdoor Ambient Temperature (DB)	-5 (-21°C)	34,123	21,908	6281	35,621	21,749	6354	37,413	21,350	6521	39,436	20,871	6689
	0 (-18°C)	35,179	23,744	6544	36,798	23,571	6683	38,441	23,119	6839	39,879	22,600	6945
	5 (-15°C)	36,610	25,047	7112	38,076	24,861	7254	39,486	24,396	7349	41,874	23,837	7527
	7 (-14°C)	38,494	26,085	7039	39,697	25,899	7187	41,546	25,407	7348	43,846	24,835	7528
	17 (-8°C)	42,452	26,870	6983	44,145	26,684	7167	46,723	26,165	7354	48,831	25,580	7545
	28 (-2°C)	45,768	30,142	6891	47,854	30,302	7115	49,456	29,783	7248	51,476	29,184	7397
	38 (3°C)	46,879	37,910	6408	47,337	38,070	6574	48,698	37,538	6672	49,718	36,939	6789
	47 (8°C)	47,423	42,566	6453	48,792	42,247	6587	49,143	41,395	6618	51,878	40,411	6724
	57 (14°C)	48,324	43,976	5173	48,763	43,630	5291	50,249	42,752	5360	51,476	41,741	5499
	68 (20°C)	49,121	45,758	4707	50,147	45,413	4895	51,874	44,495	4967	52,127	43,444	5234
	77 (25°C)	48,320	46,823	3451	49,768	46,463	3654	50,048	45,532	3842	51,176	44,455	4037



### Cooling Capacity (Btu)



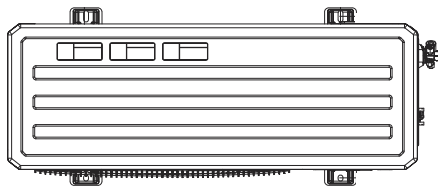
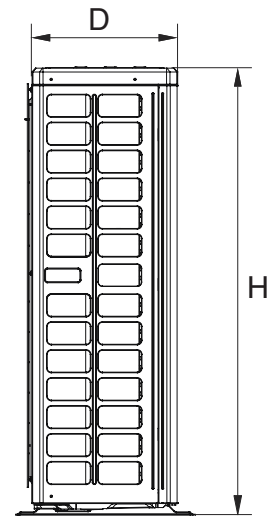
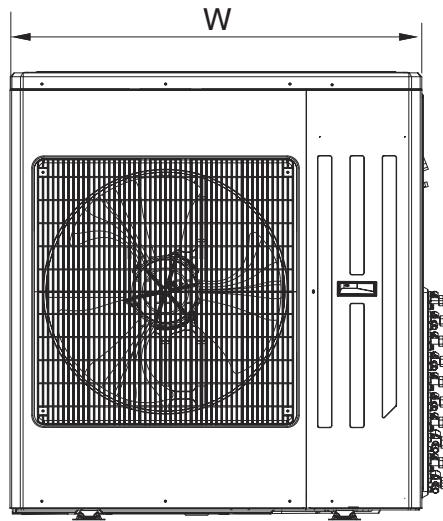
### Heating Capacity (Btu)



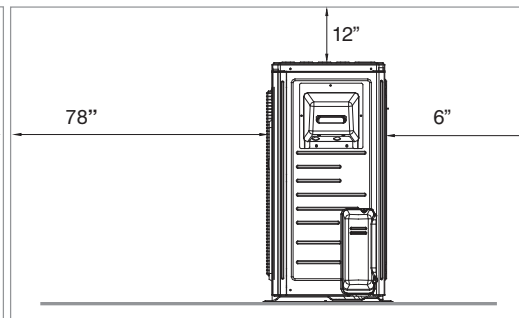
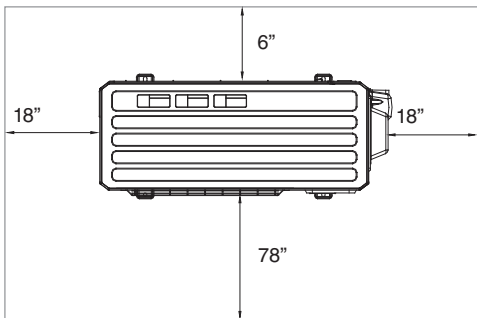


### OUTDOOR UNIT

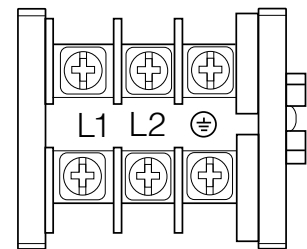
Dimensions (inches)	
W	42.8"
H	43.43"
D	17.32"



### CLEARANCES



### TERMINAL BLOCK



### FEATURES

- Heats down to -31 °F
- 208-230/1/60 power input
- Quiet and efficient heating & cooling.
- DC Inverter technology
- Wide working ambient temperature ranges
- Compact outdoor unit with side discharge
- Outdoor unit ships pre-charged.
- High quality compressors
- Durable powder coated cabinet
- Standard flare brass connection valves
- Built to ETL/UL/CSA/AHRI standards
- Easy installation and maintenance

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