



Submittal Data Sheet: WMMS-60CH-U2B(59)6

OUTDOOR UNIT

**HEATS DOWN  
to -31°F**



**WMMS-60CH-U2B(59)6**  
2 to 5 zones

ACCESSORIES

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

Model	WMMS-60CH-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.	282.19
Gross Weight	lbs.	299.83
Liquid Pipe Valve Sizes	in.	5 x 1/4"
Gas Pipe Valve Sizes	in.	5 x 3/8"
Connection Pipe Connection Method		Flare Connection
R410A Refrigerant Charge	oz	176.37
Not Additional Gas		
Connection Pipe Length	ft	131.23
Connection Pipe Gas Additional Charge	oz./ft	0.21503
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 60k Btu/h capacity it is capable of heating and cooling 2 to 5 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-60CH-U2B(59)6	
Cooling Capacity Min/Std/Max	Btu/h	8871 / 42000 / 42991
Heating Capacity Min/Std/Max	Btu/h	8871 / 42000 / 46062
EER	(Btu/h)/W	9.01
COP	(Btu/h)/W	11.66
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	4.66 / 3.6
Rated Power Input	kW	7.36
Cooling Current Input / Heating Current Input	A	20.26 / 15.65
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	28.5
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)	in.	35 5/64"x41 37/64" x2 1/4"
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	5
Defrosting Method	--	Automatic Defrosting
Isolation		/
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



### COOLING PERFORMANCE

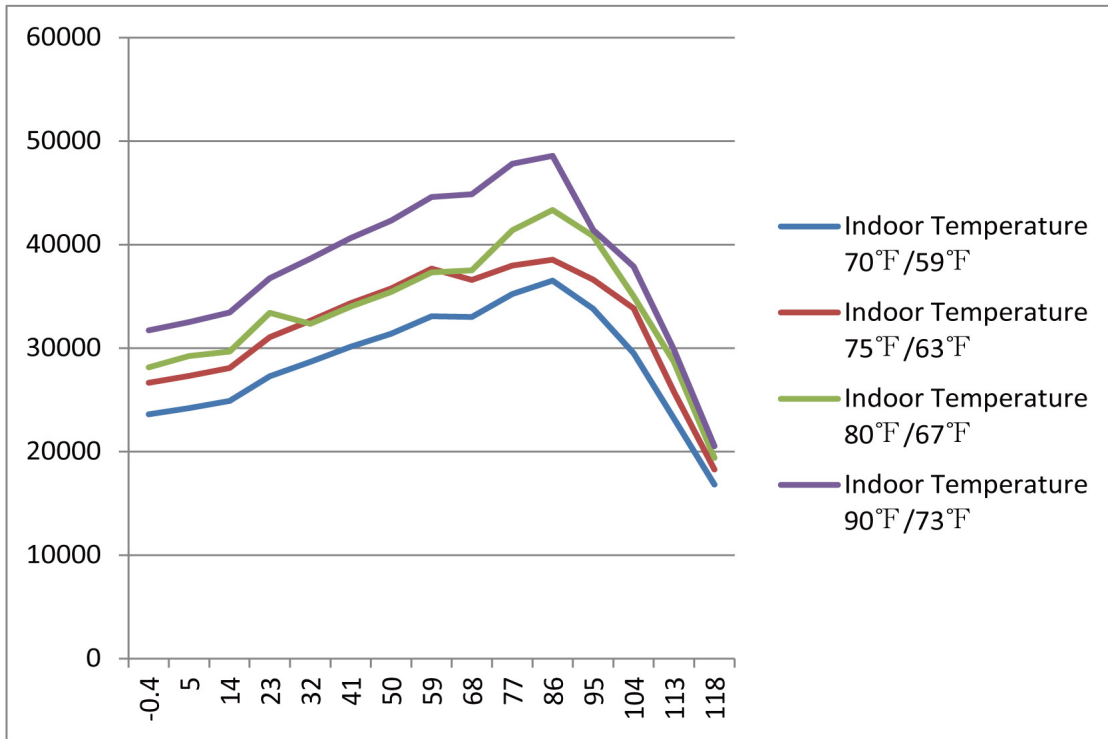
DB WB		Indoor Ambient Temperature											
		70°F (21°C) 59°F (15°C)			75°F (24°C) 63°F (17°C)			80°F (27°C) 67°F (19°C)			90°F (32°C) 73°F (23°C)		
		TC (BtuH)	SC (BtuH)	Input Power (watts)	TC (BtuH)	SC (BtuH)	Input Power (watts)	TC (BtuH)	SC (BtuH)	Input Power (watts)	TC (BtuH)	SC (BtuH)	Input Power (watts)
Outdoor Ambient Temperature (DB)	-0.4 (-18°C)	23,610	18,510	1620	26,630	20,890	1710	28,140	22,070	1780	31,720	24,870	1900
	5 (-15°C)	24,210	18,990	1620	27,310	21,420	1730	29,220	22,910	1780	32,520	25,510	1900
	14 (-10°C)	24,880	19,510	1630	28,070	22,020	1730	29,670	23,270	1800	33,440	26,220	1920
	23 (-5°C)	27,260	21,380	1630	31,060	24,360	1730	33,410	26,200	1780	36,750	28,820	1910
	32 (0°C)	28,654	22,475	1629	32,641	25,603	1725	32,329	26,323	1785	38,639	29,478	1915
	41 (5°C)	30,124	23,627	1713	34,315	26,916	1813	33,987	27,673	1877	40,621	30,989	2014
	50 (10°C)	31,379	24,612	1784	35,745	28,038	1889	35,403	28,826	1955	42,313	32,281	2098
	59 (15°C)	33,060	25,930	1880	37,660	29,540	1990	37,300	30,370	2060	44,580	34,010	2210
	68 (20°C)	33,012	29,754	1980	36,575	29,396	1990	37,499	32,125	2000	44,870	34,138	2210
	77 (25°C)	35,213	29,174	2480	37,977	30,965	2685	41,389	33,541	2820	47,804	34,463	2515
	86 (30°C)	36,510	29,037	3650	38,540	31,238	3555	43,334	34,121	3600	48,572	35,333	3280
	95 (35°C)	33,780	29,344	3635	36,612	31,801	3485	40,809	33,780	3590	41,406	33,814	3555
104 (40°C)	29,481	27,297	3600	33,831	30,931	3645	34,974	32,586	3670	37,875	32,722	3735	
113 (45°C)	23,203	22,486	2750	25,779	24,567	2775	28,662	26,683	2800	29,856	28,031	2830	
118 (48°C)	16,795	16,508	1988	18,255	17,668	2101	19,381	18,528	2158	20,531	19,749	2204	

### HEATING PERFORMANCE

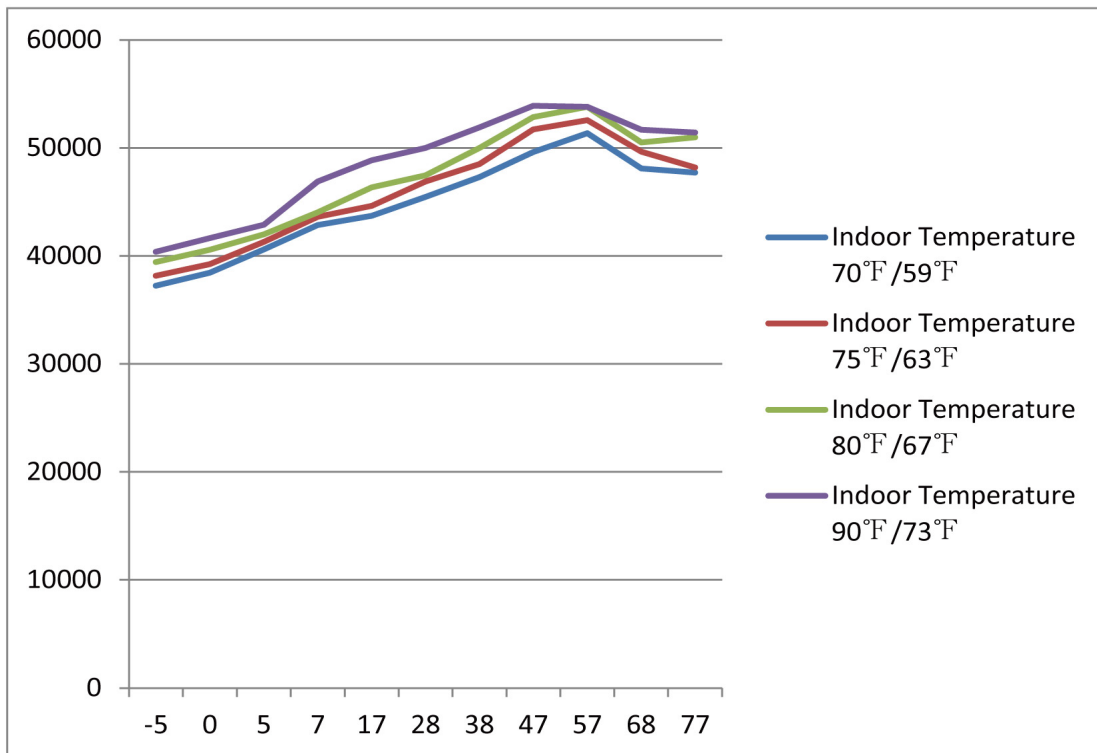
DB WB		Indoor Ambient Temperature											
		70°F (21°C) 59°F (15°C)			75°F (24°C) 63°F (17°C)			80°F (27°C) 67°F (19°C)			90°F (32°C) 73°F (23°C)		
		TC (BtuH)	SC (BtuH)	Input Power (watts)	TC (BtuH)	SC (BtuH)	Input Power (watts)	TC (BtuH)	SC (BtuH)	Input Power (watts)	TC (BtuH)	SC (BtuH)	Input Power (watts)
Outdoor Ambient Temperature (DB)	-5 (-21°C)	37,241	24,180	7075	38,142	23,565	6995	39,421	23,016	7098	40,374	22,415	7037
	0 (-18°C)	38,447	24,880	7132	39,234	24,160	7179	40,567	23,710	7195	41,638	23,080	7205
	5 (-15°C)	40,592	26,240	7324	41,298	25,490	7394	41,997	25,010	7428	42,881	24,360	7480
	7 (-14°C)	42,851	27,350	7269	43,625	26,550	7305	44,038	26,040	7398	46,895	25,370	7482
	17 (-8°C)	43,719	28,170	6725	44,627	27,350	6805	46,334	26,830	6899	48,847	26,120	6979
	28 (-2°C)	45,462	31,820	6523	46,874	30,990	6636	47,457	30,100	6716	49,987	29,740	6855
	38 (3°C)	47,306	39,560	6408	48,487	38,730	6499	49,979	37,850	6543	51,898	37,480	6609
	47 (8°C)	49,608	44,720	6642	51,698	43,360	6789	52,849	42,500	6855	53,897	41,330	6988
	57 (14°C)	51,340	46,190	5325	52,567	44,800	5498	53,798	43,910	3410	53,796	42,690	5584
	68 (20°C)	48,080	48,080	3340	49,657	46,620	3410	50,489	45,690	3530	51,679	44,430	3620
	77 (25°C)	47,698	49,190	3432	48,178	47,710	3490	50,979	46,750	3620	51,413	45,460	3794



### Cooling Capacity (Btu)



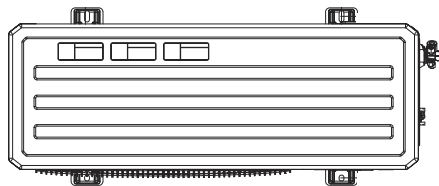
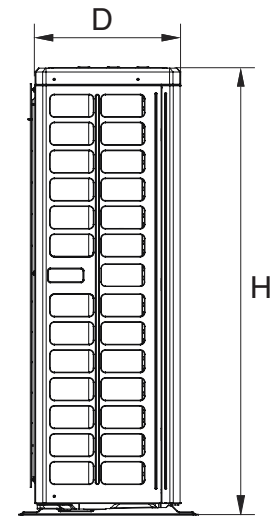
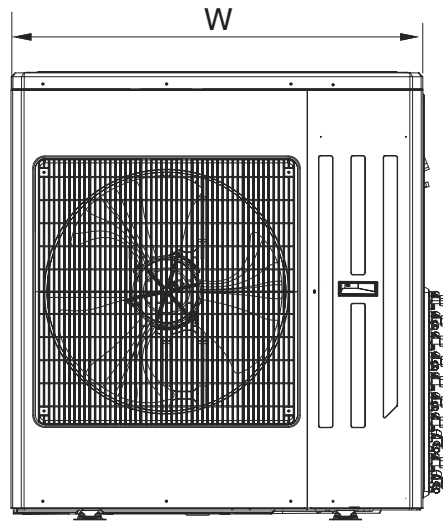
### Heating Capacity (Btu)



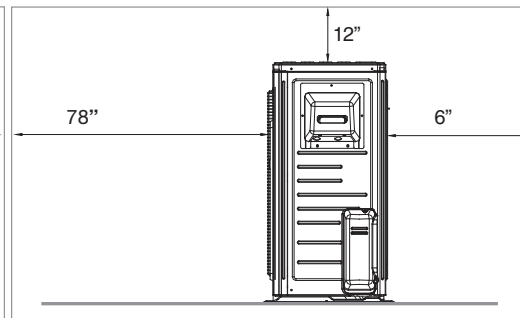
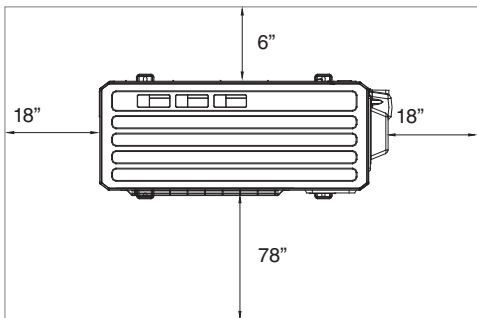


### OUTDOOR UNIT

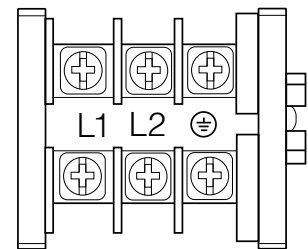
Dimensions (inches)	
W	42.8"
H	43.43"
D	17.32"



### 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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