## HEAT PUMP AND AIR CONDITIONER DUCTLESS UNITS SINGLE AND MULTI-ZONE

UP TO 22.5 SEASONAL ENERGY-EFFICIENCY RATING WITH INVERTER TECHNOLOGY

AMBIENT OPERATING TEMPERATURE -25° C TO 50° C











### Enjoy whole-home comfort with a **Goodman**<sup>®</sup> brand ductless heat pump or air conditioner.

Did you know that you could heat and cool your whole house with a ductless (also called mini-split) heat pump? Ductless solutions are versatile and minimal in design, creating opportunities for personalized heating and cooling solutions.

#### **19 SERIES Models**

The 19 Series is available as an air conditioner or heat pump model. Affordable and convenient, Goodman ductless systems offer quiet operation that will help enhance every day comfort.

#### 21 SERIES, Single and Multi-Zone Models

The 21 Series models are designed to help provide an energy-efficient and affordable solution to help ensure year-round indoor comfort. Technologically advanced "Inverter" technology offers superior comfort while saving energy. The heat pump will even help keep you comfortable when the outside temperature is as low as - 25° C. The 21 Series also provide the ability to heat or cool up to four spaces independently with one outdoor unit.



# **Goodman**<sup>®</sup> is one of the biggest names in home cooling, heating and energy-efficient home comfort.

So, no matter where you live or whether your home is small or large, Goodman probably has a solution to help keep your home comfortable.

#### **Energy-Efficient**

**Goodman** branded units are built with the variable-speed Inverter technology to gradually regulate indoor temperatures that may help to provide efficient and even temperature control all year long. They are an energy efficient and flexible solution to help regain control of your indoor comfort and help address a variety of heating and cooling challenges. With duct work not required, the conditioned air is delivered to you directly.

		19 Series	21 Series
0 0 0 0 0 0 0 0 0 0 0	Cold Catalyst Filter – Absorbs harmful particles like formaldehyde and ammonia	٠	٠
TURBO	Turbo Mode – Helps to increase the heat pump's capacity to achieve desired temperature quickly	•	٠
(	Quiet Mode – Non-intrusive operation of the indoor unit by removing sounds and display	•	٠
	<b>Follow Me</b> – Improved accuracy may be obtained by making your heat pump's remote act as the sensor. (Available on HP models only)	٠	
$\operatorname{A}_{\mathrm{A}}^{\mathrm{A}}$	<b>Low temperature capacity</b> – Unit has the ability to work in outdoor cold temperatures down to -25C (Available on HP models only)		٠
	Aluminum heat exchanger with hydrophilic coating –Allows quicker water removal	•	٠
$\widehat{\langle} (\widehat{f}_{\mathrm{c}}) $	Anti-Cold – Preheat mode preheats indoor air for increased comfort	٠	٠
EC	<b>Refrigerant Leakage Detection</b> – Indoor unit has the ability to notify homeowner if there is a leak in the system.	٠	٠
Ţ.♪	Louver Memory – Remembers your previous louver position, so you get the same louver angle consistently	٠	٠
(b)	Auto-Restart – Equipped with auto-restart after a power loss	٠	٠



# **19 SERIES** SINGLE ZONE AIR CONDITIONER

#### ENERGY-EFFICIENCY RATING UP TO 19 SEER AMBIENT OPERATING TEMPERATURE -15° C to 50° C

INDOOR*			MSC093E19AXAA	MSC121E19AXAA	MSC123E19AXAA	MSC183E19AXAA	MSC243E19AXAA		
OUTDOOR*			MSC093E19MCAA	MSC121E19MCAA	MSC123E19MCAA	MSC183E19MCAA	MSC243E19MCAA		
	Capacity	Btu/h	9,000	12,000	11,500	17,000	22,000		
	Input	W	812	1,200	1,037	1,533	1,960		
Cooling	Rated Current	А	3.53	10.43	4.5	6.7	9.0		
	EER	Btu/Wh	11.1	10.0	11.1	10.8	10.9		
	SEER		19	16.5	19	20	19		
	Minimum Circuit Ampacity		10	15	11	15	18		
<b>FI</b>	Max Fuse	A	15	20	15	20	25		
Electricity	Power Supply	V-Hz-Ph	208-230V~60Hz, 1Ph	115V~60Hz, 1Ph	208-230V~60Hz, 1Ph	208-230V~60Hz, 1Ph	208-230V~60Hz, 1Ph		
	Wiring		16 awg / 4, stranded unshielded						
Air Flow	Indoor	CFM	241 / 206 / 147	236 / 206 / 147	241 / 206 / 194	529 / 441 / 353	581 / 457 / 331		
(High / Med / Low)	Outdoor		1,230	1,176	1,230	1,194	1,824		
Sound Level	Indoor	dB(A)	38/32/26.5	38.5 / 33 / 24.5	37.5 / 34.5 / 24.5	42 / 34.5 / 30.5	46 / 40.5 / 34.0		
(High / Med / Low)	Outdoor		51.0	51.5	51.5	53.5	57.0		
Dimensions	Indoor	in	28.4 x 7.36 x 11.42	31.6 x 7.5 x 11.7	31.6 x 7.5 x 11.7	38 x 8.5 x 12.6	42.5 x 8.9 x 13.2		
(W x D x H)	Outdoor		30.3 x 11.8 x 21.85	30.3 x 11.8 x 21.85	30.3 x 11.8 x 21.85	30.3 x 11.8 x 21.85	33.3 x 14.3 x 27.7		
	Туре	ΟZ	R410A / 17.6	R410A / 20.8	R410A / 18.7	R410A / 31.7	R410A / 40.9		
Refrigerant	Precharge	ft	20	20	20	20	30		
	Additional Charge Per Feet	ΟZ	0.21	0.21	0.21	0.21	0.322		
	Liquid Side / Gas Side	in	1/4" / 3/8"	1/4" / 1/2"	1/4" / 1/2"	1/4" / 1/2"	3/8" / 5/8"		
Piping	Max Pipe Length		82	82	82	98	98		
	Max Difference In Level	ft	33	33	33	66	66		
Controls					Remote Control				
Ambient Operation Indoor		17 - 32							
Temperature	Outdoor	°C	-15 - 50						

\* Consult AHRIDIRECTORY.ORG for the latest Performance Data (SEER, EER, HSPF and capacities). Subject to change without notice.



## **19 SERIES** SINGLE ZONE HEAT PUMP

#### ENERGY-EFFICIENCY RATING UP TO 19 SEER AMBIENT OPERATING TEMPERATURE -15° C to 50° C

INDOOR UNIT*			MSH123E19AXAA	MSH183E19AXAA	MSH243E19AXAA	MSH303E17AXAA	MSH363E17AXAA			
OUTDOOR UNIT*			MSH123E19MCAA	MSH183E19MCAA	MSH243E19MCAA	MSH303E17MCAA	MSH363E17MCAA			
NEEP Cold Climate Air	<sup>-</sup> Source Heat Pump List**		No	Yes	No	No	No			
	Capacity	Btu/h	12,000	18,000	24,000	30,000	36,000			
	Input	W	1,065	1,645	2,500	2,857	4,235			
Cooling	Rated Current	А	4.5	7.35	11.0	12.5	18.5			
	EER		11	11	9.5	10.5	8.5			
	SEER	Btu/Wh	19.0	19.0	17.0	18.0	16.0			
	Capacity	Btu/h	12,000	18,000	24,000	30,000	36,000			
	Input	W	1,025	1,700	2,200	3,110	3,835			
High Heat @ 47° F	Rated Current	А	4.3	7.4	9.6	13.5	16.7			
-	COP	W/W	3.43	3.1	3.2	2.83	2.75			
	HSPF IV***	Btu/Wh	9.5	10.0	9.5	9.6	10			
	Minimum Circuit Ampacity		15	15	20	20	25			
	Max Fuse	A	15	20	25	30	35			
Electricity	Power Supply	V-Hz-Ph	208–230V~60Hz, 1Ph							
	Wiring			16 awg /4 stranded, unshielded						
Air Flow	Indoor	CFM	324 / 282 / 212	449 / 393 / 262	706 / 588 /450	795 / 618 / 471	853 / 647 / 471			
(High / Med / Low)	Outdoor		1,176	1,176	1,823	2,530	2,943			
Sound Level	Indoor	dB(A)	38 / 32 / 24	43 / 35 / 30.5	48 / 42.5 / 34	52 / 44 / 35	52 / 44 / 36			
(High / Med / Low)	Outdoor		55.0	57.5	58.0	62.0	63.0			
D: : (M/ D II)	Indoor		31.6 x 7.5 x 11.7	38 x 8.5 x 12.6	42.5 x 9 x 13.2	49.6 x 11.1 x 14.25	49.6 x 11.1 x 14.25			
Dimensions (W x D x H)	Outdoor	in	31.5 x 13.1 x 21.8	31.5 x 13.1 x 21.8	33.3 x 14.3 x 27.7	37.25 x 16.14 x 31.9	37.25 x 16.14 x 31.9			
	Туре	ΟZ	R410A / 29.6	R410A / 44.1	R410A / 62.79	R410A / 97.0	R410A / 119.9			
Refrigerant	Precharge	ft			25					
	Additional Charge Per Feet	oz	0.161	0.161	0.322	0.322	0.322			
	Liquid Side / Gas Side	in	1/4" / 1/2"	1/4" / 1/2"	3/8" / 5/8"	3/8" / 5/8"	3/8" / 5/8"			
Piping	Max Pipe Length	6	82	98	98	164	213			
	Max Difference In Level	ft	33	66	66	82	98			
Controls				Remote	Control					
Ambient Operation	Indoor	°C	17 ~ 32 Cooling / 0 ~ 30 Heating							
Temperature	Outdoor	τĻ	-15 ~ 50 Cooling / -15 ~ 30 Heating							
Design Pressure		PSIG	550 / 340							

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\*\* Consult NEEP website for current list: https://neep.org/high-performance-air-source-heat-pumps/ccashp-specification-product-list. Subject to change without notice.

\*\*\* Please visit NRCan's searchable database for the corresponding HSPF Region V ratings: https://oee.nrcan.gc.ca/pml-lmp/index.cfm?action=app.search-recherche&appliance=HP\_SS





# 21 SERIES SINGLE-ZONE HEAT PUMP

#### ENERGY-EFFICIENCY RATING UP TO 21.5 SEER AMBIENT OPERATING TEMPERATURE -25° C to 50° C

OUTDO	OOR UNIT SINGLE ZONE*			MSH123E21MCAA	MSH183E21MCAA	MSH243E21MCAA
INDOOR WALL MOUN	K**	MSH093E21AXAA	MSH123E21AXAA	MSH183E21AXAA	MSH243E21AXAA	
INDOOR DUCTED UNIT* NEEP-12K &		k 18K**	(for Multi-Zone only)	MST123E21ADAA	MST183E21ADAA	MST243E21ADAA
INDOOR CASSETTE UNIT* NEEP-12K &		k 18K**		MST123E20ACAA	MST183E20ACAA	
	Capacity (Wall/Duct/Cassette	1	-	12,000	18,000	24,000
	Input (Wall/Duct/Cassette)	W	_	923 / 960 / 858	1,384 / 1,440 / 1,440	1,920 / 1,920/-
Cooling	Rated Current (W/D/C)	A	-	4.1 / 4.4 / 3.9	6.1/6.6/6.59	8.4 / 8.8 / -
5	EER (Wall/Duct/Cassette)	BTU/Wh	-	13 / 12.5 / 14	13 / 12.5 / 12.5	12.5 / 12.5 / -
	SEER (Non-Ducted Indoor Un	it) BTU/Wh	-	21.5 / 21.5 / 21.5	21 / 19 / 20	20.5 / 21.5 / -
	Capacity (Wall/Duct/Cassette	Btu/h	-	12,000	18,000	25,000 / 24,400 / -
	Input (W/D/C)	w	-	1085 / 1072 / 951	1,570 / 1,680 / 1,636	2,315 / 2,030 / -
High Heat (47° F)	Rated Current (W/D/C)	Α	_	4.72 / 5.05 / 4.2	6.8 / 7.7 / 7.49	10.1 / 9.3 / -
<b>3</b>	COP (W/D/C)	W/W	-	3.24 / 3.29 / 3.7	3.36 / 3.14 / 3.22	3.16/3.52/-
	HSPF IV (W/D/C)***	BTU/Wh	_	9.8 / 11.5 / 10.5	10 / 10.5 / 10.3	10/11/-
	Rated Capacity (Wall Mount)	Btu/h	_	7,200	10,400	15,300
Low Heat 17° F	Rated Capacity (Slim Duct)	Btu/h		7,200	12,000	16,000
· · ·	Rated Capacity (Cassette)	Btu/h		7,500	12,000	-
Minimum Circuit Ampacity		Α	_	12	15	18
Max.Fuse	·	A	-	15	20	25
Power Supply	Ph-V-Hz			 1Ph, 60Hz		
			(SINGLE-ZONE & MI		,,	
	Wall Mount	CFM	265 / 206 / 141	306 / 212 / 147	559 / 365 / 306	618 / 471 / 324
Indoor Unit Airflow	Ducted	CFM	-	353 / 283 / 177	530 / 450 / 371	776 / 694 / 435
	Cassette	CFM		379 / 309 / 261	560 / 483 / 415	-
	Wall Mount	dB(A)	37/29/22	36.5 / 32 / 22.5	43 / 38 / 32	47.5 / 42 / 33
Indoor Noise Level	Ducted	dB(A)	-	-		-
(Hi/Mi/Lo)	Cassette	dB(A)		43 / 39 / 36	44 / 39 / 36	
	Wall Mount	inch	31.6 x 7.50 x 11.70	31.6 x 7.50 x 11.70	42.5 x 8.9 x 13.2	42.5 x 8.9 x 13.2
	Ducted	inch	-	27.60 x 17.75 x 7.9	34.65 x 28.55 x 8.30	42.3 x 30 x 10
Indoor Unit Dimensions (LxDxH)	Cassette (Unit)	inch		22.44 x 22.44 x 10.24	22.44 x 22.44 x 10.24	43 x 30 x 10
	Cassette (Plastic Cover)	inch		25.5 x 25.5 x 2	25.5 x 25.5 x 2	
			OUTDOOR UNITS	23.3 x 23.3 x 2	23.3 x 23.3 x 2	-
Outdoor Air Flow		CFM		1,177	1,470	2,237
Outdoor Noise Level		dB(A)		55	60	61
	Dimension (Wx D x H)	inch	_	31.50 x 13.11 x 21.81	33.27 x 14.29 x 27.64	37.24 x 16.14 x 31.8
Refrigerant Type	Dimension (AAY D X H)	oz	-	R410A / 40.6	R410A / 68.8	R410A / 82.9
Refrigerant Precharge		ft	-	25	25	25
Additional Charge for each	ft	oz	_	0.16	0.16	0.32
Additional charge for each	Liquid Side / Gas Side	mm(inch)		1/4 & 1/2	1/4 & 1/2	3/8 & 5/8
Refrigerant Piping				82	98	164
Reinigerant riping	Max. Refrigerant Pipe Length ft			33		
Connection Wiring	Max. Difference in Level	ft	-	16 awg /4 stranded, un	66	82
connection withing	Wall mMount -		_	remote control	remote control	remote control
Control Type	Ducted	_		wall thermostat	wall thermostat	wall thermostat
control type		-	-			-
	Cassette	- ° C	-	remote control 17 - 32 / 0 - 30	remote control	- 17 - 32 / 0 - 30
Room Temperature	Indoor(Cooling / Heating)				17 - 32 / 0 - 30	
	Outdoor(Cooling / Heating)	°C	-	-25 - 50 / -25 - 30	-25 - 50 / -25 - 30	-25 - 50 / -25 - 30

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## 21 SERIES | MULTI-ZONE HEAT PUMP

ENERGY-EFFICIENCY RATING UP TO 22.5 SEER AMBIENT OPERATING TEMPERATURE -25° C to 50° C

	OUTDOOR UNIT*	MST183E21MCAA	MST273E21MCAA	MST363E21MCAA			
	INDOOR UNIT		See indoor models in single-zone section (wall mount, duct, cassette				
	NUMBER OF ZONES		2	3	4		
NEEP Cold Climate	Air Source Heat Pump List**		Yes	No	Yes		
	Capacity (Non-Duct, All Duct)	Btu/h	17,000 / 18,000	27,000 / 28,000	36000 / 36,000		
Cooling	EER (Non-Duct, All Duct)	Btu/Wh	12.5 / 11.8	12/11	10.9 / 10		
	SEER (Non-Duct, All-Duct)	Blu/wh	21.3 / 18.5	22 / 21	22.5 / 21		
	Rated Capacity (Non-Duct, All-Duct)	Btu/h	18,000 / 18,500	28,000 / 28,000	36,000 / 37,000		
High Heat (47° F)	COP (Non-Duct, All-Duct)	W/W	3.7/3.8	3.7 / 3.63	3.1/3.56		
	HSPF IV (Non-Duct, All-Duct)***	Btu/Wh	10/10	9.8 / 10	10.3 / 10		
Low Heat (17° F)	Rated Capacity (Non-Duct, All-Duct)	Btu/w	11,800 / 11,500	16,800 / 17,600	25,400 / 23,000		
	Minimum Circuit Ampacity		18	25	30		
<b>F</b> 1 <b>1 1 1</b>	Max Fuse	A	25	35	45		
Electricity	Power Supply	V-Hz-Ph	208–230V~60Hz, 1Ph				
	Wiring	16 awg					
Outdoor Air Flow (High	n / Med / Low)	CFM	1,390	2,130	2,130		
Outdoor Sound Level (	High / Med / Low)	dB(A)	62.4	63.4	62.3		
Outdoor Unit Dimensio	ons (W x D x H)	in	33.27 x 14.29 x 27.64	37.24 x 16.14 x 31.89	37.24 x 16.14 x 31.89		
	Туре	ΟZ	R410A / 70.5	R410A / 98.8	R410A / 105.8		
Refrigerant	Precharge	ft	49	74	98		
	Additional Charge Per Feet	ΟZ	0.161	0.161	0.161		
	Liquid Side / Gas Side	in	(2 x 1/4) / (2 x 3/8)	(3 x 1/4) / (3 x 3/8)	[4 x 1/4] / [3 x 3/8]+[1 x 1/2]		
Piping	Max Pipe Length For All Rooms		131	197	262		
	Max Pipe Length Per Unit	ft	82	98	115		
	Max Level Difference Between Indoor & Outdoor Unit		49				
Max Level Difference Between Indoor Units			33				
Outdoor Ambient Oper	ation Temperature	°C	-25 ~ 50 Cooling / -25 ~ 30 Heating				
Design Pressure		PSIG	550 / 340				

	OUTDOOR UN	ITS*	INDOOR UNITS (1000 btu/h)			
MODEL NUMBER	CAPACITY	STANDARD COMBINATIONS	2 ZONES	3 ZONES	4 ZONES	
	18,000 BTU/H	Wall Mount and Ducted 9 + 9	9 + 9			
MST183E21MCAA			9 + 12		-	
			12 + 12			
	27,000 BTU/H	Wall Mount and Ducted 9 + 9 + 9	9 + 9	9 + 9 + 9		
			9 + 12	9 + 9 + 12		
			9 + 18	9 + 9 + 18		
MST273E21MCAA			12 + 12	9 + 12 + 12		
			12 + 18	12 + 12 + 12		
			18 + 18			
			9 + 9	9 + 9 + 9	9 + 9 + 9 + 9	
			9 + 12	9 + 9 + 12	9 + 9 + 9 + 12	
			9 + 18	9 + 9 + 18	9 + 9 + 9 + 18	
			9 + 24 9 + 12 + 12	9 + 9 + 12 + 12		
MST363E21MCAA	36,000 BTU	Wall Mount and Ducted	12 + 12	9 + 12 + 18	9 + 9 + 12 + 18	
		9 + 9 + 9	12 + 18	9 + 18 + 18	9 + 12 + 12 + 12	
			12 + 24	12 + 12 + 12	12 + 12 + 12 + 12	
			18 + 18	12 + 12 + 18		
				12 + 12 + 24		
				12 + 18 + 18		

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## ONCE YOU CHOOSE THE GOODMAN<sup>®</sup> BRAND, YOU'LL PROBABLY BE A FAN FOR LIFE.



Millions across North America are big fans already. Once you choose a **Goodman** brand,

you'll probably be a big fan, too! See why others are saying, **"Thank Goodness for Goodman**"."

#### For complete information on the Goodman brand, be certain to contact: your local distribution branches.

Ductless heat pumps exclusively available at the following three Goodman Distribution branches:



GOODMAN DISTRIBUTION, INC.

Goodman Distribution Branch 965 Rue Bergar Laval, QC, H7L 4Z6 T: 450-681-2220 Goodman Distribution Branch 2640 Boul. Jacques Cartier est Longueuil, Quebec, J4N 1P8 T: 450-674-3883 Goodman Distribution Branch 155 rue Fortin, suite 140 Québec, Qc, G1M 3M2 T: 418-478-3495



\* Complete warranty details available from your local dealer or Goodman branches

## Extended service plans available

For even greater peace of mind contact your Goodman Distribution branch for more details on Prime, an affordable Parts and/or labor Extended Service

Plan for your **Goodman** brand HVAC system coverage.



#### GOODMAN - A MEMBER OF DAIKIN GROUP

Daikin Industries, Ltd. (DIL) is a global Fortune 1000 company. It is a worldwide leader for residential and commercial HVAC. DIL is engaged primarily in the development, manufacture, sale, and aftermarket support of heating, ventilation, air conditioning and refrigeration equipment, refrigerants and other chemicals, as well as oil hydraulic products. DIL is headquartered in Osaka, Japan.

The company provides innovative, premium quality indoor climate management solutions to meet the changing needs of residential, commercial, and industrial customers.



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