



AHRI Rated Btu's Cooling @ 95F [35C] Heating @ 47F [6.3C]				SEER2	EER2	HSPF2	Indoor Unit With Wireless Remote		Outdoor Unit With Base Pan Heater		Line Set Liquid x Suction		Max. Line Length		Additional Charge ≥ 25ft		Max. Lift	MCA/MOCP	Recommended Fuse Size	Maximum Heating BTU's at -4F [-20C] At 70F [21.1C] Indoor DB	Maximum Heating BTU's at 5F [-15C] At 70F [21.1C] Indoor DB	Maximum Cooling BTU's at 110F [43C] At 80F [26.7C] Indoor DB	Maximum Cooling BTU's at 122F [50C] At 80F [26.7C] Indoor DB
This sheet is not intended to replace the installation instructions. It is a reference guide only. Always read through the installation instructions.																							
Infinity Series High Wall 1:1 Heat Pump Systems																							
6,000/9,000		35.1	17.5	30	45MPHAQ06XA3		37MPRAQ06AA3		1/4" x 3/8"		82.02'	.16 Oz/Ft		49.21'	16A / 20A		20A		10,130	13,965	15,085	7,892	
9,000/12,000		33.5	17	22	45MPHAQ09XA3		37MPRAQ09AA3		1/4" x 3/8"		82.02'	.16 Oz/Ft		49.21'	16A / 20A		20A		10,130	13,965	15,085	7,892	
12,000/12,000		29.5	14.3	14.5	45MPHAQ12XA3		37MPRAQ12AA3		1/4" x 3/8"		82.02'	.16 Oz/Ft		49.21'	16A / 20A		20A		10,130	13,965	15,085	7,892	
18,000/20,000		25.8	15	16.2	45MPHAQ18XA3		37MPRAQ18AA3		3/8" x 5/8"		164.04'	.32 Oz/Ft		82.02'	24.9A / 25A		25A		20,482	24,809	23,263	13,286	
Infinity Series High Wall 1:1 Heat Pump Systems																							
6,000/7,000		25.7	18	14.8	45MAHAQ06XA3		37MAHAQ06AA3		1/4" x 3/8"		82.02'	.16 Oz/Ft		49.21'	12A / 15A		15A		5,125	7,700	10,717	7,571	
9,000/12,000		27.5	15.5	12.5	45MAHAQ09XA3		37MAHAQ09AA3		1/4" x 3/8"		82.02'	.16 Oz/Ft		49.21'	15A / 15A		15A		8,080	11,500	11,215	7,447	
12,000/12,000		25.5	13.5	10.5	45MAHAQ12XA3		37MAHAQ12AA3		1/4" x 3/8"		82.02'	.16 Oz/Ft		49.21'	15A / 15A		15A		9,260	11,500	12,194	6,490	
18,000/18,000		21.5	12.5	11	45MAHAQ18XA3		37MAHAQ18AA3		1/4" x 1/2"		98.42'	.16 Oz/Ft		65.62'	19A / 20A		20A		15,050	18,000	14,794	10,590	
24,000/29,000		21.2	13	13.5	45MAHAQ24XA3		37MAHAQ24AA3		3/8" x 5/8"		164.04'	.32 Oz/Ft		82.02'	24.9A / 25A		25A		20,482	24,200	23,263	13,286	
33,000/36,000		19.6	12	10.5	45MAHAQ33XA3		37MAHAQ33AA3		3/8" x 3/4"		164.04'	.32 Oz/Ft		82.02'	34A / 35A		35A		29,178	35,000	32,895	21,554	
Performance Series High Wall 1:1 Heat Pump Systems																							
12,000/12,000		23.5	13	9.5	45MAHAQ12XA1		37MARAQ12AA1		1/4" x 3/8"		82.02'	.16 Oz/Ft		49.21'	18A / 20A		20A		4,374	7,700	11,229	6,401	
9,000/10,000		26	14.9	12.5	45MAHAQ09XA3		37MAHAQ09AA3		1/4" x 3/8"		82.02'	.16 Oz/Ft		49.21'	12A / 15A		15A		7,578	8,000	11,188	8,230	
12,000/12,000		25.5	13.1	10.7	45MAHAQ12XA3		37MARAQ12AA3		1/4" x 3/8"		82.02'	.16 Oz/Ft		49.21'	12A / 15A		15A		7,175	8,400	11,096	7,438	
18,000/18,000		23.5	12.8	10.8	45MAHAQ18XA3		37MARAQ18AA3		1/4" x 1/2"		98.42'	.16 Oz/Ft		65.62'	18A / 20A		20A		10,925	12,800	14,747	5,496	
24,000/25,000		23.1	14	11.7	45MAHAQ24XA3		37MAHAQ24AA3		3/8" x 5/8"		164.04'	.32 Oz/Ft		82.02'	24A / 25A		25A		13,829	19,600	23,103	18,744	
30,000/30,000		20.5	12	9.5	45MAHAQ30XA3		37MARAQ30AA3		3/8" x 3/4"		164.04'	.32 Oz/Ft		82.02'	28A / 30A		30A		21,495	20,000	26,498	9,359	
36,000/36,000		19	8.7	8.5	45MAHAQ36XA3		37MARAQ36AA3		3/8" x 3/4"		213.25'	.32 Oz/Ft		98.43'	33A / 35A		35A		22,961	22,000	26,995	12,885	
Infinity Series 4-Way Cassette 1:1 Heat Pump Systems																							
9,000/10,000		22.7	14	12.2	45MBCAQ12XA3		37MAHAQ09AA3		1/4" x 3/8"		82.02'	.16 Oz/Ft		49.21'	15A / 15A		15A		7,400	11,000	11,100	6,483	
12,000/12,000		23.7	12.7	11.6	45MBCAQ12XA3		37MAHAQ12AA3		1/4" x 3/8"		82.02'	.16 Oz/Ft		49.21'	15A / 15A		15A		7,500	11,500	11,700	6,558	
16,000/19,000		20	12.5	12.4	45MBCAQ18XA3		37MAHAQ18AA3		1/4" x 1/2"		98.42'	.16 Oz/Ft		65.62'	19A / 20A		20A		14,000	17,000	14,000	9,879	
23,500/25,000		20.8	12	11.6	45MBCAQ24XA3		37MAHAQ24AA3		3/8" x 5/8"		164.04'	.32 Oz/Ft		82.02'	24.9A / 25A		25A		17,300	23,800	21,000	13,293	
36,600/37,000		21.3	12	10.6	45MBCAQ36XA3		37MBHAQ36AA3		3/8" x 3/4"		246'	.32 Oz/Ft		98.4'	38A / 40A		40A		30,100	37,000	34,400	16,842	
48,000 / 53,000		18.2	10	11	45MBCAQ48XA3		37MBHAQ48AA3		3/8" x 3/4"		246'	.32 Oz/Ft		98.4'	44A / 45A		45A		38,200	47,500	38,700	14,068	
Performance Series 4-Way Cassette 1:1 Heat Pump Systems																							
9,000/10,000		21.7	14.3	11.3	45MBCAQ12XA3		37MARAQ09AA3		1/4" x 3/8"		82.02'	.16 Oz/Ft		49.21'	12A / 15A		15A		6,100	8,300	11,700	7,165	
12,000/12,000		21.2	12.5	10.4	45MBCAQ12XA3		37MARAQ12AA3		1/4" x 3/8"		82.02'	.16 Oz/Ft		49.21'	12A / 15A		15A		6,700	8,400	11,700	6,735	
16,800/18,000		20.8	12.5	11.4	45MBCAQ18XA3		37MARAQ18AA3		1/4" x 1/2"		98.42'	.16 Oz/Ft		65.62'	18A / 20A		20A		10,600	12,800	13,400	4,709	
24,000/25,000		22.1	12	10.5	45MBCAQ24XA3		37MARAQ24AA3		3/8" x 5/8"		164.04'	.32 Oz/Ft		82.02'	24A / 25A		25A		12,800	18,500	21,000	14,388	
36,000/38,000		20	9.7	10.4	45MBCAQ36XA3		37MBRAQ36AA3		3/8" x 3/4"		246'	.32 Oz/Ft		98.4'	33A / 35A		35A		20,800	26,600	28,200	16,644	
48,000/50,000		19.1	9.5	9.9	45MBCAQ48XA3		37MBRAQ48AA3		3/8" x 3/4"		246'	.32 Oz/Ft		98.4'	39A / 40A		40A		32,100	40,500	40,400	21,475	
Ceiling Cassette Grille for 9K, 12K & 18K BTU 45MBCQ01XXX3 (unbranded) ~ Ceiling Cassette Grille for 24K, 36K & 48K BTU 45MBCQ02XXX4 (unbranded) [Required on all sizes and Sold Separately]																							
Infinity Series 1-Way Cassette 1:1 Heat Pump Systems																							
6,500/7,400		22	15.2	12	45MCCAQ06XA3		37MAHAQ06AA3		1/4" x 3/8"		82.02'	.16 Oz/Ft		49.21'	12A / 15A		15A		6,400	8,100	11,200	6,483	
9,000/10,900		24	14.7	12.2	45MCCAQ12XA3		37MAHAQ09AA3		1/4" x 3/8"		82.02'	.16 Oz/Ft		49.21'	15A / 15A		15A		8,600	10,600	11,200	6,483	
12,000/12,500		23	13	10.2	45MCCAQ12XA3		37MAHAQ12AA3		1/4" x 3/8"		82.02'	.16 Oz/Ft		49.21'	15A / 15A		15A		8,600	11,500	11,900	6,558	
16,700/20,000		20.7	12.5	12.2	45MCCAQ18XA3		37MAHAQ18AA3		1/4" x 1/2"		98.42'	.16 Oz/Ft		65.62'	19A / 20A		20A		14,500	17,500	14,500	10,289	
Performance Series 1-Way Cassette 1:1 Heat Pump Systems																							
9,000/11,000		22.2	14.4	11.8	45MCCAQ12XA3		37MARAQ09AA3		1/4" x 3/8"		82.02'	.16 Oz/Ft		49.21'	12A / 15A		15A		6,100	8,000	10,100	7,165	
12,000/12,000		22.2	12.3	10.1	45MCCAQ12XA3		37MARAQ12AA3		1/4" x 3/8"		82.02'	.16 Oz/Ft		49.21'	12A / 15A		15A		6,800	8,600	12,400	7,165	
18,000/18,000		22.3	12.5	12.2	45MCCAQ18XA3		37MARAQ18AA3		1/4" x 1/2"		98.42'	.16 Oz/Ft		65.62'	18A / 20A		20A		10,300	13,100	14,500	5,118	
One-Way Casette units include grills 9K/12K IDU Capacity select via dip switch and must match ODU size																							
Infinity Series Low Static Slim Ducted 1:1 Heat Pump Systems																							
6,500/8,000		21.5	14.5	13.8	45MBDAQ06XA3		37MAHAQ06AA3		1/4" x 3/8"		82.02'	.16 Oz/Ft		49.21'	12A / 15A		15A		6,302	7,800	10,448	7,387	
9,000/10,000		21.5	13.5	12.5	45MBDAQ12XA3		37MAHAQ09AA3		1/4" x 3/8"		82.02'	.16 Oz/Ft		49.21'	15A / 15A		15A		9,704	11,200	11,147	6,056	
12,000/12,500		20	12	10.2	45MBDAQ12XA3		37MAHAQ12AA3		1/4" x 3/8"		82.02'	.16 Oz/Ft		49.21'	15A / 15A		15A		10,256	11,800	11,430	6,220	
17,000/19,000		18	12	10.8	45MBDAQ18XA3		37MAHAQ18AA3		1/4" x 1/2"		98.42'	.16 Oz/Ft		65.62'	19A / 20A		20A		15,917	18,000	14,525	10,543	
Performance Series Low Static Slim Ducted 1:1 Heat Pump Systems																							
9,000/10,000		19.6	12.8	11	45MBDAQ12XA3		37MARAQ09AA3		1/4" x 3/8"		82.02'	.16 Oz/Ft		49.21'	12A / 15A		15A		6,899	8,600	10,577	7,650	
11,500/12,000		19	11.7	10.3	45MBDAQ12XA3		37MARAQ12AA3		1/4" x 3/8"		82.02'	.16 Oz/Ft		49.21'	12A / 15A		15A		6,899	8,800	10,901	7,820	
17,000/20,000		20	12.5	10.6	45MBDAQ18XA3		37MARAQ18AA3		1/4" x 1/2"		98.42'	.16 Oz/Ft		65.62'	18A / 20A		20A		10,297	14,000	14,310	7,609	
9K/12K IDU Capacity select via dip switch and must match ODU size																							
Accessories & Warranty Information																							
Use any 3rd party, 24V, 5-wire thermostat to control almost any Carrier Ductless system by adding the KSAIC0301230 24V Interface. Check pg. 8 of the "Compatibility Charts" for updates regarding 24V interface compatibility. The Carrier Infinity™ Ductless systems are shipped with a Wi-Fi kit standard. See the latest version of the "Compatibility Charts" for full details.																							
Residential & Multi-Family Applications: 10 year limited warranty to original purchaser on compressor and parts when system is *registered within 90-days of installation. *Registration not required in CA and Quebec . Commercial Applications: 7 year limited warranty to original purchaser on compressor and parts. See Warranty documents for full details																							



Use any 3rd party, 24V, 5-wire thermostat to control almost any Carrier Ductless system by adding the KSAIC0301230 24V Interface. Check pg. 8 of the "Compatibility Charts" for updates regarding 24V interface compatibility.

The Carrier Infinity™ Ductless systems are shipped with a Wi-Fi kit standard. See the latest version of the "Compatibility Charts" for full details.

Residential & Multi-Family Applications: 10 year limited warranty to original purchaser on compressor and parts when system is *registered within 90-days of installation. *Registration not required in CA and Quebec .

Commercial Applications: 7 year limited warranty to original purchaser on compressor and parts when system is *registered within 90-days of installation. *Registration not required in CA and Quebec .



Ducted Solutions Quick Reference Guide

Ductless Systems

AHRI Rated Btu's Cooling @ 95F [35C] Heating @ 47F [6.3C]				Indoor Unit With Factory Installed 24V Interface		Outdoor Unit With Base Pan Heater		Line Set Liquid x Suction	Max. Line Length	Additional Charge ≥ 25ft	Max. Lift	MCA/MOCP	Recommended Fuse Size	Maximum Heating BTU's at -5F [-20F] At 69F [20.5C] Indoor DB	Maximum Heating BTU's at 5F [-15C] Indoor DB	Maximum Cooling BTU's at 113F [45C] At 75.2F [24C] Indoor DB	Maximum Cooling BTU's at 122F [50C] At 75.2F [24C] Indoor DB
SEER2	EER2	HSPF2															

This sheet is not intended to replace the installation instructions. It is a reference guide only. Always read through the installation instructions.

Performance Series AHU 1:1 Heat Pump Systems w/ Factory Installed 24V Interface

18,000/19,500	18.2	12	10.1	45MBAAQ18XB3	37MAHAQ18AA3	1/4" x 1/2"	98.42'	.16 Oz/Ft	65.62'	19A / 20A	20A		15,484	18,688	17,391	12,157
23,000/26,000	18.8	12	10	45MBAAQ24XB3	37MAHAQ24AA3	3/8" x 5/8"	164.04'	.32 Oz/Ft	82.02'	24.9A / 25A	25A		19,483	24,689	25,819	16,531
33,000/35,000	16.7	11.7	10	45MBAAQ30XB3	37MAHAQ33AA3	3/8" x 3/4"	164.04'	.32 Oz/Ft	82.02'	38A / 40A	40A		29,944	35,826	34,216	15,385
36,000/38,000	17.3	11.7	9.5	45MBAAQ36XA3	37MBHAQ36AA3	3/8" x 3/4"	246'	.32 Oz/Ft	98.4'	44A / 45A	45A		32,267	39,385	33,526	14,764
48,000/50,000	17	10.1	10.2	45MBAAQ48XA3	37MBHAQ48AA3	3/8" x 3/4"	246'	.32 Oz/Ft	98.4'	12A / 15A	15A		32,097	41,899	42,510	27,958
54,000/59,000	15.4	10	9.2	45MBAAQ60XA3	37MBHAQ58AA3	3/8" x 3/4"	246'	.32 Oz/Ft	98.4'	44A / 45A	45A		41,493	54,678	37,722	10,562
18,000/18,000	18.5	12.2	9.8	45MBAAQ18XB3	37MARAQ18AA3	1/4" x 1/2"	98.42'	.16 Oz/ft	65.62'	18A / 20A	20A		10,929	13,689	15,398	9,595
24,000/25,000	19.8	11.7	9	45MBAAQ24XB3	37MARAQ24AA3	3/8" x 5/8"	164.04'	.32 Oz/ft	82.02'	24A / 25A	25A		15,364	18,920	23,239	15,108
30,000/30,000	17	11	8.8	45MBAAQ30XB3	37MARAQ30AA3	3/8" x 3/4"	164.04'	.32 Oz/ft	82.02'	28A / 30A	30A		12,966	20,820	27,432	9,475
36,000/37,000	16	8.6	7.7	45MBAAQ36XB3	37MARAQ36AA3	3/8" x 3/4"	213.25'	.32 Oz/ft	98.43'	33A / 35A	35A		18,896	23,536	27,757	10,062
36,000/38,000	15.9	9	9.3	45MBAAQ36XA3	37MBRAQ36AA3	3/8" x 3/4"	246'	.32 Oz/ft	98.4'	33A / 35A	35A		21,062	24,802	28,115	15,282
48,000/50,000	17.8	10	10	45MBAAQ48XA3	37MBRAQ48AA3	3/8" x 3/4"	246'	.32 Oz/ft	98.4'	39A / 40A	40A		32,653	34,918	43,227	21,724
55,000/59,000	16	9.5	9.2	45MBAAQ60XA3	37MBRAQ58AA3	3/8" x 3/4"	246'	.32 Oz/ft	98.4'	42A / 45A	45A		29,985	35,954	42,081	19,276

Performance Horizontal Discharge AHU 1:1 Performance Heat Pump Systems (Crossover Solutions)

18,000/18,000	19	12.5	10.2	45MUHAQ24XX3	37MUHAQ18AA3	3/8" x 3/4"	98.42'	.70 Oz/ft	65.62'	16A / 20A	20A		16,514	19,261	17,916	14,214
24,000/24,000	18.7	12	10	45MUHAQ24XX3	37MUHAQ24AA3	3/8" x 3/4"	164.04'	.70 Oz/ft	82.02'	19A / 20A	20A		17,927	21,458	23,751	17,725
30,000/33,000	17.2	12.1	10.8	45MUHAQ36XX3	37MUHAQ30AA3	3/8" x 3/4"	164.04'	.70 Oz/ft	82.02'	29.5A / 30A	30A		27,252	33,236	32,779	20,649
36,000/37,000	18	12	10	45MUHAQ36XX3	37MUHAQ36AA3	3/8" x 3/4"	246'	.70 Oz/ft	98.43'	29A / 30A	30A		37,170	38,436	38,525	24,495
48,000/48,000	17.5	12	9.5	45MUHAQ60XX3	37MUHAQ48AA3	3/8" x 3/4"	246'	.70 Oz/ft	98.43'	38A / 40A	40A		43,387	48,328	45,560	32,789
54,000/55,000	17.5	12	9.5	45MUHAQ60XX3	37MUHAQ60AA3	3/8" x 3/4"	246'	.70 Oz/ft	98.43'	40A / 40A	40A		49,989	56,830	53,125	33,738

Comfort Horizontal Discharge AHU 1:1 Performance Heat Pump Systems (Crossover Solutions)

18,000/19,000	19	12.5	9.8	45MUAQA18XX3	37MUHAQ18AA3	3/8" x 3/4"	98.42'	.70 Oz/ft	65.62'	16A / 20A	20A		16,780	19,813	18,855	15,316
23,000/24,000	18.4	11.7	10	45MUAQA24XX3	37MUHAQ24AA3	3/8" x 3/4"	164.04'	.70 Oz/ft	82.02'	19A / 20A	20A		17,309	22,891	25,051	16,371
30,000/34,000	16.9	11.7	10	45MUAQA30XX3	37MUHAQ30AA3	3/8" x 3/4"	164.04'	.70 Oz/ft	82.02'	29.5A / 30A	30A		28,190	33,287	32,404	21,287
36,000/37,000	17.4	11.7	10.3	45MUAQA36XX3	37MUHAQ36AA3	3/8" x 3/4"	246'	.70 Oz/ft	98.43'	29A / 30A	30A		35,662	41,538	36,996	24,959
48,000/50,000	16.5	10.5	9.5	45MUAQA48XX3	37MUHAQ48AA3	3/8" x 3/4"	246'	.70 Oz/ft	98.43'	38A / 40A	40A		40,674	46,850	42,234	30,465
54,000/56,000	16	10	9	45MUAQA60XX3	37MUHAQ60AA3	3/8" x 3/4"	246'	.70 Oz/ft	98.43'	40A / 40A	40A		46,714	54,228	50,848	34,671

18K/24K IDU Capacity select via dip switch and must match ODU size

Comfort Tier Horizontal Discharge AHU 1:1 Heat Pump Systems (Crossover Solutions)

18,000/18,000	18.8	11	9.2	45MUAQA18XX3	37MURAQ18AA3	3/8" x 3/4"	98.42'	.70 Oz/ft	65.62'	16A / 20A	20A		9,175	11,379	15,815	9,543
24,000/26,000	18.2	11	9.7	45MUAQA24XX3	37MURAQ24AA3	3/8" x 3/4"	164.04'	.70 Oz/ft	82.02'	19A / 20A	20A		16,963	22,433	24,550	16,043
30,000/31,000	17	10.8	8.5	45MUAQA30XX3	37MURAQ30AA3	3/8" x 3/4"	164.04'	.70 Oz/ft	82.02'	22.5A / 25A	25A		15,521	19,356	29,603	14,498
36,000/36,000	16.2	10	8.7	45MUAQA36XX3	37MURAQ36AA3	3/8" x 3/4"	246'	.70 Oz/ft	98.42'	24A / 30A	30A		22,765	26,515	32,032	18,926
48,000/48,000	16	10	8.5	45MUAQA48XX3	37MURAQ48AA3	3/8" x 3/4"	246'	.70 Oz/ft	98.42'	36A / 40A	40A		35,908	43,152	42,022	30,316
54,000/54,000	15.2	8.7	8.4	45MUAQA60XX3	37MURAQ60AA3	3/8" x 3/4"	246'	.70 Oz/ft	98.42'	39A / 40A	40A		35,597	41,473	41,858	32,571

18K/24K IDU Capacity select via dip switch and must match ODU size

Accessory Electric Heater Kits for 45MBAA & 45MUA

Model Number	Size	Size Used With	Model Number	Size	Size Used With	Model Number	Size	Size Used With	Model Number	Size	Size Used With
EHKMC05KN	5 kW	18k, 24k, 30k, 36k	EHKMC15KN	15 kW	24k, 30k, 36k, 48k, 60k	EHKMD05KN	5 kW	24k, 36k	EHKMD15KN	15 kW	24k, 36k, 60k
EHKMC08KN	8 kW	18k, 24k, 30k, 36k, 48k	EHKMC20KN	20 kW	36k, 48k, 60k	EHKMD08KN	8 kW	24k, 36k	EHKMD20KN	20 kW	36k, 60k
EHKMC10KN	10 kW	18k, 24k, 30k, 36k, 48k, 60k	EHKMC25KN	25 kW	60k	EHKMD10KN	10 kW	24k, 36k, 60k	EHKMD25KN	25 kW	60k

Installation Note: A separate power supply is required for an Auxiliary Electric Heater. Do not power the electric heater directly from the outdoor unit. Always follow recommendations on the installation guide

System Installation Notes:

*The 45MUA, 45MUHA, 37MURA, and 37MUHA systems are powered separately. The data supplied from MCA, MOCP, and Recommended Fuse Size is for the outdoor unit.

The minimum line length for all systems is 10'

45MUA/45MUHA systems allow for either Non-Polarity RS485 or 24V Communication. Refer to the system's Product Data for more information on required wiring depending on communication style.

45MUA Heat Pump systems require the use of a 3/8" bi-flow liquid line filter drier. The use of filter driers is not allowed on any other ductless style system.

Warranty Information

Residential & Multi-Family Applications: 10 year limited warranty to original purchaser on compressor and parts when system is *registered within 90-days of installation. *Registration not required in CA and Quebec.

Commercial Applications: 7 year limited warranty to original purchaser on compressor and parts. See Warranty documents for full details



Multi-Zone Quick Reference Guide - Puron Advance Ductless Systems

Outdoor Unit With Base Pan Heater	Max Zones	Max Heating Capacity BTU's			Maximum Cooling BTU's		Port Combinations		Max Line Set Length Per Zone	Max Total Line Set Length	Pre-Charge Length	Max. Lift	MCA	MOCP	Recommended Fuse Size
		@5°F [-15°C]	@-13°F [-25°C]	@-22°F [-30°C]	@95°F [35°C]	@109°F [43°C]	Liquid	Suction							

This sheet is not intended to replace the installation instructions. It is a reference guide only. Always read through the installation instructions.

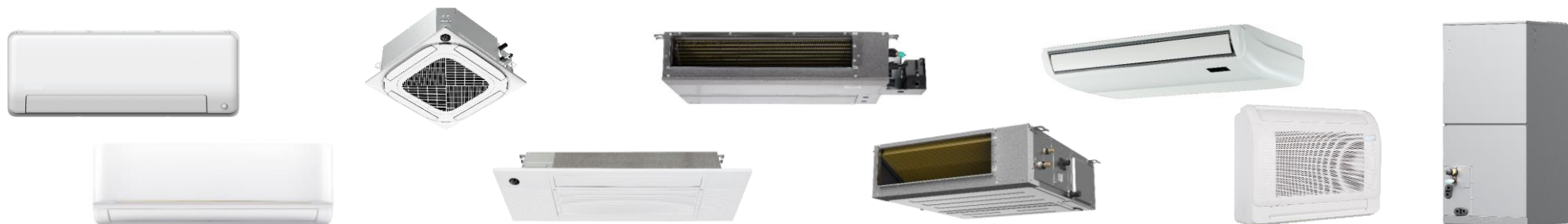
Infinity System Multi-Zone Heat Pump

37MGHAQ18CA3	3	19000	13600	11000	19000	24000	3 @ 1/4"	3 @ 3/8"	98.4'	196.9'	73.8'	49.21'	17.5	20	20
37MGHAQ24DA3	4	25000	17000	14000	24000	32000	4 @ 1/4"	3 @ 3/8" + 1 @ 1/2"	114.8'	262.5'	98.4'	49.21'	30	35	35
37MGHAQ30EA3	5	36000	28000	22400	30000	39000	5 @ 1/4"	3 @ 3/8" + 2 @ 1/2"	114.8'	262.5'	123'	49.21'	37	40	40
37MGHAQ36EA3	5	36000	28000	22400	36000	39000	5 @ 1/4"	3 @ 3/8" + 2 @ 1/2"	114.8'	262.5'	123'	49.21'	37	40	40
37MGHAQ48FA3	6	47000	30000	25000	47000	45000	6 @ 1/4"	4 @ 3/8" + 2 @ 1/2"	114.8'	262.5'	147.6'	49.21'	37	40	40
37MGHAQ55FA3	6	47000	32000	26400	51000	46000	6 @ 1/4"	4 @ 3/8" + 2 @ 1/2"	114.8'	262.5'	147.6'	49.21'	39.5	40	40

Performance Series Multi-Zone Heat Pump Systems

37MGRAQ18CA3	3	13500	8200		18000	18800	3 @ 1/4"	3 @ 3/8"	98.4'	196.9'	73.8'	49.21'	16	20	20
37MGRAQ24DA3	4	18000	12000		24000	27400	4 @ 1/4"	3 @ 3/8" + 1 @ 1/2"	114.8'	262.5'	98.4'	49.21'	23	25	25
37MGRAQ30EA3	5	26000	17500		30000	30600	5 @ 1/4"	3 @ 3/8" + 2 @ 1/2"	114.8'	262.5'	123'	49.21'	30.5	35	35
37MGRAQ36EA3	5	26000	17500		36000	30600	5 @ 1/4"	3 @ 3/8" + 2 @ 1/2"	114.8'	262.5'	123'	49.21'	30.5	35	35
37MGRAQ48FA3	6	36000	27000		47000	42000	6 @ 1/4"	4 @ 3/8" + 2 @ 1/2"	114.8'	262.5'	147.6'	49.21'	34	40	40
37MGRAQ55FA3	6	39000	27800		60000	46000	6 @ 1/4"	4 @ 3/8" + 2 @ 1/2"	114.8'	262.5'	147.6'	49.21'	36	40	40

Indoor Unit Types, Models, and Approved Btu/hr Combinations



Btu/hr	High Wall		Comfort	Ceiling Cassettes		Slim Ducted		Floor Console	Underceiling Console	Multi-Poise AHU	Btu/hr
	Infinity	Performance		4-Way	1-Way	Regular	High Static				
6K	45MPHAQ06XA3	45MAHAQ06XA3	-	-	45MCCAQ06XA3	45MBDAQ06XA3	TBD	-	-	-	6K
9K	45MPHAQ09XA3	45MAHAQ09XA3	-	45MBCAQ12XA3	45MCCAQ12XA3	45MBDAQ12XA3	TBD	45MBFAQ09XA3	-	-	9K
12K	45MPHAQ12XA3	45MAHAQ12XA3	-	45MBCAQ12XA3	45MCCAQ12XA3	45MBDAQ12XA3	TBD	45MBFAQ12XA3	-	-	12K
18K	45MPHAQ18XA3	45MAHAQ18XA3	-	45MBCAQ18XA3	45MCCAQ18XA3	45MBDAQ18XA3	TBD	45MBFAQ16XA3	45MCFAQ18XA3	45MBAAQ18XB3	18K
24K	-	45MAHAQ24XA3	-	45MBCAQ24XA3	-	-	TBD	-	45MCFAQ24XA3	45MBAAQ24XB3	24K
30K	-	45MAHAQ30XA3	-	-	-	-	TBD	-	-	45MBAAQ30XB3	30K
33K	-	45MAHAQ33XA3	-	-	-	-	TBD	-	-	-	33K
36K	-	45MAHAQ36XA3	-	-	-	-	TBD	-	-	45MBAAQ36XB3	36K

Installation Notes

Port adaptors included with the outdoor units and no branch boxes required.

10' minimum line length require per zone.

Minimum 2 zones must be connected.

Up to 2 AHUs can be used for the following combinations only: 18+18, 18+24, 18+30, 18+36, 24+24, 24+30, 24+36.

In the case that 2 AHU's are selected, no other units may be connected to the outdoor unit, regardless of remaining ports or capacity availability.

When a 30K or 36K AHU is utilized with a Multi-Zone ODU, 500 grams (17.6 Oz) of additional refrigerant should be added to the system.

One-Way Cassette sizing is determined by capacity rotary switch on IDU.

Wi-Fi Kits and Wire Remote Controllers compatible with single or multi-zone as per IDU compatibility.



Mult-Zone Quick Reference Guide - Puron Advance Ductless Systems

Valid Combinations For 37MGRQAQ & 37MGRHAQ Series Models

		Two Zones		Three Zones		Four Zones				Five Zones				Six Zones						
37MGRQAQ18CA3		6+6	6+18	6+6+6																
		6+9	9+9	6+6+9																
		6+12	9+12	6+9+9																
		12+12																		
37MGRHAQ18CA3 37MGRQAQ24DA3		6+6	9+12	6+6+6	6+9+18	12+12+12	6+6+6+6	9+9+9+9												
		6+9	9+18	6+6+9	6+12+12		6+6+6+9													
		6+12	9+24	6+6+12	6+12+18		6+6+6+12													
		6+18	12+12	6+6+18	9+9+9		6+6+9+9													
		6+24	12+18	6+6+24	9+9+12		6+6+9+12													
		9+9	12+24	6+9+9	9+9+18		6+9+9+9													
		18+18	6+9+12	9+12+12		6+9+9+12														
37MGRQAQ24DA3		6+6	9+12	6+6+6	6+9+18	12+12+12	6+6+6+6	9+9+9+9												
		6+9	9+18	6+6+9	6+12+12		6+6+6+9													
		6+12	9+24	6+6+12	6+12+18		6+6+6+12													
		6+18	12+12	6+6+18	9+9+9		6+6+9+9													
		6+24	12+18	6+6+24	9+9+12		6+6+9+12													
		9+9	12+24	6+9+9	9+9+18		6+9+9+9													
		18+18	6+9+12	9+12+12		6+9+9+12														
37MGRHAQ24DA3		6+18	9+24	6+6+6	6+12+12	9+12+12	6+6+6+6	6+6+12+12	6+9+12+18	12+12+12+12										
		6+24	12+12	6+6+9	6+12+18	9+12+18	6+6+6+9	6+6+12+18	6+12+12+12											
		9+9	12+18	6+6+12	6+12+24	9+12+24	6+6+6+12	6+6+12+24	6+12+12+18											
		9+12	12+24	6+6+18	6+18+18	9+18+18	6+6+6+18	6+6+18+18	9+9+9+9											
		9+18	18+18	6+6+24	6+18+24	12+12+12	6+6+6+24	6+9+9+9	9+9+9+12											
			6+9+9	9+9+9	12+12+18	6+6+9+9	6+9+9+12	9+9+9+18												
			6+9+12	9+9+12	12+12+24	6+6+9+12	6+9+9+18	9+9+12+12												
			6+9+18	9+9+18	12+18+18	6+6+9+18	6+9+9+24	9+9+12+18												
37MGRQAQ30EA3 37MGRQAQ36EA3		6+18	9+24	6+6+6	6+12+12	9+12+18	6+6+6+6	6+6+12+12	6+9+12+18	12+12+12+12	6+6+6+6+6	6+6+9+9+18								
		6+24	12+12	6+6+9	6+12+18	9+12+24	6+6+6+9	6+6+12+18	6+12+12+12		6+6+6+6+9	6+9+9+9+9								
		9+9	12+18	6+6+12	6+12+24	9+18+18	6+6+6+12	6+6+12+24	6+12+12+18		6+6+6+6+12	6+9+9+9+12								
		9+12	12+24	6+6+18	6+18+18	12+12+12	6+6+6+18	6+6+18+18	9+9+9+9		6+6+6+6+18	6+9+9+9+18								
		9+18	18+18	6+6+24	9+9+9	12+12+18	6+6+6+24	6+9+9+9	9+9+9+12		6+6+6+6+9	9+9+9+9+9								
			6+9+9	9+9+12	12+12+24	6+6+9+9	6+9+9+12	9+9+9+18		6+6+6+6+12	9+9+9+9+12									
			6+9+12	9+9+18	12+18+18	6+6+9+12	6+9+9+18	9+9+12+12		6+6+6+9+18										
			6+9+18	9+9+24		6+6+9+18	6+9+9+24	9+9+12+18		6+6+9+9+9										
37MGRHAQ30EA3 37MGRHAQ36EA3		6+24	12+18	6+6+12	6+12+18	9+12+18	6+6+6+6	6+6+12+24	6+9+18+24	9+9+12+12	12+12+12+18	6+6+6+6+6	6+6+9+9+18							
		6+30	12+24	6+6+18	6+12+24	9+12+24	6+6+6+9	6+6+18+18	6+12+12+12	9+9+12+18	12+12+12+24	6+6+6+6+9	6+6+9+12+12							
		6+36	12+30	6+6+24	6+12+30	9+18+18	6+6+6+12	6+6+18+24	6+12+12+18	9+9+12+24	12+12+18+18	6+6+6+6+12	6+6+12+12+12							
		9+18	12+36	6+6+30	6+18+18	9+18+24	6+6+6+18	6+9+9+9	6+12+12+24	9+9+18+18		6+6+6+6+18	6+9+9+9+9							
		9+24	18+18	6+6+36	6+18+24	12+12+12	6+6+6+24	6+9+9+12	6+12+18+18	9+9+18+24		6+6+6+6+9	6+9+9+9+12							
		9+30	18+24	6+9+9	9+9+9	12+12+18	6+6+9+9	6+9+9+18	6+12+18+24	9+12+12+12		6+6+6+9+12	6+9+9+12+12							
		9+36	18+30	6+9+12	9+9+12	12+12+24	6+6+9+12	6+9+9+24	6+18+18+18	9+12+12+18		6+6+6+9+18	9+9+9+9+9							
		12+12	24+24	6+9+18	9+9+18	12+18+18	6+6+9+18	6+9+12+12	9+9+9+9	9+12+12+24		6+6+6+12+12	9+9+9+9+12							
37MGRQAQ48FA3				6+9+24	9+9+24	12+18+24	6+6+9+24	6+9+12+18	9+9+9+12	9+12+18+18		6+6+6+12+18								
				6+9+30	9+9+30	18+18+18	6+6+12+12	6+9+12+24	9+9+9+18	9+18+18+18		6+6+9+9+9								
				6+12+12	9+12+12		6+6+12+18	6+9+18+18	9+9+9+24	12+12+12+12		6+6+9+9+12								
				6+12+24	9+12+18	12+18+24	6+6+12+24	6+12+12+24	9+12+12+24		6+6+6+12+18	6+6+12+18+18	6+9+12+18+18	9+12+12+18+18						
				6+12+30	9+12+24	12+18+30	6+6+18+18	6+12+18+18	9+12+18+18		6+6+6+12+24	6+6+12+12+24	6+12+12+12+12	12+12+12+12+12						
				6+12+36	9+12+30	18+18+18	6+6+18+24	6+12+18+24	9+12+18+24		6+6+6+18+18	6+6+12+18+18	6+12+12+12+18							
				6+18+18	9+12+36		6+9+9+9	9+18+18+18				6+6+6+18+24	6+9+9+9+9							



Mult-Zone Quick Reference Guide - Puron Advance Ductless Systems

Valid Combinations For 37MGRAQ & 37MGRHAQ Series Models

	Two Zones		Three Zones			Four Zones				Five Zones					Six Zones				
37MGHAQ48FA3	6+24	12+24	6+6+18	6+18+18	9+18+18	6+6+6+6	6+9+9+12	9+9+9+9	12+12+12+12	6+6+6+6+6	6+6+9+9+12	6+9+9+9+9	6+12+12+12+12	9+9+12+12+18	6+6+6+6+6+6	6+6+6+9+9+24	6+6+9+12+12+18	6+9+12+12+12+12	9+12+12+12+12+12
	6+30	12+30	6+6+24	6+18+24	9+18+24	6+6+6+9	6+9+9+18	9+9+9+12	12+12+12+18	6+6+6+6+9	6+6+9+9+18	6+9+9+9+12	6+12+12+12+18	9+9+12+12+24	6+6+6+6+6+9	6+6+6+9+12+12	6+6+9+12+12+24	6+9+12+12+12+18	12+12+12+12+12+12
	6+36	12+36	6+6+30	6+18+30	9+18+30	6+6+6+12	6+9+9+24	9+9+9+18	12+12+12+24	6+6+6+6+12	6+6+9+9+24	6+9+9+9+18	6+12+12+12+24	9+9+12+18+18	6+6+6+6+6+12	6+6+6+9+12+18	6+6+12+12+12+12	6+12+12+12+12+12	
	9+18	18+18	6+6+36	6+18+36	9+18+36	6+6+6+18	6+9+12+12	9+9+9+24	12+12+18+18	6+6+6+6+18	6+6+9+12+12	6+9+9+9+24	6+12+12+18+18	9+9+12+18+24	6+6+6+6+6+18	6+6+6+9+12+24	6+6+12+12+12+18	6+12+12+12+12+18	
	9+24	18+24	6+9+9	9+9+9	12+12+12	6+6+6+24	6+9+12+18	9+9+12+12	12+12+18+24	6+6+6+6+24	6+6+9+12+18	6+9+9+12+12	6+12+18+18+18	9+9+18+18+18	6+6+6+6+6+24	6+6+6+12+12+12	6+6+12+12+12+24	9+9+9+9+9+9	
	9+30	18+30	6+9+12	9+9+12	12+12+18	6+6+9+9	6+9+12+24	9+9+12+18	12+18+18+18	6+6+6+9+9	6+6+9+12+24	6+9+9+12+18	9+9+9+9+9	9+12+12+12+12	6+6+6+6+9+9	6+6+6+12+12+18	6+9+9+9+9+9	9+9+9+9+9+12	
	9+36	18+36	6+9+18	9+9+18	12+12+24	6+6+9+12	6+9+18+18	9+9+12+24		6+6+6+9+12	6+6+9+18+18	6+9+9+12+24	9+9+9+9+12	9+12+12+12+18	6+6+6+6+9+12	6+6+6+12+12+24	6+9+9+9+9+12	9+9+9+9+9+18	
	12+12	24+24	6+9+24	9+9+24	12+12+30	6+6+9+18	6+9+18+24	9+9+18+18		6+6+6+9+18	6+6+9+18+24	6+9+9+18+18	9+9+9+9+18	9+12+12+12+24	6+6+6+6+9+18	6+6+9+9+9+9	6+9+9+9+9+18	9+9+9+9+9+24	
	12+18	24+30	6+9+30	9+9+30	12+12+36	6+6+9+24	6+12+12+12	9+9+18+24		6+6+6+9+24	6+6+12+12+12	6+9+9+18+24	9+9+9+9+24	9+12+12+18+18	6+6+6+6+9+24	6+6+9+9+9+12	6+9+9+9+9+24	9+9+9+9+12+12	
	24+36		6+9+36	9+9+36	12+18+18	6+6+12+12	6+12+12+18	9+12+12+12		6+6+6+12+12	6+6+12+12+18	6+9+12+12+12	9+9+9+12+12	12+12+12+12+12	6+6+6+6+12+12	6+6+9+9+9+18	6+9+9+12+12+12	9+9+9+9+12+18	
			6+12+12	9+12+12	12+18+24	6+6+12+18	6+12+12+24	9+12+12+18		6+6+6+12+18	6+6+12+12+24	6+9+12+12+18	9+9+9+12+18	12+12+12+12+18	6+6+6+6+12+18	6+6+9+9+9+24	6+9+9+9+12+18	9+9+9+9+12+24	
			6+12+18	9+12+18	12+18+30	6+6+12+24	6+12+18+18	9+12+12+24		6+6+6+12+24	6+6+12+18+18	6+9+12+12+24	9+9+9+12+24	12+12+12+12+24	6+6+6+6+12+24	6+6+9+9+12+12	6+9+9+9+12+24	9+9+9+12+12+12	
			6+12+24	9+12+24	12+18+36	6+6+18+18	6+12+18+24	9+12+18+18		6+6+6+18+18	6+6+12+18+24	6+9+12+18+18	9+9+9+18+18	12+12+12+18+18	6+6+6+9+9+9	6+6+9+9+12+18	6+9+9+12+12+12	9+9+9+12+12+18	
37MGRAQ55FA3	6+24	12+24	6+6+18	6+18+18	9+18+18	6+6+6+6	6+9+9+12	9+9+9+9	12+12+12+12	6+6+6+6+6	6+6+9+9+12	6+9+9+9+9	6+12+12+12+12	9+9+12+12+18	6+6+6+6+6+6	6+6+6+9+9+24	6+6+9+12+12+18	6+9+9+12+12+24	9+9+12+12+12+18
	6+30	12+30	6+6+24	6+18+24	9+18+24	6+6+6+9	6+9+9+18	9+9+9+12	12+12+12+18	6+6+6+6+9	6+6+9+9+18	6+9+9+9+12	6+12+12+12+18	9+9+12+12+24	6+6+6+6+6+9	6+6+6+9+12+12	6+6+9+12+12+24	6+9+12+12+12+12	9+12+12+12+12+12
	6+36	12+36	6+6+30	6+18+30	9+18+30	6+6+6+12	6+9+9+24	9+9+9+18	12+12+12+24	6+6+6+6+12	6+6+9+9+24	6+9+9+9+18	6+12+12+12+24	9+9+12+18+18	6+6+6+6+6+12	6+6+6+9+12+18	6+6+12+12+12+12	6+9+12+12+12+18	12+12+12+12+12+12
	9+18	18+18	6+6+36	6+18+36	9+18+36	6+6+6+18	6+9+12+12	9+9+9+24	12+12+18+18	6+6+6+6+18	6+6+9+12+12	6+9+9+9+24	6+12+12+18+18	9+9+12+18+24	6+6+6+6+6+18	6+6+6+9+12+24	6+6+12+12+12+18	6+12+12+12+12+12	
	9+24	18+24	6+9+9	9+9+9	12+12+12	6+6+6+24	6+9+12+18	9+9+12+12	12+12+18+24	6+6+6+6+24	6+6+9+12+18	6+9+9+12+12	6+12+18+18+18	9+9+18+18+18	6+6+6+6+6+24	6+6+6+12+12+12	6+6+12+12+12+24	6+12+12+12+12+18	
	9+30	18+30	6+9+12	9+9+12	12+12+18	6+6+9+9	6+9+12+24	9+9+12+18	12+18+18+18	6+6+6+9+9	6+6+9+12+24	6+9+9+12+18	9+9+9+9+9	9+12+12+12+12	6+6+6+6+9+9	6+6+6+12+12+18	6+9+9+9+9+9	9+9+9+9+9+9	
	9+36	18+36	6+9+18	9+9+18	12+12+24	6+6+9+12	6+9+18+18	9+9+12+24		6+6+6+9+12	6+6+9+18+18	6+9+9+12+24	9+9+9+9+12	9+12+12+12+18	6+6+6+6+9+12	6+6+6+12+12+24	6+9+9+9+9+12	9+9+9+9+9+12	
	12+12	24+24	6+9+24	9+9+24	12+12+30	6+6+9+18	6+9+18+24	9+9+18+18		6+6+6+9+18	6+6+9+18+24	6+9+9+18+18	9+9+9+9+18	9+12+12+12+24	6+6+6+6+9+18	6+6+9+9+9+9	6+9+9+9+9+18	9+9+9+9+9+18	
	12+18	24+30	6+9+30	9+9+30	12+12+36	6+6+9+24	6+12+12+12	9+9+18+24		6+6+6+9+24	6+6+12+12+12	6+9+9+18+24	9+9+9+9+24	9+12+12+18+18	6+6+6+6+9+24	6+6+9+9+9+12	6+9+9+9+9+24	9+9+9+9+9+24	
	24+36		6+9+36	9+9+36	12+18+18	6+6+12+12	6+12+12+18	9+12+12+12		6+6+6+12+12	6+6+12+12+18	6+9+12+12+12	9+9+9+12+12	12+12+12+12+12	6+6+6+6+12+12	6+6+9+9+12+12	6+9+9+12+12+12	9+9+9+9+12+12	
			6+12+12	9+12+12	12+18+24	6+6+12+18	6+12+12+24	9+12+12+18		6+6+6+12+18	6+6+12+12+24	6+9+12+12+18	9+9+9+12+18	12+12+12+12+18	6+6+6+6+12+18	6+6+9+9+9+24	6+9+9+9+12+18	9+9+9+9+12+18	
			6+12+18	9+12+18	12+18+30	6+6+12+24	6+12+18+18	9+12+12+24		6+6+6+12+24	6+6+12+18+18	6+9+12+12+24	9+9+9+12+24	12+12+12+12+24	6+6+6+6+12+24	6+6+9+9+12+12	6+9+9+9+12+24	9+9+9+9+12+24	
			6+12+24	9+12+24	12+18+36	6+6+18+18	6+12+18+24	9+12+18+18		6+6+6+18+18	6+6+12+18+24	6+9+12+18+18	9+9+9+18+18	12+12+12+18+18	6+6+6+9+9+9	6+6+9+9+12+18	6+9+9+9+18+18	9+9+9+12+12+12	
			6+12+30	9+12+30	18+18+18	6+6+18+24	6+18+18+18	9+12+18+24		6+6+6+18+24	6+6+18+18+18	6+9+12+18+24	9+9+9+18+24		6+6+6+9+9+12	6+6+9+9+12+24	6+9+9+12+12+12	9+9+9+12+12+18	
37MGHAQ55FA3	6+24	12+24	6+6+18	6+18+18	9+18+18	6+6+6+6	6+9+9+12	9+9+9+9	12+12+12+12	6+6+6+6+6	6+6+9+9+12	6+9+9+9+9	6+12+12+12+12	9+9+12+12+18	6+6+6+6+6+6	6+6+6+9+9+24	6+6+9+12+12+18	6+9+12+12+12+12	9+12+12+12+12+12
	6+30	12+30	6+6+24	6+18+24	9+18+24	6+6+6+9	6+9+9+18	9+9+9+12	12+12+12+18	6+6+6+6+9	6+6+9+9+18	6+9+9+9+12	6+12+12+12+18	9+9+12+12+24	6+6+6+6+6+9	6+6+6+9+12+12	6+6+9+12+12+24	6+9+12+12+12+18	12+12+12+12+12+12
	6+36	12+36	6+6+30	6+18+30	9+18+30	6+6+6+12	6+9+9+24	9+9+9+18	12+12+12+24	6+6+6+6+12	6+6+9+9+24	6+9+9+9+18	6+12+12+12+24	9+9+12+18+18	6+6+6+6+6+12	6+6+6+9+12+18	6+6+12+12+12+12	6+12+12+12+12+12	
	9+18	18+18	6+6+36	6+18+36	9+18+36	6+6+6+18	6+9+12+12	9+9+9+24	12+12+18+18	6+6+6+6+18	6+6+9+12+12	6+9+9+9+24	6+12+12+18+18	9+9+12+18+24	6+6+6+6+6+18	6+6+6+9+12+24	6+6+12+12+12+18	6+12+12+12+12+12	
	9+24	18+24	6+9+9	9+9+9	12+12+12	6+6+6+24	6+9+12+18	9+9+12+12	12+12+18+24	6+6+6+6+24	6+6+9+12+18	6+9+9+12+12	6+12+18+18+18	9+9+18+18+18	6+6+6+6+6+24	6+6+6+12+12+12	6+6+12+12+12+24	9+9+9+9+9+9	
	9+30	18+30	6+9+12	9+9+12	12+12+18	6+6+9+9	6+9+12+24	9+9+12+18	12+18+18+18	6+6+6+9+9	6+6+9+12+24	6+9+9+12+18	9+9+9+9+9	9+12+12+12+12	6+6+6+6+9+9	6+6+6+12+12+18	6+9+9+9+9+9	9+9+9+9+9+12	
	9+36	18+36	6+9+18	9+9+18	12+12+24	6+6+9+12	6+9+18+18	9+9+12+24		6+6+6+9+12	6+6+9+18+18	6+9+9+12+24	9+9+9+9+12	9+12+12+12+18	6+6+6+6+9+12	6+6+6+12+12+24	6+9+9+9+9+12	9+9+9+9+9+18	
	12+12	24+24	6+9+24	9+9+24	12+12+30	6+6+9+18	6+9+18+24	9+9+18+18		6+6+6+9+18	6+6+9+18+24	6+9+9+18+18	9+9+9+9+18	9+12+12+12+24	6+6+6+6+9+18	6+6+9+9+9+9	6+9+9+9+9+18	9+9+9+9+9+24	
	12+18	24+30	6+9+30	9+9+30	12+12+36	6+6+9+24	6+12+12+12	9+9+18+24		6+6+6+9+24	6+6+12+12+12	6+9+9+18+24	9+9+9+9+24	9+12+12+18+18	6+6+6+6+9+24	6+6+9+9+9+12	6+9+9+9+9+24	9+9+9+9+12+12	
	24+36		6+9+36	9+9+36	12+18+18	6+6+12+12	6+12+12+18	9+12+12+12		6+6+6+12+12	6+6+12+12+18	6+9+12+12+12	9+9+9+12+12	12+12+12+12+12	6+6+6+6+12+12	6+6+9+9+12+12	6+9+9+12+12+12	9+9+9+9+12+18	
			6+12+12	9+12+12	12+18+24	6+6+12+18	6+12+12+24	9+12+12+18		6+6+6+12+18	6+6+12+12+24	6+9+12+12+18	9+9+9+12+18	12+12+12+12+18	6+6+6+6+12+18	6+6+9+9+9+24	6+9+9+9+12+18	9+9+9+9+12+24	
			6+12+18	9+12+18	12+18+30	6+6+12+24	6+12+18+18	9+12+12+24		6+6+6+12+24	6+6+12+18+18	6+9+12+12+24	9+9+9+12+24	12+12+12+12+24	6+6+6+6+12+24	6+6+9+9+12+12	6+9+9+9+12+24	9+9+9+12+12+12	
			6+12+24	9+12+24	12+18+36	6+6+18+18	6+12+18+24	9+12+18+18		6+6+6+18+18	6+6+12+18+24	6+9+12+18+18	9+9+9+18+18	12+12+12+18+18	6+6+6+9+9+9	6+6+9+9+12+18	6+9+9+12+12+12	9+9+9+12+12+18	
			6+12+30	9+12+30	18+18+18	6+6+18+24	6+18+18+18	9+12+18+24		6+6+6+18+24	6+6+18+18+18	6+9+12+18+24	9+9+9+18+24		6+6+6+9+9+12	6+6+9+9+12+24	6+9+9+12+12+18	9+9+12+12+12+12	
			6+12+36	9+12+36		6+9+9+9	6+18+18+24	9+18+18+18		6+6+9+9+9	6+6+18+18+24	6+9+18+18+18	9+9+12+12+12		6+6+6+9+9+18	6+6+9+12+12+12	6+9+9+12+12+24	9+9+12+12+12+18	