

technical data

HEAT PUMPS

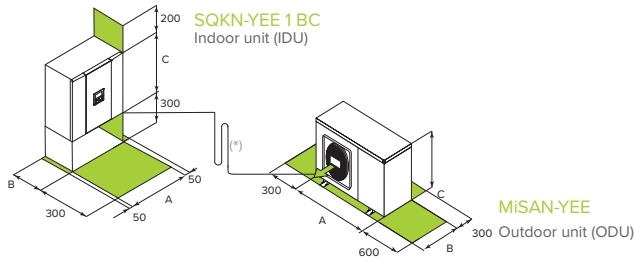
Size (220M)					2.1	3.1	4.1	5.1	6.1	7.1	8.1
Heating	Capacity	Water 35/30°C - Outdoor air 7°C	Nominal / Maximum	kW	4,32 / 6,26	6,18 / 7,41	8,30 / 9,11	10,09 / 10,3	12,13 / 14,60	14,51 / 15,5	16,01 / 16,80
	COP		Nominal	-	5,42	5,21	5,31	5,01	5,00	4,70	4,55
	Capacity	Water 35/30°C - Outdoor air -7°C	Nominal / Maximum	kW	4,17 / 6,25	6,05 / 6,97	7,33 / 8,35	8,20 / 9,30	10,49 / 13,85	12,23 / 14,09	13,43 / 14,33
	COP		Nominal	-	3,16	3,00	3,23	3,07	3,13	2,82	2,74
Cooling	Capacity	Water 45/40°C - Outdoor air 7°C	Nominal / Maximum	kW	4,16 / 5,96	6,03 / 7,13	8,22 / 8,98	10,01 / 10,30	12,30 / 14,50	14,00 / 15,70	16,01 / 16,60
	COP		Nominal	-	3,93	3,83	3,95	3,86	3,80	3,65	3,60
	Capacity	Water 18/23°C - Outdoor air 35°C	Nominal / Maximum	kW	4,55 / 6,88	6,44 / 7,65	8,10 / 11,13	10,00 / 12,03	12,06 / 15,02	13,79 / 15,30	14,84 / 16,38
	EER		Nominal	-	6,08	5,24	5,12	4,77	4,02	3,70	3,65
Electrical power for meter sizing	Capacity	Water 7/12°C - Outdoor air 35°C	Nominal / Maximum	-	4,26 / 6,14	6,25 / 6,39	7,46 / 7,94	8,67 / 9,10	11,16 / 11,80	11,72 / 12,86	12,88 / 14,20
	EER		Nominal	-	3,50	3,09	3,33	3,09	2,75	2,55	2,45
Seasonal efficiency Medium climate	Heating 55°C	Energy class	-	A++	A++	A++	A++	A++	A++	A++	A++
		Annual energy consumption	kWh/year	2.542	3.283	3.824	4.749	6.793	7.380	7.915	
	SCOP	-	3,32	3,54	3,72	3,73	3,56	3,52	3,48		
	ηs (seasonal output)	%	130	138	146	146	139	138	136		
	Heating 35°C	Energy class	-	A+++	A+++	A+++	A+++	A+++	A+++	A+++	A+++
		Annual energy consumption	kWh/year	2.542	3.283	3.824	4.749	6.793	7.380	7.915	
SCOP	-	5,13	5,15	5,32	5,27	5,00	4,91	4,89			
ηs (seasonal output)	%	202	203	210	208	196	193	193			
Indoor unit					A	A	A	A	B	B	B
Power supply	Voltage/Frequency/Phases			V/Hz/n°	230/50/1						
Water flow-rate		Nominal		l/s	0,21	0,30	0,41	0,49	0,57	0,67	0,75
Pump available pressure		Nominal		kPa	31,2	36,5	33,1	31,0	25,7	31,7	22,6
Expansion tank capacity				l	8						
Minimum system water content				l	40				60		
Sound power		Nominal		dB(A)	41						
Sound pressure @1m		Nominal		dB(A)	26						
Outdoor unit					2.1	3.1	4.1	5.1	6.1	7.1	8.1
Power supply	Voltage/Frequency/Phases			V/Hz/n°	230/50/1						
Sound power				dB(A)	55	57	58	60	63	64	66
Sound pressure @1m				dB(A)	42	44	45	47	50	51	53
Operating range											
Water supply temperature	Heating	Minimum / Maximum	°C	25 / 65							
	Cooling	Minimum / Maximum	°C	5 / 25							
Operating range (Outdoor air)	Heating	Minimum / Maximum	°C	-25 / 43							
	Cooling	Minimum / Maximum	°C	-5 / 43							
DHW	Minimum / Maximum	°C	-25 / 43								
Size (400TN)					6.1	7.1	8.1				
Heating	Capacity	Water 35/30°C - Outdoor air 7°C	Nominal / Maximum	kW	12,13 / 14,60	14,51 / 15,5	16,01 / 16,80				
	COP		Nominal	-	5,00	4,70	4,55				
	Capacity	Water 35/30°C - Outdoor air -7°C	Nominal / Maximum	kW	10,49 / 13,85	12,23 / 14,09	13,43 / 14,33				
	COP		Nominal	-	3,13	2,82	2,74				
Cooling	Capacity	Water 45/40°C - Outdoor air 7°C	Nominal / Maximum	kW	12,30 / 14,50	14,00 / 15,70	16,01 / 16,60				
	COP		Nominal	-	3,80	3,65	3,60				
	Capacity	Water 18/23°C - Outdoor air 35°C	Nominal / Maximum	kW	12,06 / 15,02	13,79 / 15,30	14,84 / 16,38				
	EER		Nominal	-	4,02	3,70	3,65				
Electrical power for meter sizing	Capacity	Water 7/12°C - Outdoor air 35°C	Nominal / Maximum	-	11,16 / 11,80	11,72 / 12,86	12,88 / 14,20				
	EER		Nominal	-	2,75	2,55	2,45				
Seasonal efficiency Medium climate	Heating 55°C	Energy class	-	A++	A++	A++					
		Annual energy consumption	kWh/year	6.793	7.380	7.915					
	SCOP	-	3,56	3,52	3,48						
	ηs (seasonal output)	%	139	138	136						
	Heating 35°C	Energy class	-	A+++	A+++	A+++					
		Annual energy consumption	kWh/year	6.793	7.380	7.915					
SCOP	-	5,00	4,91	4,89							
ηs (seasonal output)	%	196	193	193							
Indoor unit					B	B	B				
Power supply	Voltage/Frequency/Phases			V/Hz/n°	230/50/1						
Water flow-rate		Nominal		l/s	0,57	0,67	0,75				
Pump available pressure		Nominal		kPa	25,7	31,7	22,6				
Expansion tank capacity				l	8						
Minimum system water content				l	60						
Sound power		Nominal		dB(A)	41						
Sound pressure @1m		Nominal		dB(A)	26						
Outdoor unit					6.1	7.1	8.1				
Power supply	Voltage/Frequency/Phases			V/Hz/n°	400/50/3+N						
Sound power				dB(A)	63	64	66				
Sound pressure @1m				dB(A)	50	51	53				
Operating range											
Water supply temperature	Heating	Minimum / Maximum	°C	25 / 65							
	Cooling	Minimum / Maximum	°C	5 / 25							
Operating range (Outdoor air)	Heating	Minimum / Maximum	°C	-25 / 43							
	Cooling	Minimum / Maximum	°C	-5 / 43							
DHW	Minimum / Maximum	°C	-25 / 43								

Data according to EN 14511:2018 and EN 14825:2016

The Product complies with the European ErP Directive (EU Regulations UE 811/2013 - 813/2013 - 2016/2281)



dimensions and connections



For trouble-free operation of the unit it is essential to maintain the safety distances indicated by the green areas.

(*) Water and gas connections

Size				2.1	3.1	4.1	5.1	6.1	7.1	8.1
Dimensions	Indoor unit	Length(A) x Height(C) x Depth(B)		547x604x386						
	Outdoor unit	Length(A) x Height(C) x Depth(B)		986 x 712 x 426		1.104 x 866 x 523			1.104 x 866 x 523	
Weight	Indoor unit				52			54		
	Outdoor unit			58		77		112		
Max / min equivalent length		L	m	30 / 2						
Max difference in level ODU / IDU		H	m	25						
Refrigerant precharge			kg/m	1,5 / 15		1,65 / 15		1,84 / 15		
			CO ₂ tons	1,05		1,11		1,24		
Additional refrigerant charge ²			g/m	20						
External diameters	Refrigerant pipe	Liquid	inch	1/4"				3/8"		
		Gas	inch			5/8"				
	Indoor unit	Water (System)	inch			1"				
		Water (DHW)	inch			3/4"				

(1) Check in the manual if the indoor unit requires a minimum installation surface

system diagrams

