HP				4.0 HP	5.0 HP	6.0 HP	8.0 HP	10.0 HP
Outdoor unit model				RAS-4WH(V)NPE	RAS-5WH(V)NPE	RAS-6WH(V)NPE	RAS-8WHNPE	RAS-10WHNPE
Indoor unit model				RWM-4.0N1E	RWM-5.0N1E	RWM-6.0N1E	RWM-8.0N1E	RWM-10.0N1E
OAT (DB/WB)	WIT / WOT	-	Unit	Heating operation				
7 / 6 °C	30 / 35 °C	CAP (Min./Nom./Max.)	kW	4.3 / 11.0 / 15.2	4.8 / 14.0 / 16.7	5.5 / 16.0 / 17.8	9.0 / 20.0 / 25.5	10.0 / 24.0 / 32.0
		COP (Nom.)	-	5.00	4.71	4.57	4.30	4.29
	47 / 55 °C	CAP (Nom./Max.)	kW	11.0 / 13.5	14.0 / 15.2	16.0 / 17.0	20.0 / 24.0	24.0 / 25.5
		COP (Nom.)	-	3.00	2.80	2.50	2.72	2.65
2 / 1 °C	* / 35 °C	CAP (Nom.)	kW	9.50	10.5	11.1	12.3	13.0
		COP (Nom.)	-	3.61	3.55	3.41	3.41	3.31
-7 / -8 °C	30 / 35 °C	CAP (Nom./Max.)	kW	9.7 / 10.6	11.5 / 12.0	12.0 / 13.0	14.2 / 17.9	16.5 / 21.0
		COP (Nom.)	-	2.74	2.65	2.57	2.57	2.46
	47 / 55 °C	CAP (Nom./Max.)	kW	8.7 / 9.7	9.7 / 11.2	10.5 / 12.0	12.5 / 14.5	15.5 / 17.3
		COP (Nom.)	-	1.78	1.85	1.75	1.70	1.50

OAT (DB/WB)	WIT / WOT	-	Unit	Cooling operation (Using cooling kit accessory)				
35 / -- °C	12 / 7 °C	CAP (Nom./Max.)	kW	7.2 / 11.8	9.5 / 12.6	10.5 / 13.7	14.0 / 16.4	17.5 / 20.6
		EER (Nom.)	-	3.54	3.40	3.23	3.12	2.81
	23 / 18 °C	CAP (Nom./Max.)	kW	10.4 / 15.0	12.9 / 16.0	13.5 / 17.5	17.0 / 23.5	20.0 / 27.0
		EER (Nom.)	-	4.50	4.48	4.23	3.81	3.61

NOTE

**: The test is performed with the fixed flow rate or with the ΔT obtanied during the test at the corresponding standard rating conditions for units with variable flow rate.*

◆ YUTAKI S Combi

HP				2.0 HP	2.5 HP	3.0 HP
Outdoor unit model				RAS-2WHVRP1	RAS-2.5WHVRP1	RAS-3WHVRP1
Indoor unit model				RWD-2.0RW1E-220S(-K)	RWD-2.5RW1E-220S(-K)	RWD-3.0RW1E-220S(-K)
OAT (DB/WB)	WIT / WOT	-	Unit	Heating operation		
7 / 6 °C	30 / 35 °C	CAP (Min./Nom./Max.)	kW	1.85 / 4.30 / 6.50	1.8 / 6.00 / 8.60	2.1 /8.00 / 11.0
		COP (Nom.)	-	5.25	4.80	4.60
	47 / 55 °C	CAP (Nom./Max.)	kW	4.30 / 6.00	6.00 / 7.00	8.00 / 9.00
		COP (Nom.)	-	3.00	2.85	2.80
2 / 1 °C	* / 35 °C	CAP (Nom.)	kW	3.50	4.50	5.50
		COP (Nom.)	-	4.00	3.65	3.53
-7 / -8 °C	30 / 35 °C	CAP (Nom./Max.)	kW	4.50 / 5.30	5.30 / 6.20	5.80 / 7.50
		COP (Nom.)	-	2.8	2.70	2.70
	47 / 55 °C	CAP (Nom./Max.)	kW	4.00 / 4.20	4.7 / 5.00	5.00 / 5.50
		COP (Nom.)	-	2.00	1.80	1.75

OAT (DB/WB)	WIT / WOT	-	Unit	Cooling operation (Using cooling kit accessory)		
35 / -- °C	12 / 7 °C	CAP (Nom./Max.)	kW	4.00 / 5.00	5.30 / 6.00	6.50 / 7.00
		EER (Nom.)	-	4.00	3.60	3.35
	23 / 18 °C	CAP (Nom./Max.)	kW	5.50 / 6.40	6.30 / 7.20	7.00 / 9.00
		EER (Nom.)	-	5.40	5.30	4.80

RAS-(8-10)WHNPE + RWM-(8.0-10.0)N1E

Model				HP	8.0 HP		10 HP	
				Outdoor unit	RAS-8WHNPE		RAS-10WHNPE	
				Indoor unit	RWM-8.0N1E		RWM-10.0N1E	
Water outlet temperature					35ºC	55ºC	35ºC	55ºC
Product description	Air to water heat pump			-	Yes			
	Heat pump combination heater			-	No			
	Low temperature heat pump			-	No			
	Complementary heater			-	Yes			
Design capacity (P_{DESIGN})				kW	18.0	16.0	20.0	18.0
Nominal energy efficiency (η_S)				%	150 (152)	120 (122)	141 (142)	116 (118)
Nominal energy class				-	A++	A+	A+	A+
Data for Packaged Fiche:								
	Energy efficiency with OTC control (η_S) (*)			%	152 (154)	122 (124)	143 (144)	118 (120)
	Energy class with OTC control			-	A++	A+	A+	A+
	Energy efficiency with thermostats/sensors (η_S) (*)			%	153 (155)	123 (125)	144 (145)	119 (121)
	Energy class with thermostats			-	A++	A+ (A++)	A+	A+
Supplementary capacity (P_{SUP})				kW	2.0	3.9	2.0	4.0
Type of energy used				-	Electricity			
Declared capacity (Pdh) and coefficient of performance (COP_d) at partial load under the following outdoor temperatures:								
	Outdoor temperature (Tj) = -7ºC	Pdh		kW	15.60	13.80	17.40	15.60
		COP_d		-	2.50	1.65	2.30	1.65
	Outdoor temperature (Tj) = +2ºC	Pdh		kW	9.50	8.40	10.77	9.50
		COP_d		-	3.85	3.10	3.60	3.10
	Outdoor temperature (Tj) = +7ºC	Pdh		kW	6.10	6.00	8.70	8.30
		COP_d		-	5.40	4.76	5.10	4.35
	Outdoor temperature (Tj) = +12ºC	Pdh		kW	7.00	6.80	8.70	8.50
		COP_d		-	4.65	5.10	4.90	4.60
	Outdoor temperature (Tj) = Bivalent temperature (T_{biv})	Pdh		kW	15.60	13.80	17.40	15.60
		COP_d		-	2.50	1.65	2.30	1.65
	Outdoor temperature (Tj) = Limit operation temperature (TOL)	Pdh		kW	16.00	12.10	18.00	14.00
		COP_d		-	2.40	1.50	2.10	1.45
Bivalent temperature (T_{biv})				ºC	-7	-7	-7	-7
Limit operation temperature (TOL)				ºC	-10	-10	-10	-10
Water limit operation temperature (WTOL)				ºC	55	55	55	55
Degradation coefficient (Cdh)				-	0.9	0.9	0.9	0.9
Annual energy consumption (Q_{HE})				kW·h	9513 (9382)	10452 (10320)	11410 (11278)	12210 (12078)

◆ WARMER climate

RAS-(2-3)WHVRP1 + RWM-(2.0-3.0)R1E

Model	HP		2.0 HP	2.5 HP	3.0 HP
	Outdoor unit		RAS-2WHVRP1	RAS-2.5WHVRP1	RAS-3WHVRP1
	Indoor unit		RWM-2.0R1E	RWM-2.5R1E	RWM-3.0R1E
Design capacity (P_{DESIGN})		kW	4.0	5.0	6.0
(1) Nominal energy efficiency (η_S)		%	185 (194)	182 (189)	170 (175)
Data for Packaged Fiche:					
(2) Energy efficiency with OTC control (η_S) (*)		%	187 (196)	184 (191)	172 (177)
(3) Energy efficiency with thermostats (η_S) (*)		%	188 (197)	185 (192)	173 (178)
Annual energy consumption (Q_{HE})		kW·h	1137 (1084)	1441 (1389)	1857 (1804)

RAS-(4-6)WH(V)NPE + RWM-(4.0-6.0)N1E

Model	HP		4.0 HP	5.0 HP	6.0 HP
	Outdoor unit		RAS-4WHVNPE	RAS-5WHVNPE	RAS-6WHVNPE
	Indoor unit		RWM-4.0N1E	RWM-5.0N1E	RWM-6.0N1E
Design capacity (P_{DESIGN})		kW	10	12	14
(1) Nominal energy efficiency (η_S)		%	193 (198)	183 (186)	177 (180)
Data for Packaged Fiche:					
(2) Energy efficiency with OTC control (η_S) (*)		%	195 (200)	185 (188)	179 (182)
(3) Energy efficiency with thermostats (η_S) (*)		%	196 (201)	186 (189)	180 (183)
Annual energy consumption (Q_{HE})		kW·h	2722 (2664)	3455 (3397)	4149 (4091)

Model	HP		4.0 HP	5.0 HP	6.0 HP
	Outdoor unit		RAS-4WHNPE	RAS-5WHNPE	RAS-6WHNPE
	Indoor unit		RWM-4.0N1E	RWM-5.0N1E	RWM-6.0N1E
Design capacity (P_{DESIGN})		kW	10	12	14
(1) Nominal energy efficiency (η_S)		%	191 (198)	181 (186)	176 (180)
Data for Packaged Fiche:					
(2) Energy efficiency with OTC control (η_S) (*)		%	193 (200)	183 (188)	178 (182)
(3) Energy efficiency with thermostats (η_S) (*)		%	194 (201)	184 (189)	179 (183)
Annual energy consumption (Q_{HE})		kW·h	2748 (2664)	3481 (3397)	4175 (4091)

RAS-(8-10)WHNPE + RWM-(8.0-10.0)N1E

Model	HP		8.0 HP	10.0 HP
	Outdoor unit		RAS-8WHNPE	RAS-10WHNPE
	Indoor unit		RWM-8.0N1E	RWM-10.0N1E
Design capacity (P_{DESIGN})		kW	16	18
(1) Nominal energy efficiency (η_S)		%	178 (181)	173 (178)
Data for Packaged Fiche:				
(2) Energy efficiency with OTC control (η_S) (*)		%	180 (183)	175 (180)
(3) Energy efficiency with thermostats (η_S) (*)		%	181 (184)	176 (181)
Annual energy consumption (Q_{HE})		kW·h	4725 (4641)	5466 (5307)

◆ COLDER climate

RAS-(2-3)WHVRP1 + RWM-(2.0-3.0)R1E

Model	HP		2.0 HP	2.5 HP	3.0 HP
	Outdoor unit		RAS-2WHVRP1	RAS-2.5WHVRP1	RAS-3WHVRP1
	Indoor unit		RWM-2.0R1E	RWM-2.5R1E	RWM-3.0R1E
Design capacity (P_{DESIGN})		kW	4.0	5.0	6.0
(1) Nominal energy efficiency (η_S)		%	123 (125)	122 (123)	118 (118)
Data for Packaged Fiche:					
(2) Energy efficiency with OTC control (η_S) (*)		%	125 (127)	124 (125)	120 (120)
(3) Energy efficiency with thermostats (η_S) (*)		%	126 (128)	125 (126)	121 (121)
Annual energy consumption (Q_{HE})		kW·h	3058 (3031)	4048 (4022)	4910 (4884)

RAS-(4-6)WH(V)NPE + RWM-(4.0-6.0)N1E

Model	HP		4.0 HP	5.0 HP	6.0 HP
	Outdoor unit		RAS-4WHVNPE	RAS-5WHVNPE	RAS-6WHVNPE
	Indoor unit		RWM-4.0N1E	RWM-5.0N1E	RWM-6.0N1E
Design capacity (P_{DESIGN})		kW	11	12	14
(1) Nominal energy efficiency (η_S)		%	120 (121)	119 (119)	112 (113)
Data for Packaged Fiche:					
(2) Energy efficiency with OTC control (η_S) (*)		%	122 (123)	121 (121)	114 (115)
(3) Energy efficiency with thermostats (η_S) (*)		%	123 (124)	122 (122)	115 (116)
Annual energy consumption (Q_{HE})		kW·h	8641 (8612)	9514 (9485)	11620 (11591)

Model	HP		4.0 HP	5.0 HP	6.0 HP
	Outdoor unit		RAS-4WHNPE	RAS-5WHNPE	RAS-6WHNPE
	Indoor unit		RWM-4.0N1E	RWM-5.0N1E	RWM-6.0N1E
Design capacity (P_{DESIGN})		kW	11	12	14
(1) Nominal energy efficiency (η_S)		%	120 (121)	119 (119)	112 (113)
Data for Packaged Fiche:					
(2) Energy efficiency with OTC control (η_S) (*)		%	122 (123)	121 (121)	114 (115)
(3) Energy efficiency with thermostats (η_S) (*)		%	123 (124)	122 (122)	115 (116)
Annual energy consumption (Q_{HE})		kW·h	8654 (8612)	9528 (9485)	11633 (11591)

RAS-(8-10)WHNPE + RWM-(8.0-10.0)N1E

Model	HP		8.0 HP	10.0 HP
	Outdoor unit		RAS-8WHNPE	RAS-10WHNPE
	Indoor unit		RWM-8.0N1E	RWM-10.0N1E
Design capacity (P_{DESIGN})		kW	16	18
(1) Nominal energy efficiency (η_S)		%	109 (110)	107 (107)
Data for Packaged Fiche:				
(2) Energy efficiency with OTC control (η_S) (*)		%	111 (113)	109 (109)
(3) Energy efficiency with thermostats (η_S) (*)		%	112 (114)	110 (110)
Annual energy consumption (Q_{HE})		kW·h	13987 (13945)	15956 (15876)

RAS-(8-10)WHNPE + RWM-(8.0-10.0)N1E

Model		HP	8.0 HP	10.0 HP
		Outdoor unit	RAS-8WHNPE	RAS-10WHNPE
		Indoor unit	RWM-8.0N1E	RWM-10.0N1E
Electrical power input in stand-by mode (Psb)		W	36	36
Electrical power input in thermostat-OFF mode (Pto)		W	0.0	0.0
Electrical power input in OFF mode (Poff)		W	36	36
Electrical power input in crankcase heater mode (Pck)		W	0.0	0.0
Sound power level of indoor unit (L_{WA})		dB(A)	47	47
Sound power level of outdoor unit (L_{WA})		dB(A)	59	60
Capacity control mode		-	Variable (inverter)	
Integrated supplementary heater		kW	9.0	9.0
Nominal outdoor air flow		m^3/h	7620	8040

2.2.2.4 ERP additional data - YUTAKI S Combi

RAS-(2-3)WHVRP1 + RWD-(2.0-3.0)RW1E-220S(-K)

Model		HP	2.0 HP	2.5 HP	3.0 HP
		Outdoor unit	RAS-2WHVRP1	RAS-2.5WHVRP1	RAS-3WHVRP1
		Indoor unit	RWD-2.0RW1E-220S(-K)	RWD-2.5RW1E-220S(-K)	RWD-3.0RW1E-220S(-K)
Electrical power input in stand-by mode (Psb)		W	11.9	11.9	11.9
Electrical power input in thermostat-OFF mode (Pto)		W	0.0	0.0	0.0
Electrical power input in OFF mode (Poff)		W	11.9	11.9	11.9
Electrical power input in crankcase heater mode (Pck)		W	0.0	0.0	0.0
Sound power level of indoor unit (L_{WA})		dB(A)	37	37	37
Sound power level of outdoor unit (L_{WA})		dB(A)	49	54	57
Capacity control mode		-	Variable (Inverter)		
Integrated supplementary heater		kW	3.0	3.0	3.0
Nominal outdoor air flow		m^3/h	2436	2436	2682

RAS-(4-6)WHVNPE + RWD-(4.0-6.0)NW1E-220S(-K)

Model		HP	4.0 HP	5.0 HP	6.0 HP
		Outdoor unit	RAS-4WHVNPE	RAS-5WHVNPE	RAS-6WHVNPE
		Indoor unit	RWD-4.0NW1E-220S(-K)	RWD-5.0NW1E-220S(-K)	RWD-6.0NW1E-220S(-K)
Electrical power input in stand-by mode (Psb)		W	13.1	13.1	13.1
Electrical power input in thermostat-OFF mode (Pto)		W	0.0	0.0	0.0
Electrical power input in OFF mode (Poff)		W	13.1	13.1	13.1
Electrical power input in crankcase heater mode (Pck)		W	0.0	0.0	0.0
Sound power level of indoor unit (L_{WA})		dB(A)	39	39	39
Sound power level of outdoor unit (L_{WA})		dB(A)	58	59	60
Capacity control mode		-	Variable (Inverter)		
Integrated supplementary heater		kW	6.0	6.0	6.0
Nominal outdoor air flow		m^3/h	4800	5400	6000

RAS-(8-10)WHNPE + RWM-(8.0-10.0)N1E

Model			Outdoor unit		RAS-8WHNPE		RAS-10WHNPE	
			Indoor unit		RWM-8.0N1E		RWM-10.0N1E	
Water outlet temperature					7ºC	18ºC	7ºC	18ºC
Product description	Outdoor side heat exchanger of chiller			-	Air to Water		Air to Water	
	Indoor side heat exchanger chiller			-	Water		Water	
	Type			-	Compressor driven vapour compression		Compressor driven vapour compression	
	Driver of compressor			-	Electric motor		Electric motor	
	Capacity Control				Variable		Variable	
	Water control				Fixed		Fixed	
Rated Cooling Capacity (PRATED,C)				kW	14	17	17.5	20
Seasonal space cooling energy efficiency (ηS,C)				%	169	213	159	215
Seasonal energy efficiency ratio cooling mode (SEER)				-	4.29	5.4	4.06	5.44
Seasonal active energy ratio cooling mode (SEERON)				-	4.6	5.8	4.28	5.79
Declared cooling capacity and efficiency ratio for part load at given outdoor temperatures Tj								
	Outdoor temperature (Tj) = 35ºC		Pdc	kW	14	17	17.5	20
			EERd	-	3.12	3.81	2.81	3.61
	Outdoor temperature (Tj) = 30ºC		Pdc	kW	10.32	12.53	12.9	14.74
			EERd	-	3.92	5.6	3.53	5.5
	Outdoor temperature (Tj) = 25ºC		Pdc	kW	6.5	8.2	8.2	8.2
			EERd	-	5.3	6.5	4.87	6.5
	Outdoor temperature (Tj) = 20ºC		Pdc	kW	8	8.5	8	8.5
			EERd	-	5.8	6.6	5.5	6.6
Degradation coefficient (Cdc)				-	0.9	0.9	0.9	0.9
Annual energy consumption (QCE)				kW·h	1142	1102	1510	1286

RAS-(4-6)WH(V)NPE + RWM-(4.0-6.0)N1E

Model	Outdoor unit		RAS-4WHVNPE	RAS-5WHVNPE	RAS-6WHVNPE
	Indoor unit		RWM-4.0N1E	RWM-5.0N1E	RWM-6.0N1E
Electrical power input in stand-by mode cooling mode (Psb)		W	13.1	13.1	13.1
Electrical power input in thermostat-OFF cooling mode (Pto)		W	0.0	0.0	0.0
Electrical power input in OFF mode (Poff)		W	13.1	13.1	13.1
Electrical power input in crankcase heater in cooling mode (Pck)		W	0.0	0.0	0.0
Sound power level of indoor unit (LWA)		dB(A)	39	39	39
Sound power level of outdoor unit (LWA)		dB(A)	58	59	60
Capacity control mode		-	Variable (Inverter)	Variable (Inverter)	Variable (Inverter)
Nominal outdoor air flow		m^3/h	4800	5400	6000

RAS-(4-6)WH(V)NPE + RWM-(4.0-6.0)N1E

Model	Outdoor unit		RAS-4WHNPE	RAS-5WHNPE	RAS-6WHNPE
	Indoor unit		RWM-4.0N1E	RWM-5.0N1E	RWM-6.0N1E
Electrical power input in stand-by mode cooling mode (Psb)		W	19.1	19.1	19.1
Electrical power input in thermostat-OFF cooling mode (Pto)		W	0.0	0.0	0.0
Electrical power input in OFF mode (Poff)		W	19.1	19.1	19.1
Electrical power input in crankcase heater in cooling mode (Pck)		W	0.0	0.0	0.0
Sound power level of indoor unit (LWA)		dB(A)	39	39	39
Sound power level of outdoor unit (LWA)		dB(A)	58	59	60
Capacity control mode		-	Variable (Inverter)	Variable (Inverter)	Variable (Inverter)
Nominal outdoor air flow		m^3/h	4800	5400	6000

RAS-(8-10)WHNPE + RWM-(8.0-10.0)N1E

Model	Outdoor unit		RAS-8WHNPE	RAS-10WHNPE
	Indoor unit		RWM-8.0N1E	RWM-10.0N1E
Electrical power input in stand-by mode cooling mode (Psb)		W	36	36
Electrical power input in thermostat-OFF cooling mode (Pto)		W	0.0	0.0
Electrical power input in OFF mode (Poff)		W	36	36
Electrical power input in crankcase heater in cooling mode (Pck)		W	0.0	0.0
Sound power level of indoor unit (LWA)		dB(A)	47	47
Sound power level of outdoor unit (LWA)		dB(A)	73	74
Capacity control mode		-	Variable (Inverter)	Variable (Inverter)
Nominal outdoor air flow		m^3/h	7620	8040

RAS-(8-10)WHNPE

Model			RAS-8WHNPE	RAS-10WHNPE
Power supply		-	3N~ 400V 50Hz	
Noise level (sound pressure)		dB(A)	59	60
Noise level (sound power)	(*1)	dB(A)	73	74
	(*2)		71	72
Air flow		m^3/min	127	134
Cabinet colour (Munsell code)		-	Natural grey (1.0Y 8.5/0.5)	
Dimensions (H x W x D)		mm	1380 x 950 x 370	
Net weight		kg	137	139
Gross weight		kg	152	154
Piping diameter (liquid / gas)		mm (in.)	Ø9.52 (3/8) / Ø25.4 (1)	Ø12.70 (1/2) / Ø25.4 (1)
Minimum piping length		m	5	
Maximum chargeless piping length		m	15	
Maximum piping length (additional refrigerant charge needed)		m (g/m)	70 (65)	
Height difference between OU and IU (higher OU / lower OU)		m	30 / 20	
Refrigerant		-	R410A	
Refrigerant charge before shipment		kg	5.0	5.3
Compressor type		-	Scroll DC Inverter driven	