

TECHNICAL DATA

MODEL	012 M1 S					018 M1 S					
SIZE	E1					E2					
VERSION (1)	U / O					U / O					
COOLING CAPACITY (2)	100%	80%	60%	40%	30%	100%	80%	60%	40%	30%	
Total	kW	11	8,8	6,6	4,4	3,37	23	18,4	13,8	9,2	6,88
Sensible	kW	11	8,54	6,59	4,4	3,36	20,8	16,8	12,7	8,61	6,87
SHR (3)		1	0,97	1	1	1	0,9	0,91	0,92	0,93	1
Total power input (Comp. + Fans)	kW	2,37	1,54	0,99	0,58	0,4	5,82	4,09	2,72	1,58	1,17
Condenser water flow rate	m ³ /h	2,26	--	--	--	--	4,89	--	--	--	--
Condenser pressure drop	kPa	27,9	--	--	--	--	45,5	--	--	--	--
"EC" SUPPLY FANS	n.	1					1				
Air flow	m ³ /h	2800	2425	2050	1675	1500	4100	3358	2616	1874	1500
Nominal external static pressure	Pa	20	20	20	20	20	20	20	20	20	20
Maximum external static pressure	Pa	83	--	--	--	--	314	--	--	--	--
Power input (4)	kW	0,28	0,18	0,12	0,09	0,07	0,52	0,35	0,21	0,12	0,08
COMPRESSORS		Rotary					Scroll				
BLDC compressors	n.	1					1				
On/Off compressors	n.	0					0				
Cooling Capacity Control		Modulating					Modulating				
Compressors power input	kW	2,34	1,36	0,87	0,49	0,33	5,3	3,74	2,51	1,46	1,09
WATER COOLED CONDENSER	n.	1					1				
Water volume	l	1,1					1,1				
Max water flow rate	m ³ /h	5,7					6,4				
AIR FILTERS	n.	1					1				
Filtering surface	m ²	0,6					0,8				
Efficiency		G4					G4				
REFRIGERANT	n.	1					1				
Refrigerant circuit x Refrigerant charge (5)	n x kg	1x3,2					1x3,8				
HFC R410A - F Gas - CO ₂ equivalent	t	6,7					7,9				
POWER SUPPLY	V/Ph/Hz	400/3+N/50					400/3+N/50				
ENERGY EFFICIENCY INDEXES (2)											
EER - Energy Efficiency Ratio	kW/kW	4,64	5,71	6,67	7,59	8,42	3,95	4,5	5,07	5,82	5,88
DIMENSIONS											
Length	mm	650					785				
Width	mm	675					675				
Height	mm	1925					1925				
NET WEIGHT Over	kg	230					280				
NET WEIGHT Under	kg	240					290				
CONNECTIONS ISO 228/1-G											
Condenser water inlet/outlet	M Ø	1"					1"				
HYDRAULIC CONNECTIONS											
CONDENSATE DISCHARGE											
Rubber pipe – internal diameter	Ø mm	19					19				

THE COOLING CAPACITY DOES NOT CONSIDER THE SUPPLY FAN MOTOR THERMAL LOAD

1. U = Under, downflow / O = Over, upflow
2. Gross value. Characteristics referred to entering air at 26°C-40%UR; water to the condenser 30-35°C; ESP=20Pa.
3. SHR = Sensible cooling capacity / Total cooling capacity.
4. Corresponding to the nominal external static pressure.
5. **The air conditioner is supplied with R410A refrigerant charge.** Unit refrigerant charge optional excluded. For air conditioners with double refrigerant circuit is indicated the number of circuits x the charge of a single circuit.

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TECHNICAL DATA

MODEL	022 M1 S					030 M1 S					
SIZE											
VERSION (1)											
COOLING CAPACITY (2)		100%	80%	100%	80%	100%	80%	100%	80%	80%	
Total	kW	25,4	20,3	25,4	20,3	25,4	20,3	25,4	20,3	20,3	
Sensible	kW	24,8	19,5	24,8	19,5	24,8	19,5	24,8	19,5	19,5	
SHR (3)		0,97	0,96	0,97	0,96	0,97	0,96	0,97	0,96	0,96	
Total power input (Comp. + Fans)	kW	5,89	4,2	5,89	4,2	5,89	4,2	5,89	4,2	4,2	
Condenser water flow rate	m ³ /h	5,29	--	5,29	--	5,29	--	5,29	--	--	
Condenser pressure drop	kPa	33,2	--	33,2	--	33,2	--	33,2	--	--	
"EC" SUPPLY FANS	n.										
Air flow	m ³ /h	5500	4432	5500	4432	5500	4432	5500	4432	4432	
Nominal external static pressure	Pa	20	20	20	20	20	20	20	20	20	
Maximum external static pressure	Pa	860	--	--	--	--	219	--	--	--	
Power input (4)	kW	0,72	0,39	0,72	0,39	0,72	0,39	0,72	0,39	0,39	
COMPRESSORS		Scroll					Scroll				
BLDC compressors	n.	1					1				
On/Off compressors	n.	0					0				
Cooling Capacity Control		Modulating					Modulating				
Compressors power input	kW	5,17	3,82	5,17	3,82	5,17	3,82	5,17	3,82	3,82	
WATER COOLED CONDENSER	n.	1					1				
Water volume	l	1,9					3,7				
Max water flow rate	m ³ /h	6,9					11,2				
AIR FILTERS	n.	2					2				
Filtering surface	m ²	1,2					2,1				
Efficiency		G4					G4				
REFRIGERANT	n.	1					1				
Refrigerant circuit x Refrigerant charge (5)	n x kg	1x4,6					1x6,8				
HFC R410A - F Gas - CO ₂ equivalent	t	9,6					14,2				
POWER SUPPLY	V/Ph/Hz	400/3+N/50					400/3+N/50				
ENERGY EFFICIENCY INDEXES (2)											
EER - Energy Efficiency Ratio	kW/kW	4,31	4,83	4,31	4,83	4,31	4,83	4,31	4,83	4,83	
DIMENSIONS											
Length	mm	1085					1630				
Width	mm	775					930				
Height	mm	1925					1980				
NET WEIGHT Over	kg	325					480				
NET WEIGHT Under	kg	345					490				
CONNECTIONS ISO 228/1-G											
Condenser water inlet/outlet	M Ø	1 1/4"					1 1/2"				
HYDRAULIC CONNECTIONS											
CONDENSATE DISCHARGE											
Rubber pipe – internal diameter	Ø mm	19					19				

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5. **The air conditioner is supplied with R410A refrigerant charge.** Unit refrigerant charge optional excluded. For air conditioners with double refrigerant circuit is indicated the number of circuits x the charge of a single circuit.

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TECHNICAL DATA

MODEL	047 M1 S					042 M2 D					
SIZE	E5					E5					
VERSION (1)	U / O					U / O					
COOLING CAPACITY (2)	100%	80%	60%	40%	30%	100%	80%	60%	40%	30%	
Total	kW	56,2	45	33,7	22,5	17,9	51,8	41,4	31,1	20,7	15,9
Sensible	kW	54,3	45	33,7	22,5	17,9	51,7	41,4	31,1	20,7	15,9
SHR (3)		0,97	1	1	1	1	1	1	1	1	1
Total power input (Comp. + Fans)	kW	14,1	9,47	5,94	3,36	2,43	12,7	8,72	5,47	3,12	2,3
Condenser water flow rate	m ³ /h	11,77	--	--	--	--	10,76	--	--	--	--
Condenser pressure drop	kPa	50,7	--	--	--	--	23,1	--	--	--	--
"EC" SUPPLY FANS	n.	1					1				
Air flow	m ³ /h	12000	9858	7715	5573	4700	12000	9893	7787	5680	4700
Nominal external static pressure	Pa	20	20	20	20	20	20	20	20	20	20
Maximum external static pressure	Pa	217	--	--	--	--	217	--	--	--	--
Power input (4)	kW	2,27	1,4	0,76	0,34	0,23	2,27	1,4	0,76	0,35	0,23
COMPRESSORS		Scroll					Scroll				
BLDC compressors	n.	1					2				
On/Off compressors	n.	0					0				
Cooling Capacity Control		Modulating					Modulating				
Compressors power input	kW	11,9	8,07	5,18	3,02	2,2	10,5	7,31	4,7	2,77	2,07
WATER COOLED CONDENSER	n.	1					1				
Water volume	l	3,7					3,4				
Max water flow rate	m ³ /h	15,4					14				
AIR FILTERS	n.	3					3				
Filtering surface	m ²	2,6					2,59				
Efficiency		G4					G4				
REFRIGERANT	n.	1					2				
Refrigerant circuit x Refrigerant charge (5)	n x kg	1x9,9					2x4,7				
HFC R410A - F Gas - CO ₂ equivalent	t	20,7					19,6				
POWER SUPPLY	V/Ph/Hz	400/3+N/50					400/3+N/50				
ENERGY EFFICIENCY INDEXES (2)											
EER - Energy Efficiency Ratio	kW/kW	3,99	4,75	5,67	6,7	7,37	4,08	4,75	5,69	6,63	6,91
DIMENSIONS											
Length	mm	1955					1955				
Width	mm	930					930				
Height	mm	1980					1980				
NET WEIGHT Over	kg	580					610				
NET WEIGHT Under	kg	590					620				
CONNECTIONS ISO 228/1-G											
Condenser water inlet/outlet	M Ø	2"					2"				
HYDRAULIC CONNECTIONS											
CONDENSATE DISCHARGE											
Rubber pipe – internal diameter	Ø mm	19					19				

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TECHNICAL DATA

MODEL	068 M2 D					094 M2 D					
SIZE	E7					E8					
VERSION (1)	U / O					U / O					
COOLING CAPACITY (2)	100%	80%	60%	40%	30%	100%	80%	60%	40%	30%	
Total	kW	82,5	66	49,5	33	24,7	110	88	66	44	34,4
Sensible	kW	82,5	65,9	49,2	32,9	24,7	103	83,7	62,5	42,1	34,4
SHR (3)		1	1	0,99	1	1	0,93	0,95	0,94	0,95	1
Total power input (Comp. + Fans)	kW	19,8	13,6	8,8	5,16	3,63	27,4	18,4	11,6	6,63	4,75
Condenser water flow rate	m ³ /h	17,13	--	--	--	--	23,11	--	--	--	--
Condenser pressure drop	kPa	28,9	--	--	--	--	33,1	--	--	--	--
"EC" SUPPLY FANS	n.	2					2				
Air flow	m ³ /h	20000	15946	11893	7839	5800	22000	17926	13852	9778	8000
Nominal external static pressure	Pa	20	20	20	20	20	20	20	20	20	20
Maximum external static pressure	Pa	474	--	--	--	--	388	--	--	--	--
Power input (4)	kW	3,37	1,87	0,9	0,34	0,23	3,72	2,22	1,08	0,5	0,35
COMPRESSORS		Scroll					Scroll				
BLDC compressors	n.	2					2				
On/Off compressors	n.	0					0				
Cooling Capacity Control		Modulating					Modulating				
Compressors power input	kW	16,4	11,7	7,91	4,83	3,4	23,7	16,2	10,5	6,12	4,4
WATER COOLED CONDENSER	n.	1					1				
Water volume	l	5,6					7,4				
Max water flow rate	m ³ /h	22,4					30				
AIR FILTERS	n.	4					5				
Filtering surface	m ²	3,83					4,47				
Efficiency		G4					G4				
REFRIGERANT	n.	2					2				
Refrigerant circuit x Refrigerant charge (5)	n x kg	2x6,9					2x10,1				
HFC R410A - F Gas - CO ₂ equivalent	t	28,8					41,2				
POWER SUPPLY	V/Ph/Hz	400/3+N/50					400/3+N/50				
ENERGY EFFICIENCY INDEXES (2)											
EER - Energy Efficiency Ratio	kW/kW	4,17	4,85	5,62	6,4	6,8	4,01	4,78	5,69	6,64	7,24
DIMENSIONS											
Length	mm	2499					2899				
Width	mm	930					930				
Height	mm	1980					1980				
NET WEIGHT Over	kg	730					900				
NET WEIGHT Under	kg	785					960				
CONNECTIONS ISO 228/1-G											
Condenser water inlet/outlet	M Ø	2 1/2"					2 1/2"				
HYDRAULIC CONNECTIONS											
CONDENSATE DISCHARGE											
Rubber pipe – internal diameter	Ø mm	19					19				

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TECHNICAL DATA

MODEL	120 M4 D					150 M4 D					
SIZE	E9					E9					
VERSION (1)	U					U					
COOLING CAPACITY (2)	100%	80%	60%	40%	30%	100%	80%	60%	40%	30%	
Total	kW	116	92,8	69,6	46,4	31,9	140	112	84	56	32,8
Sensible	kW	116	92,7	69,5	46,4	31,9	140	112	84	56	32,8
SHR (3)		1	1	1	1	1	1	1	1	1	1
Total power input (Comp. + Fans)	kW	28,2	19,2	12,4	7,84	4,49	37,8	25	16	9,33	4,69
Condenser water flow rate	m ³ /h	24,26	--	--	--	--	29,8	--	--	--	--
Condenser pressure drop	kPa	32,3	--	--	--	--	49,8	--	--	--	--
"EC" SUPPLY FANS	n.	2					2				
Air flow	m ³ /h	28000	22621	17241	11862	8500	32000	25862	19724	13586	8500
Nominal external static pressure	Pa	20	20	20	20	20	20	20	20	20	20
Maximum external static pressure	Pa	572	--	--	--	--	362	--	--	--	--
Power input (4)	kW	4,2	2,46	1,29	0,6	0,33	5,99	3,46	1,77	0,78	0,33
COMPRESSORS		Scroll					Scroll				
BLDC compressors	n.	2					2				
On/Off compressors	n.	0					0				
Cooling Capacity Control		Modulating					Modulating				
Compressors power input	kW	24	16,7	11,1	7,24	4,16	31,8	21,5	14,2	8,56	4,36
WATER COOLED CONDENSER	n.	1					1				
Water volume	l	12					12				
Max water flow rate	m ³ /h	42					42				
AIR FILTERS	n.	6					6				
Filtering surface	m ²	5,24					5,24				
Efficiency		G4					G4				
REFRIGERANT	n.	2					2				
Refrigerant circuit x Refrigerant charge (5)	n x kg	2x10,8					2x10,8				
HFC R410A - F Gas - CO ₂ equivalent	t	45,1					45,1				
POWER SUPPLY	V/Ph/Hz	400/3+N/50					400/3+N/50				
ENERGY EFFICIENCY INDEXES (2)											
EER - Energy Efficiency Ratio	kW/kW	4,11	4,83	5,61	5,92	7,1	3,7	4,48	5,25	6	6,99
DIMENSIONS											
Length	mm	3299					3299				
Width	mm	930					930				
Height	mm	1980					1980				
NET WEIGHT Over	kg	--					--				
NET WEIGHT Under	kg	1100					1125				
CONNECTIONS ISO 228/1-G											
Condenser water inlet/outlet	M Ø	3"					3"				
HYDRAULIC CONNECTIONS											
CONDENSATE DISCHARGE											
Rubber pipe – internal diameter	Ø mm	19					19				

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