

TECHNICAL SELECTION

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i-MTR2-G02-M0 O 012 E2

FULL INVERTER direct expansion air conditioners. Ideal for metrological rooms and laboratories, for combination with remote air-cooled condenser



R HFC R-410A

SCROLL

Model	i-MTR2-G02-M0 O 012 E2		
Version	O		
Frame	E2		
Primary circuit type	DIRECT EXPANSION AIR COOLED		
No. Circuits	N°	1	
Refrigerant	R410A		

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R HFC R-410A



1.1 INDOOR UNIT

MAIN CIRCUIT

DESIGN CONDITIONS

Dry bulb temperature	°C	16,0
Relative humidity	%	40
Altitude	m	0
Air flow	m³/h	3700
ESP External Static Pressure	Pa	20
Outdoor air temperature	°C	35,0
Coil working pressure		-

PERFORMANCE AT DESIGN CONDITIONS

Total cooling capacity gross	kW	9,33
Sensible cooling capacity gross	kW	9,33
Net cooling capacity	kW	8,87
Net sensible cooling capacity	kW	8,87
SHR		1,00
EER (Indoor unit)	kW/kW	3,00
Total power input (Comp.+fans)	kW	3,11
Leaving air temperature	°C	9,0
Leaving air relative humidity	%	63
Modulation cooling capacity		0-100%
Effective heat exchange area		-

PERFORMANCE AT MINIMUM SPEED COMPRESSOR

Total cooling capacity gross	kW	3,22
Sensible cooling capacity gross	kW	3,22
Net cooling capacity	kW	3,14
Net sensible cooling capacity	kW	3,14
SHR		1,00
EER (Indoor unit)	kW/kW	4,88
Total power input (Comp.+fans)	kW	0,66
Leaving air temperature	°C	9,5
Leaving air relative humidity	%	61
Air flow	m³/h	1400

MODULATING HOT GAS COIL

Reheating capacity	kW	9,33
Leaving air temperature	°C	16,2
Leaving air relative humidity	%	40



PARTIAL LOADS WITH COMPRESSOR MODULATION

Load	%	100	80	60	40	20
Outdoor air temperature	°C	35,0	35,0	35,0	35,0	35,0
Air flow	m³/h	3700	2998	2296	1594	-
Total cooling capacity gross	kW	9.33	7.46	5.60	3.73	-
Sensible cooling capacity gross	kW	9.33	7.46	5.60	3.73	-
Net cooling capacity	kW	8.87	7.17	5.42	3.64	-
Net sensible cooling capacity	kW	8.87	7.17	5.42	3.64	-
Compressors power absorption	kW	2.65	1.85	1.23	0.71	-
Fans power input	kW	0.46	0.29	0.18	0.09	-
Total power input (Comp.+fans)	kW	3.11	2.15	1.40	0.81	-
Condensing temperature	°C	46.8	44.5	42.4	40.4	-
Leaving air temperature	°C	8.7	8.8	8.9	9.4	-
EER (Indoor unit)	kW/kW	3.00	3.48	3.99	4.62	-

COMPRESSORS

Compressor type		SCROLL
Compressors nr.	N°	1
Compressors power absorption	kW	2,65

FANS

Fans type		EC BASIC
Quantity	N°	1
Air flow	m³/h	3700
Fans power input	kW	0,46
Static pressure maximum attainable	Pa	375
SPF (Specific Power Factor)	W / l/s	0,45

ACCESSORIES

HUMIDIFIER

Humidifier type		Humidifier 5 kg/h
Quantity	N°	1
Capacity	kg/h	5,0
Electrical power abs.	kW	3,75
Max absorbed current (FLA)	A	5,50
Power supply	V/ph/Hz	400/3/50

ELECTRICAL HEATER

Heater description		Basic electric heater 6 kW
Quantity	N°	1
Steps	N°	2
Electrical power abs.	kW	6,00
Max absorbed current (FLA)	A	8,70
Power supply	V/ph/Hz	400/3+N/50

FILTERS

Accessory filter type		COARSE 60% (ISO EN 16890)
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NOISE DATA

Spectrum	Hz	63	125	250	500	1000	2000	4000	8000	Tot
		dB	dB	dB	dB	dB	dB	dB	dB	dB(A)
Sound Power		60	62	61	61	57	58	50	41	64
Total sound Pressure		40	42	41	41	37	38	30	21	44
Distance	m	2								

Note

Note

Average sound pressure level, at 2 m distance, unit in a free field on a reflective surface according to ISO3744. Non-binding value obtained from the sound power level.

WEIGHT & DIMENSIONS

A	mm	785
B	mm	675
H	mm	1925
Weight	kg	278

ELECTRICAL DATA (refer to indoor unit)

Power supply	V/ph/Hz	400/3+N/50
Max Electrical power absorbed (FLI)	kW	15,5
Max absorbed current (FLA)	A	28,4
Max inrush current (SA)	A	10,2
Power input (OI)	kW	3,11

1.2 REMOTE CONDENSER

MAIN CIRCUIT

REMOTE CONDENSER

Code		GR2-TF-SL-E 019
Quantity	N°	1
Version		SL-E
Circuits	N°	1
Outdoor air temperature	°C	35,0
Condensing temperature	°C	46,8
Air flow	m³/h	6370
Rejection capacity	kW	11,8

FANS

Fans power input	kW	0,14
Quantity	N°	1
Project pressure	Pa	0

The performance shown are obtained from theoretical calculations and tolerances will apply.Rpt.version:1.0.7.0



WEIGHT & DIMENSIONS

Dimension A	mm	1150
Dimension B	mm	718
Dimension H	mm	900
Weight	kg	57
Packaged dimension A	mm	1400
Packaged dimension B	mm	850
Packaged dimension H	mm	1050
Package weight	kg	78

ELECTRICAL DATA

Power supply	V/ph/Hz	400/3/50
Power input (OI)	kW	0,14
Total power input	kW	1,00
Max absorbed current	A	1,92

AIR SUPPLY REMOTE CONDENSER

Supply air direction	None air delivery selected
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NOISE DATA

Spectrum	Hz	63	125	250	500	1000	2000	4000	8000	Tot
		dB	dB	dB	dB	dB	dB	dB	dB	dB(A)
Sound Power	-	70	62	62	57	52	44	33	63	
Total sound Pressure	-	51	43	43	38	33	25	14	44	
Distance	m	2								

Note

Note Average sound pressure level, at 2 m distance, unit in a free field on a reflective surface according to ISO3744. Non-binding value obtained from the sound power level.

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