



Ducted Packaged Units

Technical Data

OPA 1410 & 2110 Econex Pro R32




Cooling Capacity
17.4kW – 200kW




Heating Capacity
14.2kW – 186kW



Packaged Rooftop Air Conditioners R32

OPA 1410/2110 Econex Pro

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Overview brochure available

- Other relevant documents:
- Specification Sheets
 - Part Load Data
 - Installation & Maintenance



Packaged Rooftop Air Conditioners R32

OPA 1410/2110 Econex Pro

Econex Pro Packaged Rooftop HVAC units provide the ultimate flexibility and performance demanded in open plan commercial environments.

Key benefits:

- energy efficiency
- adaptive controls to suit changing ambient conditions
- low start-up current (just 10 amps)
- wide operating range: -10°C to $+50^{\circ}\text{C}$ ambient conditions
- rooftop locations can enable noise isolation from occupied areas
- reliability and durability inherent in a Temperzone assembled packaged unit



Packaged Rooftop Air Conditioners R32

OPA 1410/2110 Econex Pro

Applications

Specifically developed for air conditioning of large commercial premises, eg retail warehouses, supermarkets, shopping malls, and auditoriums.

Features

Lower GWP

Utilising R32 Refrigerant, Temperzone's Econex Pro Packaged Units enable a 75-80% reduction of Global Warming Potential (GWP) per kW of cooling when compared to R410A units.

Economy

Each OPA Econex Pro unit uses four variable capacity compressor which uses less energy than alternative types of compressor.

Four independent refrigeration systems enable 50% redundancy for critical applications, ie if one system was down, the others would act as a backup.

Efficient

As most air conditioners operate at part load for the vast majority of the time. It makes sense for each unit to incorporate four inverter scroll compressors which are very efficient at part load.

Part load efficiency can be even further enhanced by indoor fan part load operation at low loads (75% airflow equates to 55% power use).

Each plug fan incorporates a high efficiency electronically commutated (EC) motor (up to 25% efficiency; significantly better than belt drive centrifugal fans).

Large heat exchange coils incorporate inner grooved (rifled) tube for better heat transfer.

Better Comfort

Econex Pro variable speed technology enables fine tuning of the system – which ultimately delivers temperature stability and therefore better comfort to the occupants in the air conditioned space.

Intelligence

Econex Pro incorporates intelligent technology. Its software understands the surrounding environment and self-adjusts to generate required temperature and humidity levels.

Operates to maximise part-load efficiency and maximise reliability.

The variable capacity inverter compressor technology can provide close comfort control of the room temperature. Each OPA unit has capacity higher than its nominal available for fast response when well away from set point at start-up, and an energy saving low capacity turn-down.

A dynamically balanced backward curved fan with a multi-speed EC motor enables fine tuning of the indoor unit to match the supply air requirements. These EC motor fans have a fully integrated speed control that enables soft starting. Fan speed can be stepped to your own requirements or continuously variable using a 0–10V DC control signal.

The system also includes a temperature sensing head pressure control which enables the system to compensate for outdoor ambient temperatures below 20°C on cooling cycle, and above 15°C on heating cycle.

Air Flow Selection

If the air returning to the indoor coil is regularly expected to be above 50%RH, then the coil face velocity should be limited to be 2.5 m/s or less.

High humidity levels can occur in tropical or subtropical conditions, and/or when heavily moisture laden fresh air is introduced. Consideration must always be given to selecting an air flow and face velocity that avoids water carry-over problems.

Applications using high proportions of fresh air should be referred to your nearest Temperzone sales office to establish the correct selection of units.



Packaged Rooftop Air Conditioners R32

OPA 1410/2110 Econex Pro

Features

Quiet

Each integral high efficiency EC motor can vary from zero to full speed. This allows slow ramp up with no sudden noise change. The motor can be controlled to have the best air flow for the ducting and requirements as well as used for de-humidifying the space.

The outdoor coil design permits low fan speeds and hence low noise levels. The compressors are isolated in a built-in, insulated compartment to minimise noise. The indoor air section is also insulated for noise attenuation and to prevent exterior condensation.

Durable

The cabinet is constructed from high grade galvanised steel - polyester powder coated (colour Grey) for all weather protection (IP44 / IPX4*). External fasteners are marine grade SKT® coated steel. The units include a polyester powder coated drain tray. Heat exchange coils comprise aluminium expanded rifled copper tube. Both the indoor and outdoor air coil fins are epoxy coated for extra protection in corrosive environments, e.g. salt laden sea air. Fan motor bearings are sealed for life so as not to incur regular maintenance. Coil protection guards protect against hail, accidental damage or vandalism.

Easy Access

These packaged outdoor units are typically installed on a rooftop, where maintenance access is relatively easy during operating hours. Service panels are hinged with turn locks for ease of access. Air filters are easily accessible through hinged door on the side of the unit.

Low Maintenance

Commissioning and maintenance costs are reduced through use of a fan that requires no pulley and belt adjustments or changes like traditional fans. A controlled outdoor section drainage system directs water to a drainage point and prevents ponding of water that could create a home for moss, mould and slime.

Inverter Compressor

Each high efficiency variable capacity inverter compressor is hermetically sealed, quiet running and supported on rubber mounts to minimise vibration. Inverter compressors provide the economy of part load performance.

Soft Starting

EC motors and inverter compressors are soft starting therefore have none of the problems associated with high inrush current. A low start-up current means lower infrastructure costs for cabling and transformers.

Insulation

Closed cell foam insulation has been used in the indoor air section to ensure no particles are introduced into the air stream. Both indoor and outdoor chambers are insulated to prevent external condensation forming on the cabinet exterior. The insulation is foil faced and meets fire test standards AS 1530.3 (1989) and BS 476 parts 6 & 7.

Control System

The control system is comprised of one *Carel c.pCO* master controller and four Temperzone UC8 slave controllers, one for each individual system. The master controller looks after the setpoints, operation modes, factory settings, staging of the compressors, status reporting, scheduling, BMS settings and alarms display.

Control Option

Commissioned air flow can be maintained through use of the supplied differential pressure transducer and controller (supplied by others) to compensate for varying duct static pressures caused by dirty filters or modulating dampers. Commissioning is made easier. The EC plug fan motor is controlled variably (within a restricted range, p11) by a 0–10 volt DC signal that can be supplied either by a BMS system, or the internal PLC Controller.

The system is BMS compatible, with multi-unit control possible – via Modbus RTU, Modbus TCP/IP or BACnet IP. Refer to Temperzone for other protocols available.

Extended Capability

Inverters are particularly suitable for applications requiring high proportions of fresh air, VAV, close control. Supply air temperature control is also possible using BMS or other controls. Refer to Temperzone for capacity range variation options.

System Protection Features

1. HP and loss of refrigerant protection.
2. Anti-rapid cycle timer and internal overload for compressor protection.
3. Circuit breaker control circuits.
4. Time-and-temperature controlled electronic de-ice switch prevents icing up of the outdoor coil during heating cycle.
5. Frost protection on cooling cycle.
6. Sensor fault indication.
7. Crankcase heater prevents liquid refrigerant condensing in the compressors during the "off" cycle.
8. Compressor minimum run time to ensure oil return.
9. Automatic oil flush cycle to protect compressors.
10. Self diagnostic reporting.
11. 12V control circuit.

Note: Consideration must be given to the minimum floor area requirements of R32 refrigerant.

* Outdoor fan clearance <100mm (ref. IEC 60529)



Packaged Rooftop Air Conditioners R32

OPA 1410/2110 Econex Pro

Features

Self Diagnostics

Each Unit Controller (UC8) has a LED display to indicate faults and running conditions, which in turn can be displayed on the master controller. No need to connect pressure gauges. A non-specific fault indicator is included for interface to external systems via the optional relay board and an alert

Lower Installation Costs

A low start-up current means lower infrastructure costs for cabling and transformers.

Wiring

The electrical supply required is:
3 phase 400 V a.c. 50 Hz with neutral and earth.

The compressor crankcase heater requires a 24 hr power supply

The control panel is fully wired ready to accept the main power supply. Each system complies with the requirements of the Regulatory Compliance Mark (RCM) for electrical safety (AS/NZS 60335.2.40) and EMC (AS/NZS CISPR.14).

For your convenience, a single phase auxiliary power outlet (10A) is included in the electrical box.

Plant Room Use

Each unit is supplied with high static (125 Pa) EC condenser fans. Nominal outdoor airflow, correct unit clearances and no air recirculation must be maintained in order for the unit to achieve its performance specification.

Configurations

1. Horizontal supply & return air versions
2. Downward supply & return air versions
3. Opposite hand versions of the above.
4. Combination of the above by special arrangement
5. Integrated Hot Gas Reheat coil.

Optional Equipment

1. Remote Service Interface Display (*pGD1*) – can be located up to 50m from unit using RJ45 telephone cable (not supplied).
2. Filters (G4) rated to AS1324.1.2001 - disposable or washable, 50 or 100 mm thick. (Filter frame holds either).
3. Factory fitted Economiser -includes dampers and fresh air cowl.
4. Electronic control systems for temperature and Economiser (economy cycle/enthalpy control system).
5. Averaging sensor module.
6. CO₂ occupancy sensors
7. Interface to BACnet/IP, and Modbus over RS-485 or TC/IP networks.
8. I/O Expansion module for *Carel c.pCO*.

Economiser option

(Controls by Temperzone or others)

If the outdoor air heat content or wet bulb temperature (dry bulb not recommended) is below that of the return air, the fresh air damper opens and the return air damper closes to provide the first stage of cooling. Operating costs are reduced as free cooling is obtained. (Note: A spill air facility in the building may be necessary for when the return air damper is closed.) Fresh air dampers close to a minimum setting and return air dampers open before normal compressor operation resumes.

Temperzone offers a factory fitted Economiser control package, if required.

Reheat Coil option

Units can be supplied with a reheat coil which can make use of waste heat generated by other systems on site, eg refrigeration cabinets in a supermarket. Additional energy efficiency can be obtained by running the compressors for shorter periods or under less load.



Packaged Rooftop Air Conditioners R32

Performance Data

Cooling Capacity (kW)

- TC** = Total Capacity (kW)
- SC** = Sensible Capacity (kW)
- PI** = Power Input (kW)
- EAT** = Entering Air Temperature
- = Nominal Capacity (kW)

Nominal Air Flow: **8 100 l/s**

Note: Capacities are **gross** and do not include allowance for fan motor heat loss.

OPA 1410 Econex @Nominal Capacity (8 100 l/s)

Indoor coil
E.A.T.

Outdoor coil Entering Air Temperature °C DB

D.B. °C	W.B. °C	23			27			31			35			39			43		
		TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI
21	14	138	112	35	135	112	38	132	112	41	129	112	44	126	111	47	122	110	50
	15	143	104	36	140	104	38	137	104	41	134	103	44	130	102	47	126	101	51
	16	148	95	36	145	94	38	142	94	41	138	93	44	135	92	48	131	90	51
	17	154	84	36	150	83	39	147	82	42	143	81	45	139	80	48	135	79	52
23	15	143	121	36	140	121	38	136	121	41	133	121	44	130	120	47	126	119	51
	16	147	114	36	144	113	38	141	113	41	137	113	44	133	112	47	130	110	51
	17	152	105	36	149	105	39	145	104	42	142	104	45	138	103	48	134	101	51
	18	157	96	36	154	95	39	150	94	42	147	93	45	143	92	48	139	91	52
27	18	157	132	36	153	132	39	150	132	42	146	132	45	142	131	48	138	130	52
	19	161	125	36	158	125	39	154	125	42	152	125	45	146	123	49	142	122	52
	20	166	117	36	162	116	39	159	116	42	155	115	46	150	114	49	146	113	53
	22	176	97	37	172	96	40	168	95	43	163	94	46	159	93	50	154	91	53
31	21	172	144	37	169	144	40	165	144	43	160	143	46	156	142	49	151	141	53
	22	176	136	37	173	136	40	169	136	43	164	135	46	160	134	50	155	133	54
	23	181	128	37	177	128	40	172	127	43	168	127	46	163	126	50	159	124	54
	25	190	109	37	186	109	40	181	108	44	177	107	47	172	105	51	167	104	55



Packaged Rooftop Air Conditioners R32

Performance Data

Cooling Capacity (kW)

- TC = Total Capacity (kW)
- SC = Sensible Capacity (kW)
- PI = Power Input (kW)
- EAT = Entering Air Temperature
- = Nominal Capacity (kW)

Nominal Air Flow: **11 000 l/s**

Note: Capacities are **gross** and do not include allowance for fan motor heat loss.

OPA 2110 Econex @Nominal Capacity (11 000 l/s)

Indoor coil E.A.T.		Outdoor coil Entering Air Temperature °C DB																	
D.B. °C	W.B. °C	23			27			31			35			39			43		
		TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI
21	14	188.5	148.8	54.7	183.6	148.1	57.3	178.3	146.9	60.2	172.4	145.0	63.6	166.0	142.4	67.4	158.8	138.9	71.7
	15	195.2	137.3	55.2	190.1	136.4	57.8	184.5	135.0	60.8	178.4	132.9	64.1	171.6	130.2	68.0	164.1	126.8	72.2
	16	202.2	124.2	55.8	196.8	123.0	58.4	190.9	121.4	61.4	184.5	119.2	64.7	177.4	116.4	68.5	169.5	113.0	72.8
	17	209.3	109.3	56.4	203.6	107.8	59.0	197.5	105.9	61.9	190.7	103.6	65.3	183.3	100.8	69.1	175.1	97.4	73.4
23	15	194.3	160.8	55.1	189.2	160.2	57.8	183.6	159.0	60.7	177.5	157.1	64.1	170.8	154.3	67.9	163.3	150.6	72.2
	16	200.2	149.9	55.6	194.9	149.1	58.2	189.1	147.7	61.2	182.7	145.6	64.6	175.7	142.8	68.4	168.0	139.1	72.7
	17	207.2	138.3	56.2	201.7	137.2	58.8	195.6	135.6	61.8	188.9	133.4	65.1	181.6	130.5	69.0	173.5	126.8	73.3
	18	214.5	125.0	56.8	208.6	123.6	59.4	202.3	121.8	62.4	195.3	119.5	65.7	187.6	116.5	69.5	179.1	112.9	73.9
27	18	213.4	174.7	56.7	207.6	174.1	59.3	201.3	172.7	62.3	194.4	170.5	65.6	186.7	167.4	69.5	178.3	163.2	73.8
	19	219.8	164.7	57.2	213.8	163.8	59.8	207.2	162.3	62.8	200.0	160.0	66.1	192.0	156.8	70.0	183.3	152.6	74.3
	20	226.3	153.4	57.7	220.0	152.2	60.3	213.2	150.5	63.3	205.6	148.0	66.7	197.4	144.8	70.5	188.3	140.7	74.8
	22	239.7	126.0	58.8	232.9	124.4	61.4	225.5	122.3	64.3	217.4	119.6	67.7	208.5	116.4	71.5	198.7	112.5	75.9
31	21	235.2	190.1	58.4	228.6	189.3	61.0	221.3	187.7	64.0	213.4	185.2	67.3	204.7	181.6	71.2	195.2	176.9	75.5
	22	240.9	179.9	58.9	234.0	178.9	61.5	226.6	177.1	64.4	218.4	174.5	67.8	209.5	171.0	71.6	199.6	166.3	76.0
	23	246.7	168.4	59.3	239.6	167.2	61.9	231.9	165.3	64.8	223.5	162.6	68.2	214.3	159.1	72.0	204.1	154.5	76.4
	25	259.8	142.2	60.3	252.3	140.6	62.9	244.0	138.4	65.8	235.0	135.5	69.2	225.1	132.0	73.0	214.3	127.6	77.4

Indoor Air Flow Correction Factors @ nominal conditions

	Indoor Air Flow (%)			
	-20	-10	Rated	+10
Total Capacity	0.95	0.975	1.0	1.025
Sensible Capacity	0.90	0.950	1.0	1.050



Packaged Rooftop Air Conditioners R32

Performance Data

Heating Capacity (kW)

- G** = Gross Capacity kW, based on nominal air flow.
- N** = Net Heating Capacity kW allowing for average defrost.
- PI** = Power Input (kW)
- = Nominal Capacity (kW).

OPA 1410 at Nominal Capacity (8 100 l/s)

Air on D.B. °C	Outdoor coil entering air temperature °C DB																							
	- 5			- 3			- 1			1			3			5			7			9		
	G	N	PI	G	N	PI	G	N	PI	G	N	PI	G	N	PI	G	N	PI	G	N	PI	G	N	PI
15	109	95.6	37.7	115	94.4	38.3	122	95.9	39.1	128	102	39.2	134	115	39.1	140	137	39.6	146	146	40.1	153	153	40.6
20	108	94.3	40.4	114	93.1	41.1	120	94.6	42	126	101	42.1	132	114	42	139	136	42.6	145	145	43.2	151	151	43.8
25	104	91.6	43.3	110	90.4	44.1	117	91.9	45.1	123	98	45.3	129	111	45.1	135	133	45.8	141	141	46.5	148	148	47.2

OPA 2110 at Nominal Capacity (11 000 l/s)

Air on D.B. °C	Outdoor coil entering air temperature °C DB																							
	- 5			- 3			- 1			1			3			5			7			9		
	G	N	PI	G	N	PI	G	N	PI	G	N	PI	G	N	PI	G	N	PI	G	N	PI	G	N	PI
15	153	134	50.7	162	132	51.4	171	135	52.4	179	143	52.5	188	162	52.4	197	192	53	205	205	53.6	214	214	54.3
20	151	132	54.1	160	131	54.9	168	133	56	177	141	56.1	186	160	56	194	191	56.7	203	203	57.4	212	212	58.1
25	146	129	57.8	155	127	58.7	163	129	59.9	172	138	60.1	181	156	59.9	190	187	60.7	198	198	61.5	207	207	62.3



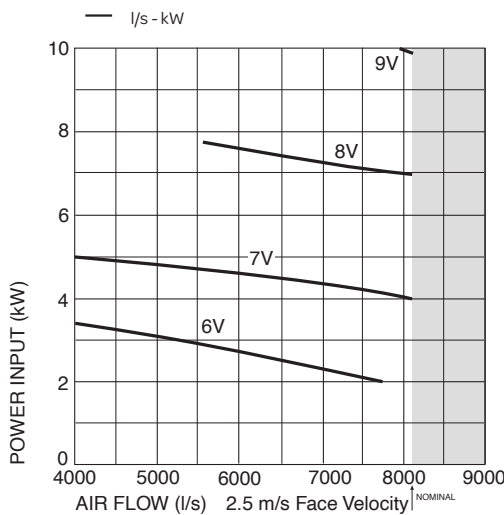
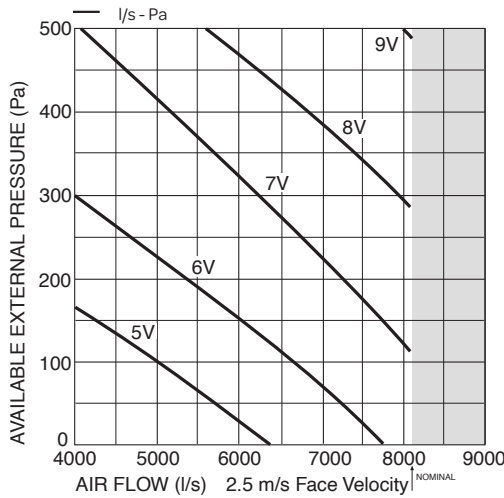
Packaged Rooftop Air Conditioners R32

Performance Data

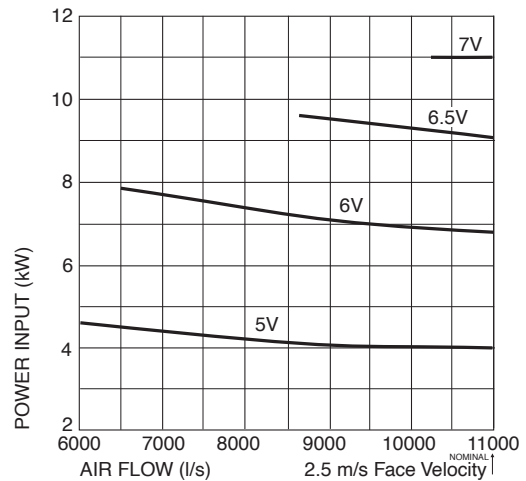
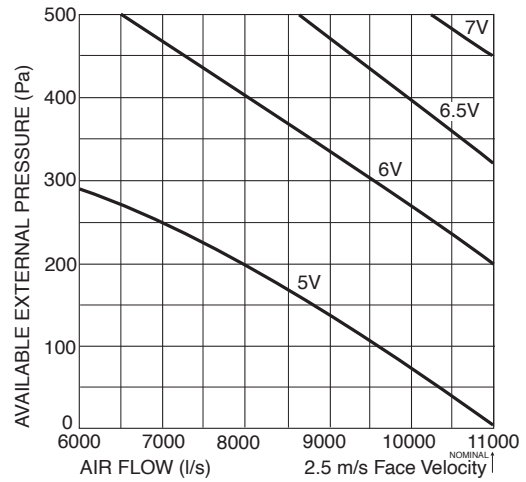
Air Handling

Airflows are for a dry coil. Refer Air Flow Selection (p.4) for further information.
Air flows given are for OPA units without filters installed. No allowance for Reheat coil option.

OPA 1410

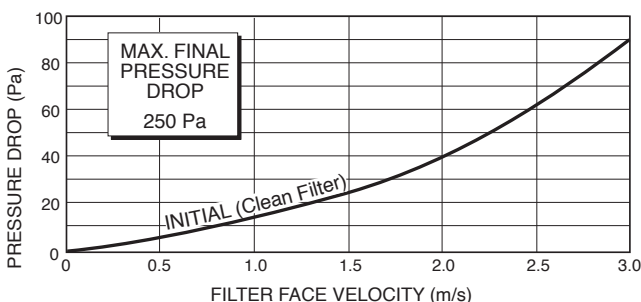


OPA 2110



Filter Pressure Drop (optional Filters)

EU4/G4 rated filter media





Packaged Rooftop Air Conditioners R32

Performance Data

Sound Levels – Indoor

Test Conditions: EN 12102-1:2017.
Diffuse field method in a reverberant room.
Measured in decibels re 1 picowatt.

Sound Power Levels (SWL) – Supply Air Outlet

Models	Fan Speed	Static (Pa)	SWL dB(A)	Octave Band Frequency Hz					
				125	250	500	1k	2k	4k
OPA 1410	4 V	75	72	51	64	65	68	64	60
	5.5 V *	75	78	57	70	71	74	70	66
	10 V	75	88	67	80	81	84	80	76
OPA 2110	4 V	85	72	63	64	65	67	63	58
	6.5 V *	85	80	71	72	73	75	71	66
	10 V	85	87	78	79	80	82	78	73

* Note: Indoor Air fan running at nominal speed

Sound Pressure Levels (SPL) Within A Room

Deduct the room absorption effect below from the Sound Power Levels (SWL) above to obtain Sound Pressure Levels within a room.
Note: Occupant at least 1.5 m from sound source.

Room type	Octave Band Frequency Hz					
	125	250	500	1k	2k	4k
Soft	4	8	11	11	11	11
Medium	3	7	8	9	9	9
Hard	0	1	3	4	4	5



Packaged Rooftop Air Conditioners R32

Performance Data

Sound Levels – Outdoor

Sound Power Levels (SWL) – Radiated

Measured in decibels re 1 picowatt

Models	Fan Speed	SWL dB(A)	Octave Band Frequency Hz					
			125	250	500	1K	2K	4K
OPA 1410	2.2V	66	54	56	58	61	59	57
	6V*	74	62	64	66	69	67	65
	10V	86	74	76	78	81	79	77
OPA 2110	2.2V	66	54	56	58	61	59	57
	7V*	78	66	68	70	73	71	69
	10V	86	74	76	78	81	79	77

* Note: Outdoor fans running at nominal speed

Sound Pressure Levels (SPL)

Models	Fan Speed	SPL @ 3 m dB(A)	Sound Pressure Levels (SPL) dB					
			125	250	500	1K	2K	4K
OPA 1410	2.2V	50	38	40	42	45	43	41
	6V*	58	46	48	50	53	51	49
	10V	70	58	60	62	65	63	61
OPA 2110	2.2V	50	38	40	42	45	43	41
	7V*	62	50	52	54	57	55	53
	10V	70	58	60	62	65	63	61

Sound Pressure Level (SPL) in decibels re 20 µPa

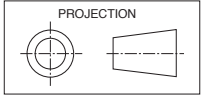


Packaged Rooftop Air Conditioners R32

Dimensions (mm)

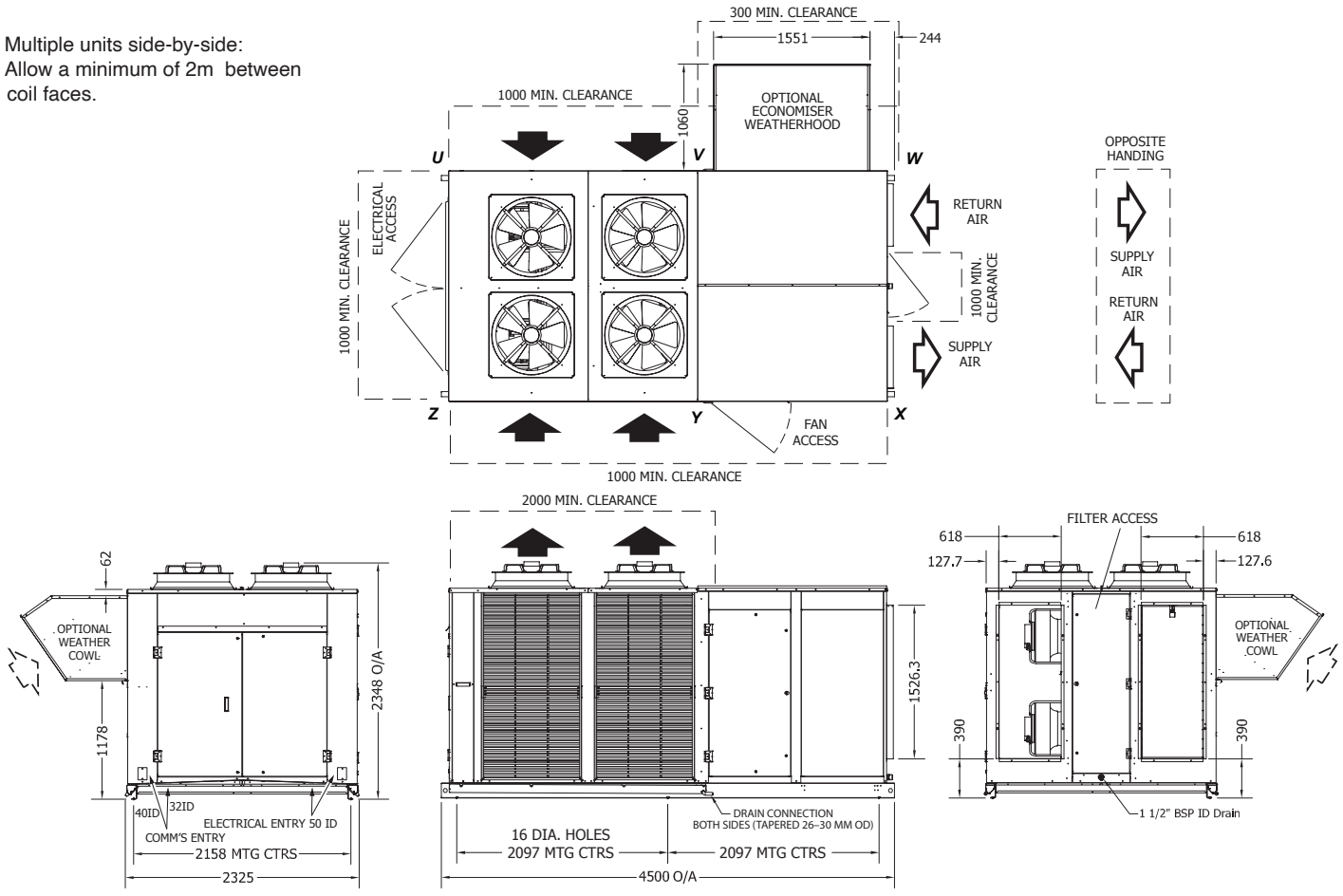
OPA 1410RLTM4FPQD(-Z) Horizontal Supply

	POINT LOADS (kg)					
	U	V	W	X	Y	Z
Standard Hand	411	339	267	327	349	371
c/w Economiser	423	360	297	339	358	377



Not to Scale

Multiple units side-by-side:
Allow a minimum of 2m between coil faces.



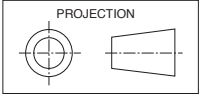
Materials and specifications are subject to change without notice due to the manufacturer's ongoing research and development programme.



Packaged Rooftop Air Conditioners R32

Dimensions (mm)

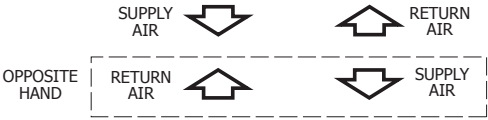
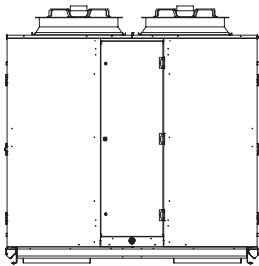
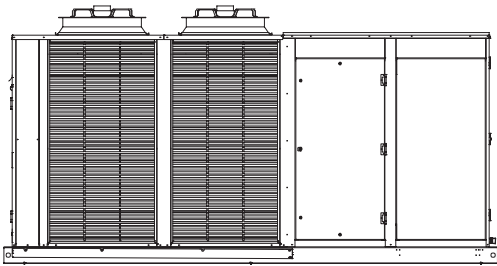
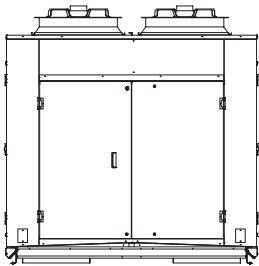
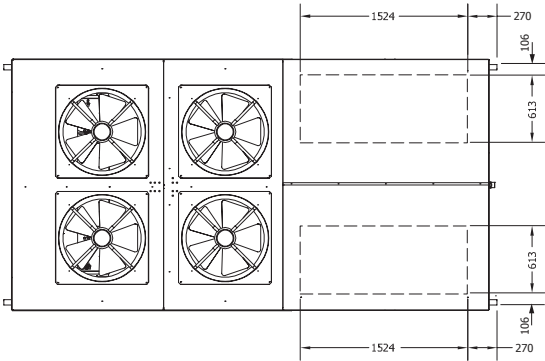
OPA 1410RLTM4FPQD(-Z) Downward Supply



Not to Scale

Refer previous page for full dimensions and clearances.

Multiple units side-by-side:
Allow a minimum of 2m
between coil faces.



Materials and specifications are subject to change without notice due to the manufacturer's ongoing research and development programme.

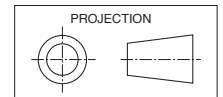


Packaged Rooftop Air Conditioners R32

Dimensions (mm)

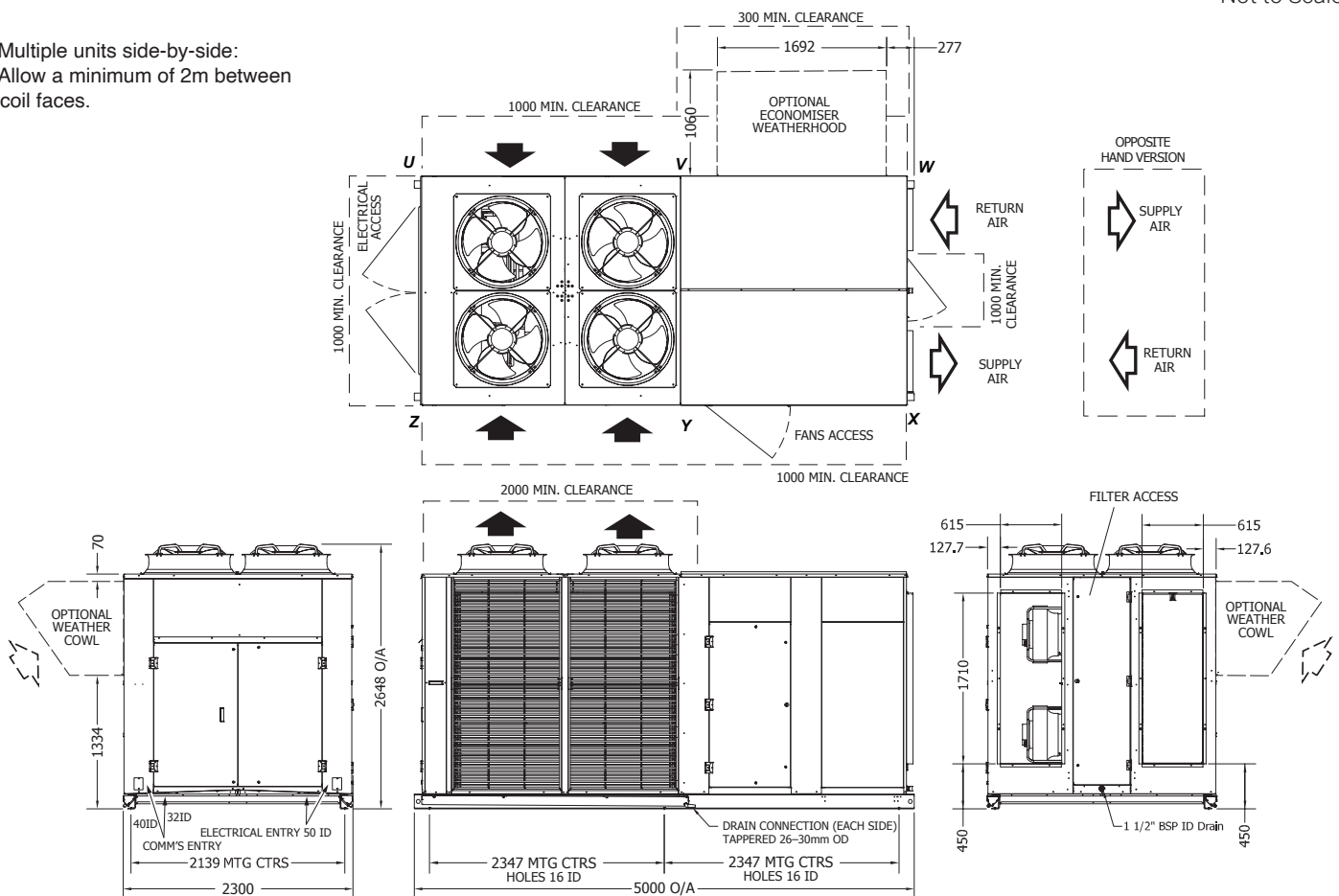
OPA 2110RLTM4FPQD(-Z) Horizontal Supply

	POINT LOADS (kg)					
	U	V	W	X	Y	Z
Standard Hand	505	412	318	425	447	470
c/w Economiser	517	433	348	437	456	476



Not to Scale

Multiple units side-by-side:
Allow a minimum of 2m between
coil faces.



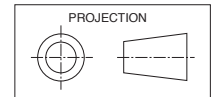
Materials and specifications are subject to change without notice due to the manufacturer's ongoing research and development programme.



Packaged Rooftop Air Conditioners R32

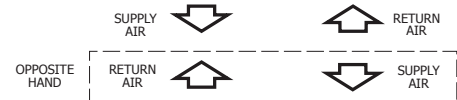
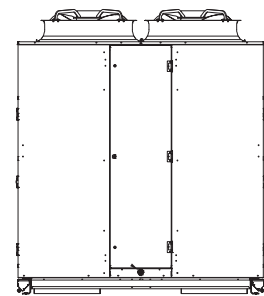
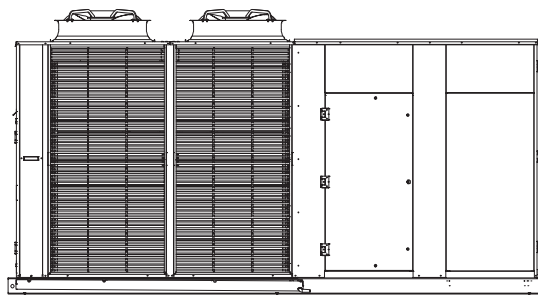
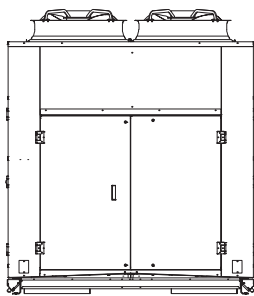
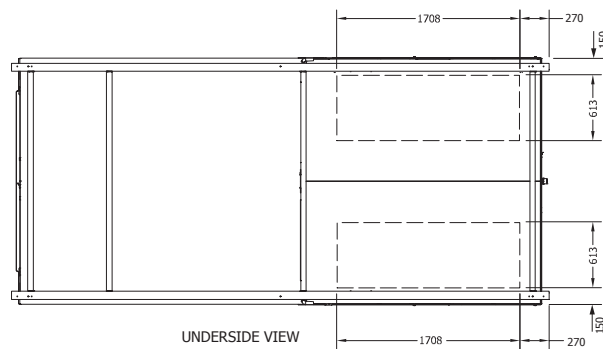
Dimensions (mm)

OPA 2110RLTM4FPQD(-Z) Downward Supply



Refer previous page for full dimensions and clearances

Not to scale



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Packaged Rooftop Air Conditioners R32

Specifications

econex
nex gen R32 inverter

System	Econex Pro	
Model	OPA 1410	OPA 2110
Cooling Capacity *1 kW	151 (11.8~189)	213 (27~239)
Net Cooling Capacity (MEPS) *1 kW	146	207
TCSPF ¹ (cold/mixed/hot)	4.78 / 4.33 / 4.21	5.32 / 4.81 / 4.49
EER / AEER (cooling)	3.24 / 3.22	3.07 / 3.06
Heating Capacity ² kW	145 (12.9~181)	203 (15~244)
HSPF ² (cold/mixed/hot)	3.71 / 3.97 / 4.16	3.15 / 3.36 / 3.47
COP / ACOP (heating)	3.35 / 3.34	3.54 / 3.53
Nominal Air Flow ³ l/s	8 100 (4 050~8 100)	11 000 (5 500~11 000)
Master Controller	Carel c.pCO	
Slave Controllers	UC8 (x4)	
Power Source ⁴	3 phase 400 V a.c. 50 Hz + N + E	
Refrigerant	R32 (Class A2L)	
Compressor type	inverter scroll (x4)	
Indoor air fan type	backward curved EC plug (x4)	
Outdoor air fan type	EC axial (x4)	
Indoor Fan Max. Current A/ph.	4.6 (x4)	9.1 (x4)
Running Amps (Total) ¹ A/ph.	69 / 67 / 74	108 / 101 / 111
Max. Running Amps (Total) A/ph.	116 / 111 / 121	158 / 153 / 159
IP Rating	IP44 / IPX4 ⁵	
Finish	grey polyester powder coat	
Optional	integrated hot gas reheat coil	
Operating Range (outdoor ambient)		
Cooling	-10°C to 50°C	
Heating	-10°C to 25°C	
Weight (net) kg		
Unit	2064	2577
Unit c/w Economiser	2154	2667
Unit c/w Economiser + Reheat	2252	2765

Notes:

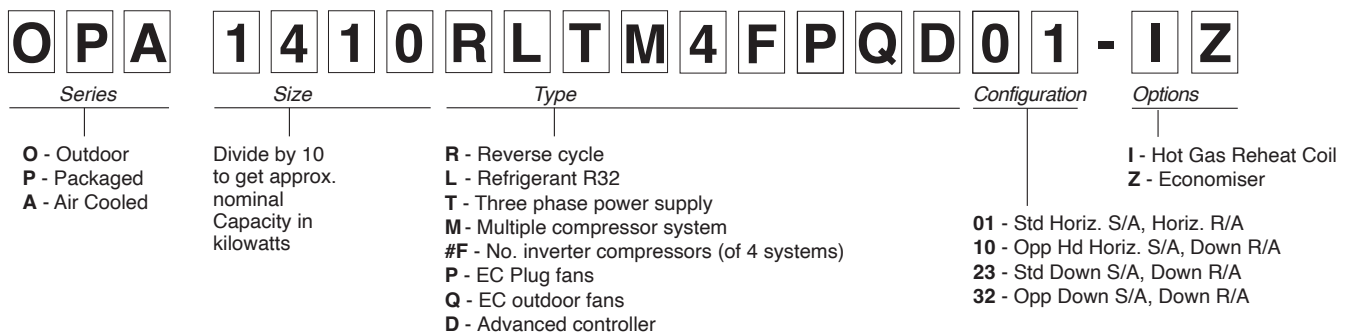
- Nominal Cooling Capacity (gross) at AS/NZS 3823 conditions:
 - Indoor Entering Air Temperature 27°C D.B., 19°C W.B.;
 - Outdoor Entering Air Temperature 35°C D.B.
- Heating Capacity at AS/NZS 3823 conditions:
 - Indoor Entering Air Temperature 20°C D.B.;
 - Outdoor Entering Air Temperature 7°C D.B., 6°C W.B.
- Supply air flow at Nominal Cooling Capacity conditions stated above.
- Voltage range: 380–440 V.
- Outdoor fan clearance <100mm (ref. IEC 60529).

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Packaged Rooftop Air Conditioners R32

Nomenclature





Packaged Rooftop Air Conditioners R32

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