

ISD-K SERIES - DUCTED SPLIT SYSTEM AIR CONDITIONERS

GENERAL

The ISD-K Indoor Units, together with their associated OSA-RK Outdoor Units, have been conceived from the start as reverse cycle (heat pump) split systems – designed to be efficient both when heating and cooling.

TEMPERZONE LIMITED

temperzone is one of Australasia's largest manufacturers of reverse cycle split system air conditioners. The company has been supplying units to the residential, commercial and industrial markets for over 35 years. Manufacturing facilities are located in New Zealand and Australia.

temperzone's mission is to provide the most competitively priced, reliable and efficient air conditioning equipment available to the international market.

APPLICATIONS

Ducted split systems are unobtrusive, quiet, and designed to provide year round comfort – warming in Winter and cooling in Summer. **temperzone**'s wide product range offers a unit of performance capacity to suit small to large split system air conditioner applications, e.g. homes, apartments, offices, shops, restaurants, motels, hotels, open plan office and work spaces, supermarkets, shopping malls and auditoriums.

temperzone ducted systems are particularly suitable for rooms with suspended tile ceilings. Not only is valuable wall space preserved, but also the conditioned air can be ducted to the parts of the room where it is most needed.

ISD units are suited to applications where large volume spaces are to be air conditioned. Long pipe and duct runs are possible enabling greater installation flexibility.

A low profile version of the ISD, named ISDL, is available for applications where ceiling space is limited and only short duct lengths are required, e.g. apartments, hotel rooms. These units are small, lightweight, very quiet and easy to install.

This range of units have been developed to meet the needs of typical applications. Should you have special requirements, such as higher air flows or greater sensible duty units contact your nearest **temperzone** representative. **temperzone** engineers have extensive experience in designing air conditioning equipment for specific applications.

FEATURES

Refrigerant R410A. Each complete system uses refrigerant R410A which is deemed to have zero ozone depletion potential, and is supplied precharged for a 10 m line length.

Efficient. These reverse cycle (heat pump) air conditioners provide one of the most efficient forms of heating you can invest in. For every 1 kW of power consumed, up to 3 kW of heat is generated. Each outdoor unit incorporates high efficiency scroll or rotary compressor/s. Heat exchange coils use inner grooved (rifled) tube for better heat transfer.

Performance. These systems have been designed and tested to perform in ambient conditions as low as -5°C and as high as 46°C. Multi-speed fan motors are used to match the supply air requirements.

Quiet. Most models have their compressor/s isolated in built-in, insulated compartments to minimise noise. The indoor units are insulated for noise attenuation.

Slimline. The compact upright design of most of the outdoor units requires only a 100 mm gap on the coil side where installation is against a wall. Their slimline cabinet is particularly practical where there is restricted space, e.g. side access pathways, balconies, narrow ledges, etc.

Durable. **temperzone** split systems are built tough to withstand all weathers. Their durable construction ensures a long life and excellent return on your investment. The outdoor coil's aluminium fins are epoxy coated for extra protection in corrosive environments, e.g. salt laden sea air. Outdoor unit cabinets are constructed from high grade galvanised steel (not plastic) - polyester powder coated (grey) for all weather protection. External fasteners are stainless steel. Indoor unit cabinets are constructed from high grade galvanised steel and also include corrosion resistant drain trays.

Service Access. Most indoor units have built-in drain trays that can be removed for ease of cleaning and service accessibility.

Insulation. Indoor unit cabinets are generously insulated to reduce condensation and contain noise.

Self Diagnostics. Most Outdoor Unit's include a controller (OUC) that has a display of LEDs to indicate faults and running conditions. A general fault indicator is included for interface to external systems.

Safety. The refrigeration systems includes a number of protection facilities, including: HP and loss of refrigerant indication, anti rapid cycle timers, frost protection, circuit breaker control circuits, electronic de-ice switch, crankcase heaters and 24 V control (larger systems). An externally attached safety drain tray is available for clients who require added peace of mind re condensate drainage.

User Friendly. ISD/L models up to 27 kW are supplied with a **temperzone** SAT-1 Controller. This controller has been designed to maintain a high level of comfort for room occupants. Emphasis has been placed on providing controls that are easy to use — despite the sophisticated microprocessor system that runs it. Use of the Auto and Timer function settings allows you to "set it and forget it".

Peace of Mind. The manufacturer operates a quality management system that conforms to AS/NZS ISO 9001:2001. **temperzone** products have been chosen, against worldwide competition, for use in some of the most exclusive projects — chosen because of their proven efficiency, durability, performance, reliability and value.

OPTIONS

Filter box c/w washable polypropylene net filter
Indoor unit spring mounting kit
SAT-1 Wall t/stat and safety drain tray on models up to 27kW
Electric heater box
Soft starter (OSA 80–140 RKS; standard on OSA 160RKS)
Outdoor unit wall mounting brackets
Fault indicating auxiliary relay board
TZ-701 Wall thermostat on models with 24V control

Single Phase Systems

Power Supply: 220—240 V a.c. 50 Hz		Low Profile Indoor Units				Standard Profile Indoor Units				
Indoor Unit		ISDL 55K	ISDL 80K	ISDL 95K	ISDL 110K	ISD 80K	ISD 95Q	ISD 110K	ISD 140K	ISD 160K
Outdoor Unit		OSA 55RKSH	OSA 80RKSH	OSA 95RKSH	OSA 110RKSH	OSA 80RKSH	OSA 95RKSH	OSA 110RKSH	OSA 140RKSH	OSA 160RKSH
Cooling Capacity *1	kW	5.2	7.7	9.0	10.4	7.7	9.3	11.0	13.8	15.5
E.E.R. (cooling)		2.75	2.99	3.03	2.83	2.90	3.05	2.75	3.05	2.88
Heating Capacity *2 (Rev. Cycle versions)	kW	4.6	7.6	9.2	9.8	8.0	9.2	9.9	13.1	15.2
Indoor Air Flow (nominal)	l/s	270	340	400	500	460	500	560	780	800
Sound Pressure Level (Indoor/Outdoor) *3	dB(A)	45 / 47	50 / 48	47 / 50	49 / 50	56 / 48	55 / 50	59 / 50	64 / 51	62 / 54
Maximum Vertical Separation	m	12	16	16	16	16	16	16	16	16
Maximum Standard Line Length	m	30	30	30	30	30	30	30	30	30
Maximum Extended Line Length *4	m	–	40	40	40	40	40	40	50	50
Running Amps (Total System)	A	8.4	11.5	13.4	16.3	12.0	13.6	16.7	20	25
Dimensions (Indoor/Outdoor)	Width mm	950 / 885	1040 / 885	1235 / 1035	1430 / 1035	835 / 885	925 / 1035	1050 / 1035	1050 / 1075	1140 / 1125
	Height mm	260 / 665	260 / 665	260 / 665	260 / 765	420 / 665	420 / 665	420 / 765	420 / 865	420 / 970
	Depth mm	780 / 380	780 / 380	780 / 400	780 / 400	650 / 380	650 / 400	650 / 400	650 / 420	630 / 420
Recommended Pipe Sizes (Suction/Liquid)	mm dia.	13 / 6	16 / 10	16 / 10	19 / 10	16 / 10	16 / 10	19 / 10	19 / 10	22 / 13
Weight (Indoor/Outdoor)	kg	28 / 73	30 / 78	33 / 86	42 / 88	36 / 78	39 / 86	40 / 88	46 / 116	50 / 133
Features *5		H, F, P, S, T	A, H, F, P, S, T	A, H, F, P, S, T	A, H, F, P, S, T	A, H, F, P, S, T	A, H, F, P, S, T	A, H, F, P, S, T	A, H, F, P, S, T	H, F, P, S, T

Three Phase Systems

Power Supply: 400—415 V a.c. 50 Hz		Low Profile	Standard Profile Indoor Units										
Indoor Unit		ISDL 110K	ISD 110K	ISD 140K	ISD 160K	ISD 160K	ISD 182K	ISD 182K	ISD 223K	ISD 270K	ISD 330K	ISD 405K	ISD 460K
Outdoor Unit		OSA 110RKTH	OSA 110RKTH	OSA 140RKTH	OSA 155RKTV	OSA 160RKTH	OSA 182RKTH	OSA 182RKTV	OSA 223RKTV	OSA 270RKTH	OSA 330RKTV	OSA 405RKTV	OSA 460RKTV
Cooling Capacity *1	kW	10.4	11.0	13.8	15.5	15.5	17.9	17.8	23.7	26.8	33.2	41.5	45.6
E.E.R. (cooling)		2.85	2.83	3.05	2.92	2.88	2.99	2.96	3.12	3.12	3.14	2.90	2.80
Heating Capacity *2 (Rev. Cycle versions)	kW	9.8	10.3	13.1	15.0	15.17	16.77	17.1	21.6	25.3	33.4	39.5	43.3
Indoor Air Flow (nominal)	l/s	500	560	780	800	800	1000	1000	1300	1440	1800	2350	2600
Sound Pressure Level (Indoor/Outdoor) *3	dB(A)	49 / 50	59 / 50	64 / 51	62 / 52	62 / 54	59 / 52	59 / 54	66 / 52	64 / 54	65 / 56	67 / 56	66 / 64
Maximum Vertical Separation	m	16	16	18	18	18	18	18	18	18	18	18	18
Maximum Standard Line Length	m	30	30	30	30	30	30	30	30	40	40	40	40
Maximum Extended Line Length *4	m	40	40	50	50	50	50	50	50	50	50	50	50
Running Amps (Total System)	A/ph.	6.7 / 5.3 / 5.1	8.8 / 5.5 / 5.1	12.5 / 7 / 7	11.2 / 7.7 / 7.2	12 / 8 / 8	14 / 9 / 8	13 / 8 / 8	17 / 11 / 11	18.5 / 13 / 13	18 / 18 / 17	23 / 23 / 23	28 / 24 / 25
Dimensions (Indoor/Outdoor)	Width mm	1430 / 1035	1050 / 1035	1050 / 1075	1140 / 1200	1140 / 1125	1305 / 1125	1305 / 1210	1495 / 1210	1665 / 1250	1540 / 1680	2000 / 1825	2000 / 2235
	Height mm	260 / 765	420 / 765	420 / 865	420 / 975	420 / 970	420 / 1125	420 / 980	420 / 1130	555 / 1380	700 / 1100	700 / 1230	700 / 1230
	Depth mm	780 / 400	650 / 400	650 / 420	630 / 630	630 / 420	630 / 420	630 / 630	630 / 630	650 / 450	715 / 825	745 / 765	745 /
Recommended Pipe Sizes (Suction/Liquid)	mm dia.	19 / 10	19 / 10	19 / 10	22 / 13	22 / 13	22 / 13	22 / 13	22 / 13	28 / 13	28 / 13	35 / 16	35 / 16
Weight (Indoor/Outdoor)	kg	42 / 88	40 / 88	46 / 116	50 / 141	50 / 133	54 / 155	54 / 137	61 / 148	93 / 198	131 / 256	181 / 301	190 / 375
Features *5		H, F, P, S, T	H, F, P, S, T	H, F, P, S, T	H, F, P, S, T, U	H, F, P, S, T	H, F, P, S, T	H, F, P, S, T, U	H, F, P, S, T	F, P, S, T	C, F, S, U	C, F, S, U	C, F, S, U

Notes:

Capacities are for close coupled systems. Allowance must be made for pipe length, pipe size and bends. Refer to separate Technical Data pamphlets for performance data under a range of conditions.

*1 Nominal Cooling Capacity 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.

*2 Nominal Heating Capacity at AS/NZS 3823 conditions: Indoor Entering Air Temperature 21°C D.B.; Outdoor Entering Air Temperature 7°C D.B., 6°C W.B.

*3 Indoor unit at 1 m from outlet of 1 m insulated duct (to JIS 8616); Outdoor unit at 3 m.

*4 Refer to manufacturer's representative for extended line length requirements.

*5 Key to Features:

- A – Soft starter option
- C – 24 volt control
- H – Heater box option
- F – Integrated filter/return air spigot option
- P – Precharged for 10 m line length
- S – Indoor unit spring mounting kit option
- T – Wall t/stat & safety drain tray option
- U – Upward discharge outdoor air fans

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