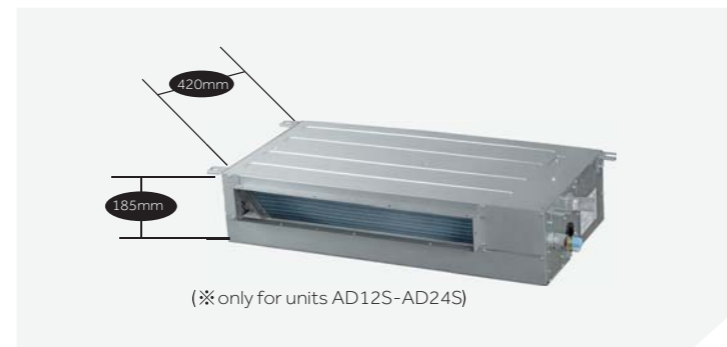


DUCT TYPE

Design Flexibility

Super thin design

The height of slim low ESP duct unit is 185mm only, which is advanced in the industry and make the silmmost ceiling drop.

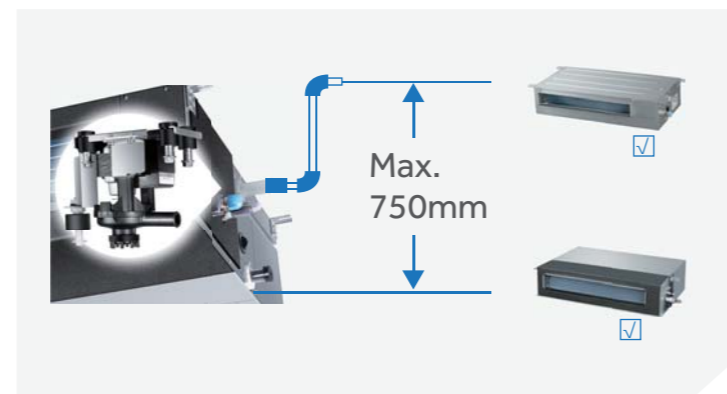


The height of medium ESP duct unit is 250mm height only, which is advanced in the industry, make the silmmost ceiling drop.



High lift-up drain pump

It can lift condensed water up to 750mm, which make installation more flexible according to the layout.



Design Flexibility

Return air-intake choices

Friendly design: Rear air return or bottom air return is available.



Left or right drain outlet

Drain direction can be left or right according to the layout.



Easy Installation

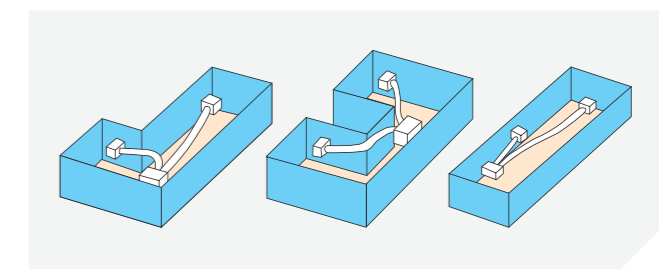
Adjusted ESP easy way

ESP can be adjusted by wired controller, so installer don't need to climb the ladders to adjust ESP.



Free setting of air discharge duct

The number of the airflow outlet and its installation position can be freely selected according to the surrounding of the room, sufficiently considering the load of the room and the uniform temp. of the room to realize more perfect comfort.



Comfort

Super silent

The fan and airflow path of slim low ESP duct unit are designed for silent, brings 21dB(A) super quiet performance.



Fresh air inlet

The preset fresh air channel can bring the outside fresh air into the room which improve the room air quality. Creat fresh and comfort atmosphere.



SLIM LOW ESP DUCT



AD12SS1ERA(N)



12k



YR-E17



12k



Model	Standard Indoor unit (drain pump excluded)		AD12SS1ERA(N)*
	Optional Indoor unit (drain pump included)		AD12SS1ERA(N)(P)*
Outdoor unit			
Nominal performance data	Capacity	Nominal cooling	12000 Btu/h(nom) kW nom(min-max)
		Nominal heating	13700 Btu/h(nom) kW nom(min-max)
	Rated power input	Cooling	1.03(0.28~1.8) kW nom(min-max)
		Heating	1.07(0.28~1.8) kW nom(min-max)
Seasonal performance data	EER/COP	3.39/3.73	
	Cooling P design(35°C)	3.5 kW	
	Heating P design(-10°C)	3 kW	
	SEER/SCOP	5.6/3.8	
	Energy class (Cooling/Heating)	A+/A	
Indoor unit	Annual energy consumption(Cooling)	241 kW	
	Annual energy consumption(Heating)	1427 kW	
Electrical parameters			
Performance	Power supply	Ph/V/Hz	1/220~230/50/60
	Air flow(H/M/L)	m³/h	600/480/420
	External static pressure	Pa	0/10/20/30
	Sound power level(H/M/L)	dB(A)	52
	Sound pressure level(H/M/L)	dB(A)	35/30/22
Installation	External dimensions(W/D/H)	mm	850/420/185
	Shipping dimensions(W/D/H)	mm	1025/525/260
	Net/Shipping weight	kg	16/21
Panel	Controller	Standard Option	YR-E17 Please refer to control system in page 119
	Panel Model	P1B-890IA	
Outdoor unit	External dimensions(W/D/H)	mm	890/190/100(outlet panel)/ 890/290.5/32.4(inlet panel)
	Shipping dimensions(W/D/H)	mm	938/335/220
	Net/Shipping weight	kg	4/5
Electrical parameters			
Performance	Power supply	Ph/V/Hz	1/230/50
	Air flow (H)	m³/h	1700
	Sound power level	dB(A)	62/63
	Sound pressure level	dB(A)	52/53
Installation	External dimensions(W/D/H)	mm	780*245*540
	Shipping dimensions(W/D/H)	mm	930*340*614
	Net/Shipping weight	kg	32.5/35.5
	Compressor type		Rotary
	Refrigerant type		R410A
Working temp.	GWP		
	Refrigerant liquid pipe	mm	6.35
	Refrigerant gas pipe	mm	9.52
	Max pipe length	m	15
	Max drop between I.U.&O.U	m	10
	refrigerant load in factory	kg	1.2
	Maximum pipe length without charge refrigerant	m	5
	refrigerant charge quantity for extra length	g/m	45
	Cooling(Min-Max)	°C	-10~43
	Heating(Min-Max)	°C	-15~24

* AD09/12/18/24SS1ERA(N)is based on the old model AD09/12/18/24SS1ERA.update the PCB for the swing panel connection;

SLIM LOW ESP DUCT



AD18SS1ERA(N) AD24SS1ERA(N)



18K



24K



YR-E17



18,24K



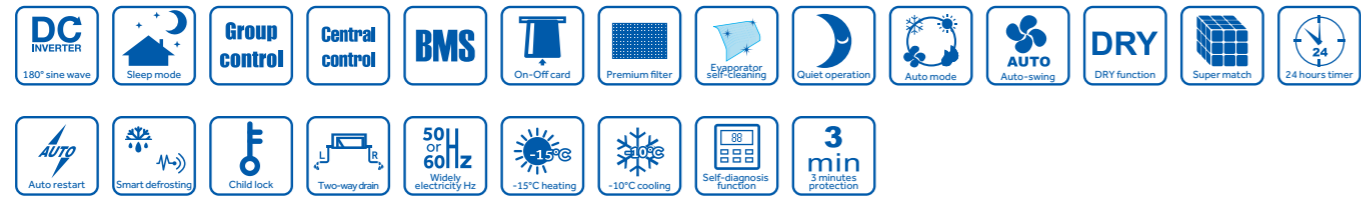
Model	Standard Indoor unit (drain pump excluded)		AD18SS1ERA(N)*	AD24SS1ERA(N)*
	Optional Indoor unit (drain pump included)		AD18SS1ERA(N)(P)*	AD24SS1ERA(N)(P)*
Outdoor unit				
Nominal performance data	Capacity	Nominal cooling	17000 Btu/h(nom) kW nom(min-max)	24200 Btu/h(nom) kW nom(min-max)
		Nominal heating	18800 Btu/h(nom) kW nom(min-max)	24200 Btu/h(nom) kW nom(min-max)
	Rated power input	Cooling	1.53(0.55~2.1) kW nom(min-max)	2.19 (0.6~2.6) kW nom(min-max)
		Heating	1.47 (0.6~2.1) kW nom(min-max)	1.91 (0.6~2.6) kW nom(min-max)
Seasonal performance data	EER/COP	3.26/3.73	3.24/3.72	
	Cooling P design(35°C)	5 kW	7.1 kW	
	Heating P design(-10°C)	5.5 kW	5.6 kW	
	SEER/SCOP	5.6/4	5.6/4	
	Energy class (Cooling/Heating)	A+/A	A+/A+	
Indoor unit	Annual energy consumption(Cooling)	315 kW	446 kW	
	Annual energy consumption(Heating)	1961 kW	2089 kW	
Electrical parameters				
Performance	Power supply	Ph/V/Hz	1/220~230/50/60	1/220~230/50/60
	Air flow(H/M/L)	m³/h	900/750/600	1000/850/750
	External static pressure	Pa	0/10/20/30	0/10/20/30
	Sound power level(H/M/L)	dB(A)	54	57
	Sound pressure level(H/M/L)	dB(A)	36/30/26	39/32/29
Installation	External dimensions(W/D/H)	mm	1170/420/185	1170/420/185
	Shipping dimensions(W/D/H)	mm	1365/540/270	1365/540/270
	Net/Shipping weight	kg	24/30	24/30
Panel	Controller	Standard Option	YR-E17 Please refer to control system in page 119	YR-E17 Please refer to control system in page 119
	Panel Model	P1B-1210IA		P1B-1210IA
Outdoor unit	External dimensions(W/D/H)	mm	1210/190/100(outlet panel)/ 1210/290.5/32.4 (inlet panel)	1210/190/100(outlet panel)/ 1210/290.5/32.4 (inlet panel)
	Shipping dimensions(W/D/H)	mm	1258/335/220	1258/335/220
	Net/Shipping weight	kg	5/6	5/6
Electrical parameters				
Performance	Power supply	Ph/V/Hz	1/230/50	1/220~230/50/60
	Air flow (H)	m³/h	2200	3000
	Sound power level	dB(A)	63/64	70
	Sound pressure level	dB(A)	53/54	57
Installation	External dimensions(W/D/H)	mm	810*288*688	860/308/730
	Shipping dimensions(W/D/H)	mm	949*406*745	995/420/815
	Net/Shipping weight	kg	43/45.5	49/52
	Compressor type		Rotary	Twin rotary
	Refrigerant type		R410A	R410A
Working temp.	GWP			
	Refrigerant liquid pipe	mm	6.35	9.52
	Refrigerant gas pipe	mm	12.7	15.88
	Max pipe length	m	25	25
	Max drop between I.U.&O.U	m	15	15
	refrigerant load in factory	kg	1.3	1.6
	Maximum pipe length without charge refrigerant	m	5	7
	refrigerant charge quantity for extra length	g/m	45	45
	Cooling(Min-Max)	°C	-10~43	-10~46
	Heating(Min-Max)	°C	-15~24	-15~24

* AD09/12/18/24SS1ERA(N)is based on the old model AD09/12/18/24SS1ERA.update the PCB for the swing panel connection;

LOW ESP DUCT



AD12LS1ERA AD18LS1ERA AD24LS1ERA

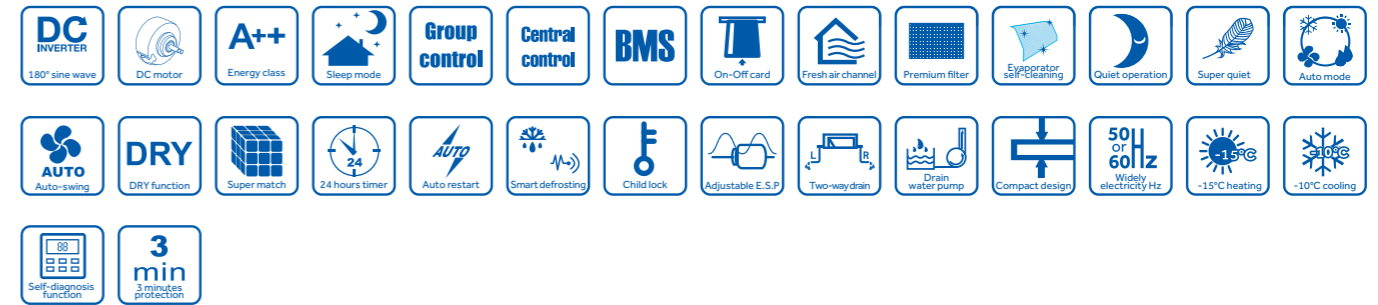


Model		Standard Indoor	AD12LS1ERA	AD18LS1ERA	AD24LS1ERA
		Outdoor unit	1U12BS3ERA	1U18FS2ERA(S)	1U24GS1ERA
Nominal performance data	Capacity	Nominal cooling	Btu/h(nom) 12000	17000	23200
		kW nom(min-max)	3.50 (0.9~4.5)	5.0 (1.8~6)	6.8 (2~7.6)
	Rated power input	Nominal heating	Btu/h(nom) 13700	18800	24200
		kW nom(min-max)	4.00 (1~4.8)	5.5 (2~6.2)	7.1 (3~8.3)
Seasonal performance data	Cooling	kW nom(min-max)	1.03(0.28~1.8)	1.53(0.55~2.1)	2.10 (0.6~2.6)
	Heating	kW nom(min-max)	1.07(0.28~1.8)	1.47 (0.6~2.1)	1.91 (0.6~2.6)
Indoor unit	EER/COP		3.39/3.73	3.26/3.73	3.24/3.72
	Cooling P design(35°C)	kW	3.5	5	6.8
	Heating P design(-10°C)	kW	2.8	4.7	5.2
	SEER/SCOP		5.1/3.8	5.1/3.8	5.1/3.8
	Energy class(Cooling/Heating)		A/A	A/A	A/A
	Annual energy consumption(Cooling)	kW	246	343	451
Outdoor unit	Power supply	Ph/V/Hz	1/220~230/50/60	1/220~230/50/60	1/220~230/50/60
	Air flow(H/M/L)	m³/h	550/450/400	850/780/600	1200/1050/850
	External static pressure	Pa	0/25	0/25	0/25
	Sound power level(H/M/L)	dB(A)	52/44/41	54/48/45	58/55/51
	Sound pressure level(H/M/L)	dB(A)	37/34/31	41/35/32	46/42/38
	External dimensions(W/D/H)	mm	610/484/220	1090/484/220	1090/484/220
Installation	Shipping dimensions(W/D/H)	mm	710/545/280	1174/545/280	1174/545/280
	Net/Shipping weight	kg	14/16	23/26.5	25.2/28.4
	Controller	Standard	YR-E17	YR-E17	YR-E17
	Option	Please refer to control system in page 119			
Performance	Power supply	Ph/V/Hz	1/230/50	1/230/50	1/220~230/50/60
	Air flow (H)	m³/h	1700	2200	3000
	Sound power level	dB(A)	62/63	63/64	70
	Sound pressure level	dB(A)	52/53	53/54	57
	External dimensions(W/D/H)	mm	780*245*540	810*288*688	860/308/730
	Shipping dimensions(W/D/H)	mm	930*340*614	949*406*745	995/420/815
Installation	Net/Shipping weight	kg	32.5/35.5	43/45.5	49/52
	Compressor type		Rotary	Rotary	Twin rotary
	Refrigerant type		R410A	R410A	R410A
	GWP		1975	1975	1975
	Refrigerant liquid pipe	mm	6.35	6.35	9.52
	Refrigerant gas pipe	mm	9.52	12.7	15.88
	Max pipe length	m	15	25	25
	Max drop between I.U.&O.U	m	10	15	15
	refrigerant load in factory	kg	1.2	1.3	1.6
	Maximum pipe length without charge refrigerant	m	5	5	7
	refrigerant charge quantity for extra length	g/m	45	45	45
Working temp.	Cooling(Min-Max)	°C	-10~43	-10~43	-10~46
	Heating(Min-Max)	°C	-15~24	-15~24	-15~24

MEDIUM ESP DUCT



AD12MS1ERA AD18MS1ERA AD24MS2ERA AD28MS2ERA(S)



Model	Standard Indoor unit (drain pump included)		AD12MS1ERA	AD18MS1ERA	AD24MS2ERA	AD28MS2ERA(S)
	Optional Indoor unit (drain pump excluded)		AD12MS1ERA(D)	AD18MS1ERA(D)	AD24MS2ERA(D)	AD28MS2ERA(S)(D)
		Outdoor unit	1U12BS3ERA	1U18FS2ERA(S)	1U24GS1ERA	1U28GS2ERA(S)
Nominal performance data	Capacity	Nominal cooling	Btu/h(nom) 12000	17000	24000	27300
		kW nom(min-max)	3.50 (0.9~4.5)	5.0 (1.8~6)	7.1	8 (2.0~8.5)
	Rated power input	Nominal heating	Btu/h(nom) 13700	18800	27300	30700
		kW nom(min-max)	4.00 (1~4.8)	5.5 (2~6.2)	8	9.0 (2.5~9.5)
Seasonal performance data	Cooling	kW nom(min-max)	1.08(0.28~1.8)	1.55(0.55~2.0)	2.2	2.47 (0.5~4.2)
	Heating	kW nom(min-max)	1.08(0.28~1.8)	1.48 (0.6~2.0)	2.15	2.42 (0.5~4.2)
Indoor unit	EER/COP		3.23/3.71	3.23/3.71	3.23/3.71	3.23/3.71
	Cooling P design(35°C)	kW	3.5	5	7.1	8
	Heating P design(-10°C)	kW	2.7	4.5	6	7.2
	SEER/SCOP		6.1/4	6.1/4	6.1/4	5.6/4.0
	Energy class(Cooling/Heating)		A+/A+	A+/A+	A+/A+	A+/A+
	Annual energy consumption(Cooling)	kW	215	291	415	504
Outdoor unit	Power supply	Ph/V/Hz	1/220~230/50/60	1/220~230/50/60	1/220~230/50/60	1/220~230/50/60
	Air flow(H/M/L)	m³/h	550/460/400	920/750/580	1050/840/630	1300/900/700
	External static pressure	Pa	10/30(default)/50/70	10/30(default)/50/70	10/30(default)/50/70	10/30(default)/50/70
	Sound power level(H/M/L)	dB(A)	56	57	58	60
	Sound pressure level(H/M/L)	dB(A)	36/33/29	36/33/29	42/38/35	44/41/39
	External dimensions(W/D/H)	mm	750/720/250	1050/720/250	1050/720/250	1050/720/250
Installation	Shipping dimensions(W/D/H)	mm	920/820/340	1170/860/340	1170/860/340	1170/860/340
	Net/Shipping weight	kg	22/26	25.5/33	31.2/36.8	31.2/36.8
	Controller	Standard	YR-E17	YR-E17	YR-E17	YR-E17
	Option	Please refer to control system in page 119				
Performance	Power supply	Ph/V/Hz	1/230/50	1/230/50	1/220~230/50/60	1/220~230/50/60
	Air flow (H)	m³/h	1700	2200	3000	3000
	Sound power level	dB(A)	62/63	63/64	70	70
	Sound pressure level	dB(A)	52/53	53/54	57	58
	External dimensions(W/D/H)	mm	780*245*540	810*288*688	860/308/730	860/308/730
	Shipping dimensions(W/D/H)	mm	930*340*614	949*406*745	995/420/815	995/420/815
Installation	Net/Shipping weight	kg	32.5/35.5	43/45.5	49/52	50.2/54.4
	Compressor type		Rotary	Rotary	Twin rotary	Twin rotary
	Refrigerant type		R410A	R410A	R410A	R410A
	GWP		1975	1975	1975	1975
	Refrigerant liquid pipe	mm	6.35	6.35	9.52	9.52
	Refrigerant gas pipe	mm	9.52	12.7	15.88	15.88
	Max pipe length	m	15	25	25	25
	Max drop between I.U.&O.U	m	10	15	15	15
	refrigerant load in factory	kg	1.2	1.3	1.6	2
	Maximum pipe length without charge refrigerant	m	5	5	7	20
	refrigerant charge quantity for extra length	g/m	45	45	45	45
Working temp.	Cooling(Min-Max)	°C	-10~43	-10~43	-10~46	-10~46
	Heating(Min-Max)	°C	-15~24	-15~24	-15~24	-15~24

MEDIUM ESP DUCT



AD36NS1ERA(S) AD48NS1ERA(S)



36,48k



YR-E17



36k



48k



HIGH ESP DUCT



AD48HS1ERA(S) AD60HS1ERA(S)



48k



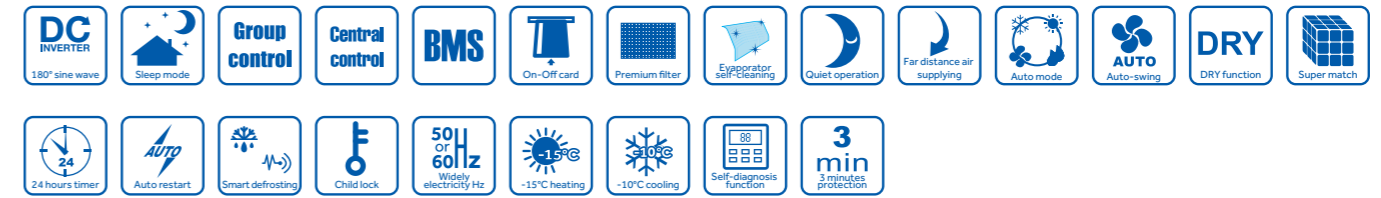
60k



YR-E17



48,60k



Model	Standard Indoor	AD36NS1ERA(S)	AD48NS1ERA(S)	AD48NS1ERA(S)		
	Outdoor unit	1U36HS1ERA(S)	1U48LS1ERA(S)	1U48LS1ERB(S)		
Nominal performance data	Capacity	Nominal cooling	Btu/h(nom) 34000 kW nom(min-max) 10.0 (2.2-11.0)	Btu/h(nom) 41300 kW nom(min-max) 12.1(6.0-14.5)	Btu/h(nom) 41300 kW nom(min-max) 12.1(6.0-14.5)	
		Nominal heating	Btu/h(nom) 36100 kW nom(min-max) 11.0 (2.2-12.0)	Btu/h(nom) 48100 kW nom(min-max) 14.1(6.0-16.5)	Btu/h(nom) 48100 kW nom(min-max) 14.1(6.0-16.5)	
	Rated power input	Cooling	kW nom(min-max) 3.32 (0.5~4.3)	kW nom(min-max) 3.77(2.0---6.0)	kW nom(min-max) 3.77(2.0---6.0)	
		Heating	kW nom(min-max) 3.05 (0.5~4.3)	kW nom(min-max) 3.90(2.0---6.0)	kW nom(min-max) 3.90(2.0---6.0)	
Seasonal performance data	EER/COP	3.01/3.61	3.21/3.61	3.21/3.61		
	Cooling P design(35°C)	kW 10	12.1	12.1		
	Heating P design(-10°C)	kW 8.1	9	9		
	SEER/SCOP	5.2/3.8	5.1/3.4	5.1/3.4		
	Energy class(Cooling/Heating)	A/A	A/A	A/A		
Annual energy consumption	Cooling	kW 666	/	/		
	Heating	kW 3012	/	/		
Indoor unit						
Electrical parameters	Power supply	Ph/V/Hz	1/220~230/50/60	1/220~230/50/60	1/220~230/50/60	
	Air flow(H/M/L)	m³/h	1630/1488/1421	2090/1970/1792	2090/1970/1792	
	External static pressure	Pa	50(default)/100	50(default)/100	50(default)/100	
	Sound power level(H/M/L)	dB(A)	64	66	66	
	Sound pressure level(H/M/L)	dB(A)	48/46/42	49/47/43	49/47/43	
Performance	External dimensions(W/D/H)	mm	1135/742/270	1135/742/270	1135/742/270	
	Shipping dimensions(W/D/H)	mm	1300/850/380	1300/850/380	1300/850/380	
	Net/Shipping weight	kg	45.4/51.3	52/55	52/55	
	Controller	Standard	YR-E17	YR-E17	YR-E17	
Option	Option	Please refer to control system in page 119				
Outdoor unit						
Electrical parameters	Power supply	Ph/V/Hz	1/220~230/50/60	1/220~230/50/60	3/380~400/50	
	Air flow (H)	m³/h	4000	4200	4200	
	Sound power level	dB(A)	70	73	73	
	Sound pressure level	dB(A)	58	59	59	
	External dimensions(W/D/H)	mm	948/340/840	1008/410/830	1008/410/830	
Installation	Shipping dimensions(W/D/H)	mm	1090/410/995	1130/490/930	1130/490/930	
	Net/Shipping weight	kg	65/74	82/93	82/93	
	Compressor type		Twin rotary	Twin rotary	Twin rotary	
	Refrigerant type		R410A	R410A	R410A	
	GWP		1975	1975	1975	
	Refrigerant liquid pipe	mm	9.52	9.52	9.52	
	Refrigerant gas pipe	mm	15.88	19.05	19.05	
	Max pipe length	m	30	50	50	
	Max drop between I.U.&O.U	m	20	30	30	
	refrigerant load in factory	kg	2.5	2.85	2.85	
	Maximum pipe length without charge refrigerant	m	20	20	20	
	refrigerant charge quantity for extra length	g/m	45	45	45	
	Working temp.	Cooling(Min-Max)	°C	-10~46	-10~46	10~46
		Heating(Min-Max)	°C	-15~24	-15~24	-15~24

Model	Indoor unit	AD48HS1ERA(S)	AD48HS1ERA(S)	AD60HS1ERA(S)		
	Outdoor unit	1U48LS1ERA(S)	1U48LS1ERB(S)	1U60IS2ERB(S)		
Nominal performance data	Capacity	Nominal cooling	Btu/h(nom) 42650 kW nom(min-max) 12.5(6.0-14.5)	Btu/h(nom) 42650 kW nom(min-max) 12.5(6.0-14.5)	Btu/h(nom) 46400 kW nom(min-max) 13.6(6.0-15.0)	
		Nominal heating	Btu/h(nom) 48100 kW nom(min-max) 14.1(6.0-16.5)	Btu/h(nom) 48100 kW nom(min-max) 14.1(6.0-16.5)	Btu/h(nom) 52850 kW nom(min-max) 15.5(6.0-17.5)	
	Rated power input	Cooling	kW nom(min-max) 3.89(2.0---6.0)	kW nom(min-max) 3.89(2.0---6.0)	kW nom(min-max) 4.22(2-6.0)	
		Heating	kW nom(min-max) 3.89(2.0---6.0)	kW nom(min-max) 3.89(2.0---6.0)	kW nom(min-max) 4.21(2.0-6.0)	
Seasonal performance data	EER/COP	3.21/3.62	3.21/3.62	3.22/3.68		
	Cooling P design(35°C)	kW 12.5	12.5	/		
	Heating P design(-10°C)	kW 9	9	/		
	SEER/SCOP	5.1/3.4	5.1/3.4	/		
	Energy class(Cooling/Heating)	A/A	A/A	A/A		
Annual energy consumption	Cooling	kW /	/	/		
	Heating	kW /	/	/		
Indoor unit						
Electrical parameters	Power supply	Ph/V/Hz	1/220~230/50/60	1/220~230/50/60	1/220~230/50/60	
	Air flow(H/M/L)	m³/h	2580/2070/1560	2580/2070/1560	2580/2070/1560	
	External static pressure	Pa	50-150	50-150	50-150	
	Sound power level(H/M/L)	dB(A)	65	65	65	
	Sound pressure level(H/M/L)	dB(A)	50/46/42	50/46/42	50/46/42	
Performance	External dimensions(W/D/H)	mm	1197/830/360	1197/830/360	1197/830/360	
	Shipping dimensions(W/D/H)	mm	1430/940/420	1430/940/420	1430/940/420	
	Net/Shipping weight	kg	57/70	57/70	57/70	
	Controller	Standard	YR-E17	YR-E17	YR-E17	
Option	Option	Please refer to control system in page 119				
Outdoor unit						
Electrical parameters	Power supply	Ph/V/Hz	1/220~230/50/60	3/380~400/50	3/380~400/50	
	Air flow (H)	m³/h	4200	4200	6000	
	Sound power level	dB(A)	73	73	73	
	Sound pressure level	dB(A)	59	59	60	
	External dimensions(W/D/H)	mm	1008/410/830	1008/410/830	948/340/1250	
Installation	Shipping dimensions(W/D/H)	mm	1130/490/930	1130/490/930	1095/410/1400	
	Net/Shipping weight	kg	82/93	82/93	91/101	
	Compressor type		Twin rotary	Twin rotary	Twin rotary	
	Refrigerant type		R410A	R410A	R410A	
	GWP		1975	1975	1975	
	Refrigerant liquid pipe	mm	9.52	9.52	9.52	
	Refrigerant gas pipe	mm	19.05	19.05	19.05	
	Max pipe length	m	50	50	50	
	Max drop between I.U.&O.U	m	30	30	30	
	refrigerant load in factory	kg	2.85	2.85	3.3	
	Maximum pipe length without charge refrigerant	m	20	20	20	
	refrigerant charge quantity for extra length	g/m	45	45	45	
	Working temp.	Cooling(Min-Max)	°C	-10~46	10~46	10~46
		Heating(Min-Max)	°C	-15~24	-15~24	-15~24