# **HITACHI**











# S-SERIES WALL MOUNTED RAK-PSB

The S-Series provides the highest energy savings and unmatched IAQ with stainless clean and ion mist air filtration, which is effective in capturing particles as small as 0.001 microns in size.



## **FEATURES AND BENEFITS**

- New elegant and compact design
- DC Hybrid inverter with Scroll compressors
- Superior indoor air quality (IAQ)
- Advanced and extensive air purification
- High seasonal efficiency A+++ class in cooling and A++ in heating, fully ErP compliant
- Energy saving sensors adjust heating and cooling levels as room occupancy changes
- Quiet operation for enhanced user comfort (22dBA)
- Stainless clean and ionised mist function to eliminate odours and destroy 99% of airborne viruses and bacteria.

## **REMOTE** CONTROLLERS



Wireless Remote Controller

- ECO operation energy saving function
- Leave Home Function set temperature at 10°C automatically when no one is at home for up to 99 days
- Weekly Timer 6 patterns
- Temperature and monthly power consumption display
- Copy function to copy settings from one day to another
- Summer/Winter modes
- Error Code Display
- Alarm History



SPX-RCDB (optional) Wired Remote Controller



SPX-WKT2 (optional) Wired 7-day Remote Controller

- Daily Timer
- Weekly timer
- Sleep timer
- Leave Home Function
- Error Code Display
- Alarm History
- Control remotely via smartphone Hi-Kumo app



## 1 STAINLESS AIR DUCT

Stainless material is used for the air duct located at the back of the fan. This has disinfection and antifouling effects, and keeps the interior of the air conditioner clean.

#### 3 MICRO MESH STAINLESS FILTER

Contamination-resistant micro mesh stainless filter. Even greasy contaminants can be removed with a quick wipe. As it is stainless, it has a disinfection effect. With auto filter cleaning.

## **2 STAINLESS LOUVER**

Stainless material is used for the horizontal louver. This has disinfection and antifouling effects, and keeps the air outlet clean

#### **4 STAINLESS PLASMA AIR PURIFICATION**

Negative ions are emitted from the plasma electrode. The negative ions surround contaminants and effectively carry them to the micro mesh stainless filter, where they are captured.





#### RAK-WSB

# S-SERIES

## WALL MOUNTED RAK-PSB

Nominal Cooling Capacity (min - max)	Indoor Unit Model		RAK-18PSB	RAK-25PSB	RAK-35PSB
UK Cooling Capacity (sensible)	Nominal Cooling Capacity (min - max)	kW	1.8 (0.5-2.8)	2.5 (0.5-3.4)	3.5 (0.5-4.1)
Heating capacity at -7°C   kW   2.3   3.2   4.0	Sensible Cooling Capacity	kW	1.8	2.2	2.7
Nominal Heating Capacity (min - max)	UK Cooling Capacity (sensible)	kW	1.9 (1.7)	2.7 (2.4)	4.3 (2.8)
Nominal cooling power input (min - max)   kW   0.300 (0.070-0.880)   0.470 (0.070-0.960)   0.805 (0.070-1.350)     Nominal heating power input (min - max)   kW   0.375 (0.065-1.620)   0.57 (0.06 - 1.41)   0.79 (0.06-1.49)     Seasonal Efficiency SEER <sup>(4)</sup>	Heating capacity at -7°C	kW	2.3	3.2	4.0
Nominal heating power input (min - max)   kW   0.375 (0.065-1.620)   0.57 (0.06 - 1.41)   0.79 (0.06-1.49)	Nominal Heating Capacity (min - max)	kW	2.3 (0.6-4.8)	3.2 (0.6-5.8)	4.0 (0.6-6.6)
Seasonal Efficiency SEER <sup>(4)</sup>   Energy Efficiency Class Annual Energy Consumption   85   103   144	Nominal cooling power input (min - max)	kW	0.300 (0.070-0.880)	0.470 (0.070-0.960)	0.805 (0.070-1.350)
Energy Efficiency Class	Nominal heating power input (min - max)	kW	0.375 (0.065-1.620)	0.57 (0.06 - 1.41)	0.79 (0.06-1.49)
Annual Energy Consumption 85 103 144  Seasonal Efficiency SCOP <sup>(4)</sup> (Average Climate) Energy Efficiency Class Annual Energy Consumption  Nominal Load Efficiency EER / COP <sup>(5)</sup> 588 802 896  Nominal Load Efficiency EER / COP <sup>(5)</sup> 6.00/6.13 5.32/5.61 4.35/5.06  Energy Class (Cool/Heat)  Noise level cooling (sound pressure) (SL / L / M / H) <sup>(5)</sup> dB(A) 22/28/34/40 22/28/34/42 23/28/34/44  Noise level heating (sound pressure) (SL / L / M / H) <sup>(5)</sup> dB(A) 22/28/34/41 22/30/34/42 23/30/34/44  Noise level (sound power) <sup>(1)</sup> dB(A) 54 56 58  Air flow cooling mode (SL / L / M / H) 260/300/420/470 260/320/420/510 270/320/420/520  Air flow heating mode (SL / L / M / H) 260/300/420/540 260/370/520/600 270/410/520/610  Dehumidification   I/h 1.2 1.4 1.6  Dimensions (H x W x D) mm 295x798x258 295x798x258 295x798x258  Weight   kg 12.0 12.0 12.0  Power supply From Outdoor Unit  Drain diameter (ext)   Infra Red (RAR-5W1) Infra Red (RAR-5W1)	Seasonal Efficiency SEER <sup>(4)</sup>		7.41	8.50	8.50
Seasonal Efficiency SCOP <sup>(A)</sup> (Average Climate)         A.60         4.68         4.72           Energy Efficiency Class Annual Energy Consumption         588         802         896           Nominal Load Efficiency EER / COP <sup>(S)</sup> Energy Class (Cool/Heat)         6.00/6.13         5.32/5.61         4.35/5.06           Noise level cooling (sound pressure) (SL / L / M / H) <sup>(D)</sup> Moise level heating (sound pressure) (SL / L / M / H) <sup>(D)</sup> Moise level heating (sound pressure) (SL / L / M / H) <sup>(D)</sup> Moise level (sound power) <sup>(D)</sup> M	Energy Efficiency Class	kWh/yr	A++	A+++	A+++
Energy Efficiency Class Annual Energy Consumption   588   802   896	Annual Energy Consumption		85	103	144
Annual Energy Consumption 588 802 896  Nominal Load Efficiency EER / COP <sup>(S)</sup> 6.00/6.13 5.32/5.61 4.35/5.06  Energy Class (Cool/Heat) A/A A/A A/A A/A  Noise level cooling (sound pressure) (SL / L / M / H) <sup>(S)</sup> dB(A) 22/28/34/40 22/28/34/42 23/28/34/44  Noise level heating (sound pressure) (SL / L / M / H) <sup>(S)</sup> dB(A) 22/30/34/41 22/30/34/42 23/30/34/44  Noise level (sound power) <sup>(1)</sup> dB(A) 54 56 58  Air flow cooling mode (SL / L / M / H) m³/h 260/300/420/470 260/320/420/510 270/320/420/520  Air flow heating mode (SL / L / M / H) m³/h 260/300/420/540 260/370/520/600 270/410/520/610  Dehumidification I/h 1.2 1.4 1.6  Dimensions (H x W x D) mm 295x798x258 295x798x258 295x798x258  Weight kg 12.0 12.0 12.0  Power supply From Outdoor Unit  Drain diameter (ext) φ16mm φ16mm φ16mm  Std Infra Red (RAR-5W1) Infra Red (RAR-5W1)	Seasonal Efficiency SCOP <sup>(4)</sup> (Average Climate)	kWh/yr	4.60	4.68	4.72
Nominal Load Efficiency EER / COP®         6.00/6.13         5.32/5.61         4.35/5.06           Energy Class (Cool/Heat)         A/A         A/A         A/A         A/A           Noise level cooling (sound pressure) (SL / L / M / H)(x)         dB(A)         22/28/34/40         22/28/34/42         23/28/34/44           Noise level heating (sound pressure) (SL / L / M / H)(x)         dB(A)         22/30/34/41         22/30/34/42         23/30/34/44           Noise level (sound power)(x)         dB(A)         54         56         58           Air flow cooling mode (SL / L / M / H)         m³/h         260/300/420/470         260/320/420/510         270/320/420/520           Air flow heating mode (SL / L / M / H)         m³/h         260/300/420/540         260/370/520/600         270/410/520/610           Dehumidification         l/h         1.2         1.4         1.6           Dimensions (H x W x D)         mm         295x798x258         295x798x258         295x798x258           Weight         kg         12.0         12.0         12.0           Power supply         From Outdoor Unit           Drain diameter (ext)         φ16mm         φ16mm         φ16mm         p16mm           Infra Red (RAR-5W1)         Infra Red (RAR-5W1)         Infra Red (RAR-5W1)	Energy Efficiency Class		A++	A++	A++
Energy Class (Cool/Heat)         A/A         A/A         A/A         A/A           Noise level cooling (sound pressure) (SL / L / M / H)(2)         dB(A)         22/28/34/40         22/28/34/42         23/28/34/44           Noise level heating (sound pressure) (SL / L / M / H)(2)         dB(A)         22/30/34/41         22/30/34/42         23/30/34/44           Noise level (sound power)(2)         dB(A)         54         56         58           Air flow cooling mode (SL / L / M / H)         m³/h         260/300/420/470         260/320/420/510         270/320/420/520           Air flow heating mode (SL / L / M / H)         m³/h         260/300/420/540         260/370/520/600         270/410/520/610           Dehumidification         I/h         1.2         1.4         1.6           Dimensions (H x W x D)         mm         295x798x258         295x798x258         295x798x258           Weight         kg         12.0         12.0         12.0           Power supply         From Outdoor Unit           Drain diameter (ext)         φ16mm         φ16mm         φ16mm           Std         Infra Red (RAR-5W1)         Infra Red (RAR-5W1)         Infra Red (RAR-5W1)	Annual Energy Consumption		588	802	896
Noise level cooling (sound pressure) (SL / L / M / H) <sup>(2)</sup> dB(A)         22/28/34/40         22/28/34/42         23/28/34/44           Noise level heating (sound pressure) (SL / L / M / H) <sup>(2)</sup> dB(A)         22/30/34/41         22/30/34/42         23/30/34/44           Noise level (sound power) <sup>(1)</sup> dB(A)         54         56         58           Air flow cooling mode (SL / L / M / H)         m³/h         260/300/420/470         260/320/420/510         270/320/420/520           Air flow heating mode (SL / L / M / H)         m³/h         260/300/420/540         260/370/520/600         270/410/520/610           Dehumidification         l/h         1.2         1.4         1.6           Dimensions (H x W x D)         mm         295x798x258         295x798x258         295x798x258           Weight         kg         12.0         12.0         12.0           Power supply         From Outdoor Unit           Drain diameter (ext)         φ16mm         φ16mm         φ16mm           Std         Infra Red (RAR-5W1)         Infra Red (RAR-5W1)         Infra Red (RAR-5W1)	Nominal Load Efficiency EER / COP <sup>(5)</sup>		6.00/6.13	5.32/5.61	4.35/5.06
Noise level heating (sound pressure) (SL / L / M / H) <sup>(2)</sup> dB(A)         22/30/34/41         22/30/34/42         23/30/34/44           Noise level (sound power) <sup>(1)</sup> dB(A)         54         56         58           Air flow cooling mode (SL / L / M / H)         m³/h         260/300/420/470         260/320/420/510         270/320/420/520           Air flow heating mode (SL / L / M / H)         m³/h         260/300/420/540         260/370/520/600         270/410/520/610           Dehumidification         l/h         1.2         1.4         1.6           Dimensions (H x W x D)         mm         295x798x258         295x798x258         295x798x258           Weight         kg         12.0         12.0         12.0           Power supply         From Outdoor Unit           Drain diameter (ext)         φ16mm         φ16mm         φ16mm           Std         Infra Red (RAR-5W1)         Infra Red (RAR-5W1)         Infra Red (RAR-5W1)	Energy Class (Cool/Heat)		A/A	A/A	A/A
Noise level (sound power) <sup>(1)</sup> dB(A)         54         56         58           Air flow cooling mode (SL / L / M / H)         m³/h         260/300/420/470         260/320/420/510         270/320/420/520           Air flow heating mode (SL / L / M / H)         m³/h         260/300/420/540         260/370/520/600         270/410/520/610           Dehumidification         l/h         1.2         1.4         1.6           Dimensions (H x W x D)         mm         295x798x258         295x798x258         295x798x258           Weight         kg         12.0         12.0         12.0           Power supply         From Outdoor Unit           Drain diameter (ext)         φ16mm         φ16mm         φ16mm           Std         Infra Red (RAR-5W1)         Infra Red (RAR-5W1)         Infra Red (RAR-5W1)	Noise level cooling (sound pressure) (SL / L / M / H)(2)	dB(A)	22/28/34/40	22/28/34/42	23/28/34/44
Air flow cooling mode (SL / L / M / H)         m³/h         260/300/420/470         260/320/420/510         270/320/420/520           Air flow heating mode (SL / L / M / H)         m³/h         260/300/420/540         260/370/520/600         270/410/520/610           Dehumidification         l/h         1.2         1.4         1.6           Dimensions (H x W x D)         mm         295x798x258         295x798x258         295x798x258           Weight         kg         12.0         12.0         12.0           Power supply         From Outdoor Unit           Drain diameter (ext)         φ16mm         φ16mm         φ16mm           Std         Infra Red (RAR-5W1)         Infra Red (RAR-5W1)         Infra Red (RAR-5W1)	Noise level heating (sound pressure) (SL / L / M / H)(2)	dB(A)	22/30/34/41	22/30/34/42	23/30/34/44
Air flow heating mode (SL / L / M / H)         m³/h         260/300/420/540         260/370/520/600         270/410/520/610           Dehumidification         l/h         1.2         1.4         1.6           Dimensions (H x W x D)         mm         295x798x258         295x798x258         295x798x258           Weight         kg         12.0         12.0         12.0           Power supply         From Outdoor Unit           Drain diameter (ext)         φ16mm         φ16mm         φ16mm           Std         Infra Red (RAR-5W1)         Infra Red (RAR-5W1)         Infra Red (RAR-5W1)	Noise level (sound power)(1)	dB(A)	54	56	58
Dehumidification         Vh         1.2         1.4         1.6           Dimensions (H x W x D)         mm         295x798x258         295x798x258         295x798x258           Weight         kg         12.0         12.0         12.0           Power supply         From Outdoor Unit           Drain diameter (ext)         φ16mm         φ16mm         φ16mm           Std         Infra Red (RAR-5W1)         Infra Red (RAR-5W1)         Infra Red (RAR-5W1)	Air flow cooling mode (SL / L / M / H)	m³/h	260/300/420/470	260/320/420/510	270/320/420/520
Dimensions (H x W x D)         mm         295x798x258         295x798x258         295x798x258           Weight         kg         12.0         12.0         12.0           Power supply         From Outdoor Unit           Drain diameter (ext)         φ16mm         φ16mm         φ16mm           Std         Infra Red (RAR-5W1)         Infra Red (RAR-5W1)         Infra Red (RAR-5W1)	Air flow heating mode (SL / L / M / H)	m³/h	260/300/420/540	260/370/520/600	270/410/520/610
Weight         kg         12.0         12.0         12.0           Power supply         From Outdoor Unit           Drain diameter (ext)         φ16mm         φ16mm         φ16mm           Std         Infra Red (RAR-5W1)         Infra Red (RAR-5W1)         Infra Red (RAR-5W1)	Dehumidification	l/h	1.2	1.4	1.6
Power supply         From Outdoor Unit           Drain diameter (ext)         φ16mm         φ16mm         φ16mm           Std         Infra Red (RAR-5W1)         Infra Red (RAR-5W1)         Infra Red (RAR-5W1)	Dimensions (H x W x D)	mm	295x798x258	295x798x258	295x798x258
Drain diameter (ext)         φ16mm         φ16mm         φ16mm           Std         Infra Red (RAR-5W1)         Infra Red (RAR-5W1)         Infra Red (RAR-5W1)	Weight	kg	12.0	12.0	12.0
Std Infra Red (RAR-5W1) Infra Red (RAR-5W1) Infra Red (RAR-5W1)	Power supply		From Outdoor Unit		
	Drain diameter (ext)		φ16mm	φ16mm	φ16mm
	Remote Control	Std	Infra Red (RAR-5W1)	Infra Red (RAR-5W1)	Infra Red (RAR-5W1)
Remote Control Opt. 1 Wired (SPX-RCDB) Wired (SPX-RCDB) Wired (SPX-RCDB)		Opt. 1	Wired (SPX-RCDB)	Wired (SPX-RCDB)	Wired (SPX-RCDB)
Opt. 2 Wired (SPX-WKT2) Wired (SPX-WKT2) Wired (SPX-WKT2)		Opt. 2	Wired (SPX-WKT2)	Wired (SPX-WKT2)	Wired (SPX-WKT2)

Outdo	oor Unit Model	RAC-18WSB	RAC-25WSB	RAC-35WSB
Noise level cooling (sound pressure)(3)	dB(A)	46	48	49
Noise level heating (sound pressure)(3)	dB(A)	46	48	49
Noise level (sound power)(1)	dB(A)	60	62	63
Air flow (Cooling / Heating)	m³/h	1860/1620	1860/1620	1920/1620
Dimensions (H x W x D)	mm	600x792x299	600x792x299	600x792x299
Weight	kg	40	40	40
Piping diameter (Liquid / Gas)	Inch	1/4 - 1/2	1/4 - 1/2	1/4 - 1/2
	mm	6.35 - 12.70	6.35 - 12.70	6.35 - 12.70
Minimum Piping Length	m	3	3	3
Maximum Piping Length / Height Difference	m	20/10	20/10	20/10
Current Quantity of Refrigerant	kg	1.35	1.35	1.35
Chargeless / Additional Refrigerant Charge	m / g/m	20/-	20/-	20/-
Power supply		230V / 1Ph / 50Hz	230V / 1Ph / 50Hz	230V / 1Ph / 50Hz
Recommended fuse size	A	16	16	16
Starting current (cooling/heating)	A	<1 Amp	<1 Amp	<1 Amp
Running current (cooling/heating)	A	0.30-3.83/0.28-7.04	0.30-4.17/0.28-9.78	0.30-5.87/0.28-10.65
Interconnecting Cables	No.	3 + E	3 + E	3 + E
Working Range (cooling/heating)	°C	-10°C~+43°C / -20°C~+21°C	-10°C~+43°C / -20°C~+21°C	-10°C~+43°C / -20°C~+21°C
Refrigerant / GWP		R410A / 1975	R410A / 1975	R410A / 1975
Compressor type		Scroll	Scroll	Scroll

- (1) Sound power level is the A-weighted sound power level [dB(A)] measured at standard rated conditions for the "cooling" mode operation in accordance to EN12102 (2) Sound pressure level is measured at 0.8 meter beneath indoor unit 1m from discharge grille in anechoic chamber.

  (3) Sound pressure level is measured at 1.0m from front face of unit, 1.5m above the ground in anechoic chamber.

  (4) Data calculated in accordance to prEN14825 and the Commission Communication 2012/C 172/01

  (5) Nominal load efficiency (Cooling 35°C/27°C, Heating 7°C/20°C)

