



# PACKAGED HEAT PUMP SOLUTIONS



R32 Low  
GWP  
Refrigerant

7

7 Year  
Warranty



Quietest  
System  
on the  
Market

A+

Energy class  
in water  
heating

## INTRODUCING THE JOULE AIR SOURCE HEAT PUMP POWERED BY SAMSUNG

The ultimate in home climate convenience is here, thanks to ClimateHub - Samsung's new integrated solution for heating and domestic hot water supply.

With straightforward installation, smooth commissioning, quiet operation and smart connectivity, maintaining home comfort has finally been made easy.



### The Technology - Air Source Heat Pumps

A heat pump is an energy-efficient system that uses the heat from the ambient air for heating and hot water. By using the ambient air and transferring this heat into the house through a hydronic system, such as underfloor heating, a heat pump requires less power input and offers greater power output than conventional boilers.



#### Quiet Operation

#### **SAMSUNG IN QUIET MODE IS QUIETER THAN MITSUBISHI ULTRA QUIET**

Today's climate systems need to meet increasingly strict sound level requirements and limit aural disturbance around the home. The Samsung ClimateHub system's 4-Step Quiet Mode allows users to reduce noise levels of the heat pump outdoor unit to as low as 35dB(A).



#### Smart Connectivity

#### **CONNECTS INTO SMART THINGS CONTROL ENVIRONMENT**

The ClimateHub system can be managed remotely. Using the optional Wi-Fi kit, users can control different aspects of the system through the Samsung SmartThings app - turn it on and off, control the functions and schedule its operation, from anywhere

## How it works?

A heat pump is an electrical device that extracts heat from one place and transfers it to another. The heat pump is not a new technology; it has been used around the world for decades. Refrigerators and air conditioners are both common examples of this technology.

Heat pumps transfer heat by circulating refrigerant through a cycle of evaporation and condensation. A compressor pumps the refrigerant between two heat exchanger coils. In one coil, the refrigerant is evaporated at low pressure and absorbs heat from its surroundings.

The refrigerant is then compressed en route to the other coil, where it condenses at high pressure. At this point, it releases the heat it absorbed earlier in the cycle.

Refrigerators and air conditioners are both examples of heat pumps operating only in the cooling mode. A refrigerator is essentially an insulated box with a heat pump system connected to it.



**For every 1 kWh  
of energy input**

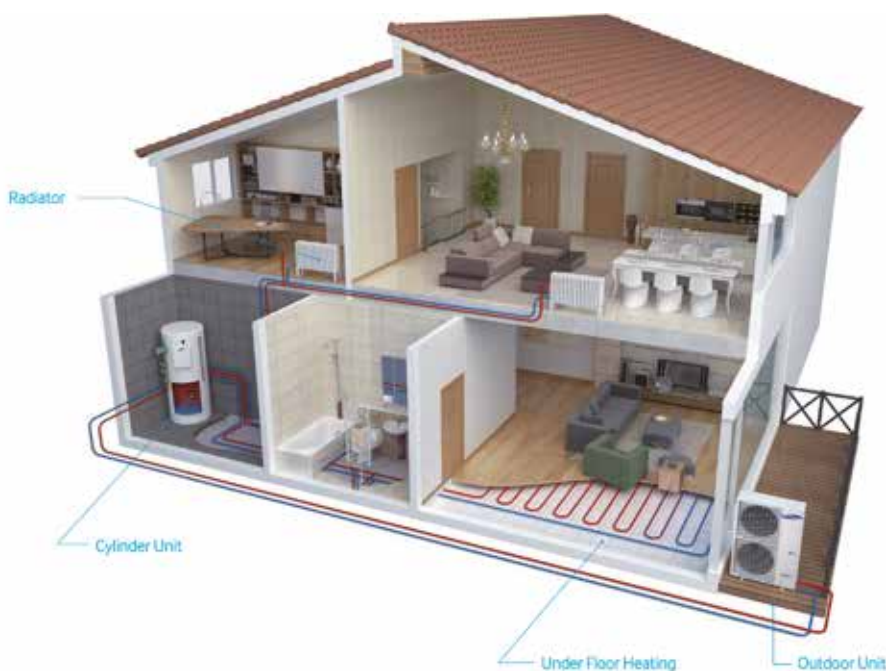
**=**

An air source heat pump  
can deliver up to more than  
**4 kWh** in energy output.

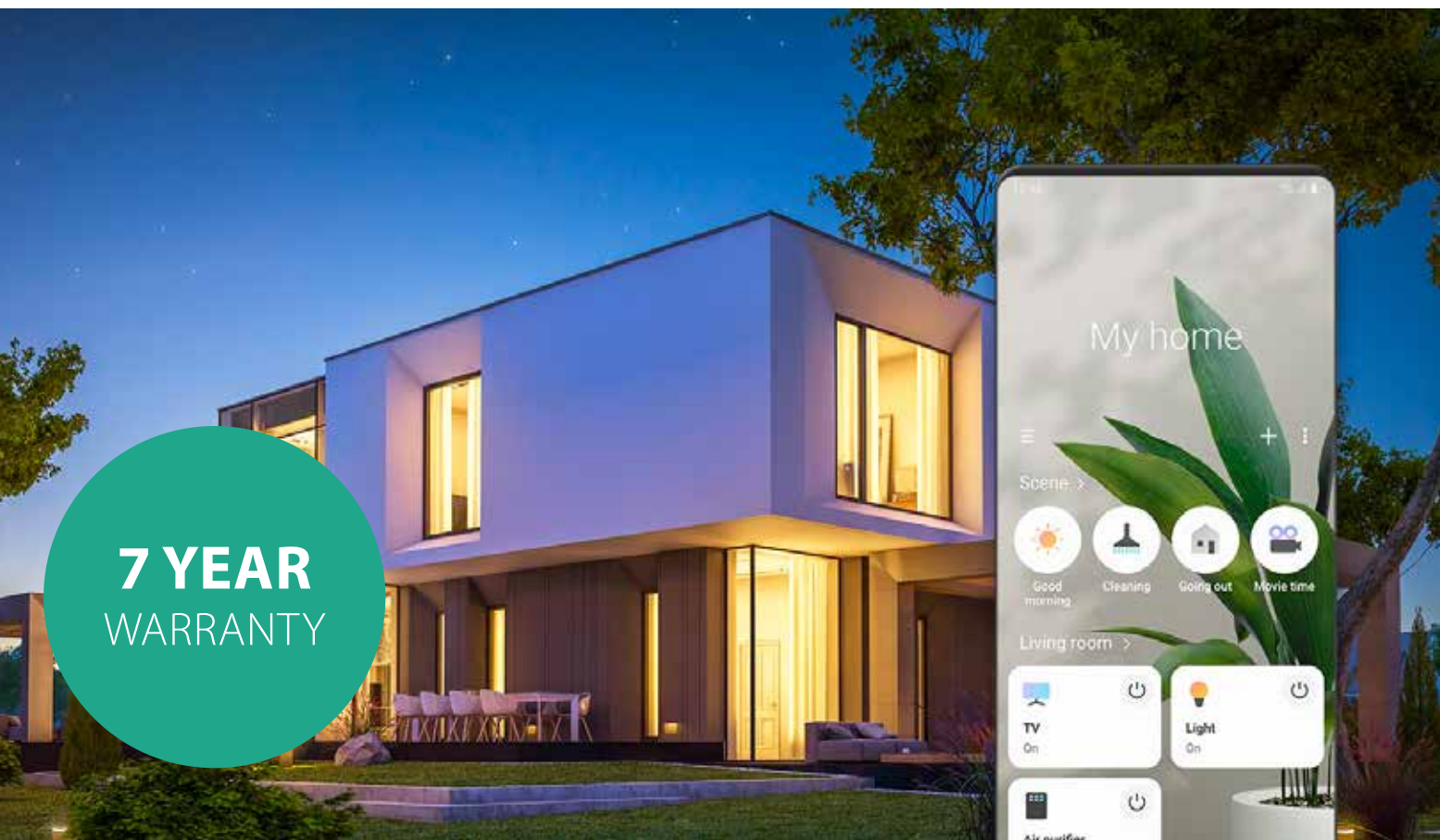
This is an energy efficiency ratio of more than **400%**, which is far superior to high energy efficiency boiler systems. Our heatpump packages have class leading SCOP.

## Air Source Heat Pump Benefits

- Compatible with all low temp. systems
- High seasonal energy efficiency
- Up to 60°C water supply
- Easy to install - Easy to control
- Operation Range down to -20°C
- Higher capacity at low ambient temperature







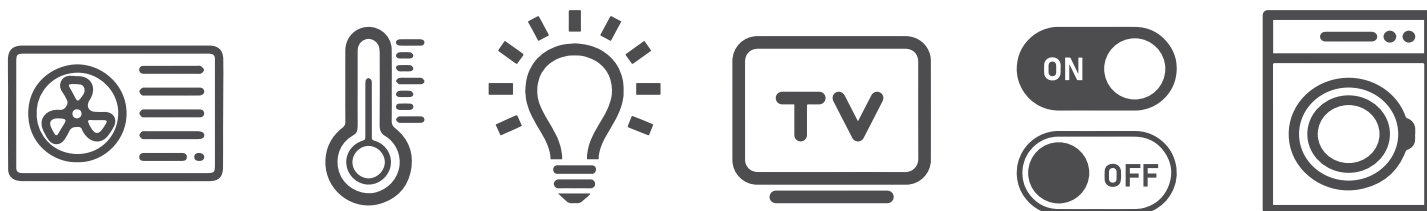
**7 YEAR  
WARRANTY**

## Hands-free control.

Use Bixby on your Galaxy phone to control your smart devices with your voice.



## Smart Applications:



More available at: <https://www.samsung.com/uk/apps/smartthings/>

## More smart devices, one smart app.

Connect, automate, and manage all your Samsung and SmartThings-compatible appliances and electronics with a single, easy-to-use app.

Because smart should be simple, however many devices you bring home.

### **CONNECTS INTO SMART THINGS CONTROL ENVIRONMENT**

Connect to your heatpump and smart cylinder from the comfort of your living room.



## One app, multiple screens.

Access SmartThings features across a family of Samsung products, including smart phones, TVs, and fridges.

## Your home, your way.

Make your home smarter with custom automation. Create schedules and scenarios, and let SmartThings do the rest.

It can even suggest new smart ways to automate your day.

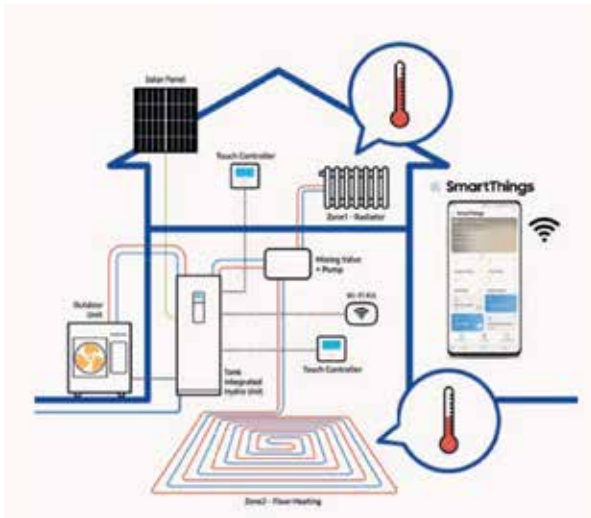




## Compact Design

The Joule compact solution is built around a compact tank integrated hydro unit, with a large domestic hot water tank of either 180L or 230L.

The compact and modular design makes for straightforward kitchen or utility room integration.



## Smart Connectivity

The new touch controller enables users to manage differing temperature settings per zone, meaning high-temperature radiators and low-temperature floor heating can be utilised efficiently.

Using the optional Wi-Fi Kit, the different aspects of the system can be controlled through the Samsung SmartThings app.

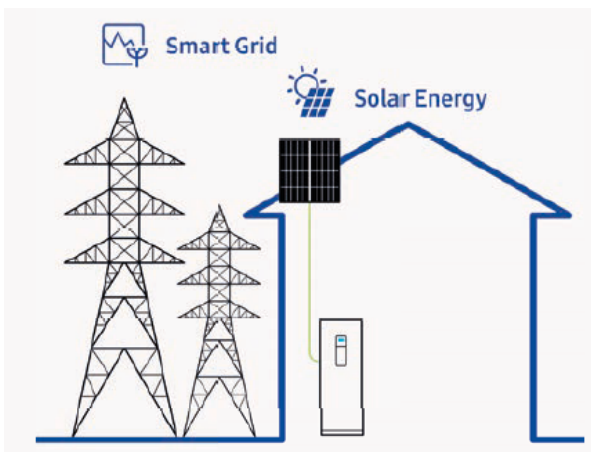
**App on your smartphone.\***  
(Android and Apple compatible)



## CAN CONTROL UP TO 2 ZONES - USING REMOTE SENSOR

The new Samsung touch screen controller with multiple language options and bright colour display - enabling temperature settings, energy monitoring, ensures the system delivers efficient comfortable heating thanks to its in-built weather compensation controls.

**\* Our packages come complete with free training.**



## Smart Grid Ready & PV Enabled

A Smart Grid efficiently integrates the behaviour and actions of all the users connected to it. Smart Grid readiness enables users to benefit from an economically efficient and sustainable power supply. Thanks to the PV (Photovoltaic or 'solar' energy) enabled feature, the system can be connected to solar panels, saving energy through renewable sources.\*

## Microgeneration Certification Scheme

- SAMSUNG MONOS ARE TOP PERFORMING MODELS AS PER MCS LEAGUE TABLE
- MCS COMPLIANT ENERGY MONITORING ON BOARD AS STANDARD



The complete range of Joule heating products has received full accreditation for the Government's Microgeneration Certification Scheme (MCS).

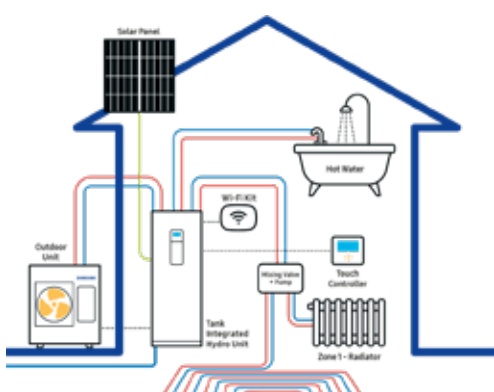
In addition to certifying heating products the MCS process also looks at the companies installing this type of equipment so that customers can take real confidence that they will get the performance and service expected. MCS is designed to evaluate products and installers against criteria for microgeneration technologies, thereby providing greater consumer protection. An MCS approved product, such as Samsung, installed by an MCS approved installer is a requirement to apply for the Government's Renewable Heat Incentive (RHI).

## Renewable Heat Incentive, RHI

Joule in cooperation with Samsung provides a proven, efficient way of heating buildings. The Government will now pay for the generation of renewable heat through the Renewable Heat Incentive (RHI). This has been designed to level the playing field between the cost of renewable and traditional fossil fuel systems. Switching to heating systems that use eligible energy services can help the UK reduce its carbon emissions and meet its renewable energy targets.

## Product Characteristics Database, PCDB

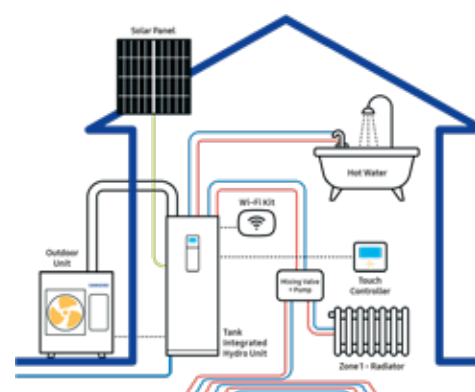
The PCDB, formerly known as SAP Appendix Q, allows you to enter performance data specific to Samsung rather than using the default air source heat pump data in SAP. This enables a higher efficiency to be shown within the SAP calculations for the property.



### Joule ClimateHub Mono

The ClimateHub Mono configuration has a single outdoor unit that includes the hydronic system, making it easy to install and use.

The system's potential can be maximised by connecting to **Smart Grid** or **Solar Power (PV)**.



### Joule ClimateHub Split

The ClimateHub Split configuration has a single outdoor unit, connected by refrigerant pipes to the tank integrated hydro unit.

To maximize its potential, the system has **PV export functionality and Smart Grid ready**



## Joule-Samsung

### Air Source Heat Pump Product Range



R32 Outdoor Unit

HHSM -G600005-1	HHSM -G600008-1	HHSM- G600012-1	HHSM- G600016-1	HHSM G600016-3
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Capacity		5kW	8kW	12kW	16kW	16kW
Power		1Φ				3Φ
	<b>Packaged</b>					
HUGH-180COM-3C	180L COMPACT	●	●	●	●	
HUGH-230COM-3C	230L COMPACT	●	●	●	●	
	<b>Pre-Plumbed</b>					
HUGH-G6150-L3C	150L STANDARD	●	●			
HUGH-G6170-L3C	170L STANDARD	●	●	●		
HUGH-G6200-L3C	200L STANDARD	●	●			
HUGH-G6250-N3C	250L STANDARD		●	●	●	●
HUGH-G6300-N3C	300L STANDARD			●	●	●
HUGH-G6150-S3C	150L SLIMLINE	●	●			
HUGH-G6170-S3C	170L SLIMLINE	●	●	●		
HUGS-G6200-L3C	200L SOLAR	●				
HUGS-G6250-N3C	250L SOLAR			●	●	●
HUGS-G6300-N3C	300L SOLAR		●		●	●
	<b>Standalone</b>					
	1PH SO SYS	●	●	●	●	
	3PH SO SYS				●	●
	<b>Buffer</b>					
HUGH-G61860-3C	MONO 180/60L	●	●	●		
HUGH-G62060-3C	MONO 200/60L	●	●	●	●	●
HUGH-G62590-3C	MONO 250/90L		●	●	●	●
HUGH-G64013-3C	MONO 300/130L		●	●	●	●
HUGH-G64013-3C	MONO 400/130L			●	●	●



Tank Integrated Hydro Unit & Smart Plumb Cylinder



# Joule Air Source Heat Pumps - Specification

## Joule-Samsung Mono Specification

R32

A+++



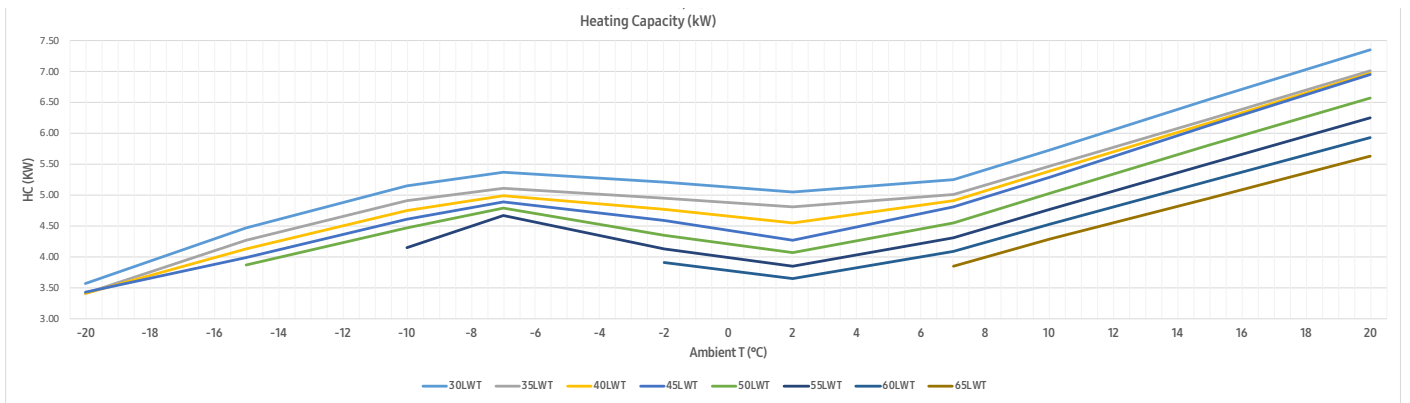
				Outdoor Unit	HHSM-G600005-1	HHSM-G600008-1	HHSM-G600012-1	HHSM-G600016-1	
				Controller	HZSMC-G6000000	HZSMC-G6000000	HZSMC-G6000000	HZSMC-G6000000	
System	Operation	Nominal Capacity	Heating A7/W35 <sup>1</sup> /A7/W55 <sup>2</sup>	W	5.000/4.300	8.000/7.100	12.000/11.300	16.000/15.000	
			Cooling A35/W18 <sup>1</sup>	W	5.000	7.500	12.000	14.000	
		Power Input (Nominal)		Heating A7/W35 <sup>1</sup> /A7/W55 <sup>2</sup>	W	1.030/1.520	1.770/2.530	2.650/3.730	3.620/5.180
				Cooling A35/W18 <sup>1</sup>	W	1.140	1.900	2.770	3.280
			COP (Nominal Heating) A7/W35 <sup>1</sup> /A7/W55 <sup>2</sup>	W/W	4,85/2,83	4,52/2,81	4,53/3,03	4,42/2,90	
			EER (Nominal Cooling) A35/W18 <sup>1</sup>	W/W	4,39	3,95	4,33	4,27	
			SCOP LWT 350 <sup>o</sup> /550 <sup>o</sup>	W/W	4,46/3,2	4,44/3,23	4,69/3,51	4,48/3,53	
			Average Seasonal Space Heating Eff.Class*	-	A+++/A++	A+++/A++	A+++/A++	A+++/A++	
		Current	MCA	A	16,00	22,00	28,00	32,00	
				MFA	A	20,00	27,50	35,00	40,00
		Water Flow Rate	Min	l/min	7,00	7,00	12,00	12,00	
				Max	l/min	48,00	48,00	58,00	58,00
		Leaving Water Temp	Heating	°C	15-65	15-65	15-65	15-65	
				Cooling	°C	5-25	5-25	5-25	5-25
		Function	Smart Grid Ready		-	●	●	●	●
			PV Enabled	-	●	●	●	●	
	2-Zone Control		-	●	●	●	●		
Indoor Compact Unit	Power Supply		0,#,V,Hz	220-240V, 50Hz, 1	220-240V, 50Hz, 1	220-240V, 50Hz, 1	220-240V, 50Hz, 1		
	Water Tank Volume		Litres	180/230	180/230	180/230	180/230		
	Declared Load Profile		L/XL						
	Energy Efficiency Class		-	A	A	A	A		
	Sound	Sound Pressure	Heating/ Cooling Std	dB(A)					
		Sound Power	Heating Std	dB(A)					
	Dimensions	Net Weight		kg	85/90	85/90	85/90	85/90	
Net Dimensions (WxHxD)			mm	1900 x 595 x 625	1900 x 595 x 625	1900 x 595 x 625	1900 x 595 x 625		
Outdoor Unit	Power Supply		0,#,V,Hz	10,220-240V,50Hz	10,220-240V,50Hz	10,220-240V,50Hz	10,220-240V,50Hz		
	Compressor	Type	-	BLDC Twin Rotary	BLDC Twin Rotary	BLDC Twin Rotary	BLDC Twin Rotary		
	Base Heater		-	--	●	●	●		
	Sound	Sound	Heating Std	dB(A)	45	48	50	52	
		Pressure	Cooling Std	dB(A)	45	48	50	54	
		Sound	Heating Std	dB(A)	61	63	64	66	
		Power	Cooling Std	dB(A)	62	64	65	68	
	Dimensions	Net Weight		Kg	58.5	76	110	110	
		Net Dimensions (WxHxD)		mm	880 x 798 x 310	940 x 998 x 330	940 x 1420 x 330	940 x 1420 x 330	
	Refrigerant	Type		-	R32	R32	R32	R32	
		Factory Charging		tCO2e	0,68	0,78	1,49	1,49	
			kg	1,00	1,15	2,20	2,20		
Piping	Water Pipe	Inlet/Outlet	Ø,mm	28/28	28/28	28/28	28/28		
	Water Pipe (DHW)	Inlet/Outlet	Ø,mm	22/22	22/22	22/22	22/22		
Operation	Ambient Temperature	Heating	°C	-25-35	-25-35	-25-35	-25-35		
		Cooling	°C	10-46	10-46	10-46	10-46		
		DHW	°C	-25-43	-25-43	-25-43	-25-43		

# Joule Air Source Heat Pumps - Specification

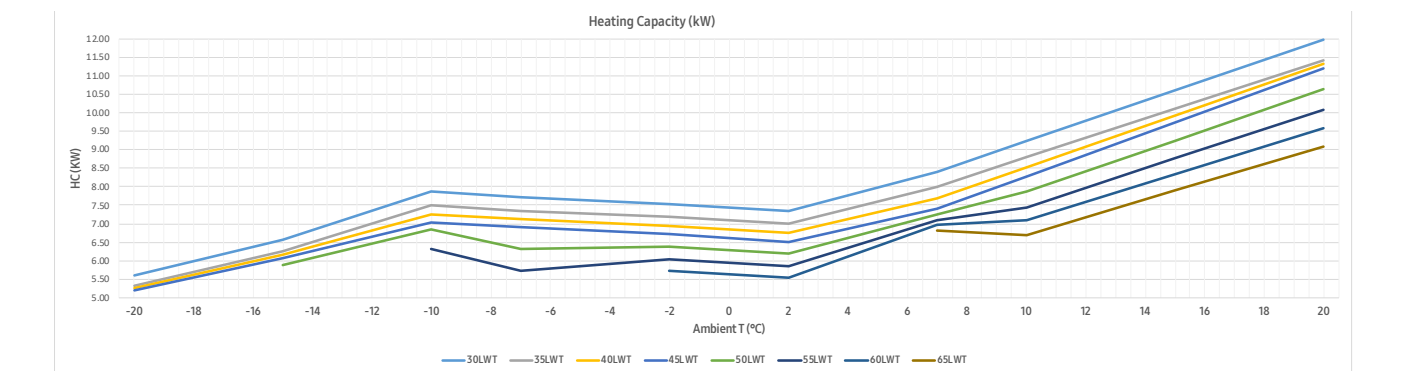
## Maximum Heating Capacity (Integrated Value)

LWT (Leaving Water Temp.), Tamb (Ambient Temp.), HC (Heating Capacity), PI (Power input)

HHSM-G600005-1	LWT(°C) 30		35		40		45		50		55		60		65		
	Tamb(°C)	HC(KW)	PI(KW)	HC(KW)	PI(KW)	HC(KW)	PI(KW)	HC(KW)	PI(KW)	HC(KW)	PI(KW)	HC(KW)	PI(KW)	HC(KW)	PI(KW)	HC(KW)	PI(KW)
-20	3.57	1.42	3.40	1.60	3.41	1.69	3.43	1.98									
-15	4.47	1.63	4.26	1.83	4.12	1.92	3.99	2.00	3.87	2.10							
-10	5.15	1.69	4.90	1.90	4.75	1.99	4.61	2.08	4.47	2.18	4.15	2.39					
-7	5.36	1.67	5.10	1.88	4.99	2.12	4.88	2.36	4.78	2.58	4.67	2.79					
-2	5.20	1.48	4.95	1.67	4.76	1.83	4.58	1.99	4.35	2.24	4.12	2.49	3.90	2.76			
2	5.04	1.29	4.80	1.45	4.54	1.54	4.27	1.62	4.06	1.82	3.84	2.03	3.64	2.25			
7	5.25	0.92	5.00	1.03	4.90	1.17	4.80	1.30	4.55	1.41	4.30	1.52	4.08	1.56	3.85	1.60	
10	5.73	0.92	5.46	1.04	5.38	1.18	5.29	1.31	5.03	1.48	4.76	1.64	4.53	1.69	4.29	1.74	
15	6.54	0.94	6.23	1.05	6.17	1.18	6.12	1.33	5.81	1.50	5.51	1.66	5.23	1.72	4.95	1.77	
20	7.35	0.95	7.00	1.07	6.97	1.20	6.94	1.35	6.56	1.52	6.25	1.69	5.93	1.74	5.62	1.79	



HHSM-G600008-1	LWT(°C) 30		35		40		45		50		55		60		65		
	Tamb(°C)	HC(KW)	PI(KW)	HC(KW)	PI(KW)	HC(KW)	PI(KW)	HC(KW)	PI(KW)	HC(KW)	PI(KW)	HC(KW)	PI(KW)	HC(KW)	PI(KW)	HC(KW)	PI(KW)
-20	5.60	2.21	5.33	2.48	5.27	2.70	5.20	3.13									
-15	6.56	2.42	6.25	2.72	6.15	2.94	6.06	3.16	5.88	3.32							
-10	7.86	2.66	7.49	2.99	7.26	3.14	7.04	3.28	6.83	3.45	6.33	3.77					
-7	7.72	2.69	7.35	3.02	7.13	3.17	6.91	3.32	6.31	3.56	5.71	3.85					
-2	7.53	2.39	7.18	2.69	6.94	2.83	6.71	2.97	6.37	3.34	6.03	3.71	5.72	4.13			
2	7.35	2.09	7.00	2.35	6.75	2.49	6.50	2.62	6.18	2.95	5.85	3.28	5.54	3.64			
7	8.40	1.58	8.00	1.70	7.70	1.95	7.40	2.12	7.25	2.33	7.10	2.53	6.96	2.62	6.81	2.72	
10	9.23	1.57	8.79	1.77	8.53	1.97	8.28	2.17	7.86	2.44	7.45	2.71	7.08	2.79	6.70	2.88	
15	10.60	1.56	10.10	1.76	9.92	1.97	9.74	2.24	9.25	2.52	8.76	2.80	8.33	2.89	7.89	2.98	
20	11.98	1.56	11.41	1.75	11.31	2.01	11.20	2.32	10.64	2.61	10.08	2.90	9.58	2.99	9.07	3.08	



1. Heating capacity: Capacity is according to Eurovent rating standard OM-3-207 5 and valid for heated water range  $\Delta t = 3 - 8^\circ\text{C}$

2. Cooling capacity: Capacity is according to Eurovent rating standard OM-3-207 5 and valid for chilled water range  $\Delta t = 3 - 8^\circ\text{C}$

3. Power input: Power input is according to Eurovent rating standard OM-3-2015.

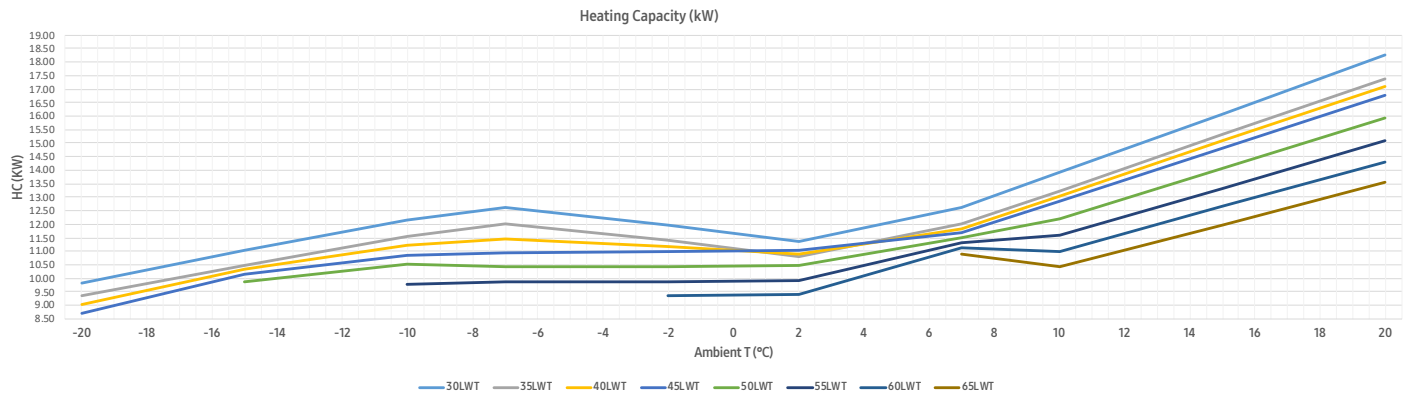
4. Peak value: Tested without defrost operation in accordance with EN7 457 7  
\* The real capacity would be changed according to the install environment.

# Joule Air Source Heat Pumps - Specification

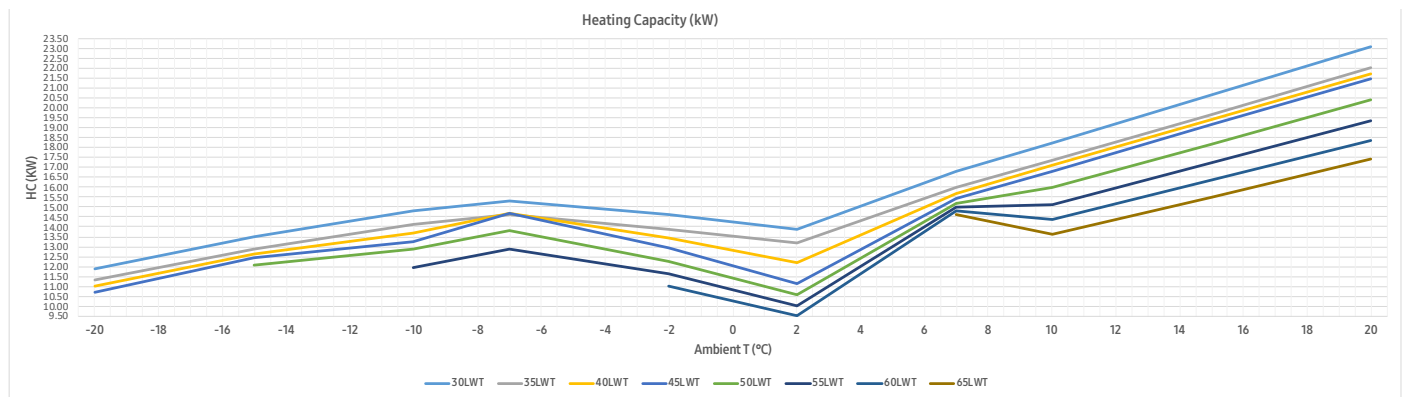
## Maximum Heating Capacity (Integrated Value)

LWT (Leaving Water Temp.), Tamb (Ambient Temp.), HC (Heating Capacity), PI (Power input)

HHSM-G600012-1	LWT(°C) 30		35		40		45		50		55		60		65		
	Tamb(°C)	HC(KW)	PI(KW)	HC(KW)	PI(KW)	HC(KW)	PI(KW)	HC(KW)	PI(KW)	HC(KW)	PI(KW)	HC(KW)	PI(KW)	HC(KW)	PI(KW)	HC(KW)	PI(KW)
-20	9.82	4.08	9.35	4.58	9.04	4.68	8.72	4.88									
-15	11.02	4.21	10.49	4.73	10.33	4.83	10.16	4.93	9.85	5.18							
-10	12.14	4.23	11.56	4.75	11.22	4.94	10.87	5.12	10.54	5.38	9.78	5.89					
-7	12.60	4.19	12.00	4.71	11.47	5.18	10.94	5.64	10.41	6.11	9.87	6.57					
-2	11.97	3.56	11.40	4.01	11.19	4.48	10.98	4.95	10.43	5.56	9.88	6.18	9.36	6.87			
2	11.34	2.94	10.80	3.30	10.91	3.78	11.02	4.25	10.47	4.78	9.92	5.31	9.40	5.90			
7	12.60	2.36	12.00	2.65	11.85	2.92	11.70	3.18	11.50	3.46	11.30	3.73	11.11	3.83	10.91	3.94	
10	13.91	2.34	13.25	2.63	13.06	2.88	12.87	3.14	12.22	3.53	11.58	3.92	11.00	4.05	10.42	4.17	
15	16.09	2.30	15.32	2.59	15.07	2.79	14.81	3.07	14.07	3.45	13.33	3.84	12.66	3.96	11.99	4.08	
20	18.27	2.27	17.40	2.55	17.08	2.75	16.75	3.00	15.91	3.38	15.08	3.75	14.32	3.87	13.57	3.98	



HHSM-G600016-1	LWT(°C) 30		35		40		45		50		55		60		65		
	Tamb(°C)	HC(KW)	PI(KW)	HC(KW)	PI(KW)	HC(KW)	PI(KW)	HC(KW)	PI(KW)	HC(KW)	PI(KW)	HC(KW)	PI(KW)	HC(KW)	PI(KW)	HC(KW)	PI(KW)
-20	11.87	5.05	11.30	5.67	10.99	6.04	10.68	6.61									
-15	13.51	5.29	12.87	5.94	12.66	6.31	12.44	6.67	12.07	7.01							
-10	14.82	5.36	14.11	6.03	13.67	6.48	13.27	6.94	12.87	7.28	11.94	7.98					
-7	15.33	5.34	14.60	6.00	14.66	6.77	14.71	7.53	13.79	7.64	12.86	7.75					
-2	14.60	4.63	13.90	5.20	13.41	5.65	12.93	6.10	12.28	6.86	11.63	7.62	11.02	8.47			
2	13.86	3.92	13.20	4.40	12.17	4.53	11.14	4.66	10.58	5.24	10.03	5.83	9.50	6.47			
7	16.80	3.22	16.00	3.62	15.70	4.06	15.40	4.49	15.20	4.84	15.00	5.18	14.81	5.28	14.61	5.38	
10	18.25	3.26	17.38	3.66	17.09	4.10	16.80	4.54	15.96	5.10	15.12	5.67	14.37	5.82	13.61	6.02	
15	20.68	3.33	19.69	3.74	19.42	4.11	19.14	4.61	18.18	5.19	17.23	5.77	16.37	5.95	15.50	6.13	
20	23.10	3.39	22.00	3.81	21.74	4.21	21.48	4.69	20.41	5.28	19.33	5.86	18.37	6.05	17.40	6.23	



1. Heating capacity: Capacity is according to Eurovent rating standard OM-3-207 5 and valid for heated water range  $L_t t = 3 \sim 8^\circ\text{C}$

2. Cooling capacity: Capacity is according to Eurovent rating standard OM-3-207 5 and valid for chilled water range  $L_t t = 3 \sim 8^\circ\text{C}$

3. Power input: Power input is according to Eurovent rating standard OM-3-2015.

4. Peak value: Tested without defrost operation in accordance with EN7 457 7  
\* The real capacity would be changed according to the install environment.



## Silent mode

In this mode max compressor frequency and max outdoor unit fan speed are limited.

Step 1					
Outdoor Unit	Sound Power dB(A) <sup>2</sup>	Output (kW) <sup>1</sup>	Correction Factor	Corrected Output (kW)	Corrected Sound Power dB(A) <sup>2</sup>
HHSM-G600005-1	61	4.97	0.87	4.32	58
HHSM-G600008-1	63	7.56	0.87	6.58	60
HHSM-G600012-1	64	12.81	0.87	11.14	61
HHSM-G600016-1	66	12.95	0.87	11.27	63

Step 2					
Outdoor Unit	Sound Power dB(A) <sup>2</sup>	Output (kW) <sup>1</sup>	Correction Factor	Corrected Output (kW)	Corrected Sound Power dB(A) <sup>2</sup>
HHSM-G600005-1	61	4.97	0.78	3.88	56
HHSM-G600008-1	63	7.56	0.78	5.90	58
HHSM-G600012-1	64	12.81	0.78	9.99	59
HHSM-G600016-1	66	12.95	0.78	10.10	61

Step 3					
Outdoor Unit	Sound Power dB(A) <sup>2</sup>	Output (kW) <sup>1</sup>	Correction Factor	Corrected Output (kW)	Corrected Sound Power dB(A) <sup>2</sup>
HHSM-G600005-1	61	4.97	0.64	3.18	54
HHSM-G600008-1	63	7.56	0.64	4.84	56
HHSM-G600012-1	64	12.81	0.64	8.20	57
HHSM-G600016-1	66	12.95	0.64	8.29	59

\*1 These capacities are calculated at A2/W45.

\*2 Sound pressure values for heating mode.



# Joule Air Source Heat Pumps - SAP Database



Joule Item Code	HHSM-G600005-1	HHSM-G600005-1	HHSM-G600005-1	HHSM-G600008-1	HHSM-G600008-1	HHSM-G600008-1
Index number	104359	104360	104361	104367	104368	104369
Model name	AE050RXYDEG	AE050RXYDEG	AE050RXYDEG	AE080RXYDEG	AE080RXYDEG	AE080RXYDEG
Fuel	Electricity					
Heat emitter	Flow temp <= 55°C	Flow temp <= 45°C	Flow temp <= 35°C	Flow temp <= 55°C	Flow temp <= 45°C	Flow temp <= 35°C
Output power (kW) [@-4.7°C]	4.400	4.830	5.090	7.270	7.970	7.270
Reversible	No					
Heat source	Air					
Service provision	Space and water heating all year					
Heating duration						
Weather Compensation	Yes					
HW vessel	Separate and specified vessel					
HW volume (l)	150					
HW heat loss rate (kWh/day)	1.770					
HW heat exchanger area (m2)	0.950	0.950	0.950	1.250	1.250	1.250



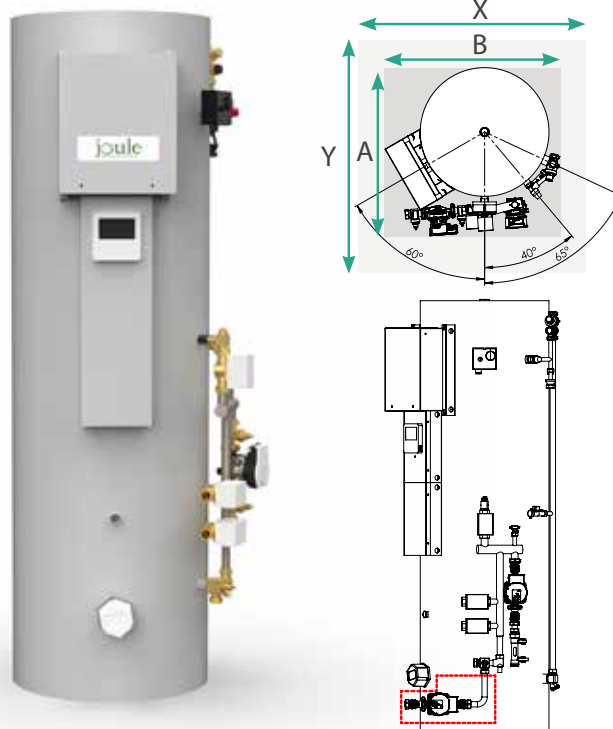
Joule Item Code	HHSM-G600012-1	HHSM-G600012-1	HHSM-G600012-1	HHSM-G600016-1	HHSM-G600016-1	HHSM-G600016-1
Index number	104375	104376	104377	104383	104384	104385
Model name	AE120RXYDEG	AE120RXYDEG	AE120RXYDEG	AE160RXYDEG	AE160RXYDEG	AE160RXYDEG
Fuel	Electricity					
Heat emitter	Flow temp <= 55°C	Flow temp <= 45°C	Flow temp <= 35°C	Flow temp <= 55°C	Flow temp <= 45°C	Flow temp <= 35°C
Output power (kW) [@-4.7°C]	10.580	11.610	11.690	14.180	15.550	14.430
Reversible	No					
Heat source	Air					
Service provision	Space and water heating all year					
Heating duration						
Weather Compensation	Yes					
HW vessel	Separate and specified vessel					
HW volume (l)	150					
HW heat loss rate (kWh/day)	1.770					
HW heat exchanger area (m2)	1.800	1.800	1.800	1.800	1.800	1.800

# Joule Cylinders- Standard Pre-Plumb

## Standard Pre-Plumbed Cylinder For Joule Samsung Monobloc Units

Joule hot water cylinders are next generation in pre-plumbed hot water solutions. With its sleek design and pre plumbed architecture the space requirements for the pre-plumbed hot water cylinder have been reduced dramatically.

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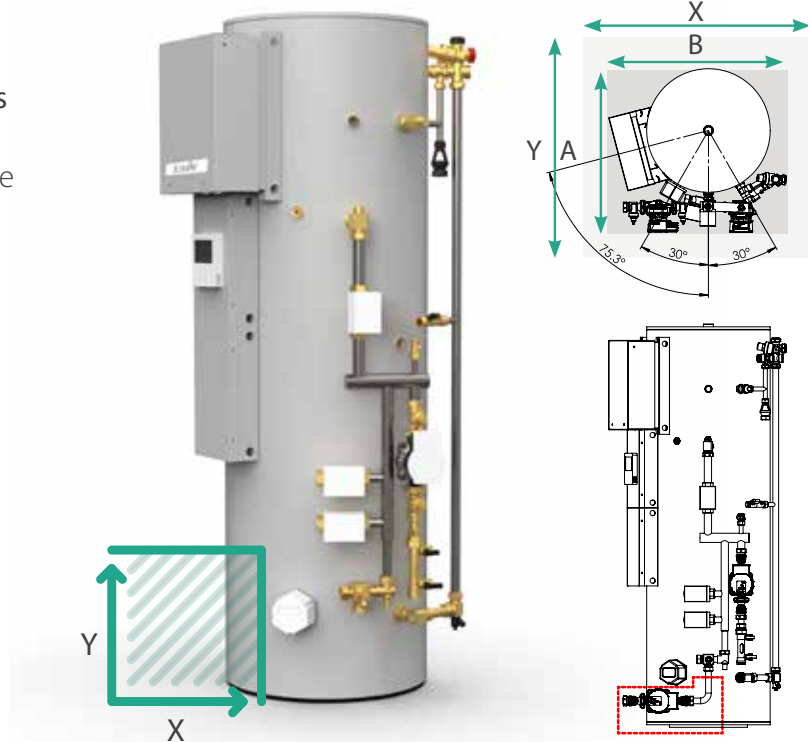


CYLINDER		HUGH-G6150-L3C	HUGH-G6170-L3C	HUGH-G6200-L3C	HUGH-G6250-N3C	HUGH-G6300-N3C	
NOMINAL HOT WATER VOLUME (LITRES)		150	170	200	250	300	
ErP RATING		C	C	C	C	C	
STANDING LOSS (W)		55	66	81	89	92	
HEAT UP TIME (MINS)		10	10	11	14	17	
WATER		Primary Circuit Pump	Wilo- Yonos PARA RS 15/7.0 iPWM1 130 12				
		Heating Circuit Pump					
		Connection Size (mm) Heating / DHW					22 / 22
WATER SAFETY	Water Circuit	Control Thermistor (°C)	80				
		DHW Expansion Vessel (Litres)	18	18	18	18	24
	DHW Cylinder	Control Thermistor (°C)	75	75	75	75	75
		Over Temperature Cut-Out (°C)	80 ± 5				
		Temp and Pressure Relief Valve (°C) / (MPa (Bar))	90 / 1.0 (10)				
		Expansion Relief Valve (Cold) (MPa (Bar))	0.6 (6)				
DIMENSIONS (mm)		Height	1190	1310	1490	1815	1600
		Width	540	540	540	540	600
FOOTPRINT (mm)		Length (A)	740			800	
		Width (B)	740			800	
FREE FLOOR SPACE (mm)		Length (X)	1290			1350	
		Width (Y)	840			900	
WEIGHT EMPTY / FULL (kg)		46/196	54/223	58/256	67/316	74/372	
CYLINDER MATERIAL		Cylinder	Stainless Steel Duplex LDX 2101				
		Insulation	Insulation Type	Polyurethane foam CFC-Free and HCFC Free			
			Insulation Thickness (mm)	50			
			GWP of Insulation	3.1			
			ODP of Insulation	0			
ELECTRICAL DATA		Electrical Supply MIM	220-240v, 50Hz				
		Phase	Single				
		Fuse Rating - MCB Sizes (A)*1	16				
		Imerssion Capacity (kW)	3				
		Max Running Current (A)	13				
		Fuse Rating - MCB Sizes (A)*1	16				

# Joule Cylinders- Slimline Pre-Plumb

## Slimline Pre-Plumbed Cylinder For Joule Samsung Monobloc Units

Joule Cyclone Slimline cylinders have been designed for the use in tight areas where there is more height than width available.



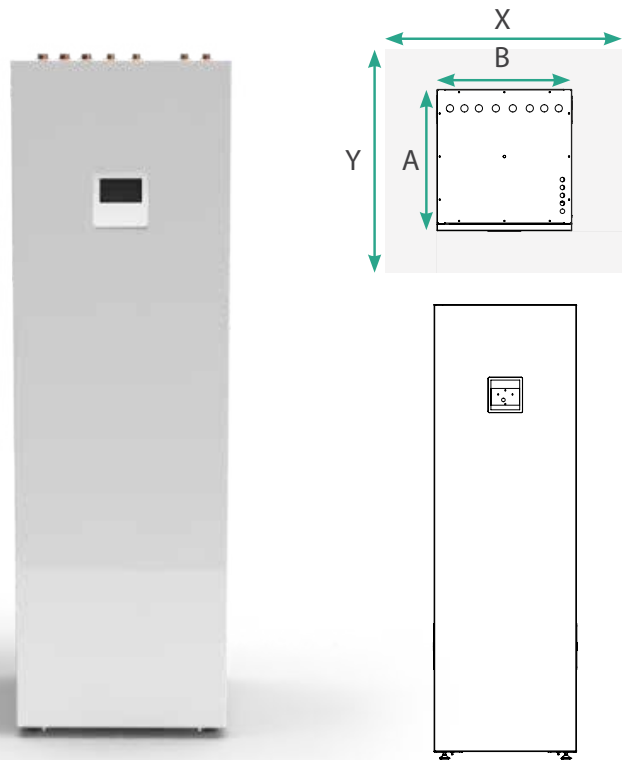
CYLINDER		HUGH-G6150-S3C	HUGH-G6170-S3C	HUGH-G6205-S3C
NOMINAL HOT WATER VOLUME (LITRES)		150	170	205
ErP RATING		C	C	C
Standing Loss (W)		70	79	84
Heat Up Time (mins)		26	27	31
WATER	Primary Circuit Pump	Wilo- Yonos PARA RS 15/7.0 iPWM1 130 12		
	Heating Circuit Pump			
	Connection Size (mm) Heating / DHW			
WATER SAFETY	Water Circuit	Control Thermistor (°C)	80	
		DHW Expansion Vessel (Litres)	18	
	DHW Cylinder	Control Thermistor (°C)	75	
		Over Temperature Cut-Out (°C)	80 ± 5	
		Temp and Pressure Relief Valve (°C) / (MPa (Bar))	90 / 1.0 (10)	
		Expansion Relief Valve (Cold) (MPa (Bar))	0.6 (6)	
DIMENSIONS (mm)	Height	1335	1535	1880
	Width	475		
FOOTPRINT (mm)	Length (A)	675		
	Width (B)	675		
FREE FLOOR SPACE (mm)	Length (X)	1225		
	Width (Y)	775		
WEIGHT EMPTY / FULL (kg)		35 / 175	39 / 199	43 / 230
CYLINDER MATERIAL	Cylinder	Cylinder Material		
	Insulation	Stainless Steel Duplex LDX 2101		
		Insulation Type		
		Polyurethane foam CFC-Free and HCFC Free		
	Insulation Thickness (mm)	50		
	GWP of Insulation	3.1		
	ODP of Insulation	0		
ELECTRICAL DATA	Electrical Supply		220-240v, 50Hz	
	Phase		Single	
	Fuse Rating - MCB Sizes (A)*1		16	
	Capacity (kW)		3	
	Max Running Current (A)		13	
	Fuse Rating - MCB Sizes (A)*1		16	

# Joule Cylinders- Smart Plumb Pre-plumb Compact

## Compact Pre-Plumbed Cylinder For Joule Samsung Monobloc Units

The new and innovative Smart Plumb Compact has been designed to not only look modern and minimise footprint for homeowners, but it also has been designed to benefit installers.

Having all main components easily accessible proves maintenance simple, as well as strategically assigning all valves to be part of one unit concludes everything being in a single place logically makes the job at hand simple, less time consuming and cost effective.



CYLINDER		HUGH-180COM-3C	HUGH-230COM-3C	
NOMINAL HOT WATER VOLUME (LITRES)		180L	230L	
HEAT PUMP COMBINATION HEATER - Large Profile (Average Climate) ErP Rating		C		
OPERATING AMBIENT TEMPERATURE (°C DB)		0 ~ +35°C (RH<80%)	0 ~ +35°C (RH<80%)	
SOUND PRESSURE LEVEL AT 1M (dBA)		28	28	
WATER	Primary Circuit Pump	willo- Yonos PARA RS 15/7.0 iPWM1 130 12		
	Sanitary Hot Water Pump			
	Connection Size (mm) Heating / DHW	28 / 22	28 / 22	
WATER SAFETY DEVICES	Water Circuit	Control Thermistor (°C)	1 - 80	1 - 80
		Flow Sensor (minimum flow 5L/min)	Supplied	Supplied
	DHW Cylinder	Control Thermistor (°C)	75	75
		Temp and Pressure Relief Valve (°C)/ (MPa) (Bar)	90 / 0.7 (7)	
DIMENSIONS (mm)	Width	595		
	Height	1900		
FOOTPRINT (mm)	Length (A)	620		
	Width (B)	595		
FREE FLOOR SPACE (mm)	Length (X)	595		
	Width (Y)	1020		
WEIGHT EMPTY / FULL (kg)		85/ 265	90/ 320	
ELECTRICAL DATA	Electrical Supply	220-240v, 50Hz		
	Phase	Single		
	Fuse Rating - MCB Sizes (A)*1	10		
	Immersion Capacity (kW)	3		
	Max Running Current (A)	13		
	Fuse Rating - MCB Sizes (A)*1	16		

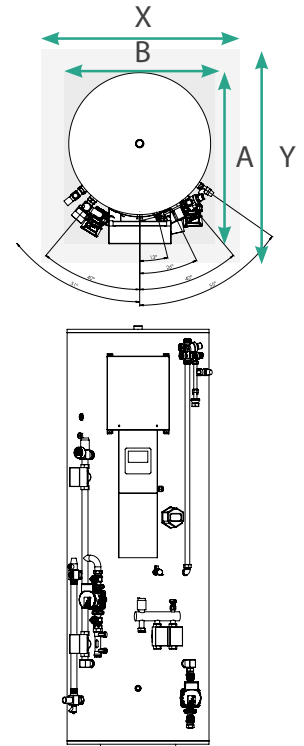


# Joule Cylinders - Smart Plumb Pre-plumbed

## Smart Plumb Pre-Plumbed Cylinder For Joule Samsung Monobloc Units

The Smart Plumb by Joule is the most innovative pre-plumbed solution for heat pump systems. The cylinder / buffer combo is pre-plumbed, wired and commissioned before it leaves the factory.

The buffer / low loss header acts as an intermediary vessel for the heating system which helps system flow rate and defrost cycling. With the cylinder sitting over the buffer tank the foot print has been greatly reduced. The control wires are all hidden behind the cable cover.



CYLINDER		HUGH-G61860-3C	HUGH-G62060-3C	HUGH-G62590-3C	HUGH-G63013-3C	HUGH-G64013-3C
NOMINAL HOT WATER VOLUME (LITRES)		180L/60L	200L/60L	250L/90L	300L/130L	400L/130L
ErP RATING		B/B	C/B	C/B	C/B	C/B
HEAT UP TIME - COIL (MINS)		55	66	87	102	
STANDING LOSS (W)		10	10	14	19	
WATER	Primary Circuit Pump	Wilo - Yonos PARA RS 15/7.0 iPWM1 130 12				
	Heating Circuit Pump					
	Connection Size (mm) Heating / DHW					
WATER SAFETY	Water Circuit	Control Thermistor (°C)	80			
	DHW Cylinder	DHW Expansion Vessel (Litres)	18			
		Control Thermistor (°C)	75			
		Over Temperature Cut-Out (°C)	80 ± 5			
		Temp and Pressure Relief Valve (°C) / (MPa (Bar))	90 / 1.0 (10)			
Expansion Relief Valve (Cold) (MPa (Bar))	0.6 (6)					
DIMENSIONS (mm)	Width	540	540	600	710	710
	Height	1870	1980	1950	1850	2160
FOOTPRINT (mm)	Length (A)	740		800	910	
	Width (B)	740		800	910	
FREE FLOOR SPACE (mm)	Length (X)	1290		1350	1460	
	Width (Y)	840		900	1010	
WEIGHT EMPTY / FULL (kg)						
CYLINDER MATERIAL	Cylinder	Cylinder Material		Stainless Steel Duplex LDX 2101		
	Insulation	Insulation Type		Polyurethane foam CFC-Free and HCFC Free		
		Insulation Thickness (mm)		50		
		GWP of Insulation		3.1		
		ODP of Insulation		0		
ELECTRICAL DATA	Electrical Supply		220-240v, 50Hz			
	Phase		Single			
	Fuse Rating - MCB Sizes (A)*1		16			
	Immersion Capacity (kW)		3			
	Max Running Current (A)		13			
	Fuse Rating - MCB Sizes (A)*1		16			

# Joule-Samsung 5kW Monobloc Air Source Heat Pump

## HHSM-G600005-1



### Solution Key Features

- 7 year Warranty
- SCOP: Best on MCS Database – 4.85
- 65°C Hot Water
- <45dB(A) - Quietest System on the Market
- 5Kw Outputs
- Low GWP Refrigerant – R32

SYSTEM PRICE			INDOOR UNIT				
Ref Code	Ref Code Description	Dimensions (H x W x D)	Breaker (A) <sup>2</sup>	Pipe Size (mm) <sup>3</sup>	Price (£)		
<b>Packaged</b>							
HXSM-G6-011*	(HXSM-G6-016)* SAMSUNG MONO 5 - 4.35KW 1PH 180L COMPACT	1900 x 595 x 620	16 & 16	28 / 22	£5,567.03	(£5,985.03)	
HXSM-G6-131*	(HXSM-G6-136)* SAMSUNG MONO 5 - 4.35KW 1PH 230L COMPACT	1900 x 595 x 620	16 & 16	28 / 22	£5,567.03	(£5,985.03)	
<b>Pre-Plumbed</b>							
HXSM-G6-031*	(HXSM-G6-048)* SAMSUNG MONO 5 - 4.35KW 1PH 150L STANDARD	1190 x 740 x 740	16 & 16	28 / 22	£4,891.40	(£5,309.40)	
HXSM-G6-032*	(HXSM-G6-049)* SAMSUNG MONO 5 - 4.35KW 1PH 170L STANDARD	1310 x 740 x 740	16 & 16	28 / 22	£4,959.97	(£5,377.97)	
HXSM-G6-033*	(HXSM-G6-050)* SAMSUNG MONO 5 - 4.35KW 1PH 200L STANDARD	1490 x 740 x 740	16 & 16	28 / 22	£5,027.28	(£5,445.28)	
HXSM-G6-021*	(HXSM-G6-026)* SAMSUNG MONO 5 - 4.35KW 1PH 150L SLIMLINE	1335 x 675 x 675	16 & 16	28 / 22	£4,891.40	(£5,309.40)	
HXSM-G6-022*	(HXSM-G6-027)* SAMSUNG MONO 5 - 4.35KW 1PH 170L SLIMLINE	1535 x 675 x 675	16 & 16	28 / 22	£4,959.97	(£5,377.97)	
HXSM-G6-065*	(HXSM-G6-079)* SAMSUNG MONO 5 - 4.35KW 1PH 200L SOLAR	1513 x 683 x 730	16 & 16	28 / 22	£5,234.21	(£5,652.21)	
HXSM-G6-066*	(HXSM-G6-080)* SAMSUNG MONO 5 - 4.35KW 1PH 250L SOLAR	1760 x 545	16 & 16	28 / 22	£5,366.82	(£5,784.82)	
<b>Standalone</b>							
HXSM-G6-001**	(HXSM-G6-006)** SAMSUNG MONO 5 - 4.35KW 1PH SO SYS	422 x 393 x 87	Via ODU or 16	28 / 22-	£3,150.00	(£3,568.00)	
<b>Buffer</b>							
HXSM-G6-093*	(HXSM-G6-108)* SAMSUNG MONO 5 - 4.35KW 1PH HP MONO 180/60	1600 x 650 x 730	16 & 16	28 / 22	£5,781.03	(£6,199.03)	
HXSM-G6-094*	(HXSM-G6-109)* SAMSUNG MONO 5 - 4.35KW 1PH HP MONO 200/60	1800 x 650 x 730	16 & 16	28 / 22	£5,848.35	(£6,266.35)	

**Included Components \*:**

Outdoor Unit, Insulated Flexible Connection Pipes, 1"Y Pattern Strainer With Isolation and Pre Plumbed Cylinder

**Included Components\*\*:**

Outdoor Unit, Insulated Flexible Connection Pipes, 1"Y Pattern Strainer With Isolation and Mono Control Center

**Recommended Components:**

20l Concentrate Hp Fluid and Anti-Vibration Fix-It Foot 600mm Kit

## Outdoor Unit Key Technical Features

- Dimensions HxWxD (mm): 798x 880 x 310\*1
- Sound Pressure Level at 1M: 45 DBA
- Low maintenance and quiet operation
- ErP: A+++ (35°C)
- Breaker: 20 Amp
- Recommended pipe size: 28 mm
- Nominal flow rate: 21L/min

INCLUDED COMPONENTS					
Type	Description	Packaged	Pre-Plumbed	Standalone	Buffer
Electrical	Immersion Heater	●	●		●
	Wifi ready System Controller	●	●	●	●
	Water Temperature Thermistor	●	●	●	●
	Flow & Return Water Temperature Thermistor	●	●	●	●

Mechanical	Filter Y-Strainer	●	●	●	●
	Insulated Flexible Connection Pipes	●	●	●	●
	Flow Sensor	●	●	●	●
	Primary Circulating Pump	●	●		●
	Heating Circulating Pump	●	●		●
	Zone Valves	●	●		●
	Low Loss Header		●		
	Buffer Tank				●
	Domestic Hot Water Expansion Vessel	●	●		●
	Primary Expansion Vessel	●			
	Primary System Pressure Gauge	●	●		●
	Filling Loop	●	●		●
	Automatic Air-Vent	●	●		●
	Drain Valve	●	●		●
	Pressure Reducing Valve	●	●		●
	Temperature / Pressure Relief Valve	●	●		●
	Tundish	●	●		●

\*1 exc. grille. \*2 Recommended breaker rating for outdoor unit / Indoor unit

\*3 Outdoor unit F&R / Indoor unit F&R.

# Joule-Samsung 8kW Monobloc Air Source Heat Pump

## HHSM-G600008-1



### Solution Key Features

- 7 year Warranty
- SCOP: Best on MCS Database – 4.52
- 65°C Hot Water
- <48DbdB - Quietest System on the Market
- 8Kw Outputs
- Low GWP Refrigerant – R32

SYSTEM PRICE			INDOOR UNIT				
Ref Code	Ref Code Description	Dimensions (H x W x D)	Breaker (A) <sup>*2</sup>	Pipe Size (mm) <sup>*3</sup>	Price (£)		
Packaged							
HXSM-G6-012*	(HXSM-G6-017)*	SAMSUNG MONO 8 - 6.37KW 1PH 180L COMPACT	1900 x 595 x 620	16 & 16	28 / 22	£6,162.88	(£6,580.88)
HXSM-G6-132*	(HXSM-G6-137)*	SAMSUNG MONO 8 - 6.37KW 1PH 230L COMPACT	1900 x 595 x 620	16 & 16	28 / 22	£6,162.88	(£6,580.88)
Pre-Plumbed							
HXSM-G6-034*	(HXSM-G6-051)*	SAMSUNG MONO 8 - 6.37KW 1PH 150L STANDARD	1190 x 740 x 740	16 & 16	28 / 22	£5,487.25	(£5,905.25)
HXSM-G6-035*	(HXSM-G6-052)*	SAMSUNG MONO 8 - 6.37KW 1PH 170L STANDARD	1310 x 740 x 740	16 & 16	28 / 22	£5,555.81	(£5,973.81)
HXSM-G6-036*	(HXSM-G6-053)*	SAMSUNG MONO 8 - 6.37KW 1PH 200L STANDARD	1490 x 740 x 740	16 & 16	28 / 22	£5,623.12	(£6,041.12)
HXSM-G6-037*	(HXSM-G6-054)*	SAMSUNG MONO 8 - 6.37KW 1PH 250L STANDARD	1815x 740 x 740	16 & 16	28 / 22	£5,710.18	(£6,128.18)
HXSM-G6-023*	(HXSM-G6-028)*	SAMSUNG MONO 8 - 6.37KW 1PH 150L SLIMLINE	1335 x 675 x 675	16 & 16	28 / 22	£5,487.25	(£5,905.25)
HXSM-G6-024*	(HXSM-G6-029)*	SAMSUNG MONO 8 - 6.37KW 1PH 170L SLIMLINE	1535 x 675 x 675	16 & 16	28 / 22	£5,555.81	(£5,973.81)
HXSM-G6-067*	(HXSM-G6-081)*	SAMSUNG MONO 8 - 6.37KW 1PH 210L SOLAR	1510 x 545	16 & 16	28 / 22	£5,830.04	(£6,248.04)
HXSM-G6-068*	(HXSM-G6-082)*	SAMSUNG MONO 8 - 6.37KW 1PH 250L SOLAR	1760 x 545	16 & 16	28 / 22	£6,203.27	(£6,621.27)
HXSM-G6-069*	(HXSM-G6-083)*	SAMSUNG MONO 8 - 6.37KW 1PH 300L SOLAR	1980 x 545	16 & 16	28 / 22	£6,651.12	(£7,069.12)
Standalone							
HXSM-G6-002**	(HXSM-G6-007)**	SAMSUNG MONO 8 - 6.37KW 1PH SO SYS	422 x 393 x 87	Via ODU or 16	28 / 22	£3,805.67	(£4,223.67)
Buffer							
HXSM-G6-095*	(HXSM-G6-110)*	SAMSUNG MONO 8 - 6.37KW 1PH JOULE HP MONO 180/60L	1870 x 540	16 & 16	28 / 22	£6,376.88	(£6,794.88)
HXSM-G6-096*	(HXSM-G6-111)*	SAMSUNG MONO 8 - 6.37KW 1PH JOULE HP MONO 200/60L	1980 x 540	16 & 16	28 / 22	£6,444.19	(£6,862.19)
HXSM-G6-097*	(HXSM-G6-112)*	SAMSUNG MONO 8 - 6.37KW 1PH JOULE HP MONO 250/90L	1670 x 600	16 & 16	28 / 22	£6,531.25	(£6,949.25)
HXSM-G6-123*	(HXSM-G6-127)*	SAMSUNG MONO 8 - 6.37KW 1PH JOULE HP MONO 300/130L	1850 x 710	16 & 16	28 / 22	£7,471.75	(£7,949.46)

**Included Components\*:**

Outdoor Unit, Insulated Flexible Connection Pipes, 1"Y Pattern Strainer With Isolation and Pre Plumbed Cylinder

**Included Components\*\*:**

Outdoor Unit, Insulated Flexible Connection Pipes, 1"Y Pattern Strainer With Isolation and Mono Control Center

**Recommended Components:**

20l Concentrate Hp Fluid and Anti-Vibration Fix-It Foot 600mm Kit



## Outdoor Unit Key Technical Features

- Dimensions HxWxD (mm): 998 x 940 x 330\*1
- Sound Pressure Level at 1m: 48 dBA
- ErP: A+++ (35°C)
- Breaker: 25 Amp
- Recommended pipe size: 28mm
- Nominal flow rate: 24L/min

INCLUDED COMPONENTS					
Type	Description	Packaged	Pre-Plumbed	Standalone	Buffer
Electrical	Immersion Heater	●	●		●
	Wifi ready System Controller	●	●	●	●
	Water Temperature Thermistor	●	●	●	●
	Flow & Return Water Temperature Thermistor	●	●	●	●

Mechanical	Filter Y-Strainer	●	●	●	●
	Insulated Flexible Connection Pipes	●	●	●	●
	Flow Sensor	●	●	●	●
	Primary Circulating Pump	●	●		●
	Heating Circulating Pump	●	●		●
	Zone Valves	●	●		●
	Low Loss Header		●		
	Buffer Tank				●
	Domestic Hot Water Expansion Vessel	●	●		●
	Primary Expansion Vessel	●			
	Primary System Pressure Gauge	●	●		●
	Filling Loop	●	●		●
	Automatic Air-Vent	●	●		●
	Drain Valve	●	●		●
	Pressure Reducing Valve	●	●		●
	Temperature / Pressure Relief Valve	●	●		●
	Tundish	●	●		●

\*1 exc. grille. \*2 Recommended breaker rating for outdoor unit / Indoor unit

\*3 Outdoor unit F&R / Indoor unit F&R.

## Joule-Samsung 12kW Monobloc Air Source Heat Pump

### HHSM-G600012-1

#### Solution Key Features

- 7 year Warranty
- SCOP: Best on MCS Database – 4.53
- 65°C Hot Water
- <50DbdB - Quietest System on the Market
- 12Kw Outputs
- Low GWP Refrigerant – R32



SYSTEM PRICE			INDOOR UNIT				
Ref Code	Ref Code Description	Dimensions (H x W x D)	Breaker (A) <sup>2</sup>	Pipe Size (mm) <sup>3</sup>	Price (£)		
<b>Packaged</b>							
HXSM-G6-013*	(HXSM-G6-018)*	SAMSUNG MONO 12 - 10.43KW 1PH 180L COMPACT	1900 x 595 x 620	16 & 16	28 / 22	£7173.81	(£7,591.81)
HXSM-G6-133*	(HXSM-G6-138)*	SAMSUNG MONO 12 - 10.43KW 1PH 230L COMPACT	1900 x 595 x 620	16 & 16	28 / 22	£7173.81	(£7,591.81)
<b>Pre-Plumbed</b>							
HXSM-G6-038*	(HXSM-G6-055)*	SAMSUNG MONO 12 - 10.43KW 1PH 170L STANDARD	1310 x 740 x 740	16 & 16	22 / 22	£6,588.73	(£6,232.68)
HXSM-G6-039*	(HXSM-G6-056)*	SAMSUNG MONO 12 - 10.43KW 1PH 200L STANDARD	1490 x 740 x 740	16 & 16	22 / 22	£6,634.07	(£7,052.07)
HXSM-G6-040*	(HXSM-G6-057)*	SAMSUNG MONO 12 - 10.43KW 1PH 250L STANDARD	1815 x 740 x 740	16 & 16	22 / 22	£6,771.18	(£7,189.18)
HXSM-G6-041*	(HXSM-G6-058)*	SAMSUNG MONO 12 - 10.43KW 1PH 300L STANDARD	1600 x 800 x 800	16 & 16	22 / 22	£6,978.10	(£7,396.10)
HXSM-G6-025*	(HXSM-G6-030)*	SAMSUNG MONO 12 - 10.43KW 1PH 170L SLIMLINE	1535 x 675 x 675	16 & 16	22 / 22	£6,809.22	(£6,421.67)
HXSM-G6-070*	(HXSM-G6-084)*	SAMSUNG MONO 12 - 10.43KW 1PH 200L SOLAR	1510 x 545	16 & 16	22 / 22	£6,840.99	(£7,258.99)
HXSM-G6-071**	(HXSM-G6-085)*	SAMSUNG MONO 12 - 10.43KW 1PH 250L SOLAR	1760 x 545	16 & 16	22 / 22	£6,978.10	(£7,396.10)
HXSM-G6-072*	(HXSM-G6-086)*	SAMSUNG MONO 12 - 10.43KW 1PH 300L SOLAR	1980 x 545	16 & 16	22 / 22	£7,185.03	(£7,603.03)
<b>Standalone</b>							
HXSM-G6-003**	(HXSM-G6-008)**	SAMSUNG MONO 12 - 10.43KW 1PH SO SYS	422 x 393 x 87	Via ODU or 16	22 / 22	£4,816.61	(£5,234.61)
<b>Buffer</b>							
HXSM-G6-098*	(HXSM-G6-113)*	SAMSUNG MONO 12 - 10.43KW 1PH JOULE HP MONO 180/60	1870 x 540	16 & 16	22 / 22	£8,029.78	(£7,053.75)
HXSM-G6-099*	(HXSM-G6-114)*	SAMSUNG MONO 12 - 10.43KW 1PH JOULE HP MONO 200/60	1980 x 540	16 & 16	22 / 22	£8,488.54	(£9,115.93)
HXSM-G6-100*	(HXSM-G6-115)*	SAMSUNG MONO 12 - 10.43KW 1PH JOULE HP MONO 250/90	1670 x 600	16 & 16	22 / 22	£8,546.01	(£8,010.25)
HXSM-G6-101*	(HXSM-G6-116)*	SAMSUNG MONO 12 - 10.43KW 1PH JOULE HP MONO 300/13	1850 x 710	16 & 16	22 / 22	£9,142.75	(£9,560.75)
HXSM-G6-124*		SAMSUNG MONO 12 - 10.43KW 1PH JOULE HP MONO 400/13	2160 x 710	16 & 16	22 / 22	£9,441.32	

#### Included Components\*:

Outdoor Unit, Insulated Flexible Connection Pipes, 1"Y Pattern Strainer With Isolation and Pre Plumbed Cylinder

#### Included Components\*\*:

Outdoor Unit, Insulated Flexible Connection Pipes, 1"Y Pattern Strainer With Isolation and Mono Control Center

#### Recommended Components:

20l Concentrate Hp Fluid and Anti-Vibration Fix-It Foot 600mm Kit

## Outdoor Unit Key Technical Features

- Dimensions HxWxD (mm): 1420 x 940 x 330\*1
- Sound Pressure Level at 1m: 50 dBA
- ErP: A+++ (35°C)
- Breaker: 32 Amp
- Recommended pipe size: 28mm
- Nominal flow rate: 25L/min

INCLUDED COMPONENTS					
Type	Description	Packaged	Pre-Plumbed	Standalone	Buffer
Electrical	Immersion Heater	●	●		●
	Wifi ready System Controller	●	●	●	●
	Water Temperature Thermistor	●	●	●	●
	Flow & Return Water Temperature Thermistor	●	●	●	●

Mechanical	Filter Y-Strainer	●	●	●	●
	Insulated Flexible Connection Pipes	●	●	●	●
	Flow Sensor	●	●	●	●
	Primary Circulating Pump	●	●		●
	Heating Circulating Pump	●	●		●
	Zone Valves	●	●		●
	Low Loss Header		●		
	Buffer Tank				●
	Domestic Hot Water Expansion Vessel	●	●		●
	Primary Expansion Vessel	●			
	Primary System Pressure Gauge	●	●		●
	Filling Loop	●	●		●
	Automatic Air-Vent	●	●		●
	Drain Valve	●	●		●
	Pressure Reducing Valve	●	●		●
	Temperature / Pressure Relief Valve	●	●		●
	Tundish	●	●		●

\*1 exc. grille. \*2 Recommended breaker rating for outdoor unit / Indoor unit

\*3 Outdoor unit F&R / Indoor unit F&R.

# Joule-Samsung 16kW Monobloc Air Source Heat Pump

## HHSM-G600016-1

### Solution Key Features

- 7 year Warranty
- SCOP: Best on MCS Database – 4.42
- 65°C Hot Water
- <52DbdB - Quietest System on the Market
- 16Kw Outputs
- Low GWP Refrigerant – R32



SYSTEM PRICE		INDOOR UNIT				
Ref Code	Ref Code Description	Dimensions (H x W x D)	Breaker (A) <sup>*2</sup>	Pipe Size (mm) <sup>*3</sup>	Price (£)	
Packaged						
HXSM-G6-014*	(HXSM-G6-019)*	SAMSUNG MONO 16 - 12.28KW 1PH 180L COMPACT	1900 x 595 x 620	16 & 16	28 / 22	£8,416.61 (£8,834.61)
HXSM-G6-134*	(HXSM-G6-139)*	SAMSUNG MONO 16 - 12.28KW 1PH 230L COMPACT	1900 x 595 x 620	16 & 16	28 / 22	£8,416.61 (£8,834.61)
Pre-Plumbed						
HXSM-G6-042*	(HXSM-G6-059)*	SAMSUNG MONO 16 - 12.28KW 1PH 200L STANDARD	1490x 740 x 740	16 & 16	28 / 22	£7,876.85 (£8,294.85)
HXSM-G6-043*	(HXSM-G6-060)*	SAMSUNG MONO 16 - 12.28KW 1PH 250L STANDARD	1815 x 740 x 740	16 & 16	28 / 22	£8,013.98 (£8,431.98)
HXSM-G6-044*	(HXSM-G6-061)*	SAMSUNG MONO 16 - 12.28KW 1PH 300L STANDARD	1600 x 800 x 800	16 & 16	28 / 22	£8,220.90 (£8,638.90)
HXSM-G6-073*	(HXSM-G6-087)*	SAMSUNG MONO 16 - 12.28KW 1PH 200L SOLAR	1510 x 545	16 & 16	28 / 22	£8,083.79 (£8,501.79)
HXSM-G6-074*	((HXSM-G6-088)*	SAMSUNG MONO 16 - 12.28KW 1PH 250L SOLAR	1760 x 545	16 & 16	28 / 22	£8,220.90 (£8,638.90)
HXSM-G6-075*	(HXSM-G6-089)*	SAMSUNG MONO 16 - 12.28KW 1PH 300L SOLAR	1980 x 545	16 & 16	28 / 22	£8,427.83 (£8,845.83)
Standalone						
HXSM-G6-004**	(HXSM-G6-009)**	SAMSUNG MONO 16 - 12.28KW 1PH SO SYS	422 x 393 x 87	Via ODU or 16	28 / 22	£6,059.41 (£6,477.41)
HXSM-G6-005**	(HXSM-G6-010)**	SAMSUNG MONO 16 - 12.28KW 3PH SO SYS	1420 x 940 x 330	16 & 16	28 / 22	£6,346.12 (£6,764.12)
Buffer						
HXSM-G6-102*	(HXSM-G6-117)*	SAMSUNG MONO 16 - 12.28KW 1PH JOULE HP MONO 200/60	<b>1980 x 540</b>	16 & 16	28 / 22	£8,697.93 (£9,115.93)
HXSM-G6-103*	(HXSM-G6-118)*	SAMSUNG MONO 16 - 12.28KW 1PH JOULE HP MONO 250/90	<b>1670 x 600</b>	16 & 16	28 / 22	£8,835.05 (£9,253.05)
HXSM-G6-104*	(HXSM-G6-119)*	SAMSUNG MONO 16 - 12.28KW 1PH JOULE HP MONO 300/13	<b>1850 x 710</b>	16 & 16	28 / 22	£10,385.54 (£10,803.54)
HXSM-G6-125*		SAMSUNG MONO 16 - 12.28KW 1PH JOULE HP MONO 400/13	2160 x 710	16 & 16	28 / 22	£10,684.12

**Included Components\*:**

Outdoor Unit, Insulated Flexible Connection Pipes, 1"Y Pattern Strainer With Isolation and Pre Plumbed Cylinder

**Included Components\*\*:**

Outdoor Unit, Insulated Flexible Connection Pipes, 1"Y Pattern Strainer With Isolation and Mono Control Center

**Recommended Components:**

20l Concentrate Hp Fluid and Anti-Vibration Fix-It Foot 600mm Kit

## Outdoor Unit Key Technical Features

- Dimensions HxWxD (mm): 1420 x 940 x 330\*1
- Sound Pressure Level at 1m: 52 dBA
- ErP: A+++ (35°C)
- Breaker: 32 Amp
- Recommended pipe size: 28mm
- Nominal flow rate: 25L/min

INCLUDED COMPONENTS					
Type	Description	Packaged	Pre-Plumbed	Standalone	Buffer
Electrical	Immersion Heater	●	●		●
	Wifi ready System Controller	●	●	●	●
	Water Temperature Thermistor	●	●	●	●
	Flow & Return Water Temperature Thermistor	●	●	●	●

Mechanical	Filter Y-Strainer	●	●	●	●
	Insulated Flexible Connection Pipes	●	●	●	●
	Flow Sensor	●	●	●	●
	Primary Circulating Pump	●	●		●
	Heating Circulating Pump	●	●		●
	Zone Valves	●	●		●
	Low Loss Header		●		
	Buffer Tank				●
	Domestic Hot Water Expansion Vessel	●	●		●
	Primary Expansion Vessel	●			
	Primary System Pressure Gauge	●	●		●
	Filling Loop	●	●		●
	Automatic Air-Vent	●	●		●
	Drain Valve	●	●		●
	Pressure Reducing Valve	●	●		●
	Temperature / Pressure Relief Valve	●	●		●
	Tundish	●	●		●

\*1 exc. grille. \*2 Recommended breaker rating for outdoor unit / Indoor unit

\*3 Outdoor unit F&R / Indoor unit F&R.

## Outdoor Unit

Ref Code	Description	Price (£)
HHSM-G60005-1	Mono 5 - 4.35kw R32 Ashp Outdoor Unit Std	£2,053.05
HHSM-G60008-1	Mono 8 - 6.37kw R32 Ashp Outdoor Unit Std	£3,056.51
HHSM-G60012-1	Mono 12 - 10.43kw R32 Ashp Outdoor Unit Std	£3,659.83
HHSM-G60016-1	Mono 16 - 12.28kw R32 Ashp Outdoor Unit Std	£4,977.42
HHSM-G60016-3	Mono 16 - 12.28kw R32 Ashp Outdoor Unit 3ph	£5,189.32
HHSA-G60005-01	Mono 5 - 4.35kw R32 Ashp Outdoor Unit Coastal	£2,155.26
HHSA-G60009-01	Mono 8 - 6.37kw R32 Ashp Outdoor Unit Coastal	£3,208.58
HHSA-G60012-01	Mono 12 - 10.43kw R32 Ashp Outdoor Unit Coastal	£3,844.31
HHSA-G60016-01	Mono 16 - 12.28kw R32 Ashp Outdoor Unit Coastal	£5,146.95
HHSA-G60016-03	Mono 16 - 12.28kw R32 Ashp Outdoor 3ph Coastal	£5,448.61

## Indoor Unit

Ref Code	Description	Price (£)
<b>Packaged</b>		
HUGH-180COM-3C	180l R32 Mon Packaged Cylinder +3kw Imm	£3,106.37
HUGH-230COM-3C	230l R32 Mon Packaged Cylinder +3kw Imm	£5,488.86
<b>Slimline</b>		
HUGH-G6150-S3C	150l R32 1ph Hp Pre-Plumbed Slimline	£2,763.57
HUGH-G6170-S3C	170l R32 1ph Hp Pre-Plumbed Slimline	£2,832.13
<b>Standard</b>		
HUGH-G6150-L3C	150l R32 1ph Hp Pre-Plumbed Standard	£2,763.57
HUGH-G6170-L3C	170l R32 1ph Hp Pre-Plumbed Standard	£2,832.13
HUGH-G6200-L3C	200l R32 1ph Hp Pre-Plumbed Standard	£2,899.45
HUGH-G6250-N3C	250l R32 1ph Hp Pre-Plumbed Standard	£3,036.56
HUGH-G6300-N3C	300l R32 1ph Hp Pre-Plumbed Standard	£3,243.48
<b>Solar</b>		
HUGS-G6200-L3C	200l R32 1ph Hp Pre-Plumbed Solar	£3,106.37
HUGS-G6250-N3C	250l R32 1ph Hp Pre-Plumbed Solar	£3,243.48
HUGS-G6300-N3C	300l R32 1ph Hp Pre-Plumbed Solar	£3,450.41
<b>Buffer</b>		
HUGH-G61860-3C	180/60 R32 1ph Hp Pre-Plumbed Cyl Buff	£3,243.48
HUGH-G62060-3C	200/60 R32 1ph Hp Pre-Plumbed Cyl Buff	£3,517.72
HUGH-G62090-3C	200/90 R32 1ph Hp Pre-Plumbed Cyl Buff	£3,585.04
HUGH-G62590-3C	250/90 R32 1ph Hp Pre-Plumbed Cyl Buff	£3,772.02
HUGH-G63013-3C	300/130 R32 1ph Hp Pre-Plumbed Cyl Buff	£3,722.15
HUGH-G64013-3C	400/130 R32 1ph Hp Pre-Plumbed Cyl Buff	£5,050.97
HUGH-G61860-4C	180/60 R32 1ph Hp Pre-Plumbed Cyl Buff 3z	£5,173.13
HUGH-G62060-4C	200/60 R32 1ph Hp Pre-Plumbed Cyl Buff 3z	£3,745.84
HUGH-G62090-4C	200/90 R32 1ph Hp Pre-Plumbed Cyl Buff 3z	£3,813.15
HUGH-G62590-4C	250/90 R32 1ph Hp Pre-Plumbed Cyl Buff 3z	£4,000.13
HUGH-G63013-4C	300/130 R32 1ph Hp Pre-Plumbed Cyl Buff 3z	£5,279.08
HUGH-G64013-4C	400/130 R32 1ph Hp Pre-Plumbed Cyl Buff 3z	£5,401.24



## Electrical

Ref Code	Description	Price (£)
PZI-A-00000000	Pv Ac Isolator	£24.93
HZSMC-MIMH04EN	Samsung Wi-Fi Receiver 2.0 (Ehs) (Mim-H04en)	£97.23
HZU-ELEC-MET	Emlite A100c Single Phase Kwh Meter - Mcs	£29.92

## Mechanical

Ref Code	Description	Price (£)
HZK-0C-0000020	20l Concentrate Hp Fluid	£144.60
HZK-0H28-0.075	Insulated Flex Conn Pipes (28mm X 300mm) Elbow	£99.72
HZK-0K-0000000	Anti-Vibration Fix-It Foot 600mm Kit	£44.87
HZK-0Y-000001F	1"Y Pattern Strainer With Isolation	£110.94
HZK-0P-0000000	Combined Fill Flush + Flow Met	£69.81
HMPYK-00000012	12l Robokit Sealed System Kit + Br	£114.68
HMPYK-00000018	18l Robokit Sealed System Kit + Br	£117.18
HMPYK-00000024	24l Robokit Sealed System Kit + Br	£119.66
HZK-0D-0000000	Heat Pump Wall Drip Tray (1100x400)	£204.60
HZK-0J-0000000	Heat Pump Wall Bracket (Pair)	£259.63
HZK-0V-0000028	28mm Iso Valve Red	£6.97

## Controller

Ref Code	Description	Price (£)
HZSMC-G6000000	MONO CONTROL CENTRE (MIM-E03CN) - GEN 6	£726.73







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