

# Sonniger Heater CR Unit Heater (LPHW)



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# Sonniger Heater CR - Unit Heater (LPHW)



## PRODUCT DESCRIPTION

The Sonniger HEATER CR fan unit heater (LPHW) is ultra lightweight for its type and ideal for all commercial and industrial applications: retail outlets; leisure centres; exhibition halls; warehouses; factories; garages; workshops; plant rooms.

Ideal for use with hot water generated from biomass boilers as well as gas and oil fired boilers. The CR2 and CR3 models can be used with ground source heating schemes also.

The Sonniger Heater CR unit heater (LPHW) is a groundbreaking solution for heating commercial and industrial buildings.

It is uniquely designed and manufactured from expanded polypropylene which reduces the weight of a typical 70kW unit by up to 5 times that of a traditional steel encased unit heater.

This results in ease of installation for the contractor, a lifetime casing guarantee for the customer and significant benefits to the environment.

Note: heating outputs in the model selector (kW) are based on a mean water temp 70C & internal ambient temp 20C

## FEATURES

- Modern Design
- Output range from 10-70kW (at mean water temp 70C & internal temp 0-20C)
- Ideal for LPHW fed from Biomass/gas fired/oil fired/ground source heating boilers
- Max airflow range 4400 m<sup>3</sup>/hr to 4900 m<sup>3</sup>/hr
- Extremely Light Weight – 12-17 kg when filled
- Easy Installation with Multiple Positional Orientations: horizontal, vertical or tilted
- Wall and Ceiling Mountable
- Noise 56 dBA at 5m distance
- Flexible Control Options: thermostat and 3 speed controller
- BMS module available
- Dark grey with 3 interchangeable inserts/flashings

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## TECHNICAL PARAMETERS

HEATER CR1															
Inlet/outlet water temperature	90/70					80/60					70/50				
Inlet air temperature	0	5	10	15	20	0	5	10	15	20	0	5	10	15	20
<b>Air flow 3900 m<sup>3</sup>/h (speed 3)</b>															
Heat output kW	23	21.39	19.68	17.91	16.12	21.07	19.3	17.65	15.93	14.23	16	14.42	12.86	11.28	9.7
Temperature o C	18	25.8	30.71	35.5	40.28	17.16	21.72	26.28	30.84	35.52	12.8	16.92	21.15	25.27	29.40
Water flow m <sup>3</sup> /h	0.8	0.8	0.7	0.7	0.6	0.8	0.8	0.7	0.6	0.6	0.7	0.6	0.6	0.5	0.4
Pressure drop kPa	9.7	8.7	7.7	6.8	5.9	9.7	8.4	7.1	5.9	4.8	7.1	5.9	4.8	3.8	2.9
<b>Air flow 2500 m<sup>3</sup>/h (speed 2)</b>															
Heat output kW	20.97	19.53	18.1	16.65	15.21	16.42	15.1	13.78	12.45	11.12	12.49	11.27	10.4	8.82	7.59
Temperature o C	25.55	30.8	34.62	39.02	43.55	20.88	25.2	29.40	33.72	38.04	15.62	19.53	23.32	27.23	31.13
Water flow m <sup>3</sup> /h	0.8	0.7	0.7	0.6	0.6	0.7	0.6	0.5	0.5	0.4	0.5	0.5	0.4	0.4	0.3
Pressure drop kPa	8	7.1	6.2	5.3	4.5	6.3	5.4	4.6	3.8	3.1	4.6	3.8	3.1	2.5	1.9
<b>Air flow 1850 m<sup>3</sup>/h (speed 1)</b>															
Heat output kW	17.56	16.37	15.16	13.96	12.76	13.77	12.66	11.55	10.45	9.34	10.47	9.45	8.44	7.41	6.37
Temperature o C	28.95	33.23	37.51	41.79	45.94	23.64	27.72	31.8	35.76	39.84	17.68	21.37	25.06	28.75	32.33
Water flow m <sup>3</sup> /h	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.5	0.4	0.4	0.3	0.3
Pressure drop kPa	5.9	5.2	4.5	3.9	3.3	4.6	3.9	3.3	2.8	2.3	3.4	2.8	2.3	1.8	1.4
<a href="#">Edit</a>															
HEATER CR2															

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## HEATER CR2

Inlet/outlet water temperature	90/70					80/60					70/50				
Inlet air temperature	0	5	10	15	20	0	5	10	15	20	0	5	10	15	20
<b>Air flow 3350 m3/h (speed 3)</b>															
Heat output kW	39.3	36.66	34.03	31.4	28.77	32.52	29.98	27.45	24.91	22.37	26.2	23.74	21.28	18.82	16.34
Temperature o C	32.4	35	37.61	40.21	42.72	27.17	29.7	32.24	34.78	37.32	22.1	24.58	27.05	29.53	32.00
Water flow m <sup>3</sup> /h	1.7	1.6	1.5	1.4	1.2	1.5	1.3	1.2	1.1	1.0	1.2	1.1	1.0	0.9	0.8
Pressure drop kPa	18.2	16	14	12.1	10.4	14.1	12.2	10.4	8.8	7.2	10.5	8.8	7.2	5.8	4.5
<b>Air flow 2000 m3/h (speed 2)</b>															
Heat output kW	28.38	26.49	24.62	22.74	20.87	23.52	21.71	19.9	18.08	16.26	18.89	17.23	15.46	13.69	11.91
Temperature o C	39.15	41.37	43.49	44.61	47.83	32.90	34.97	37.13	39.2	41.27	26.87	28.89	30.90	33.01	35.03
Water flow m <sup>3</sup> /h	1.2	1.1	1.1	1.0	0.9	1.1	1.0	0.9	0.8	0.7	0.9	0.8	0.7	0.6	0.5
Pressure drop kPa	10.1	8.9	7.8	6.8	5.8	7.9	6.8	5.8	4.9	4.1	5.9	4.9	4.1	3.3	2.6
<b>Air flow 1450 m3/h (speed 1)</b>															
Heat output kW	22.87	21.37	19.89	18.36	16.87	19.89	17.53	16.08	14.62	13.16	15.34	13.92	12.51	11.08	9.65
Temperature o C	43.49	45.42	47.35	49.18	51.11	36.57	38.45	40.23	42.11	43.90	29.89	31.73	33.47	35.21	36.96
Water flow m <sup>3</sup> /h	1.0	0.9	0.9	0.8	0.7	0.8	0.9	0.7	0.7	0.6	0.7	0.6	0.6	0.5	0.4
Pressure drop kPa	6.9	6.1	5.3	4.6	4.0	5.4	4.7	4.0	3.4	2.8	4.0	3.4	2.8	2.2	1.8

## HEATER CR3

Inlet/outlet water temperature	90/70					80/60					70/50				
Inlet air temperature	0	5	10	15	20	0	5	10	15	20	0	5	10	15	20
<b>Air flow 2950 m3/h (speed 3)</b>															
Heat output kW	50.10	46.86	43.64	40.41	37.18	42.53	39.36	36.17	32.99	29.8	35.3	32.15	29	25.83	22.64
Temperature o C	47.9	49.51	51.02	52.62	54.14	41.02	42.61	44.1	45.69	47.18	34.2	35.77	37.25	38.73	40.21
Water flow m <sup>3</sup> /h	2.3	2.1	2	1.9	1.7	2.0	1.8	1.7	1.5	1.4	1.7	1.5	1.4	1.2	1.1
Pressure drop kPa	29.9	26.5	23.3	20.3	17.5	23.6	20.5	17.6	14.9	12.4	17.8	15	15.5	10.1	8
<b>Air flow 1700 m3/h (speed 2)</b>															
Heat output kW	33.3	31.19	29.09	26.98	24.87	28.35	26.27	24.18	22.11	20.01	23.6	21.53	19.47	17.39	15.28
Temperature o C	56.21	57.35	58.39	59.43	60.47	48.3	49.33	50.36	51.39	52.42	40.39	41.41	42.43	43.44	44.37
Water flow m <sup>3</sup> /h	1.5	1.4	1.3	1.2	1.1	1.3	1.2	1.1	1	0.9	1.1	1	0.9	0.8	0.7
Pressure drop kPa	14.3	12.71	11.21	9.79	8.45	11.34	9.87	8.15	7.24	6.05	8.6	7.29	6.08	4.96	3.94
<b>Air flow 1200 m3/h (speed 1)</b>															
Heat output kW	25.5	23.9	22.3	20.71	19.12	21.73	20.16	18.58	17	15.42	18.13	16.57	15	13.41	11.81
Temperature o C	60.36	61.1	6.95	62.69	63.44	52.42	53.26	54.58	54.75	55.6	44	44.74	45.48	46.22	46.86
Water flow m <sup>3</sup> /h	1.2	1.1	1.0	0.9	0.9	1	0.9	0.9	0.8	0.4	0.9	0.8	0.7	0.6	0.6
Pressure drop kPa	8.23	7.86	6.94	6.08	5.26	7.02	6.14	5.3	4.51	3.79	5.35	4.55	3.8	3.11	2.48

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## ASSEMBLY & INSTALLATION

Prior to any installation procedures, take the following aspects into consideration: easy access for maintenance works, access to water and electrical installation, appropriate air distribution in a room.

Every HEATER unit is equipped with a set of 3 interchangeable color inserts; in order to change the color, remove the insert from the front panel and place the desired one back in place.

It is advisable to mount the device to the wall or the ceiling on original mounting brackets, supporting mount pins (not delivered with the device) or supporting constructions (shapes and dimensions of the supporting construction may be individually designed in compliance with durability and strength requirements).

In case of mounting to the ceiling, pay attention to the fact that air-release/venting of the device may be difficult so it is advisable to place vent at the highest point of the pipework.

The device may be mounted to the wall with the use of a mounting bracket at the angle of 0°, 30° or 60°. A mounting bracket holder is made of curved profile. It has two holes for vertical assembly. Assembly to the wall and/or to the ceiling is possible at different angles but it requires making necessary holes in the holder.

For full installation guidance, have a look at our website to download an installation manual.

**Turnbull & Scott**<sup>TM</sup>  
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