Johnson & Starley

Dravo Division

PCH *Condensing Modulating Heater Module*

For Air Handling Units (Internal & External)

8 Model Range Available 10.2 kW to 197 kW

The **PCH Heater Module** is especially designed to be inserted into air handling units (internal or external). With the technology of pre-mix and modulating burners, with condensing, produces efficiency levels of up to 105% (based on lower calorific power Hi). The PCH heating module is able to function autonomously, requiring electrical and gas connections only.
The pre-mix burner guarantees the absence of carbon monoxide and emissions of NOx less than 30ppm.
The electronics board, which controls the burner, continuously modulates the thermal input between minimum and maximum, based on the air handling unit's preset and measured parameters.
The electronics board is equipped with a 0-10Vdc input.
The PCH heater module in modulation mode, can produce high power outputs, by combining units in series or in parallel configurations.
For example, with four PCH200 modules, it is possible to produce a maximum heating power output of 788 KW, with modulated power ranging from 58 KW to 788 KW.
The heating power output can be regulated by:

- an external 0-10Vdc command (proportionally),
- an ON-OFF command, or
- a step by step insertion (multiple units).

The PCH modules can be installed externally without any extra protection and are configured to suit flue type C or B.

- ***MAX 105% EFFICIENCY***
- ***50% ENERGY SAVING***
- ***VERY LOW NOx < 30ppm***
- ***NO EMISSIONS OF CARBON MONOXIDE (CO = 0)***
- ***FULLY MODULATING PRE-MIXED BURNER***
- ***SEALED COMBUSTION CIRCUIT***

Qualified for Energy Technology List www.eca.gov.uk TM

Authorised User No. 00138

Models PCH035 & PCH200 not ECA listed

CE BUILT TO ISO EUROPEAN STANDARDS WITH FULL CE CERTIFICATION

Advantica BS EN ISO 9001 : 2000

UKAS QUALITY MANAGEMENT 079

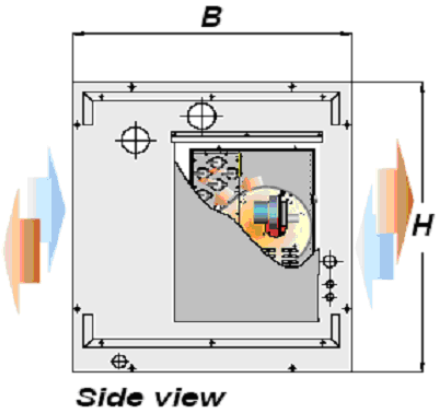
TECHNICAL FEATURES

Model		PCH032		PCH035#		PCH043		PCH054		PCH072		PCH092		PCH150		PCH200#	
Description	U.M.	min	max	min	max	min	max	min	max	min	max	min	max	min	max	min	max
Type of Appliance		C13 - C33 - C43 - C53 - C63 - B23															
CE Approval	P.I.N.	0694BM3433															
Nominal Capacity	kW	10,1	34,85	11,3	38,8	14,8	47,5	15,5	58	22	78	30	98	44	155	53	215
Nominal Power Output	kW	10,2	32,8	11,7	36,5	15,54	44,8	16,27	54	23,1	73,2	31,5	93,4	46,3	145	55,7	197
Efficiency	%	101,0	94,1	103,5	94,1	105,0	94,3	105,0	93,1	105,0	93,8	105,0	95,3	105,2	93,5	105,1	91,6
Condensation produced	ltrs/h	0,77		0,84		1,45		1,45		2,20		2,60		3,87		4,9	
Ø gas connection		UNI ISO 7/1 - ¾" M		UNI ISO 7/1 - ¾" M		UNI ISO 7/1 - ¾" M		UNI ISO 7/1 - ¾" M		UNI ISO 7/1 - 1" M		UNI ISO 7/1 - 1" M		UNI ISO 7/1 - 1" M		UNI ISO 7/1 - 1" M	
Ø air inlet/exhaust pipes	mm	80/80		80/80		80/80		80/80		100/100		100/100		130/130		130/130	
Available flue pressure	Pa	70		80		120		120		120		120		100		140	
Power supply	V	230V/50Hz		230V/50Hz		230V/50Hz		230V/50Hz		230V/50Hz		230V/50Hz		230V/50Hz		230V/50Hz	
Power absorbed	W	70		70		70		90		120		120		400		400	
Minimum air flow *	m³/h	1900 *		2100 *		2600 *		3100 *		4200 *		5400 *		8500*		11500*	
Max. applicable pressure	Pa	1200		1200		1200		1200		1200		1200		1200		1200	
Min. running temperature	°C	-15		-15		-15		-15		-15		-15		-15		-15	
Supply Pressure G20 Nat Gas	mbar	20 (min 17 max 25)															
Gas consumption	m³/h	1,07	3,69	1,20	4,11	1,57	5,03	1,64	6,14	2,33	8,26	3,18	10,38	4,50	15,80	5,60	22,30
Supply Pressure G31 LPG	mbar	37															
Gas consumption	kg/h	0,64	2,20	0,71	2,45	0,95	2,98	0,98	3,64	1,39	4,89	1,88	6,14	2,76	9,71	3,32	13,47
Weight	kg	85		85		100		100		140		170		210		210	

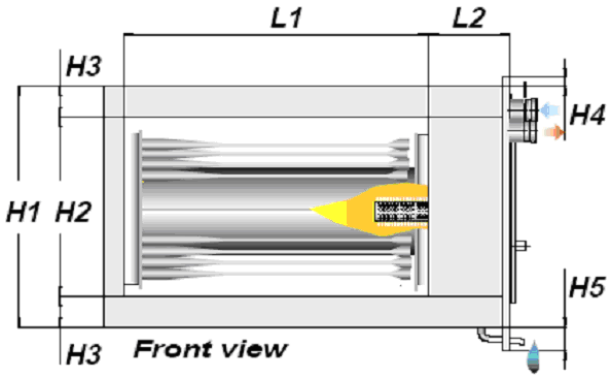
*Note: Minimum air flow has been calculated for a Δt value of 50°C, which is suitable for process plants or special applications.
Models not ECA listed.

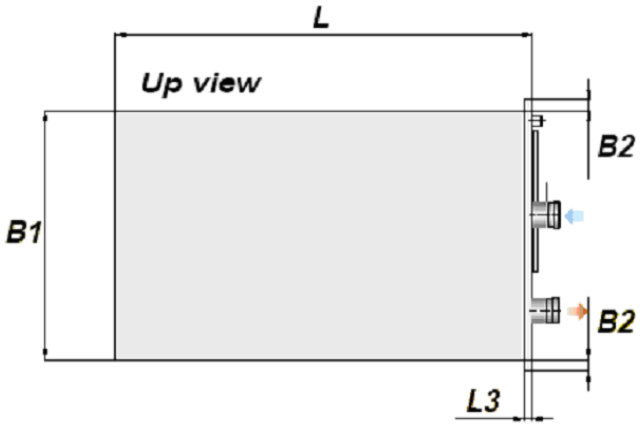
DIMENSIONS

Model	PCH032	PCH035	PCH043	PCH054	PCH072	PCH092	PCH150	PCH200
L (2)	900		1230		1410	1950	1970	
B (3)	713				798		978	
H (3)	833				898		1109	
B1 (2)	650				735		920	
H1 (2)	722				788		1012	
L1 (1)	505		860		1050	1590	1568	
L2 (1)	335				310		377	
L3 (3)	25							
H2 (1)	530				610		870	
H3 (2)	95				90		71	
H4 (3)	32						29	
H5 (3)	79						68	
B2 (3)	32						29	



(1) Fixed, unchangeable size.
(2) Minimum dimensions, can be increased by adding panels or spacers to existing.
(3) Minimum dimensions. Larger dimensions are available on demand.





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