

HEM DH

Duct Heater Range
Industrial & commercial heating systems



Overview

Powrmatic's ErP compliant HEMNVxDH external range of heat exchange modules combine installation versatility with a range of Kw outputs to match a wide range of applications. The compact design and flexible configuration combine to provide designers with efficient and cost effective solutions for a wide variety of air heating and drying applications, particularly where the unit is located outside and in new or existing duct systems, supplying tempered or fresh air make-up systems.

Output

14.5-180 kW output in 1 individual size unit

Construction

- **Casework** - Formed from heavy gauge galvanised steel sheet to a rigid structure with inlet and outlet flanges for easy connection.
- **Enclosures** - Fully weatherproofed and thermally insulated casing, made from thin gauge galvanized steel and epoxy powder coated, to BS-10-A-05 as standard (other colours available upon request). Single sheet roof panel covering the whole unit with weatherproofed and sealed panel design.
- **Heat exchangers** - A four pass tubular heat exchanger assemblies. Tubes options available as standard are aluminised steel or AISI T409 grade stainless steel, with AISI T316 option available.
- **Burners** - Modulating as standard multi inshot burners matched to each tube assembly and manifolded to a common gas valve and ignition system, itself complete with flame monitoring and safety controls and supplied ready for use with natural gas (G20). Alternative LPG propane (G31) kits are available for engineer site conversion.

Performance

All units have a Gross Efficiency of 82% on average (as required by ERP) Or a Nett Efficiency of 92% on average. Modulation range nominally between 100 and 50% for a single unit.

Controls

As standard all HEM units are supplied with approved safety controls including high limit protection, flame monitoring and multi try ignition. Heat enable and fan overrun protection are the responsibility of the installer/user. Modules are specified with modulating burners as standard and supplied with an interface modulating control board and require a 0-10v DC operating signal.

Approvals

CE mark tested to: CE679735 & CE679736
2015/1188, Directive 2009/125/EC - Lot 21 Tier 1b.
Energy Related Product Directive: 2009/125/EC
Gas Appliance Directive: 2016/426/EC
Electromagnetic Compatibility Directive: 2014/30/EU
Low Voltage Directive: 2014/35/EU
Machinery Directive: 2006/42/EC

Note:

- Future legislation changes: As of January 1st 2021 – Lot 21 Tier 2 of the 2015/1188, Directive 2009/125/EC comes into force and the HEM range of products will be re-engineered to meet or exceed these requirements.

Technical Specification

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Model HEM-NVx				15-4	18-5	25-5	30-6	40-8	50-6	60-7	75-9	100-12	110-13	125-15	150-18	175-21	200-24	
Output	High/Low & Modulation	Max	kW	14.5	17.7	23.6	27.4	36.0	44.8	54.2	67.6	91.9	99.0	112.5	135.0	154.7	180.3	
		Min	kW	8.0	9.6	12.0	14.0	19.7	24.2	29.3	33.1	45.5	58.7	66.7	72.0	75.7	91.4	
Temp	Rise	Max	Δt °C	35														
	Air off	Min	°C	70														
Airflow	Volume	Min Volume for Max Δt	m ³ /s	0.44	0.58	0.71	0.86	1.01	1.55	1.94	2.28	2.78	2.99	3.39	4.14	4.67	5.32	
	Pressure Drop	At Above Airflow	Pa	26	45	32	47	31	59	67	59	54	43	43	47	45	46	
Electrics			V/ph/Hz	230/1/50														
Fuel	Connection		BSP/Rc	3/4									1 1/4					
	Natural Gas	Min inlet Pressure	Mbar	20.0														
		Rate	m ³ /h	1.72	2.09	2.77	3.23	4.19	5.26	6.51	8.10	10.92	11.50	13.36	15.69	18.32	22.09	
Flue	Diameter		mmø	80			100			130								
	Max Length - type B		M	14						16				max 3M @dia 130mm*				
Nett Weight (Single Units)			kg	30	36	53	60	80	106	115	130	170	225	248	275	300	340	

Note: All data in the above graph is identical to that of the HEM NVx.

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