

September 3, 2009

Declaration of L2 Code Compliance, Sections 10.3 and 11.3.

Section 10.3, Maximum permissible Fan Power.

All Unico Air Handlers must comply with the provisions of Table 35 for “General mechanical ventilation with heating and cooling” which requires a maximum power of 2.0 W per L/s. The air handlers meet this requirement under the following conditions:

AHU Model	Airflow, L/s (CFM)	Power, W @ 220V	W per L/s	
1218	95 (200)	155	1.60	PASS
1218	142 (300)	192	1.35	PASS
2430	188 (400)	280	1.49	PASS
2430	235 (500)	312	1.32	PASS
2430	283 (600)	348	1.23	PASS
3642	330 (700)	450	1.36	PASS
3642	378 (800)	502	1.33	PASS
3642	425 (900)	560	1.32	PASS
4860	472 (1000)	530	1.22	PASS
4860	520 (1100)	570	1.10	PASS
4860	566 (1200)	610	1.08	PASS

Ref: Bulletin 20-018(UK) dated 2007-09 and Bulletin 20-020.1(UK) dated 2007-11.

Section 11.3, Minimum provisions for ducts in new and existing buildings.

All Unico ducts comply with the heating requirements as specified in Table 39 for “Maximum permissible heat gain/loss for insulated ducts” and the R6 and R8 Unico ducts comply with the cooling requirements. The maximum heat loss for heating ducts is 16.34 W/m²; for cooling or cooling with heating the maximum is -6.34 W/m². The Unico ducts are as follows:

Model	Heating, W/m ²		Cooling, or Cooling and Heating, W/m ²	
UPC-25, UPC-26C	10.61	PASS	-12.73	FAIL
UPC-25R4, UPC-26CR4	7.95	PASS	-9.54	FAIL
UPC-25R6, UPC-26CR6	5.10	PASS	-6.12	PASS
UPC-25R8, UPC-26CR8	3.64	PASS	-4.37	PASS

Based on outside duct surface area accounting for convection and conduction (accounting for radiation will further reduce the number and might show that the R4 and standard ducts also meet the cooling requirements)

* Heating is based on 35°C duct with 15°C ambient air; cooling is based on 12°C duct with 25°C ambient air.