

Technical Data Sheet –

Roof Mechanical Pod – Residential | Smoke & Environmental (RMP-R | SE)



Roof Mechanical Pod – Residential | Smoke & Environmental (RMP-R | SE) is a modular smoke extraction pod providing a prefabricated, pre-commissioned solution for high-rise apartment buildings.

Specific Features

- Fully certified to BS EN 12101-3:2015 Fan Assemblies
- Connection duct certified to BS EN 12101-7:2011 Smoke Duct Section
- Independently tested and certified as a complete assembly
- Available in a range of standard guaranteed extract rates for short delivery times
- Prefabricated, pre-wired, pre-commissioned smoke extraction pod ready for a single lift to rooftop
- Environmental extract to provide ventilation & cooling is available as an option

Important Maintenance Note

It is recommended that the fan motor bearings are replaced after 20,000 hours or 5 years of service in normal, ambient conditions, whichever is earlier.

Product Description

Roof Mechanical Pod – Residential | Smoke & Environmental (RMP-R | SE) is a modular smoke extraction pod providing a prefabricated, pre-commissioned solution for high-rise apartment buildings. It is available in a range of sizes giving guaranteed extract rates and static pressures with short lead times. It is particularly suitable for mechanical smoke ventilation systems in high rise apartments and is supplied within a powder coated panel enclosure giving a neat appearance. In addition the RMP-R | SE may be programmed to provide environmental ventilation as an effective means of providing cooling deep within the building.

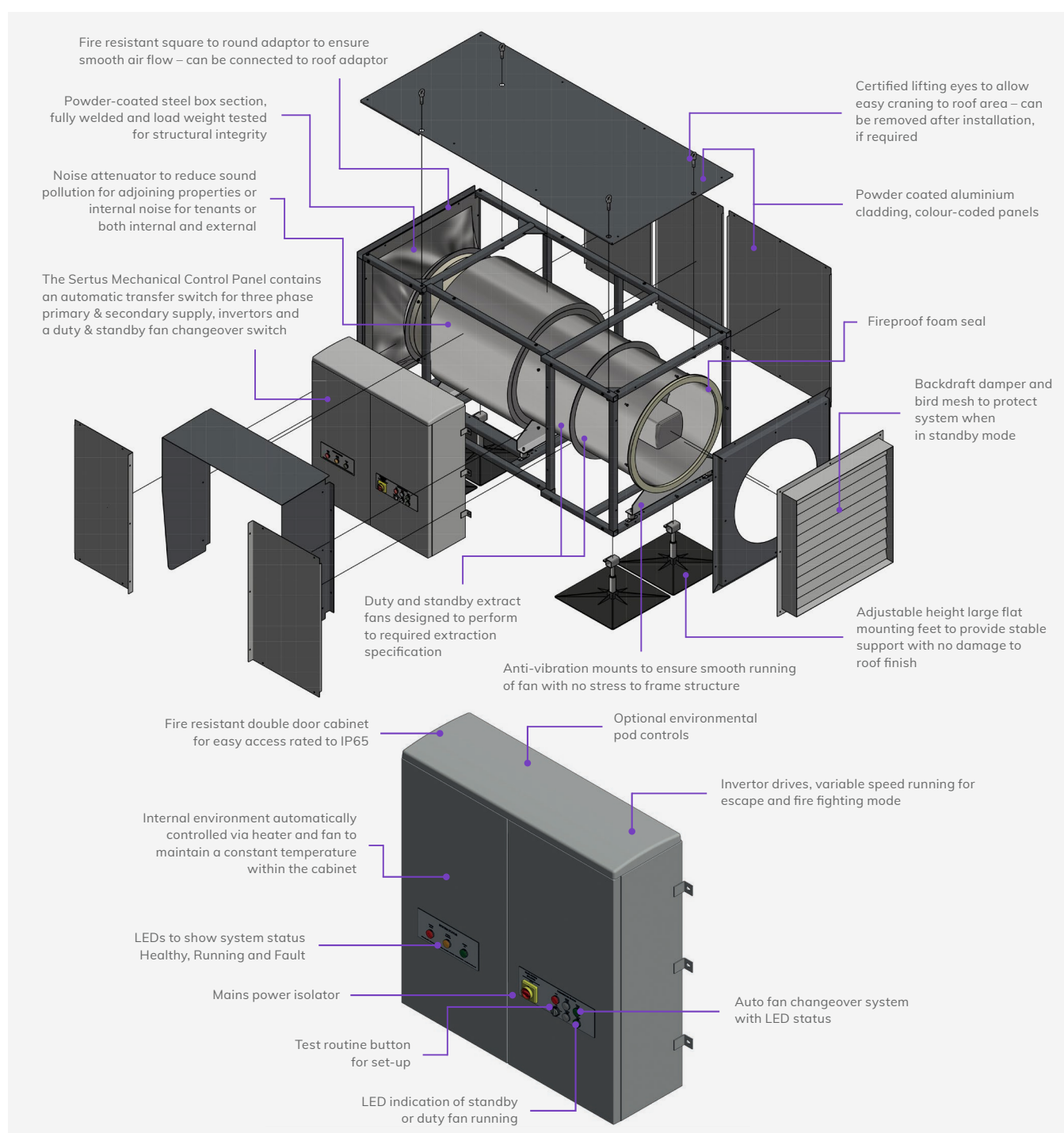
It is prefabricated, pre-wired, and pre-commissioned and certified to BS EN 12101-3:2015, and BS EN 12101-7:2011 Smoke Duct Section covering all critical elements of the product.

It is supplied assembled with adjustable mounting feet, primary attenuator, duty and standby fans, anti-vibration mounts and back draft damper.

Technical Data Sheet –

Roof Mechanical Pod – Residential | Smoke & Environmental (RMP-R | SE)

The CCP-MR Mechanical Residential Control Panel is fully addressable and contains an automatic transfer switch (ATS) for three phase primary and secondary supply, duty and standby fan change over switch, duty and standby invertors. The extract rates may be controlled in environmental mode by thermostat sensors with a variable extract rate and in automatic fire mode via smoke detectors for escape mode, with set back speed on pressure switches or manually via the fire fighters override switch for firefighting mode.



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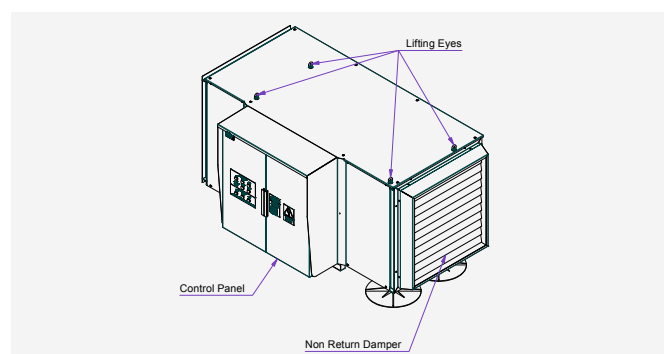
Technical Data

Product Code	Duty & Standby Fan Dia (mm)	Min Start Current (Amp)	Min Power (kVA)	Electrical Supply	Extract Rate (m³/sec)	Static Pressure (Pa)
RMP-R.56.90	560	11	8	400V 3ph 50Hz	2.40	500
RMP-R.56.100	560	13	10	400V 3ph 50Hz	2.75	500
RMP-R.56.112	560	24	18	400V 3ph 50Hz	4.50	500
RMP-R.63.90	630	11	8	400V 3ph 50Hz	2.90	500
RMP-R.63.100	630	13	10	400V 3ph 50Hz	3.70	500
RMP-R.63.112	630	24	18	400V 3ph 50Hz	5.50	500
RMP-R.63.132	630	31	24	400V 3ph 50Hz	6.50	500
RMP-R.71.112	710	24	18	400V 3ph 50Hz	6.10	500
RMP-R.71.132	710	31	24	400V 3ph 50Hz	7.50	500

Sound Data

Product Code	Extract Rate (m³/sec)	Environmental Rate 20% (dB(A) @3m)	Escape Mode 60% (dB(A) @3m)	Fire Fighting Rate 100% (dB(A) @3m)
RMP-R.56.90	2.40	31	57	68
RMP-R.56.100	2.75	37	56	67
RMP-R.56.112	4.50	29	55	69
RMP-R.63.90	2.90	49	58	73
RMP-R.63.100	3.70	34	58	73
RMP-R.63.112	5.50	34	55	69
RMP-R.63.132	6.50	34	57	70
RMP-R.71.112	6.10	35	61	80
RMP-R.71.132	7.50	36	60	76

Sound levels are quoted as inlet in-duct values with one primary attenuator. dB(A) values are average spherical free-field for comparative use only.



Technical Data Sheet –

Roof Mechanical Pod – Residential | Smoke & Environmental (RMP-R | SE)

Physical Properties

Product Code	Overall Size (W x H x L – mm)	Fan/Motor Diameter (mm)	Weight (kg)	Roof Load Pressure (kN/m ²)
RMP-R.56.90	1401 x 1310 x 2106	560/90	338	5.30
RMP-R.56.100	1401 x 1310 x 2106	560/100	415	6.50
RMP-R.56.112	1401 x 1310 x 2106	560/112	453	7.10
RMP-R.63.90	1401 x 1310 x 2106	630/90	391	6.10
RMP-R.63.100	1401 x 1310 x 2106	630/100	416	6.50
RMP-R.63.112	1401 x 1310 x 2106	630/112	456	7.20
RMP-R.63.132	1401 x 1310 x 2106	630/132	506	7.90
RMP-R.71.112	1401 x 1310 x 2106	710/112	476	7.50
RMP-R.71.132	1401 x 1310 x 2106	710/132	531	8.30

Electrical Supply (400V, 3Ph, 50Hz)

Product Code	Invertor Size (kW)	Invertor Fuse Rating	Full Load Column (Amp)	Starting Current – Invertor (Amp)	Starting Power (kVA)	SFP	Power Factor 100%
RMP-R.56.90	5.5	10A gG	7.06	11	8	1.50	0.84
RMP-R.56.100	5.5	10A gG	8.88	13	10	1.67	0.89
RMP-R.56.112	11.0	20A gG	15.84	24	18	1.67	0.83
RMP-R.63.90	5.5	10A gG	7.06	11	8	1.38	0.84
RMP-R.63.100	5.5	10A gG	8.88	13	10	1.43	0.89
RMP-R.63.112	11.0	20A gG	15.84	24	18	1.72	0.88
RMP-R.63.132	11.0	25A gG	20.92	31	24	1.88	0.85
RMP-R.71.112	11.0	20A gG	15.84	24	18	1.45	0.88
RMP-R.71.132	11.0	25A gG	20.92	31	23	1.58	0.85

Air Flow

Product Code	Max Rate (m ³ /sec)	Static Pressure (Pa)
RMP-R.56.90	2.40	500
RMP-R.56.100	2.75	500
RMP-R.56.112	4.50	500
RMP-R.63.90	2.90	500
RMP-R.63.100	3.70	500
RMP-R.63.112	5.50	500
RMP-R.63.132	6.50	500
RMP-R.71.112	6.10	500
RMP-R.71.132	7.50	500

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Sound Data Outlet (dB) at Spectrum (Hz)

Product Code	Location	63	125	250	500	1000	2000	4000	8000	dBW
RMP-R.56.90	Outlet with backdraft damper	95	95	95	96	94	88	86	78	102
	Inlet with std attenuation	92	90	89	87	81	78	80	73	96
	Break Out SPL (A) @ 3m	48	58	65	69	64	54	48	38	–
RMP-R.56.100	Outlet with backdraft damper	96	96	95	92	93	91	89	83	100
	Inlet with std attenuation	92	90	88	83	79	78	81	78	96
	Break Out SPL (A) @ 3m	43	55	64	68	65	53	46	37	–
RMP-R.56.112	Outlet with backdraft damper	98	98	97	94	94	93	91	85	104
	Inlet with std attenuation	94	92	89	85	80	80	83	80	98
	Break Out SPL (A) @ 3m	50	61	66	67	63	58	52	45	–
RMP-R.63.90	Outlet with backdraft damper	97	100	100	104	102	96	89	85	109
	Inlet with std attenuation	93	95	92	89	87	89	83	81	100
	Break Out SPL (A) @ 3m	50	63	71	76	71	62	51	45	–
RMP-R.63.100	Outlet with backdraft damper	97	100	100	104	102	96	89	85	109
	Inlet with std attenuation	93	93	87	78	77	83	83	82	97
	Break Out SPL (A) @ 3m	50	63	71	76	71	62	51	45	–
RMP-R.63.112	Outlet with backdraft damper	96	98	95	93	92	90	89	88	103
	Inlet with std attenuation	93	93	87	78	77	83	83	82	97
	Break Out SPL (A) @ 3m	49	61	66	65	61	56	51	47	–
RMP-R.63.132	Outlet with backdraft damper	98	100	97	94	93	91	91	90	105
	Inlet with std attenuation	95	96	88	80	78	83	84	83	99
	Break Out SPL (A) @ 3m	51	63	67	67	62	56	52	49	–
RMP-R.71.112	Outlet with backdraft damper	97	97	101	106	110	101	96	85	113
	Inlet with std attenuation	95	94	95	93	97	95	89	82	103
	Break Out SPL (A) @ 3m	51	60	73	79	80	67	57	45	–
RMP-R.71.132	Outlet with backdraft damper	101	108	102	100	99	98	95	88	111
	Inlet with std attenuation	99	105	92	87	86	91	90	85	106
	Break Out SPL (A) @ 3m	55	71	72	73	69	63	57	49	–

Noise level Outlet (dB@3.0m)

Product Code	Location	Smoke Extract Mode – 100%	Environmental Mode – 20%
RMP-R.56.90	Outlet with backdraft damper	77	39
	Inlet with std attenuation	68	31
	Break Out SPL (A) @ 3m	72	34

Technical Data Sheet –

Roof Mechanical Pod – Residential | Smoke & Environmental (RMP-R | SE)

Product Code	Location	Smoke Extract Mode – 100%	Environmental Mode – 20%
RMP-R.56.100	Outlet with backdraft damper	79	38
	Inlet with std attenuation	69	29
	Break Out SPL (A) @ 3m	71	33
RMP-R.56.112	Outlet with backdraft damper	79	38
	Inlet with std attenuation	69	29
	Break Out SPL (A) @ 3m	71	33
RMP-R.63.90	Outlet with backdraft damper	85	41
	Inlet with std attenuation	73	33
	Break Out SPL (A) @ 3m	78	36
RMP-R.63.100	Outlet with backdraft damper	85	46
	Inlet with std attenuation	69	34
	Break Out SPL (A) @ 3m	78	38
RMP-R.63.112	Outlet with backdraft damper	77	42
	Inlet with std attenuation	69	34
	Break Out SPL (A) @ 3m	70	37
RMP-R.63.132	Outlet with backdraft damper	79	43
	Inlet with std attenuation	70	34
	Break Out SPL (A) @ 3m	72	36
RMP-R.71.112	Outlet with backdraft damper	91	47
	Inlet with std attenuation	80	35
	Break Out SPL (A) @ 3m	83	39
RMP-R.71.132	Outlet with backdraft damper	84	48
	Inlet with std attenuation	76	36
	Break Out SPL (A) @ 3m	78	39

Attenuator Data

Physical Properties				Dynamic Insertion Loss (dB) at Octave band (Hz)							
Product Code	Overall Size (L x D – mm)	Fan Diameter (mm)	Weight (kg)	63	125	250	500	1000	2000	4000	8000
RMP-R SA.50.1	500 x 657	500	18	-2	-5	-6	-9	-13	-11	-6	-6
RMP-R SA.50.1C	500 x 657	500	22	-4	-6	-8	-11	-18	-19	-17	-14
RMP-R SA.56.1	560 x 714	560	22	-2	-5	-6	-9	-13	-11	-6	-6
RMP-R SA.56.1C	560 x 714	560	26	-4	-6	-8	-11	-18	-19	-17	-14
RMP-R SA.63.1	630 x 784	630	26	-3	-4	-9	-15	-8	-8	-7	-6
RMP-R SA.63.1C	630 x 784	630	31	-4	-6	-8	-17	-23	-20	-18	-10
RMP-R SA.71.1	710 x 864	710	32	-3	-4	-9	-15	-8	-8	-7	-6
RMP-R SA.71.1C	710 x 864	710	39	-4	-6	-8	-17	-23	-20	-18	-10

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Typical Dimensions

