

Combined Fresh Air / Fire Extinguishant Extract Units Direct Driven Range



Internal Duct Mounted Unit

- Monocoque Construction - Single Skin
- Channel & Tray Construction - Double Skin
- Ral 9005 Satin Black Powdercoat Finish
- EU4 Panel Filter (Fresh Air Section)
- 25mm Pyrosorb Thermal Insulation
- Backdraught Flap (Extract Section)
- Top or Bottom Access Lid
- Vertical / Through-wall / Ceiling Mounting
- Internal flange duct connections

Options and Accessories available on request

Weatherproof Roof Mounted Unit

- Channel & Tray Construction
- Single Skin Only
- Ral 5017 Mid Blue Powdercoat Finish
- EU4 Panel Filter (Fresh Air Section)
- 25mm Pyrosorb Thermal Insulation
- Top Access Pitched Lid
- Weather Cowl on Air Intake
- Ducted Both Ends version available
- External flange duct connection



The Puma Combined Fresh Air / Fire Extinguishant Extract units are fitted with Single or Three phase, double inlet Direct Driven centrifugal fans. Independent mains supply to Fresh Air fan section & Fire Extinguishant Extract fan section via terminals inside enclosure. Lined with 25mm class 'O' Pyrosorb insulation. EU4 panel filter (High Efficiency Filters available on request).

Fan Controls Package include:- On/Off Isolator, Electrical Termination Enclosure, Fan Fuse or Overload and Contactor, Fan Start Relay and Airflow Indication Switch with Volt Free Contacts. Electric Solenoid Release for Backdraught Flap.

Heater Controls Package include:- Heater Fuse/s, Heater Relay or Contactor, Element Overheat Thermostat, and Integral Thermostat/s or Electronic Multistage Thermostat & Sensor or Thyristor Controller & Sensor.

Improve your Environment with



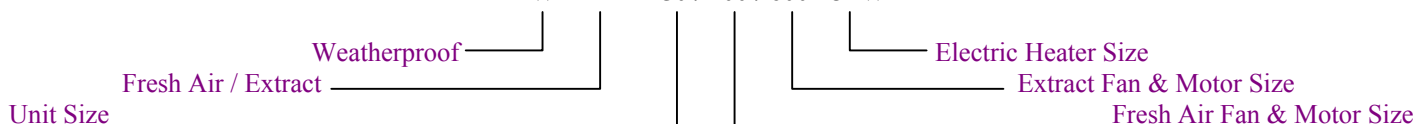
Performance Data

Unit Model	Fresh Air Fan Size	Fresh Air Fan Duty in m ³ /sec @ given External Static Pressure										
		0	50	75	100	125	150	200	250	300	350	400
FA-FE 200	200	0.09	0.08	0.08	0.07	0.07	0.06	0.05	0.01	-	-	-
	250	0.11	0.1	0.095	0.09	0.085	0.08	0.07	0.06	-	-	-
	300	0.14	0.13	0.125	0.12	0.11	0.1	0.09	0.085	0.06	-	-
FA-FE 250	400	0.2	0.18	0.17	0.16	0.15	0.13	0.1	0.07	-	-	-
	500	0.21	0.19	0.18	0.17	0.16	0.15	0.12	-	-	-	-
	600	0.26	0.25	0.24	0.23	0.22	0.21	0.19	0.17	-	-	-
FA-FE 300	400	0.2	0.18	0.17	0.16	0.15	0.13	0.1	0.07	-	-	-
	600	0.26	0.25	0.24	0.23	0.22	0.21	0.19	0.17	-	-	-
	700	0.34	0.32	0.29	0.27	0.22	0.2	-	-	-	-	-
FA-FE 350	850	0.4	0.39	0.37	0.33	0.3	0.23	0.1	-	-	-	-
	1000	0.48	0.43	0.4	0.38	0.31	0.24	0.1	-	-	-	-
	1200	0.57	0.56	0.55	0.55	0.54	0.49	0.41	0.25	0.01	-	-
FA-FE 400	1300	0.61	0.61	0.6	0.6	0.59	0.58	0.56	0.49	0.39	-	-
	1500	0.71	0.71	0.7	0.69	0.69	0.68	0.63	0.56	-	-	-
	1700	0.78	0.76	0.74	0.73	0.72	0.7	0.65	0.54	-	-	-
FA-FE 500	1900	1.0	0.84	0.79	0.71	0.64	0.54	-	-	-	-	-
	2200	1.05	0.9	0.83	0.76	0.68	0.56	-	-	-	-	-
	2400	1.14	1.06	0.98	0.9	0.8	0.7	-	-	-	-	-
FA-FE 550	3600	1.72	1.6	1.55	1.5	1.43	1.35	1.15	0.89	-	-	-
	3700	1.75	1.72	1.68	1.66	1.58	1.51	1.42	1.36	1.3	1.16	0.86

Unit Model	Extract Fan Size	Extract Fan Duty in m ³ /sec @ given External Static Pressure											
		0	50	75	100	125	150	200	250	300	350	400	450
FA-FE 200	200	0.1	0.09	0.08	0.08	0.07	0.07	0.06	0.05	0.01	-	-	-
	250	0.12	0.11	0.1	0.095	0.09	0.085	0.08	0.07	0.06	-	-	-
	300	0.15	0.14	0.13	0.125	0.12	0.11	0.1	0.09	0.085	0.06	-	-
FA-FE 250	400	0.2	0.2	0.18	0.17	0.16	0.15	0.13	0.1	0.07	-	-	-
	500	0.21	0.2	0.19	0.18	0.17	0.16	0.15	0.12	-	-	-	-
	600	0.27	0.26	0.25	0.24	0.23	0.22	0.21	0.19	0.17	-	-	-
FA-FE 300	700	0.36	0.34	0.32	0.29	0.27	0.22	0.2	0.1	-	-	-	-
	1400	0.65	0.64	0.63	0.61	0.6	0.59	0.58	0.55	0.53	0.51	0.49	0.46
FA-FE 350	1400	0.65	0.64	0.63	0.61	0.6	0.59	0.58	0.55	0.53	0.51	0.49	0.46
FA-FE 400	1700	0.78	0.78	0.76	0.74	0.73	0.72	0.7	0.65	0.54	-	-	-
	2500	1.27	1.2	1.1	1.07	1.03	0.97	0.89	0.84	0.72	0.55	-	-
FA-FE 500	2500	1.27	1.2	1.1	1.07	1.03	0.97	0.89	0.84	0.72	0.55	-	-
	3700	1.79	1.75	1.72	1.68	1.66	1.58	1.51	1.42	1.36	1.3	1.16	0.86
FA-FE 550	3700	1.79	1.75	1.72	1.68	1.66	1.58	1.51	1.42	1.36	1.3	1.16	0.86
	4500	2.1	2.05	1.92	1.85	1.8	1.7	1.6	1.25	1.0	-	-	-

Typical Part Code:

W FA-FE 250 / 400 / 600 - 3kW



Electrical & Sound Data

Fan & Motor Size	Motor Running Current (Amps)	Motor Starting Current (Amps)	Motor Power (Watts)	Induct Sound Power Levels dBW @ Octave Band Mid Frequency HZ								Breakout Noise Level dBA*	
				63	125	250	500	1K	2K	4K	8K	SSK	DSK
200	0.3	0.75	67	32	34	46	55	56	54	51	50	40	25
250	0.44	1.1	99	25	29	38	43	39	40	34	26	36	21
300	0.8	2.0	175	63	57	55	54	54	47	41	32	44	29
400	0.8	2.0	190	40	44	46	52	52	50	45	41	41	26
500	0.9	2.25	140	71	69	62	54	51	47	39	30	43	28
600	1.2	3.0	273	68	62	61	61	59	54	47	37	48	33
700	1.5	3.75	92	79	77	70	68	65	61	53	46	49	34
850	1.9	4.75	184	67	69	70	69	66	62	59	54	44	29
1000	2.3	5.75	300	71	72	73	72	70	66	62	57	48	33
1200	4.3	10.75	373	75	72	67	63	61	60	58	45	50	35
1300	3.5	8.75	300	81	78	73	69	67	66	64	51	55	40
1400	7.6	19.0	1000	93	91	84	82	79	75	67	60	65	50
1500	4.4	11.0	420	72	70	62	60	56	53	46	37	46	31
1700	3.5	8.75	300	76	74	66	64	60	57	49	41	53	38
1900	3.6	9.0	245	82	80	74	71	68	65	59	49	54	39
2200	5.0	12.5	500	80	78	70	68	64	61	54	45	56	41
2400	5.5	13.75	500	80	78	70	68	64	61	54	45	55	40
2500	6.8	17.5	550	80	78	70	68	64	61	53	45	61	46
3600	4.3**	21.5**	1100	87	84	82	81	79	75	67	55	64	49
3700	4.7**	23.5**	1500	87	88	89	88	86	82	78	73	71	56
4500	4.5**	22.5**	1100	79	76	74	72	67	64	58	48	62	47

* The dBA quoted is the mean 'A' weighted sound pressure level measured at a distance of 3m. It is included for comparative purposes only and the actual sound level experienced will depend on the acoustic characteristics of the area being served. Ductwork and Silencers also have a major influence on breakout noise and actual noise levels in the system.

** 380/415 V ac Three Phase Motor

Electric Heater Sizes

Available Electric Heaters @ 220/240 V ac 1Ph & N, 50 Hz

Heater Capacity	1 kW	1.5 kW	2 kW	2.5 kW	3 kW	4 kW	5 kW	6 kW	7.5 kW
Running Current (Amps)	4.3	6.5	8.7	10.9	13	17.4	21.7	26	32.6

Available Electric Heaters @ 380/415 V ac 3Ph & N, 50 Hz

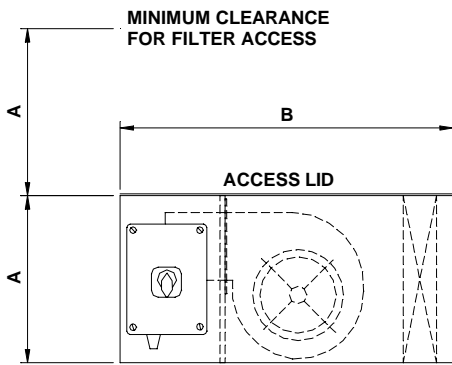
Heater Capacity	9 kW			12 kW			15 kW			18 kW			21 kW		
Running Current (Amps)	R	S	T	R	S	T	R	S	T	R	S	T	R	S	T
	13	13	13	17.4	17.4	17.4	21.7	21.7	21.7	26	26	26	30.4	30.4	30.4

Heater Capacity	24 kW			27 kW			30 kW			36 kW		
Running Current (Amps)	R	S	T	R	S	T	R	S	T	R	S	T
	34.8	34.8	34.8	39.1	39.1	39.1	43.5	43.5	43.5	52.2	52.2	52.2

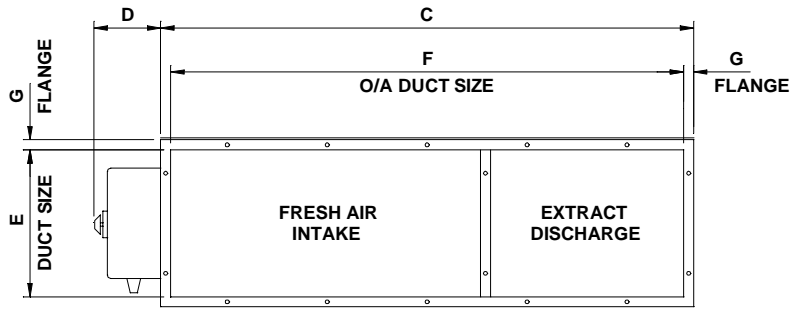
To help select heater the following formula can be used:- Duty (m³/s) x 1.2 x Temp. Difference (°C) = Heater (kW)

Dimensional Data

Internal Duct Mounted Unit – FA-FE

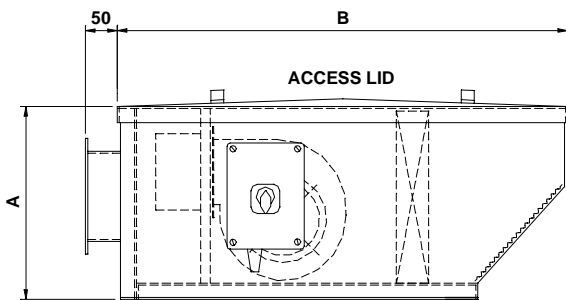


SIDE VIEW (FRESH AIR)

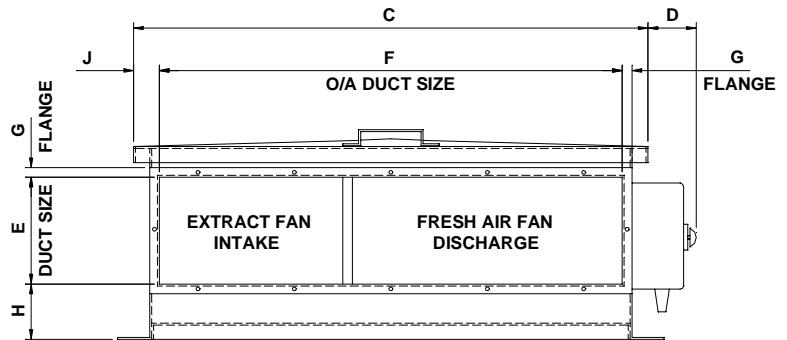


END VIEW

Weatherproof Roof Mounted Unit – WFA-FE



SIDE VIEW (FRESH AIR)



END VIEW

Model Number	Dimensions In Millimetres											
	A		B	C		D	E	F	G	H	J	WEIGHT
	SSK	DSK		SSK	DSK							
FA-FE 200	200	250	450	600	650	100	166	570	15	-	-	35 Kg
FA-FE 250	250	300	600	800	850	100	210	760	20	-	-	45 Kg
FA-FE 300	300	350	600	1000	1050	175	260	960	20	-	-	60 Kg
FA-FE 350	350	400	600	1000	1050	175	310	960	20	-	-	70 Kg
FA-FE 400	415	465	600	1200	1250	175	375	1160	20	-	-	80 Kg
FA-FE 500	500	550	800	1600	1650	175	450	1550	25	-	-	140 Kg
FA-FE 550	550	600	900	1600	1650	175	500	1550	25	-	-	180 Kg
WFA-FE 200	225	-	650	600	-	75	126	474	13	50	63	45 Kg
WFA-FE 250	300	-	750	800	-	75	166	570	15	86	115	55 Kg
WFA-FE 300	350	-	800	1000	-	150	166	870	15	125	65	70 Kg
WFA-FE 350	400	-	850	1000	-	150	210	760	20	135	120	80 Kg
WFA-FE 400	450	-	950	1200	-	150	260	960	20	155	120	95 Kg
WFA-FE 500	550	-	1100	1600	-	150	375	1160	20	145	220	150 Kg
WFA-FE 550	600	-	1150	1600	-	150	375	1160	20	195	220	190 Kg

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