



# FF12A115UNR

standard with fan



Technical data		
APPROVALS		
Approvals	CE; cURus; cULus; cCSAus	
PERFORMANCE		
Max Airflow	57/69	m³/h
Max All Ilow	34/41	CFM
Airflow with Exhaust Filter	42/50	m³/h
Amow with Exhaust Filler	25/29	CFM
Max Static Pressure	82/105	Pa
	0.33/0.42	in H2O
ELECTRICAL DATA		
Rated Voltage	115	V a.c.
Rated Current	0.26/0.22	A
Rated Power	19/17	W
Operating Voltage	92-126.5	V a.c.
Frequency	50/60	Hz
Appliance Class	I	
Motor Protection	Thermally Protected	
MECHANICAL DATA		
Mounting Wall Thickness	1.3-3.2	mm
Wounting Wall HIICKIESS	0.05-0.13	in
GENERIC DATA		
Spare Parts Filter Media	M12FPF-EU3	





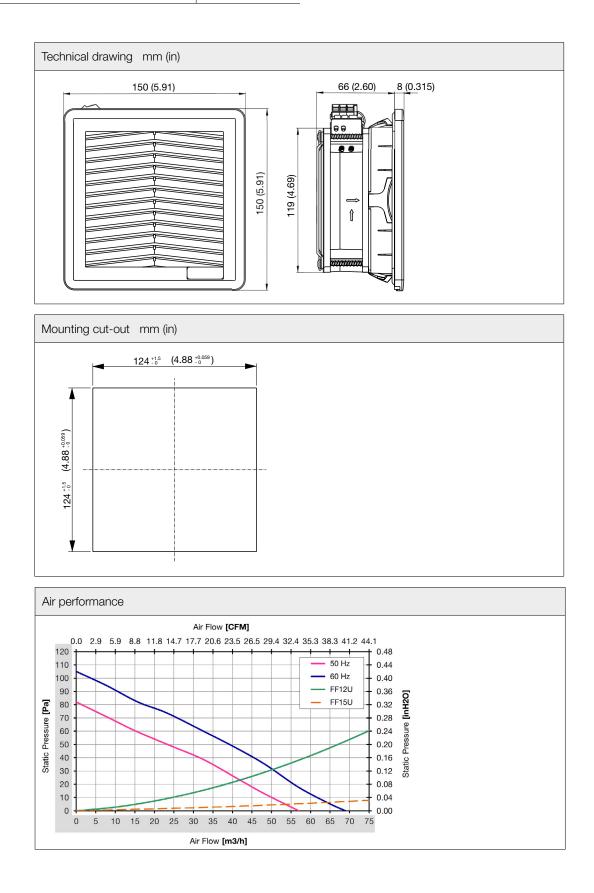
FF12A115UNR

Technical data		
Casing Material	PC/ABS UL94 V-0	
RAL Number	7035	
Airflow Direction	Reverse	
Electrical Connection	Screwless Terminal Block	
Life Evenentenev	100000	h at 25 °C
Life Expectancy	100000	h at 77 °F
Wires Section	28-14	AWG
Wires Section	0.75-2.5	mm²
Fan Noise	40/44	dB(A)
Filter Class	ISO coarse 55%	ISO 16890
Filter Class	G3	EN 779
Filter Material	thermo-linked progressive structure synthetic fibre	
ENVIRONMENTAL AND THERMAL DATA		
IP Protection Degree	IP54	
Operating Temperature	-10÷55	°C
	14÷131	°F
Storago Tomporaturo	-40÷70	°C
Storage Temperature	-40÷158	°F
UL DATA		
UL File Number Recognized Component	E237844	
UL File Number Listed	E500932	
UL Environmental Type Rating	Type 12	
	55	°C
UL Ambient Temperature		°F
	131	F





# FF12A115UNR







#### FF12A230UF

standard with fan



Technical data		
APPROVALS		
Approvals	CE; cURus; cULus; cCSAus	
PERFORMANCE		
Max Airflow	45/50	m³/h
	26/29	CFM
Airflow with Exhaust Filter	29/34	m³/h
Allow with Exhaust Filler	17/20	CFM
Max Static Pressure	55/62	Pa
	0.22/0.25	in H2O
ELECTRICAL DATA		
Rated Voltage	230	V a.c.
Rated Current	0.11/0.1	A
Rated Power	18/17	W
Operating Voltage	216-244	V a.c.
Frequency	50/60	Hz
Appliance Class	1	
Motor Protection	Impedance Protected	
MECHANICAL DATA		
Mounting Wall Thickness	1.3-3.2	mm
Mounting Wall Thickness	0.05-0.13	in
GENERIC DATA		
Spare Parts Filter Media	M12FPF-EU3	





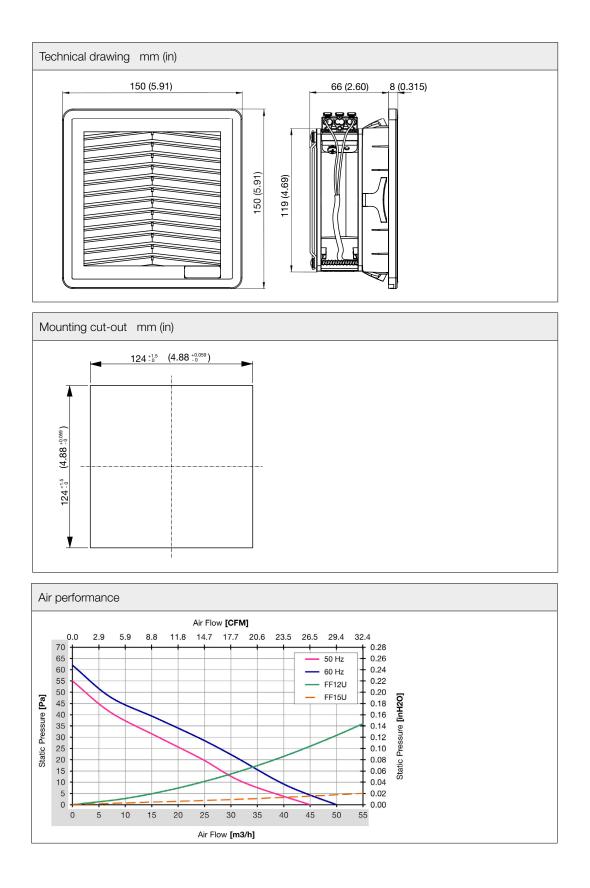
FF12A230UF

Technical data		
Casing Material	PC/ABS UL94 V-0	
RAL Number	7035	
Airflow Direction	Direct	
Electrical Connection	Screwless Terminal Block	
Life Expectancy	57000	h at 25 °C
Life Expectancy	57000	h at 77 °F
Wires Section	20-14	AWG
Wires Section	0.75-2.5	mm <sup>2</sup>
Fan Noise	46/49	dB(A)
Filter Class	ISO coarse 55%	ISO 16890
Filter Class	G3	EN 779
Filter Material	thermo-linked progressive structure synthetic fibre	
ENVIRONMENTAL AND THERMAL DATA		•
IP Protection Degree	IP54	
Operating Temperature	-10÷55	°C
Operating temperature	14÷131	°F
Storage Temperature	-40÷70	°C
Stolage lemperature	-40÷158	°F
UL DATA		
UL File Number Recognized Component	E237844	
UL File Number Listed	E500932	
UL Environmental Type Rating	Type 12	
UL Ambient Temperature	55	°C
	131	°F





#### FF12A230UF







### FF12A230UN

standard with fan



Technical data		
APPROVALS		
Approvals	CE; cURus; cULus; cCSAus	
PERFORMANCE		
Max Airflow	67/79	m³/h
Max Allow	39/46	CFM
Airflow with Exhaust Filter	43/51	m³/h
Almow with Exhaust Filter	25/30	CFM
Max Static Pressure	69/84	Pa
	0.28/0.34	in H2O
ELECTRICAL DATA		
Rated Voltage	230	V a.c.
Rated Current	0.13/0.1	A
Rated Power	18/16	W
Operating Voltage	184-253	V a.c.
Frequency	50/60	Hz
Appliance Class	Ι	
Motor Protection	Thermally Protected	
MECHANICAL DATA		
Mounting Wall Thickness	1.3-3.2	mm
	0.05-0.13	in
GENERIC DATA		
Spare Parts Filter Media	M12FPF-EU3	





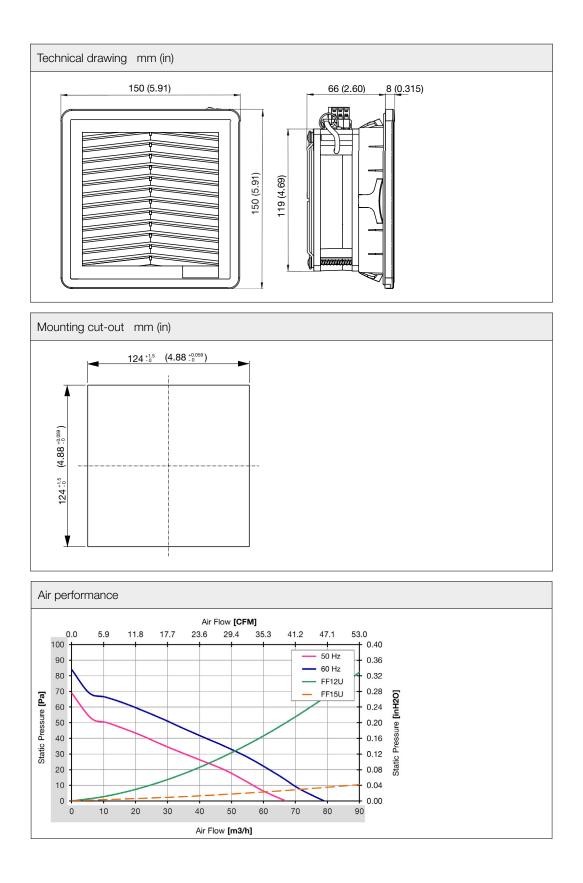
FF12A230UN

Technical data		
Casing Material	PC/ABS UL94 V-0	
RAL Number	7035	
Airflow Direction	Direct	
Electrical Connection	Screwless Terminal Block	
	100000	h at 25 °C
Life Expectancy	100000	h at 77 °F
Wires Section	28-14	AWG
Wires Section	0.75-2.5	mm <sup>2</sup>
Fan Noise	40/44	dB(A)
Filter Class	ISO coarse 55%	ISO 16890
Filter Class	G3	EN 779
Filter Material	thermo-linked progressive structure synthetic fibre	
ENVIRONMENTAL AND THERMAL DATA		
IP Protection Degree	IP54	
Operating Temperature	-10÷55	°C
Operating Temperature	14÷131	°F
	-40÷70	°C
Storage Temperature	-40÷158	°F
UL DATA		
UL File Number Recognized Component	E237844	
UL File Number Listed	E500932	
UL Environmental Type Rating	Type 12	
	55	°C
UL Ambient Temperature	131	°F





### FF12A230UN







### FF12A230UNR

standard with fan



Technical data		
APPROVALS		
Approvals	CE; cURus; cULus; cCSAus	
PERFORMANCE		
Max Airflow	57/69	m³/h
Max Airnow	34/41	CFM
Airflow with Exhaust Filter	42/50	m³/h
Almow with Exhaust Filter	25/29	CFM
Max Static Pressure	82/105	Pa
Max Static Fressure	0.33/0.42	in H2O
ELECTRICAL DATA		
Rated Voltage	230	V a.c.
Rated Current	0.13/0.1	A
Rated Power	18/16	W
Operating Voltage	184-253	V a.c.
Frequency	50/60	Hz
Appliance Class	1	
Motor Protection	Thermally Protected	
MECHANICAL DATA		
Mounting Wall Thickness	1.3-3.2	mm
wounting wait mickness	0.05-0.13	in
GENERIC DATA		
Spare Parts Filter Media	M12FPF-EU3	





### FF12A230UNR

Technical data		
Casing Material	PC/ABS UL94 V-0	
RAL Number	7035	
Airflow Direction	Reverse	
Electrical Connection	Screwless Terminal Block	
Life Expectancy	100000	h at 25 °C
Life Expectancy	100000	h at 77 °F
Wires Section	28-14	AWG
Wires Section	0.75-2.5	mm <sup>2</sup>
Fan Noise	40/44	dB(A)
Filter Class	ISO coarse 55%	ISO 16890
Filter Class	G3	EN 779
Filter Material	thermo-linked progressive structure synthetic fibre	
ENVIRONMENTAL AND THERMAL DATA		
IP Protection Degree	IP54	
Operating Temperature	-10÷55	°C
Operating Temperature	14÷131	°F
	-40÷70	°C
Storage Temperature	-40÷158	°F
UL DATA		
UL File Number Recognized Component	E237844	
UL File Number Recognized Component UL File Number Listed	E237844 E500932	
UL File Number Listed	E500932	°C



40

30

20

10

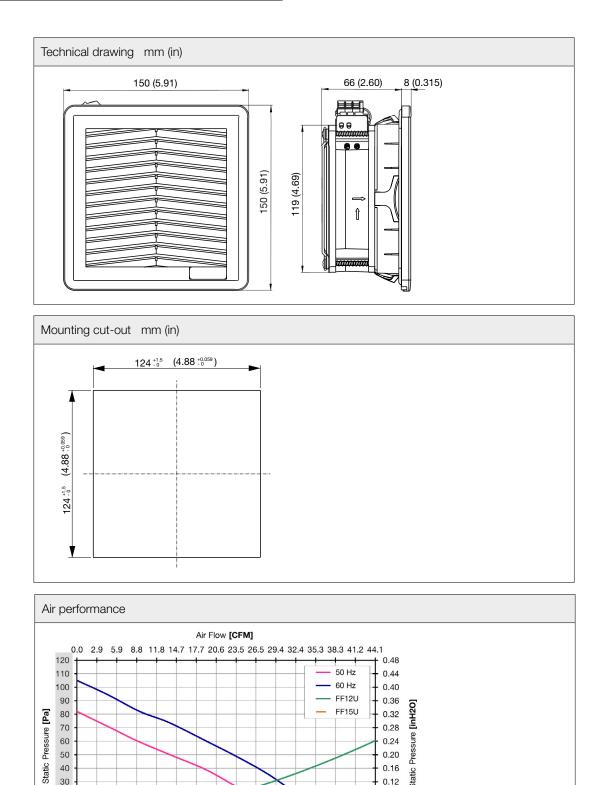
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0 5 10 15 20 25



#### FF12A230UNR

standard with fan



0.16 Static F

0.12

0.08

0.04

0.00

30 35 40 45 50 55 60 65 70 75

Air Flow [m3/h]





### FF12D24UN

standard with fan



Technical data		
APPROVALS		
Approvals	CE; UR; cULus; cCSAus	
PERFORMANCE		
Max Airflow	46	m³/h
Wax Airiow	27	CFM
Airflow with Exhaust Filter	33	m³/h
Allow with Exhaust Filler	19	CFM
Max Static Pressure	58	Pa
	0.23	in H2O
ELECTRICAL DATA		
Rated Voltage	24	V d.c.
Rated Current	0.31	A
Rated Power	7.4	W
Operating Voltage	10-26.7	V d.c.
Motor Protection	Electronically Protected	
MECHANICAL DATA		
Mounting Wall Thickness	1.3-3.2	mm
	0.05-0.13	in
GENERIC DATA		
Spare Parts Filter Media	M12FPF-EU3	
Casing Material	PC/ABS UL94 V-0	
RAL Number	7035	





FF12D24UN

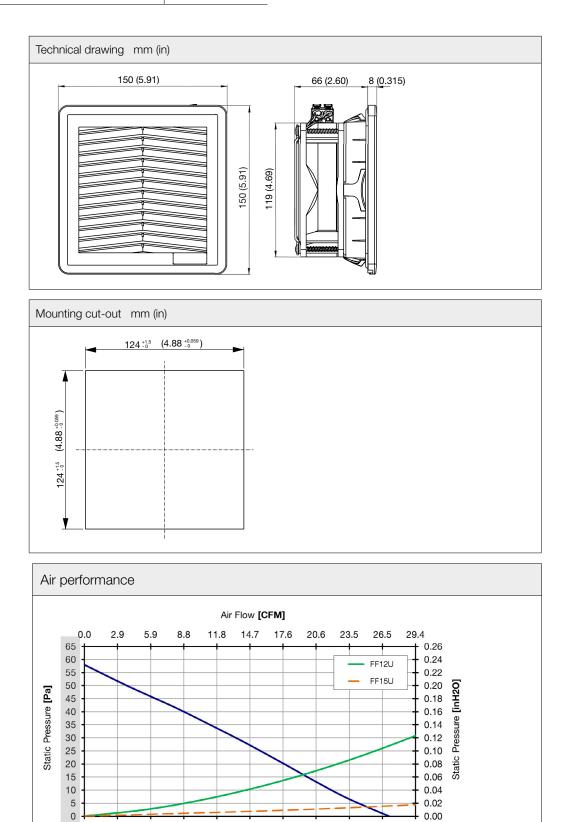
Technical data		
Airflow Direction	Direct	
Electrical Connection	Screwless Terminal Block	
	100000	h at 25 °C
Life Expectancy	100000	h at 77 °F
Wires Section	20-14	AWG
Wires Section	0.75-2.5	mm <sup>2</sup>
Fan Noise	42.5	dB(A)
Filter Class	ISO coarse 55%	ISO 16890
Filter Class	G3	EN 779
Filter Material	thermo-linked progressive structure synthetic fibre	
ENVIRONMENTAL AND THERMAL DATA		
IP Protection Degree	IP54	
Operating Temperature	-10÷55	°C
	14÷131	°F
Storage Temperature	-40÷70	°C
Storage remperature	-40÷158	°F
UL DATA		
UL File Number Recognized Component	E237844	
UL File Number Listed	E500932	
UL Environmental Type Rating	Type 12	
	55	°C
UL Ambient Temperature	131	°F





### FF12D24UN

standard with fan



Air Flow [m3/h]





# FF12D24UNR

standard with fan



Technical data		
APPROVALS		
Approvals	CE; UR; cULus; cCSAus	
PERFORMANCE		
Max Airflow	63	m³/h
	37	CFM
Airflow with Exhaust Filter	46	m³/h
Almow with Exhaust Filter	27	CFM
Max Static Pressure	82	Pa
	0.33	in H2O
ELECTRICAL DATA		
Rated Voltage	24	V d.c.
Rated Current	0.31	A
Rated Power	7.4	W
Operating Voltage	10-26.7	V d.c.
Motor Protection	Electronically Protected	
MECHANICAL DATA		
Mounting Wall Thickness	1.3-3.2	mm
	0.05-0.13	in
GENERIC DATA		
Spare Parts Filter Media	M12FPF-EU3	
Casing Material	PC/ABS UL94 V-0	
RAL Number	7035	





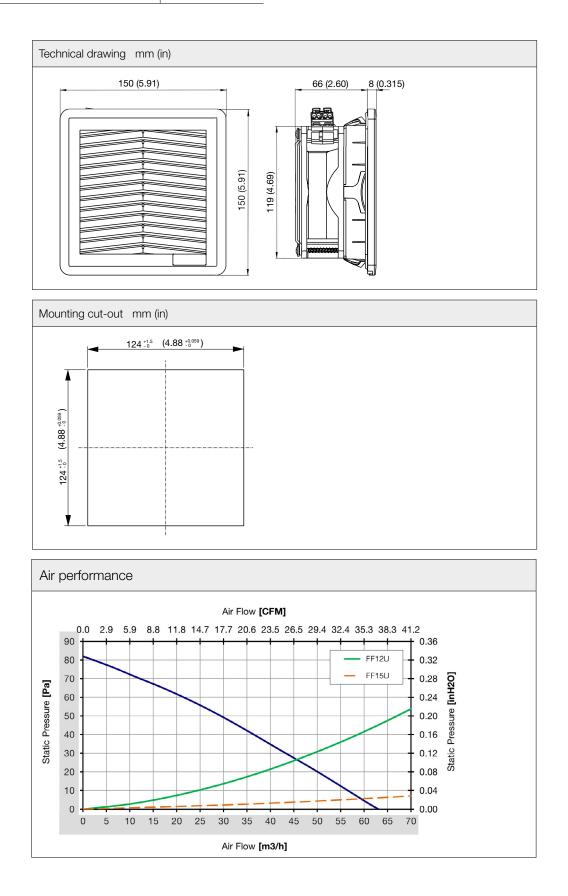
# FF12D24UNR

Technical data			
Airflow Direction	Reverse		
Electrical Connection	Screwless Terminal Block		
	100000	h at 25 °C	
Life Expectancy	100000	h at 77 °F	
Wires Section	20-14	AWG	
Wires Section	0.75-2.5	mm <sup>2</sup>	
Fan Noise	42.5	dB(A)	
Filter Class	ISO coarse 55%	ISO 16890	
Filter Class	G3	EN 779	
Filter Material	thermo-linked progressive structure synthetic fibre		
ENVIRONMENTAL AND THERMAL DATA	ENVIRONMENTAL AND THERMAL DATA		
IP Protection Degree	IP54		
Operating Temperature	-10÷55	°C	
	14÷131	°F	
Starage Temperature	-40÷70	°C	
Storage Temperature	-40÷158	°F	
UL DATA			
UL File Number Recognized Component	E237844		
UL File Number Listed	E500932		
UL Environmental Type Rating	Type 12		
	55	°C	
UL Ambient Temperature	131	°F	





### FF12D24UNR





standard without fan

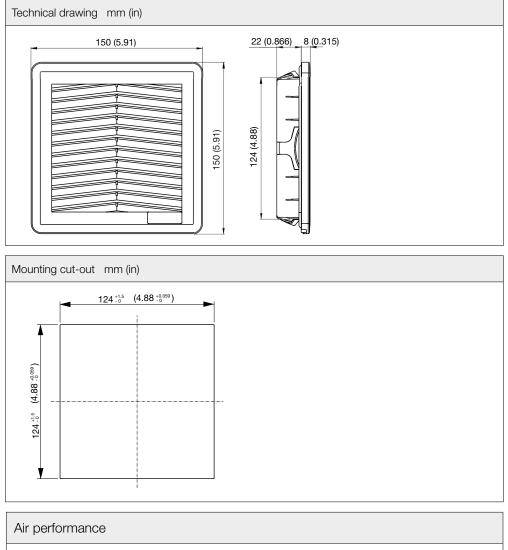


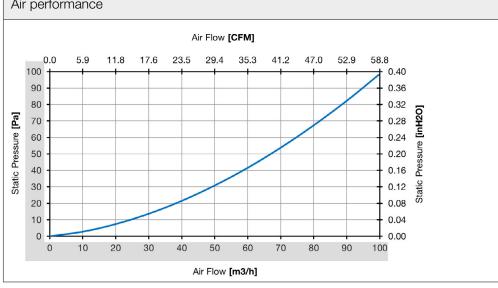
Technical data			
APPROVALS			
Approvals	CE; cURus; cULus; cCSAus		
MECHANICAL DATA			
Mounting Wall Thickness	1.3-3.2	mm	
	0.05-0.13	in	
GENERIC DATA			
Spare Parts Filter Media	M12FPF-EU3		
Casing Material	PC/ABS UL94 V-0		
RAL Number	7035		
Filter Class	ISO coarse 55%	ISO 16890	
Filter Class	G3	EN 779	
Filter Material	thermo-linked progressive structure synthetic fibre		
ENVIRONMENTAL AND THERMAL DATA			
IP Protection Degree	IP54		
Operating Temperature	-30÷60	°C	
	-22÷140	°F	
Storage Temperature	-40÷70	°C	
	-40÷158	°F	
UL DATA			
UL File Number Recognized Component	E237844		
UL File Number Listed	E500932		
UL Environmental Type Rating	Туре 12		
Technical data			
UL Ambient Temperature	60	°C	
	140	°F	





FF12U









FF12UC

EMC version without fan



Technical data			
APPROVALS			
Approvals	CE; cURus; cULus; cCSAus; UKCA		
MECHANICAL DATA			
Mounting Wall Thickness	1.3-3.2	mm	
	0.05-0.13	in	
GENERIC DATA			
Spare Parts Filter Media	M12FPF-EU3		
Casing Material	PC/ABS UL94 V-0		
RAL Number	7035		
Filter Class	G3	EN 779	
Filter Class	ISO coarse 55%	ISO 16890	
Filter Material	thermo-linked progressive structure synthetic fibre		
ENVIRONMENTAL AND THERMAL DATA			
IP Protection Degree	IP54		
Operating Temperature	-30÷60	°C	
	-22÷140	°F	
Storage Temperature	-40÷70	°C	
	-40÷158	°F	
UL DATA			
UL File Number Recognized Component	E237844		
UL File Number Listed	E500932		
UL Environmental Type Rating	Type 12		







FF12UC

EMC version without fan

