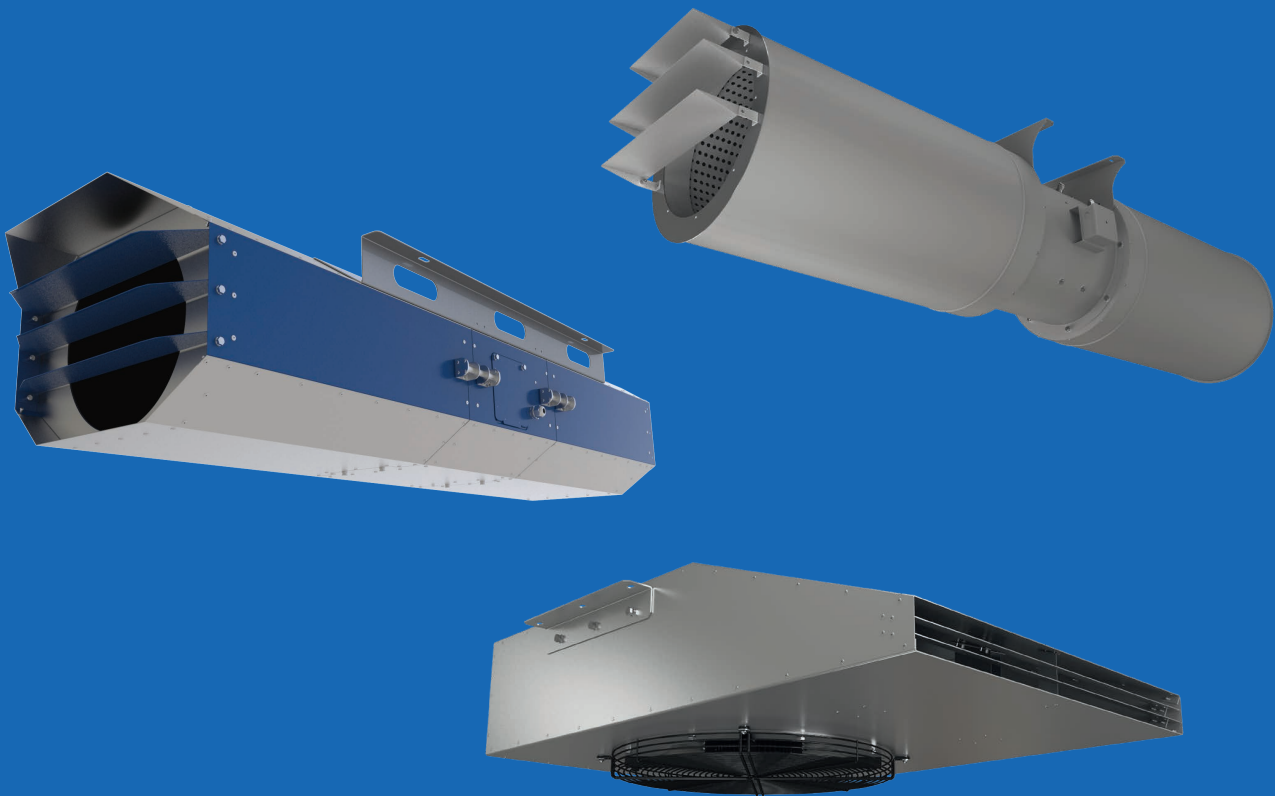


SMOKE EXTRACTION VENTILATION FOR PARKING PREMISES



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SMOKE EXTRACTION SYSTEMS



Smoke control is a complex process involving smoke extraction and fresh air supply by the supply and extract ventilation system of buildings in order to ensure safe evacuation of people in case of a fire in any of the spaces.

Ventilation systems for underroof parking are designed to ensure the most important functions. Such systems are designed to protect people escaping fire through the evacuation routes against hazardous fire factors by extracting harmful combustion products and preventing their spreading in the air.

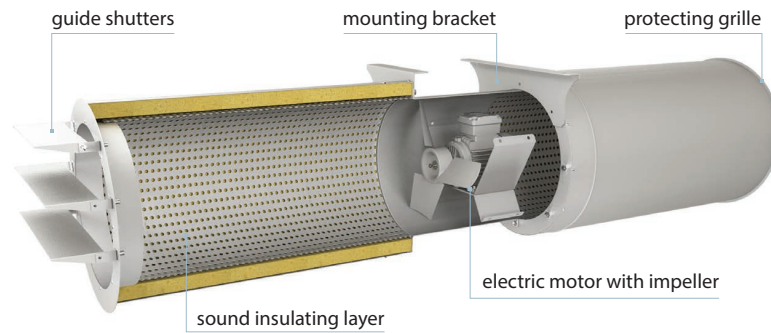
According to conclusive evidence the majority of mortalities in a fire are caused by poisoning from carbon monoxide and other combustion products. Carbon monoxide is one of the most toxic smoke components. It is carbon monoxide poisoning that accounts for 80 % the fire accident causes. Fires in closed spaces where oxygen supply is limited are especially prone to intensive carbon monoxide generation.

Smoke is able to cause loss of consciousness and cardiac standstill before a person may leave a house on fire. Jet ventilation system is the most suitable and safe ventilation solution for modern underground parkings. Arrangement of such ventilation requires no ductwork layout, thus the involved mounting expenses are reduced by 45 %. The energy losses caused by aerodynamic resistance in the air ducts are also reduced. The jet ventilation system design requires no complicated annual cleaning of the ductworks, thus reducing the maintenance costs by 35-40 %.

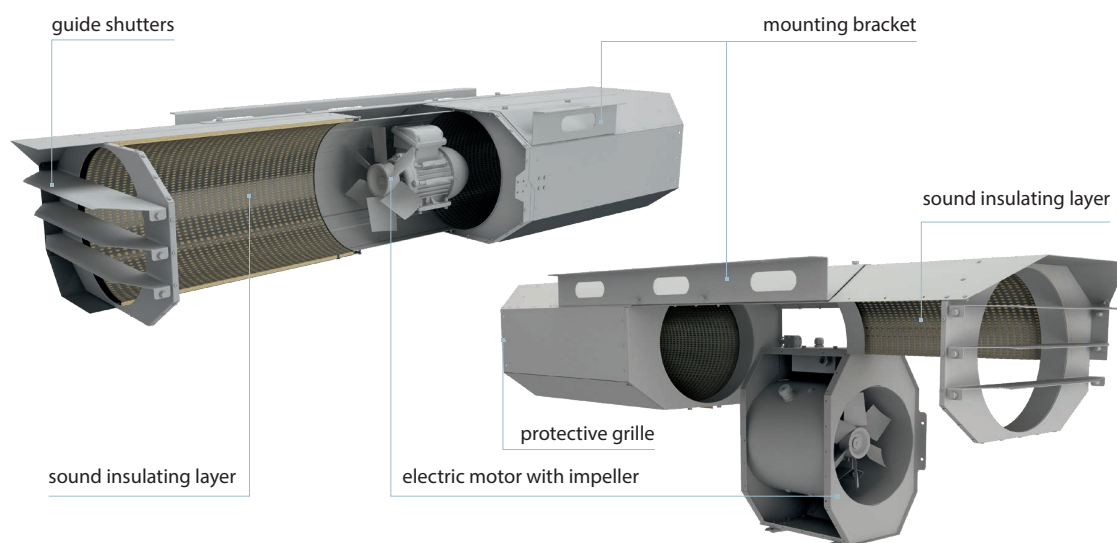
Axial fans are used for general ventilation purposes of underground and semi-opened parkings, covered shelters, ventilation of tunnels, air recirculation in atriums and air supply to panoramic glass constructions. Such ventilation system does not require installation of ductworks and the air stream flows directly from air supply vent to air exhaust vent.

Impurity content in the air [mg/m³] and health effect

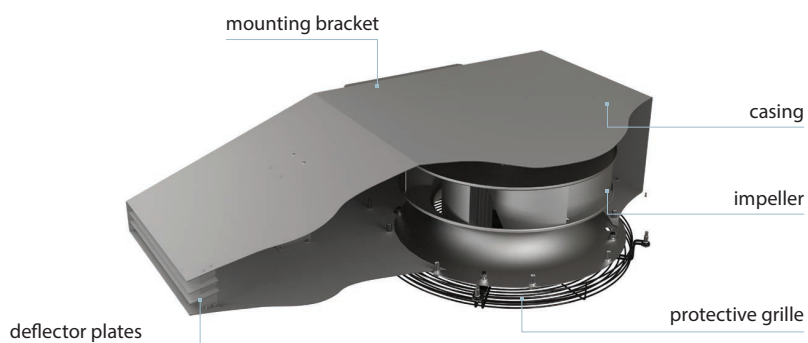
Influence	CO	SO ₂	NO _x
No marked effect in case of exposure for several hours	115	6	15
Symptoms of light poisoning or mucous membrane irritation in 2-3 hours	115...575	130	20
Poisoning in 30 minutes	2300...3500	210...400	100
Life hazard even if short-term exposure	5700	1600	150



JAF-CI axial jet fan design



JAF-VI axial jet fan design



ICF induction centrifugal fan design

Composition of vehicle emissions

Content, volume in %	Petrol type	Diesel type
N ₂	74-77	76-78
O ₂	0.3-0.8	2.0-18.0
H ₂ O (vapours)	3.0-5.5	0.5-4.0
CO ₂	0.0-16.0	1.0-10.0
CO*	0.1-5.0	0.01-0.5
Nitrogen oxide*	0.0-0.8	0.0002-0.5000
Hydr ^e Carbons*	0.2-3.0	0.09-0.500
Aldehydes*	0.0-0.2	0.001-0.009
Soot** [g/m ³]	0.0-0.04	0.01-1.10
Benzpyrene3.4** [g/m ³]	10-20 x 10 ⁻⁶	10 x 10 ⁻⁶

* Toxic components

** Carcinogens

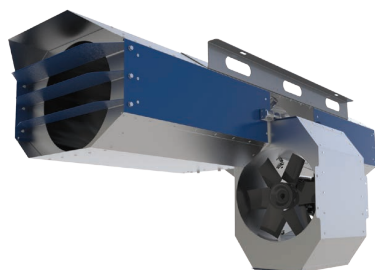
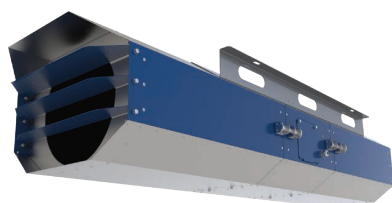
JET AXIAL FANS

JAF series

Unidirectional single- and double-speed
Reversible single- and double-speed



JAF – CI model



JAF – VI model

■ Application

JAF jet axial fans are designed for general purpose ventilation of underground and semiopened parking, ventilation of tunnels, smoke extraction in case of fire as a part of smoke extract system. The fans generate a high-speed and high-pressure directed air jet.

■ Modifications

Unidirectional single-speed type (U)
Unidirectional double-speed type (U)
Reversible single-speed (R)
Reversible double-speed (R)

■ Design

The casing of the JAF fan is made of polymer coated steel. The fans are available in two casing versions: cylindrical and octagonal.

The fan in an octagonal casing has a reduced height, a hinged hatch for electrical installation with captive bolts and a detachable middle part for maintenance. The casing includes inner brackets for motor fixation. These brackets act as directing vanes and distribute air flow uniformly, thus increasing aerodynamic performances of the fan. The fan has a sound insulation of mineral wool.

■ Motor

Three-phase asynchronous short-circuit rotor motor is installed inside the fan casing.

Motor ingress protection rating is IP55.

The motor design ensures operation of the fan in the smoke extract systems and/or general ventilation systems in unidirectional and reversible modes.

The motors are designed for 400 V mains voltage and 50 Hz mains frequency.

■ Impeller

The dynamically balanced impeller is made of cast aluminium alloy (for fans of smoke extraction systems) or of glass-fiber reinforced polyamide (for fans of general industrial use).

The reversible fans are equipped with 100 % reversible two-directional impeller.

■ Mounting

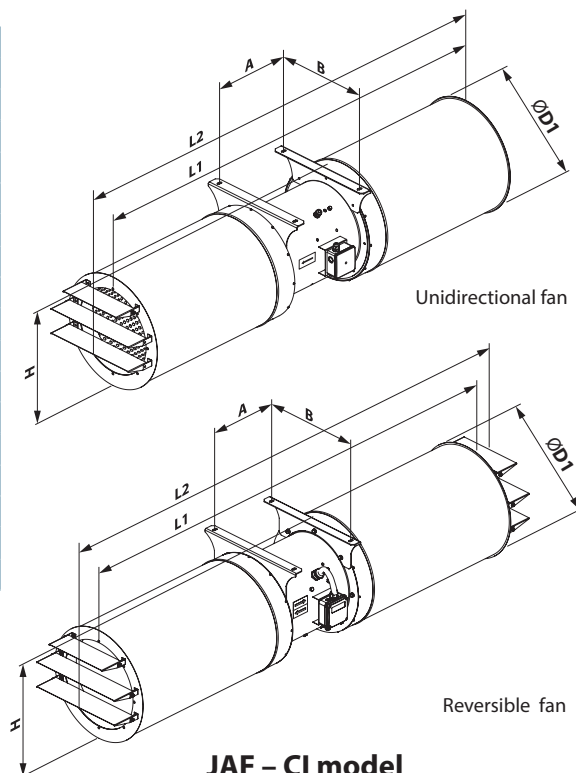
JAF fans are designed for horizontal ceiling mounting and fixation by means of the supplied fixing brackets attached to the fan casing.

Axial jet fans for ventilation
of covered parking
Temperatures of the transported
medium: in continuous operation up
to +55 °C in smoke extraction mode:
300 °C – 2 hrs
400 °C – 2 hrs
Functionality. Power. Efficiency.

Model	Casing type	Casing insulation	Diameter [mm]	High-powered motor	Pole number	Air flow	Fire resistance limit/hrs
JAF (jet axial fan)	- C: round V: octagonal	no symbol means no sound insulation I: sound-insulated casing	- 315 355 400 450 500 560 630	no symbol means the only available standard size M, S: model with a high-power motor	- 2 2/4 (applicable for double-speed motors)	- U: uni-directional R: reversible	- no number: max. +55 °C 300/2: 300 °C/2 hrs. 400/2: 400 °C/2 hrs.

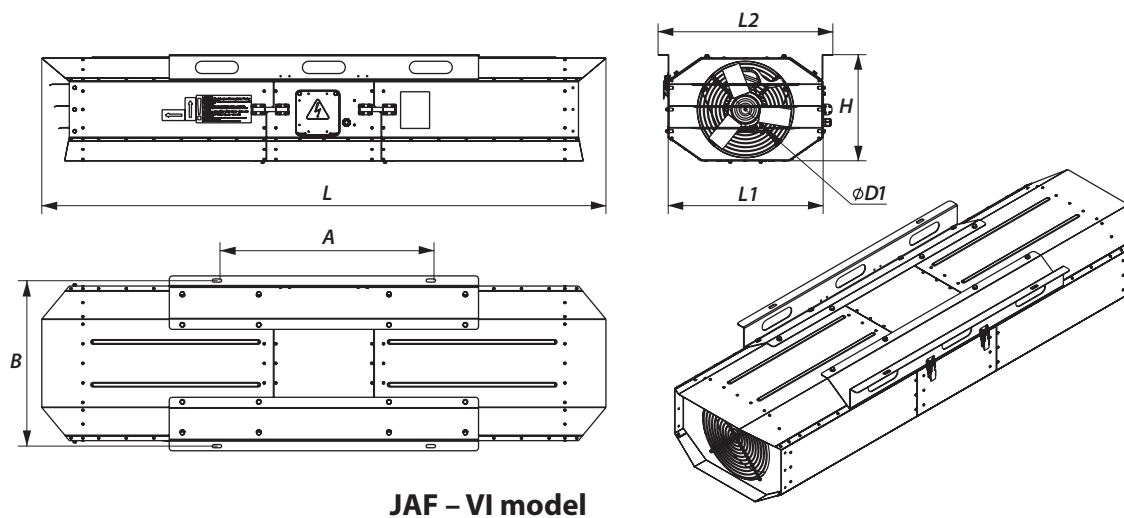
The fans with the fire resistance limit 200 °C/2 h can be manufactured on special request.

Model	Dimensions [mm]						Weight [kg]
	ØD1	A	B	H	L1	L2	
Unidirectional							
JAF-CI-315-U	414	302	355	425	1654	1763	40
JAF-CI-355-U	467	302	420	482	1954	2079	50
JAF-CI-400-U	515	351	460	525	2004	2129	65
JAF-CI-450-U	565	351	500	575	2004	2129	85
JAF-CI-500-U	603	371	580	620	2004	2145	110
JAF-CI-560-U	663	446	620	678	2093	2247	155
JAF-CI-630-U	733	550	710	748	2193	2357	245
Reversible							
JAF-CI-315-R	414	302	355	425	1654	1872	40
JAF-CI-355-R	467	302	420	482	1954	2202	50
JAF-CI-400-R	515	351	460	525	2004	2253	65
JAF-CI-450-R	565	351	500	575	2004	2253	85
JAF-CI-500-R	603	371	580	620	2004	2290	110
JAF-CI-560-R	663	446	620	678	2093	2400	155
JAF-CI-630-R	733	550	710	748	2193	2520	245



The fans with the fire resistance limit 200 °C/2 h can be manufactured on special request.

Model	Dimensions [mm]							Weight [kg]
	ØD1	A	B	L1	L2	L	H	
Unidirectional								
JAF-VI-315-U	315	700	542	507	572	1846	347	58
JAF-VI-355-U	355	700	583	546	613	2046	388	75
JAF-VI-400-U	400	750	632	590	667	2296	434	95
Reversible								
JAF-VI-315-R	315	700	542	507	572	1846	347	58
JAF-VI-355-R	355	700	583	546	613	2046	388	75
JAF-VI-400-R	400	750	632	590	667	2296	434	95



JET AXIAL FANS

Technical data JAF-VI

Ø [mm]	Air flow direction	Number of speeds	Model	Power [kW]	Max. air capacity [m³/h]	Fan pull [N]	Air speed [m/s]	RPM	Operating temperature [°C]	Sound pressure LpA, dB in 3 m
315	Unidirectional	1	JAF-VI-315-2-U	0.55	4520	26	17.2	2880	-25...+55 °C	63
			JAF-VI-315-2-U-300/2						300 °C/2 h	63
			JAF-VI-315-2-U-400/2						400 °C/2 h	63
			JAF-VI-315M-2-U	0.75	4990	32	19	2880	-25...+55 °C	64
			JAF-VI-315M-2-U-300/2						300 °C/2 h	64
			JAF-VI-315M-2-U-400/2						400 °C/2 h	65
		2	JAF-VI-315-2/4-U	0.55/0.11	4520/2260	26/7	17.2/8.6	2880/1440	-25...+55 °C	63/48
			JAF-VI-315-2/4-U-300/2						300 °C/2 h	63/48
			JAF-VI-315-2/4-U-400/2						400 °C/2 h	63/48
			JAF-VI-315M-2/4-U	0.8/0.2	4990/2490	32/8	19/9.5	2880/1440	-25...+55 °C	64/49
			JAF-VI-315M-2/4-U-300/2						300 °C/2 h	64/49
			JAF-VI-315M-2/4-U-400/2						400 °C/2 h	65/50
	Reversible	1	JAF-VI-315-2-R	0.55	4190	23	15.9	2880	-25...+55 °C	67
			JAF-VI-315-2-R-300/2						300 °C/2 h	67
			JAF-VI-315-2-R-400/2						400 °C/2 h	68
		2	JAF-VI-315-2/4-R	0.55/0.11	4180/2100	23/6	15.9/7.9	2880/1440	-25...+55 °C	67/52
			JAF-VI-315-2/4-R-300/2						300 °C/2 h	67/52
			JAF-VI-315-2/4-R-400/2						400 °C/2 h	68/53
*Smoke extraction mode: once for two hours										
355	Unidirectional	1	JAF-VI-355-2-U	0.75	5830	34	17.3	2880	-25...+55 °C	65
			JAF-VI-355-2-U-300/2						300 °C/2 h	65
			JAF-VI-355-2-U-400/2						400 °C/2 h	65
			JAF-VI-355M-2-U	1.1	6740	45	20.0	2880	-25...+55 °C	64
			JAF-VI-355M-2-U-300/2						300 °C/2 h	64
			JAF-VI-355M-2-U-400/2						400 °C/2 h	67
		2	JAF-VI-355-2/4-U	0.8/0.2	5830/3000	34/9	17.3/8.9	2880/1440	-25...+55 °C	65/50
			JAF-VI-355-2/4-U-300/2						300 °C/2 h	65/50
			JAF-VI-355-2/4-U-400/2						400 °C/2 h	65/50
			JAF-VI-355M-2/4-U	1.1/0.25	6740/3370	45/12	20.0/10.0	2880/1440	-25...+55 °C	64/49
			JAF-VI-355M-2/4-U-300/2						300 °C/2 h	64/49
			JAF-VI-355M-2/4-U-400/2						400 °C/2 h	67/52
	Reversible	1	JAF-VI-355-2-R	1.1	5810	34	17.3	2880	-25...+55 °C	68
			JAF-VI-355-2-R-300/2						300 °C/2 h	68
			JAF-VI-355-2-R-400/2						400 °C/2 h	70
		2	JAF-VI-355-2/4-R	1.1/0.25	5810/2900	34/9	17.3/8.6	2810/1390	-25...+55 °C	68/53
			JAF-VI-355-2/4-R-300/2						300 °C/2 h	68/53
			JAF-VI-355-2/4-R-400/2						400 °C/2 h	70/55
*Smoke extraction mode: once for two hours										
400	Unidirectional	1	JAF-VI-400-2-U	1.1	8500	57	20.0	2880	-25...+55 °C	69
			JAF-VI-400-2-U-300/2						300 °C/2 h	69
			JAF-VI-400-2-U-400/2						400 °C/2 h	70
			JAF-VI-400M-2-U	2.2	9870	77	23.2	2880	-25...+55 °C	67
			JAF-VI-400M-2-U-300/2						300 °C/2 h	67
			JAF-VI-400M-2-U-400/2						400 °C/2 h	69
		2	JAF-VI-400-2/4-U	1.1/0.25	8500/4250	57/15	20.0/10.0	2880/1440	-25...+55 °C	69/54
			JAF-VI-400-2/4-U-300/2						300 °C/2 h	69/54
			JAF-VI-400-2/4-U-400/2						400 °C/2 h	70/55
			JAF-VI-400M-2/4-U	2.2/0.5	9870/4930	77/20	23.2/11.6	2880/1440	-25...+55 °C	67/52
			JAF-VI-400M-2/4-U-300/2						300 °C/2 h	67/52
			JAF-VI-400M-2/4-U-400/2						400 °C/2 h	69/54
	Reversible	1	JAF-VI-400-2-R	1.5	8290	54	19.5	2880	-25...+55 °C	70
			JAF-VI-400-2-R-300/2						300 °C/2 h	70
			JAF-VI-400-2-R-400/2						400 °C/2 h	71
		2	JAF-VI-400-2/4-R	1.5/0.37	8290/4140	54/14	19.5/9.7	2880/1440	-25...+55 °C	70/55
			JAF-VI-400-2/4-R-300/2						300 °C/2 h	70/55
			JAF-VI-400-2/4-R-400/2						400 °C/2 h	71/56
*Smoke extraction mode: once for two hours										

■ Technical data JAF-CI

Ø [mm]	Air flow direction	Number of speeds	Model	Power [kW]	Max. air capacity [m³/h]	Fan pull [N]	Air speed [m/s]	RPM	Operating temperature [°C]	Sound pressure LpA, dB in 3 m
315	Unidirectional	1	JAF-CI-315-2-U	0.55	4520	26	17.2	2880	-25...+55 °C	63
			JAF-CI-315-2-U-300/2						300 °C/2 h	63
			JAF-CI-315-2-U-400/2						400 °C/2 h	63
			JAF-CI-315M-2-U	0.75	4990	32	19	2880	-25...+55 °C	64
			JAF-CI-315M-2-U-300/2						300 °C/2 h	64
			JAF-CI-315M-2-U-400/2						400 °C/2 h	65
		2	JAF-CI-315-2/4-U	0.55/0.11	4520/2260	26/7	17.2/8.6	2880/1440	-25...+55 °C	63/48
			JAF-CI-315-2/4-U-300/2						300 °C/2 h	63/48
			JAF-CI-315-2/4-U-400/2						400 °C/2 h	63/48
			JAF-CI-315M-2/4-U	0.8/0.2	4990/2490	32/8	19/9.5	2880/1440	-25...+55 °C	64/49
			JAF-CI-315M-2/4-U-300/2						300 °C/2 h	64/49
			JAF-CI-315M-2/4-U-400/2						400 °C/2 h	65/50
	Reversible	1	JAF-CI-315-2-R	0.55	4190	23	15.9	2880	-25...+55 °C	67
			JAF-CI-315-2-R-300/2						300 °C/2 h	67
			JAF-CI-315-2-R-400/2						400 °C/2 h	68
		2	JAF-CI-315-2/4-R	0.55/0.11	4180/2100	23/6	15.9/7.9	2880/1440	-25...+55 °C	67/52
			JAF-CI-315-2/4-R-300/2						300 °C/2 h	67/52
			JAF-CI-315-2/4-R-400/2						400 °C/2 h	68/53
*Smoke extraction mode: once for two hours										
355	Unidirectional	1	JAF-CI-355-2-U	0.75	5830	34	17.3	2880	-25...+55 °C	65
			JAF-CI-355-2-U-300/2						300 °C/2 h	65
			JAF-CI-355-2-U-400/2						400 °C/2 h	65
			JAF-CI-355M-2-U	1.1	6740	45	20.0	2880	-25...+55 °C	64
			JAF-CI-355M-2-U-300/2						300 °C/2 h	64
			JAF-CI-355M-2-U-400/2						400 °C/2 h	67
		2	JAF-CI-355-2/4-U	0.8/0.2	5830/3000	34/9	17.3/8.9	2880/1440	-25...+55 °C	65/50
			JAF-CI-355-2/4-U-300/2						300 °C/2 h	65/50
			JAF-CI-355-2/4-U-400/2						400 °C/2 h	65/50
			JAF-CI-355M-2/4-U	1.1/0.25	6740/3370	45/12	20.0/10.0	2880/1440	-25...+55 °C	64/49
			JAF-CI-355M-2/4-U-300/2						300 °C/2 h	64/49
			JAF-CI-355M-2/4-U-400/2						400 °C/2 h	67/52
	Reversible	1	JAF-CI-355-2-R	1.1	5810	34	17.3	2880	-25...+55 °C	68
			JAF-CI-355-2-R-300/2						300 °C/2 h	68
			JAF-CI-355-2-R-400/2						400 °C/2 h	70
		2	JAF-CI-355-2/4-R	1.1/0.25	5810/2900	34/9	17.3/8.6	2810/1390	-25...+55 °C	68/53
			JAF-CI-355-2/4-R-300/2						300 °C/2 h	68/53
			JAF-CI-355-2/4-R-400/2						400 °C/2 h	70/55
*Smoke extraction mode: once for two hours										



AIR-TRANSFER
The Healthy Air Company

JET AXIAL FANS

Ø [mm]	Air flow direction	Number of speeds	Model	Power [kW]	Max. air capacity [m³/h]	Fan pull [N]	Air speed [m/s]	RPM	Operating temperature [°C]	Sound pressure LpA, dB in 3 m
400	Unidirectional	1	JAF-CI-400-2-U	1.1	8500	57	20.0	2880	-25...+55 °C	69
			JAF-CI-400-2-U-300/2				300 °C/2 h		69	
			JAF-CI-400-2-U-400/2		39	16.4	400 °C/2 h		70	
			JAF-CI-400M-2-U	2.2	9870	77	23.2	2880	-25...+55 °C	67
			JAF-CI-400M-2-U-300/2				300 °C/2 h		67	
			JAF-CI-400M-2-U-400/2		57	20	400 °C/2 h		69	
		2	JAF-CI-400-2/4-U	1.1/0.25	8500/4250	57/15	20.0/10.0	2880/1440	-25...+55 °C	69/54
			JAF-CI-400-2/4-U-300/2				300 °C/2 h		69/54	
			JAF-CI-400-2/4-U-400/2		39/10	16.4/8.2	400 °C/2 h		70/55	
			JAF-CI-400M-2/4-U	2.2/0.5	9870/4930	77/20	23.2/11.6	2880/1440	-25...+55 °C	67/52
			JAF-CI-400M-2/4-U-300/2				300 °C/2 h		67/52	
			JAF-CI-400M-2/4-U-400/2		8500/4250	57/15	20/10		400 °C/2 h	69/54
	Reversible	1	JAF-CI-400-2-R	1.5	8290	54	19.5	2880	-25...+55 °C	70
			JAF-CI-400-2-R-300/2				300 °C/2 h		70	
			JAF-CI-400-2-R-400/2		40	16.8	400 °C/2 h		71	
		2	JAF-CI-400-2/4-R	1.5/0.37	8290/4140	54/14	19.5/9.7	2880/1440	-25...+55 °C	70/55
			JAF-CI-400-2/4-R-300/2				300 °C/2 h		70/55	
			JAF-CI-400-2/4-R-400/2		7140/3570	40/10	16.8/8.4		400 °C/2 h	71/56
*Smoke extraction mode: once for two hours										
450	Unidirectional	1	JAF-CI-450-2-U	1.5	10400	67	19.3	2880	-25...+55 °C	67
			JAF-CI-450-2-U-300/2				300 °C/2 h		67	
			JAF-CI-450-2-U-400/2		56	17.6	400 °C/2 h		67	
			JAF-CI-450M-2-U	2.2	12800	100	23.3	2850	-25...+55 °C	70
			JAF-CI-450M-2-U-300/2				300 °C/2 h		70	
			JAF-CI-450M-2-U-400/2		11600	84	21.5		400 °C/2 h	70
			JAF-CI-450S-2-U	3	14100	124	26.2	2890	-25...+55 °C	69
			JAF-CI-450S-2-U-300/2				300 °C/2 h		69	
			JAF-CI-450S-2-U-400/2		12300	94	22.7		400 °C/2 h	72
		2	JAF-CI-450-2/4-U	1.5/0.37	10400/5220	67/17	19.3/9.7	2880/1440	-25...+55 °C	67/52
			JAF-CI-450-2/4-U-300/2				300 °C/2 h		67/52	
			JAF-CI-450-2/4-U-400/2		9520/4760	56/14	17.6/8.8		400 °C/2 h	67/52
			JAF-CI-450M-2/4-U	2.2/0.5	12800/6290	100/25	23.3/11.7	2880/1440	-25...+55 °C	70/55
			JAF-CI-450M-2/4-U-300/2				300 °C/2 h		70/55	
			JAF-CI-450M-2/4-U-400/2		11600/6070	84/23	21.5/11.3		400 °C/2 h	70/55
			JAF-CI-450S-2/4-U	3.1/0.8	14100/7070	124/31	26.2/13.1	2880/1440	-25...+55 °C	69/54
			JAF-CI-450S-2/4-U-300/2				300 °C/2 h		69/54	
			JAF-CI-450S-2/4-U-400/2		12400/6200	95/24	22.9/11.5		400 °C/2 h	72/57
	Reversible	1	JAF-CI-450-2-R	1.5	9280	54	17.2	2880	-25...+55 °C	73
			JAF-CI-450-2-R-300/2				300 °C/2 h		73	
			JAF-CI-450-2-R-400/2		46	15.8	400 °C/2 h		71	
			JAF-CI-450M-2-R	2.2	10400	67	19.2	2850	-25...+55 °C	72
			JAF-CI-450M-2-R-300/2				300 °C/2 h		72	
			JAF-CI-450M-2-R-400/2		10300	66	19.1		400 °C/2 h	73
			JAF-CI-450S-2-R	3	12800	102	23.7	2890	-25...+55 °C	74
			JAF-CI-450S-2-R-300/2				300 °C/2 h		74	
			JAF-CI-450S-2-R-400/2		11200	78	20.8		400 °C/2 h	74
		2	JAF-CI-450-2/4-R	1.5/0.37	9280/4640	54/14	17.2/8.6	2880/1440	-25...+55 °C	73/58
			JAF-CI-450-2/4-R-300/2				300 °C/2 h		73/58	
			JAF-CI-450-2/4-R-400/2		8560/4280	46/12	15.8/7.9		400 °C/2 h	71/56
			JAF-CI-450M-2/4-R	2.2/0.5	10400/5190	67/17	19.2/9.6	2880/1440	-25...+55 °C	72/57
			JAF-CI-450M-2/4-R-300/2				300 °C/2 h		72/57	
			JAF-CI-450M-2/4-R-400/2		10300/5160	66/17	19.1/ 9.6		400 °C/2 h	73/58
			JAF-CI-450S-2/4-R	3.1/0.8	12800/6400	102/26	23.7/11.9	2880/1440	-25...+55 °C	74/59
			JAF-CI-450S-2/4-R-300/2				300 °C/2 h		74/59	
			JAF-CI-450S-2/4-R-400/2		11200/5610	78/20	20.8/10.4		400 °C/2 h	74/59
*Smoke extraction mode: once for two hours										

Ø [mm]	Air flow direction	Number of speeds	Model	Power [kW]	Max. air capacity [m³/h]	Fan pull [N]	Air speed [m/s]	RPM	Operating temperature [°C]	Sound pressure LpA, dB in 3 m
500	Unidirectional	2	JAF-CI-500-2/4-U	3.1/0.8	16200/8120	132/34	24.3/12.2	2880/1440	-25...+55 °C	72/57
			JAF-CI-500-2/4-U-300/2						300 °C/2 h	72/57
			JAF-CI-500-2/4-U-400/2		14900/7430	111/28	22.2/11.1		400 °C/2 h	70/55
			JAF-CI-500M-2/4-U	4.4/1.1	18500/9240	171/43	27.7/13.8	2880/1440	-25...+55 °C	72/57
			JAF-CI-500M-2/4-U-300/2						300 °C/2 h	72/57
			JAF-CI-500M-2/4-U-400/2		17200/8600	148/37	25.8/12.9		400 °C/2 h	74/59
	Reversible	2	JAF-CI-500-2/4-R	3.1/0.8	14500/7250	105/27	21.7/10.8	2880/1440	-25...+55 °C	77/62
			JAF-CI-500-2/4-R-300/2						300 °C/2 h	77/62
			JAF-CI-500-2/4-R-400/2		13600/6790	93/24	20.3/10.2		400 °C/2 h	75/60
			JAF-CI-500M-2/4-R	4.4/1.1	16600/8310	138/35	24.8/12.4	2880/1440	-25...+55 °C	76/61
			JAF-CI-500M-2/4-R-300/2						300 °C/2 h	76/61
			JAF-CI-500M-2/4-R-400/2		15900/7940	127/32	23.8/11.9		400 °C/2 h	77/62
*Smoke extraction mode: once for two hours										
560	Unidirectional	2	JAF-CI-560-2/4-U	4.4/1.1	20200/10100	167/42	24.7/12.4	2880/1440	-25...+55 °C	74/59
			JAF-CI-560-2/4-U-300/2						300 °C/2 h	74/59
			JAF-CI-560-2/4-U-400/2		18000/ 9010	132/34	22/11		400 °C/2 h	74/59
			JAF-CI-560M-2/4-U	8/2	25100/12500	257/64	30.7/15.3	2880/1440	-25...+55 °C	76/61
			JAF-CI-560M-2/4-U-300/2						300 °C/2 h	76/61
			JAF-CI-560M-2/4-U-400/2		24300/12200	242/61	29.8/14.9		400 °C/2 h	77/62
	Reversible	2	JAF-CI-560-2/4-R	4.4/1.1	16800/8410	115/29	20.5/10.3	2880/1440	-25...+55 °C	77/62
			JAF-CI-560-2/4-R-300/2						300 °C/2 h	77/62
			JAF-CI-560-2/4-R-400/2		17200/8900	121/33	21/10.9		400 °C/2 h	77/62
			JAF-CI-560M-2/4-R	6/1.5	21100/10500	182/46	25.8/12.9	2880/1440	-25...+55 °C	79/64
			JAF-CI-560M-2/4-R-300/2						300 °C/2 h	79/64
			JAF-CI-560M-2/4-R-400/2		18800/9380	145/36	23/11.5		400 °C/2 h	77/62
*Smoke extraction mode: once for two hours										
630	Unidirectional	2	JAF-CI-630-2/4-U	12/3	31500/15700	320/80	30.4/15.2	2880/1440	-25...+55 °C	79/64
			JAF-CI-630-2/4-U-300/2						300 °C/2 h	79/64
			JAF-CI-630-2/4-U-400/2		31500/15750	320/80	30.4/15.2		400 °C/2 h	77/62
			JAF-CI-630M-2/4-U	16/4	35200/17650	399/101	34/17	2880/1440	-25...+55 °C	81/66
			JAF-CI-630M-2/4-U-300/2						300 °C/2 h	81/66
			JAF-CI-630M-2/4-U-400/2		33100/16550	352/89	31.9/16		400 °C/2 h	78/63
	Reversible	2	JAF-CI-630-2/4-R	12/3	26700/13400	230/58	25.8/12.9	2880/1440	-25...+55 °C	85/70
			JAF-CI-630-2/4-R-300/2						300 °C/2 h	85/70
			JAF-CI-630-2/4-R-400/2		28800/14400	268/67	27.9/13.9		400 °C/2 h	82/67
			JAF-CI-630M-2/4-R	16/4	29100/14600	274/69	28.2/14.1	2880/1440	-25...+55 °C	86/71
			JAF-CI-630M-2/4-R-300/2						300 °C/2 h	86/71
			JAF-CI-630M-2/4-R-400/2		32100/16000	332/83	31/15.5		400 °C/2 h	82/67
*Smoke extraction mode: once for two hours										

INDUCTION CENTRIFUGAL FANS

AT-ICF SERIES



Induction centrifugal fans of underground parkings.
Temperatures of the transported medium: in continuous operation up to +55 °C in smoke extraction mode:
300 °C – 2 hrs
400 °C – 2 hrs
Compactness. Power. Efficiency.

■ Application

Induction centrifugal fans ICF are designed for general purpose ventilation of underground and semiopened parkings, smoke extraction in case of fire as a part of smoke extract system.

The fans generate a high-speed and high-pressure directed air jet.

■ Modifications

Single-speed
Double-speed

■ Design

ICF casing is made of polymer coated steel.

Due to low height of the casing the fan is recommended for use in low-ceilinged room.

The protecting grille on the intake side prevents ingress of foreign objects into the fan.

Deflector plates on the exhaust side of the fan ensure correct air flow distribution.

■ Motor

Single- or double-speed 4-, 6- or 8-pole asynchronous motors are used. The motor ingress protection rating is IP55. The motors are rated for 400 V power mains voltage and 50 Hz frequency.

■ Impeller

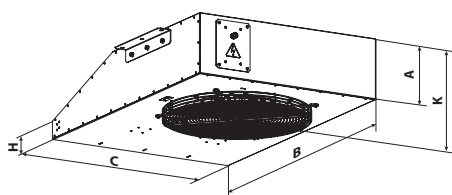
The impeller with backward curved steel blades.

■ Mounting

ICF fans are designed for ceiling mounting and fixation by means of the supplied fixing brackets.

Power is supplied through the internal terminal box.

The fan wiring and mounting must be made according to the instructions and the wiring diagram shown in the terminal box.



The fans with the fire resistance limit 200 °C/2 h can be manufactured on special request.

Model	Dimensions [mm]					Weight [kg]
	A	B	C	H	K	
ICF-50N	290	1355	935	90	350	96
ICF-85N	330	1605	1105	110	390	136
ICF-100N	330	1605	1105	110	390	138

Model	Fan pull [N]	Pole number	Fire resistance limit/h
ICF (Induction Centrifugal Fan)	- 50 N 85 N 100 N	- 4 4/6 (applicable for double-speed models) 4/8 (applicable for double-speed models)	- no number: max. +55 °C 300/2: 300 °C/2 h 400/2: 400 °C/2 h

■ **Technical data**

Model	Number of speeds	Max. air capacity [m³/h]	Power [kW]	Fan pull [N]	Air speed [m/s]	RPM	Operating temperature [°C]*	Sound pressure LpA, dB in 3 m
ICF-50N-4	1	6200	1.5	50	20.5	1500	-25...+55 °C	72
ICF-50N-4-300/2							300 °C/2 h	
ICF-50N-4-400/2							400 °C/2 h	
ICF-50N-4/6	2	6200/4100	1.5/0.37	50/20	20.5/13.5	1500/1000	-25...+55 °C	72/59
ICF-50N-4/6-300/2							300 °C/2 h	
ICF-50N-4/6-400/2							400 °C/2 h	
ICF-50N-4/8		6200/3100	1.6/0.4	50/13	20.5/10.2	1500/750	-25...+55 °C	72/57
ICF-50N-4/8-300/2							300 °C/2 h	
ICF-50N-4/8-400/2							400 °C/2 h	
ICF-85N-4	1	9750	2.2	85	22.3	1500	-25...+55 °C	76
ICF-85N-4-300/2							300 °C/2 h	
ICF-85N-4-400/2							400 °C/2 h	
ICF-85N-4/6	2	9750/5950	2.2/0.7	85/28	22.3/13.6	1500/1000	-25...+55 °C	76/63
ICF-85N-4/6-300/2							300 °C/2 h	
ICF-85N-4/6-400/2							400 °C/2 h	
ICF-85N-4/8		9750/4150	2.2/0.55	85/20	22.3/9.5	1500/750	-25...+55 °C	76/60
ICF-85N-4/8-300/2							300 °C/2 h	
ICF-85N-4/8-400/2							400 °C/2 h	
ICF-100N-4	1	10200	3	100	23.3	1500	-25...+55 °C	78
ICF-100N-4-300/2							300 °C/2 h	
ICF-100N-4-400/2							400 °C/2 h	
ICF-100N-4/8	2	10200/5150	2.8/0.7	100/26	23.3/11.8	1500/750	-25...+55 °C	78/63
ICF-100N-4/8-300/2							300 °C/2 h	
ICF-100N-4/8-400/2							400 °C/2 h	

* Smoke extraction mode: once for two hours

VENTILATION OF UNDERROOF PARKING

