

Series

JAF-CI 710-1600

Jet axial fans with a fire resistance rating of 300 °C/2 hours for tunnel ventilation



APPLICATION

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

DESIGN OPTIONS

Unidirectional, single-speed (**U**); reversible, single-speed (**R**).

DESIGN

The **JAF** fan casing has a tubular shape, is made of steel and has a polymer coating. The casing is sound-insulated with a layer of mineral wool. The casing has special brackets for mounting the motor, which also double as guides and ensure even distribution of air across the impeller blades, thereby improving the aerodynamic performance of the fan.

MOTOR

The three-phase asynchronous electric motor with a squirrel-cage rotor is installed inside the fan casing.

Motor protection rating: IP55.

The motor design enables the fan to operate in smoke extraction ventilation systems in unidirectional and reverse modes.

The unit is rated for connection to 400 V/50 Hz power mains.

IMPELLER

The dynamically balanced impeller is made of cast aluminum alloy.

Reversible fans are equipped with a 100% reverse impeller that works in both directions.

MOUNTING

JAF fans are designed for horizontal mounting under the ceiling using the supplied mounting brackets installed on the casing.

DESIGNATION KEY

Series

JAF: Jet Axial Fan

Casing type

C: round

Casing insulation

no letter: no sound insulation

I: with sound insulation

Diameter [mm]:

710; 900; 100; 1120; 1250; 1400; 1600

Number of poles

2D: 2 poles

4D: 4 poles

Motor power [kW]

X: motor power in kW

Air flow direction

U: unidirectional

R: reverse

Fire resistance rating/hours

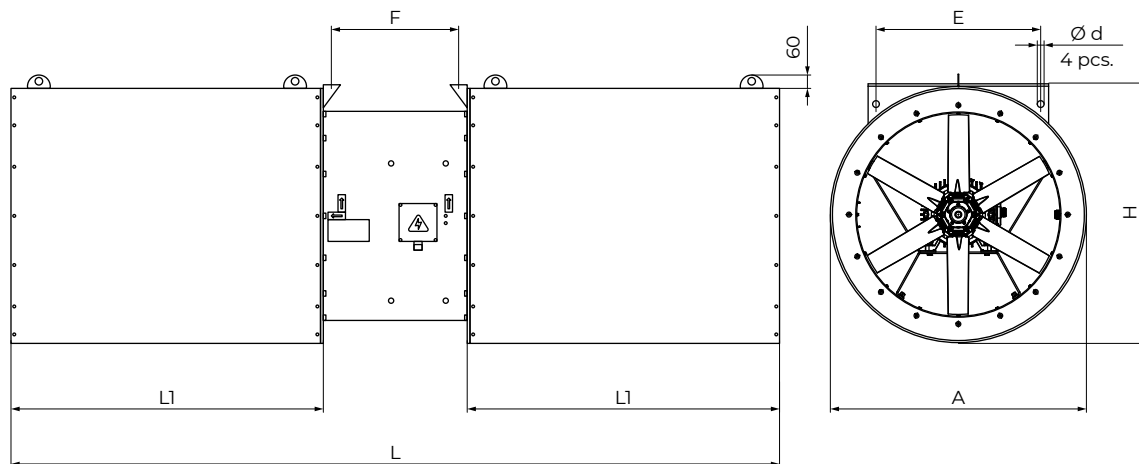
no number: up to +55 °C

300/2: 300 °C/2 hours

JAF - C I - 1600 - 4D / 55 - U - 300/2

OVERALL DIMENSIONS

Ø [mm]	Model	Dimensions [mm]						
		A	E	F	H	L	L1	d
710	JAF-CI-710-2D/11	915	560	550	935	2800	1075	20
	JAF-CI-710-2D/15			600		2850		
	JAF-CI-710-2D/18.5							
	JAF-CI-710-2D/22							
900	JAF-CI-900-4D/11	1135	730	550	1150	3370	1360	
	JAF-CI-900-4D/15			600		3420		
	JAF-CI-900-4D/18.5							
1000	JAF-CI-1000-4D/15	1265	895	575	1285	3720	1510	
	JAF-CI-1000-4D/18.5			725		3870		
	JAF-CI-1000-4D/22							
	JAF-CI-1000-4D/30							
1120	JAF-CI-1120-4D/18.5	1315	1020	570	1335	4080	1690	
	JAF-CI-1120-4D/22			720		4230		
	JAF-CI-1120-4D/30			870		4380		
	JAF-CI-1120-4D/37							
	JAF-CI-1120-4D/45							
1250	JAF-CI-1250-4D/37	1415	1120	720	1435	4620	1890	
	JAF-CI-1250-4D/45			870		4770		
	JAF-CI-1250-4D/55							
	JAF-CI-1250-4D/75							
1400	JAF-CI-1400-4D/30	1615	1295	720	1635	5070	2110	
	JAF-CI-1400-4D/37			870		5220		
	JAF-CI-1400-4D/45							
	JAF-CI-1400-4D/55							
	JAF-CI-1400-4D/75							
1600	JAF-CI-1600-4D/45	1815	1490	720	1835	5670	2410	
	JAF-CI-1600-4D/55			820		5820		
	JAF-CI-1600-4D/75			970		5920		
	JAF-CI-1600-4D/90							



ACCESSORIES



Protective mesh
SZ-VO



Frequency converter
Basic Drive FC-101



Safety switches
AS

TECHNICAL DATA

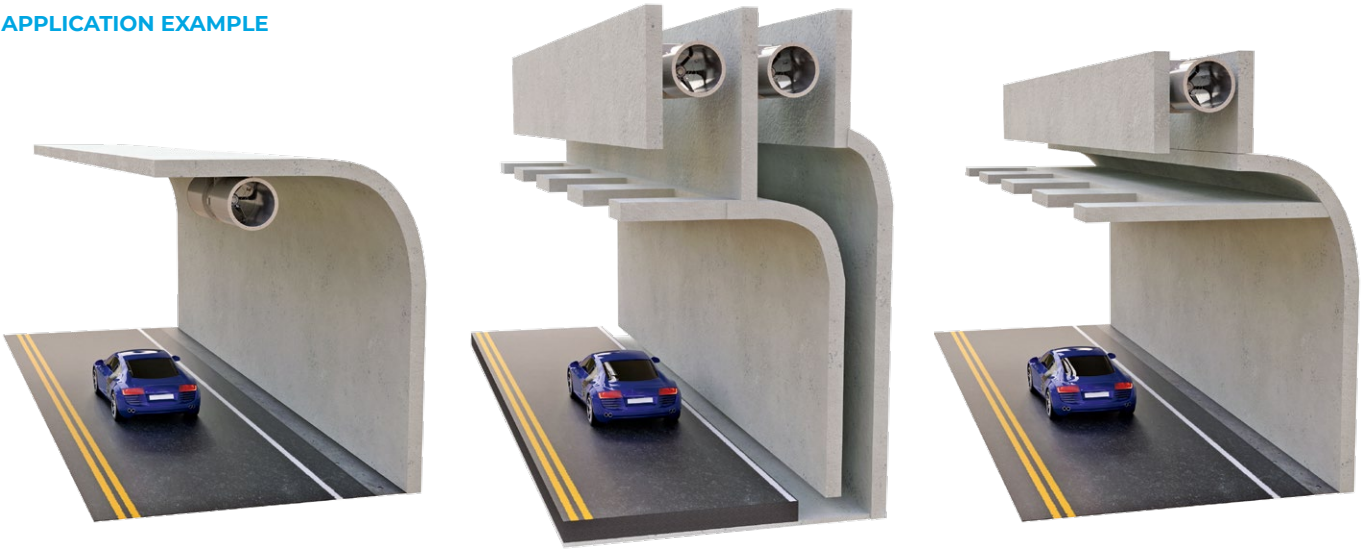
Ø [mm]	Air flow direction	Model	Max. air flow [m³/s]	Max. air flow [m³/h]	Air velocity [m/s]	Thrust (Impulse) [N]	Power [kW]	Max. transported air temperature [°C]
710	Unidirectional	JAF-CI-710-2D/11-U	12	43200	31.92	461	11	-25...+55 °C
		JAF-CI-710-2D/11-U-300/2						300 °C/2 h
		JAF-CI-710-2D/15-U	13.3	47880	35.38	567	15	-25...+55 °C
		JAF-CI-710-2D/15-U-300/2						300 °C/2 h
		JAF-CI-710-2D/18.5-U	14	50400	37.24	628	18.5	-25...+55 °C
		JAF-CI-710-2D/18.5-U-300/2						300 °C/2 h
	JAF-CI-710-2D/22-U	15.2	54720	40.09	734	22	-25...+55 °C	
	JAF-CI-710-2D/22-U-300/2						300 °C/2 h	
	Reverse	JAF-CI-710-2D/11-R	11.9	42840	31.38	450	11	-25...+55 °C
		JAF-CI-710-2D/11-R-300/2						300 °C/2 h
		JAF-CI-710-2D/15-R	12	43200	31.65	457	15	-25...+55 °C
		JAF-CI-710-2D/15-R-300/2						300 °C/2 h
		JAF-CI-710-2D/18.5-R	12.9	46440	34.02	529	18.5	-25...+55 °C
		JAF-CI-710-2D/18.5-R-300/2						300 °C/2 h
JAF-CI-710-2D/22-R	13.8	49680	36.39	605	22	-25...+55 °C		
JAF-CI-710-2D/22-R-300/2						300 °C/2 h		
900	Unidirectional	JAF-CI-900-4D/11-U	17.1	61560	27.81	573	11	-25...+55 °C
		JAF-CI-900-4D/11-U-300/2						300 °C/2 h
		JAF-CI-900-4D/15-U	17.6	63360	28.63	607	15	-25...+55 °C
		JAF-CI-900-4D/15-U-300/2						300 °C/2 h
	JAF-CI-900-4D/18.5-U	18.7	67320	30.41	685	18.5	-25...+55 °C	
	JAF-CI-900-4D/18.5-U-300/2						300 °C/2 h	
	Reverse	JAF-CI-900-4D/11-R	14.5	52200	23.58	412	11	-25...+55 °C
		JAF-CI-900-4D/11-R-300/2						300 °C/2 h
JAF-CI-900-4D/15-R		15.7	56520	25.54	483	15	-25...+55 °C	
JAF-CI-900-4D/15-R-300/2							300 °C/2 h	
1000	Unidirectional	JAF-CI-1000-4D/15-U	21.9	78840	28.75	758	15	-25...+55 °C
		JAF-CI-1000-4D/15-U-300/2						300 °C/2 h
		JAF-CI-1000-4D/18.5-U	23.3	83880	30.59	858	18.5	-25...+55 °C
		JAF-CI-1000-4D/18.5-U-300/2						300 °C/2 h
		JAF-CI-1000-4D/22-U	24	86400	31.51	911	22	-25...+55 °C
		JAF-CI-1000-4D/22-U-300/2						300 °C/2 h
	JAF-CI-1000-4D/30-U	25.2	90720	33.09	1004	30	-25...+55 °C	
	JAF-CI-1000-4D/30-U-300/2						300 °C/2 h	
	Reverse	JAF-CI-1000-4D/15-R	20	70920	26	614	15	-25...+55 °C
		JAF-CI-1000-4D/15-R-300/2						300 °C/2 h
JAF-CI-1000-4D/22-R		20.9	75240	27.44	691	22	-25...+55 °C	
JAF-CI-1000-4D/22-R-300/2							300 °C/2 h	
JAF-CI-1000-4D/30-R	22.4	80640	29.41	793	30	-25...+55 °C		
JAF-CI-1000-4D/30-R-300/2						300 °C/2 h		
1120	Unidirectional	JAF-CI-1120-4D/22-U	28	99000	29	950	22	-25...+55 °C
		JAF-CI-1120-4D/22-U-300/2						300 °C/2 h
		JAF-CI-1120-4D/30-U	30.2	108720	31.51	1146	30	-25...+55 °C
		JAF-CI-1120-4D/30-U-300/2						300 °C/2 h
		JAF-CI-1120-4D/37-U	34	121320	35	1427	37	-25...+55 °C
		JAF-CI-1120-4D/37-U-300/2						300 °C/2 h
		JAF-CI-1120-4D/45-U	34.8	125280	36.31	1522	45	-25...+55 °C
		JAF-CI-1120-4D/45-U-300/2						300 °C/2 h
	JAF-CI-1120-4D/55-U	35.8	128880	37.35	1610	55	-25...+55 °C	
	JAF-CI-1120-4D/55-U-300/2						300 °C/2 h	
	Reverse	JAF-CI-1120-4D/18.5-R	24	87480	25	742	18.5	-25...+55 °C
		JAF-CI-1120-4D/18.5-R-300/2						300 °C/2 h
		JAF-CI-1120-4D/22-R	26	93600	27.13	849	22	-25...+55 °C
		JAF-CI-1120-4D/22-R-300/2						300 °C/2 h
JAF-CI-1120-4D/30-R		28	101880	30	1006	30	-25...+55 °C	
JAF-CI-1120-4D/30-R-300/2							300 °C/2 h	

* Smoke extraction mode: once for 2 hours

Ø [mm]	Air flow direction	Model	Max. air flow [m³/s]	Max. air flow [m³/h]	Air velocity [m/s]	Thrust (Impulse) [N]	Power [kW]	Max. transported air temperature [°C]
1120	Reverse	JAF-CI-1120-4D/37-R	30.2	108720	31.51	1146	37	-25...+55 °C
		JAF-CI-1120-4D/37-R-300/2						300 °C/2 h
		JAF-CI-1120-4D/45-R	31.1	111960	32.45	1215	45	-25...+55 °C
		JAF-CI-1120-4D/45-R-300/2						300 °C/2 h
1250	Unidirectional	JAF-CI-1250-4D/37-U	39	141120	33	1558	37	-25...+55 °C
		JAF-CI-1250-4D/37-U-300/2						300 °C/2 h
		JAF-CI-1250-4D/45-U	41.6	149760	35.03	1755	45	-25...+55 °C
		JAF-CI-1250-4D/45-U-300/2						300 °C/2 h
		JAF-CI-1250-4D/55-U	44	158760	37	1972	55	-25...+55 °C
		JAF-CI-1250-4D/55-U-300/2						300 °C/2 h
		JAF-CI-1250-4D/75-U	48.5	174600	40.84	2385	75	-25...+55 °C
		JAF-CI-1250-4D/75-U-300/2						300 °C/2 h
	Reverse	JAF-CI-1250-4D/37-R	36	128160	30	1285	37	-25...+55 °C
		JAF-CI-1250-4D/37-R-300/2						300 °C/2 h
		JAF-CI-1250-4D/45-R	38	136800	32.00	1464	45	-25...+55 °C
		JAF-CI-1250-4D/45-R-300/2						300 °C/2 h
		JAF-CI-1250-4D/55-R	41	146160	34	1672	55	-25...+55 °C
		JAF-CI-1250-4D/55-R-300/2						300 °C/2 h
		JAF-CI-1250-4D/75-R	42.9	154440	36.12	1866	75	-25...+55 °C
		JAF-CI-1250-4D/75-R-300/2						300 °C/2 h
1400	Unidirectional	JAF-CI-1400-4D/30-U	41	149040	28	1381	30	-25...+55 °C
		JAF-CI-1400-4D/30-U-300/2						300 °C/2 h
		JAF-CI-1400-4D/37-U	44	158400	29.43	1560	37	-25...+55 °C
		JAF-CI-1400-4D/37-U-300/2						300 °C/2 h
		JAF-CI-1400-4D/45-U	48	172800	32	1856	45	-25...+55 °C
		JAF-CI-1400-4D/45-U-300/2						300 °C/2 h
		JAF-CI-1400-4D/55-U	52	188640	35	2212	55	-25...+55 °C
		JAF-CI-1400-4D/55-U-300/2						300 °C/2 h
	JAF-CI-1400-4D/75-U	56.9	204840	38.06	2608	75	-25...+55 °C	
	JAF-CI-1400-4D/75-U-300/2						300 °C/2 h	
	Reverse	JAF-CI-1400-4D/30-R	40	143640	27	1283	30	-25...+55 °C
		JAF-CI-1400-4D/30-R-300/2						300 °C/2 h
		JAF-CI-1400-4D/37-R	42.5	153000	28.43	1455	37	-25...+55 °C
		JAF-CI-1400-4D/37-R-300/2						300 °C/2 h
		JAF-CI-1400-4D/45-R	46	164520	31	1683	45	-25...+55 °C
		JAF-CI-1400-4D/45-R-300/2						300 °C/2 h
JAF-CI-1400-4D/55-R		48	173160	32	1864	55	-25...+55 °C	
JAF-CI-1400-4D/55-R-300/2							300 °C/2 h	
JAF-CI-1400-4D/75-R	52.5	189000	35.12	2221	75	-25...+55 °C		
JAF-CI-1400-4D/75-R-300/2						300 °C/2 h		
1600	Unidirectional	JAF-CI-1600-4D/45-U	55	196920	28	1839	45	-25...+55 °C
		JAF-CI-1600-4D/45-U-300/2						300 °C/2 h
		JAF-CI-1600-4D/55-U	60.9	219240	31.08	2279	55	-25...+55 °C
		JAF-CI-1600-4D/55-U-300/2						300 °C/2 h
		JAF-CI-1600-4D/75-U	68	243720	35	2817	75	-25...+55 °C
		JAF-CI-1600-4D/75-U-300/2						300 °C/2 h
	JAF-CI-1600-4D/90-U	72.2	259920	36.84	3204	90	-25...+55 °C	
	JAF-CI-1600-4D/90-U-300/2						300 °C/2 h	
	Reverse	JAF-CI-1600-4D/45-R	53	189720	27	1707	45	-25...+55 °C
		JAF-CI-1600-4D/45-R-300/2						300 °C/2 h
		JAF-CI-1600-4D/55-R	56.6	203760	28.88	1969	55	-25...+55 °C
		JAF-CI-1600-4D/55-R-300/2						300 °C/2 h
		JAF-CI-1600-4D/75-R	64	230040	33	2509	75	-25...+55 °C
		JAF-CI-1600-4D/75-R-300/2						300 °C/2 h
JAF-CI-1600-4D/90-R		68	244800	34.70	2842	90	-25...+55 °C	
JAF-CI-1600-4D/90-R-300/2							300 °C/2 h	

* Smoke extraction mode: once for 2 hours

APPLICATION EXAMPLE



Impulse ventilation

Local ventilation

Combined ventilation

