

WDJ and WDJV



INTENDED USE

Roof fans are used for removing the air from the production warehouses, storage warehouses, retail pavilions, shops, offices, single family houses etc.
 Removed foul air can be polluted with the vapors and the corrosive gases as well as polluted with the dusts within the limits of the environment protection regulations.

DEVICE DESCRIPTION

Fans are made with: horizontal air outflow type WDJ and vertical air outflow type WDJV
 Series of types of roof fans includes 4 sizes for each type.

Fans consists of:

- high-efficient radial impeller made of plastic with the motor placed inside the impeller;
- carrying plate made of galvanized steel sheets for the WDJ type and made of polyester-glass laminate for the WDJV type;
- plastic cover for WDJ type or cover polyester-glass laminate for WDJV.

Fans are adapted for mounting them on the PU universal bases.

WORKING CONDITIONS

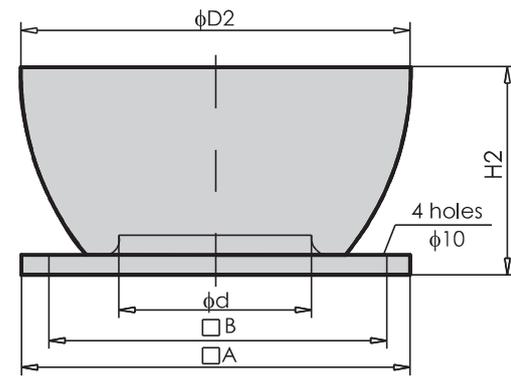
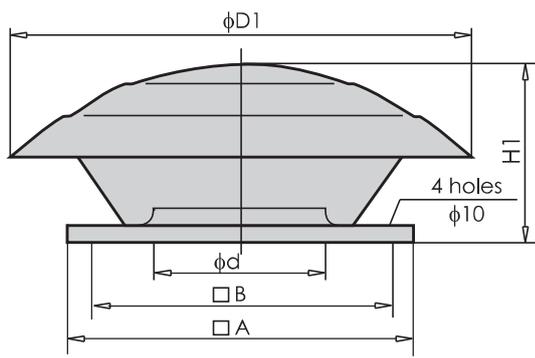
Fans are supplied with the single-phase motors ~2600 rpm.
 Admissible temperature of removed air is 50°C.

DESIGNATIONS

Roof fan	WDJV - 17,5
Type	WDV; WDJV
Size	17,5; 19; 22; 22,5

TECHNICAL DATA

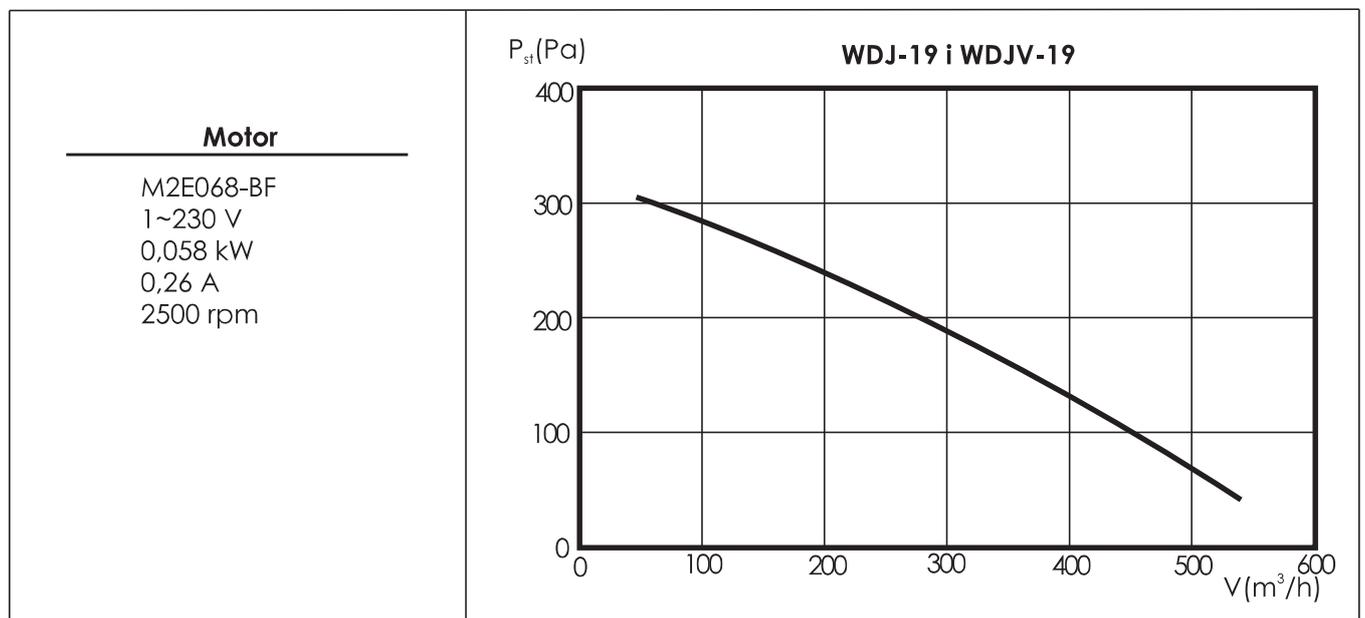
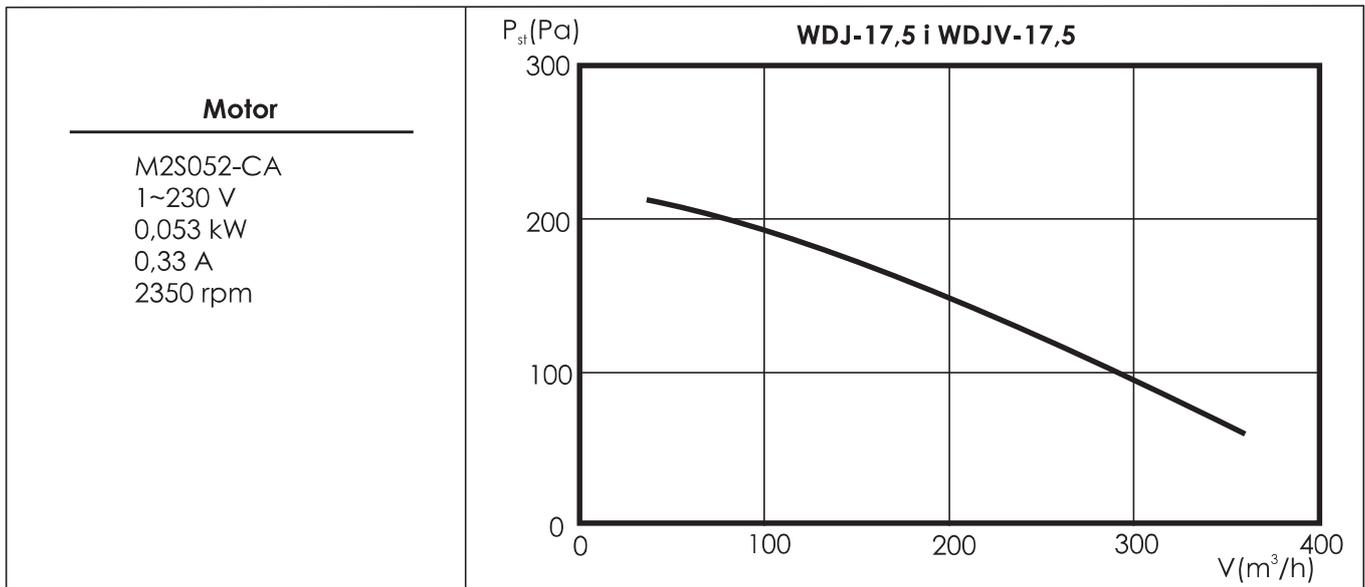
Basic dimensions

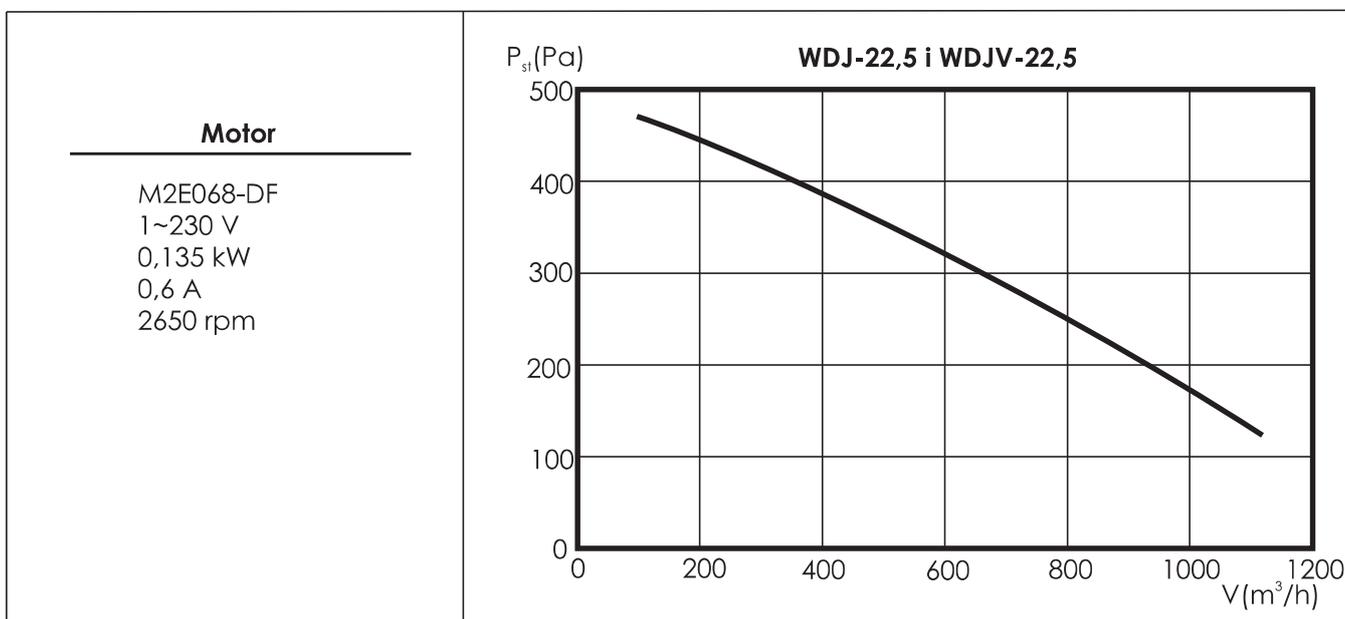
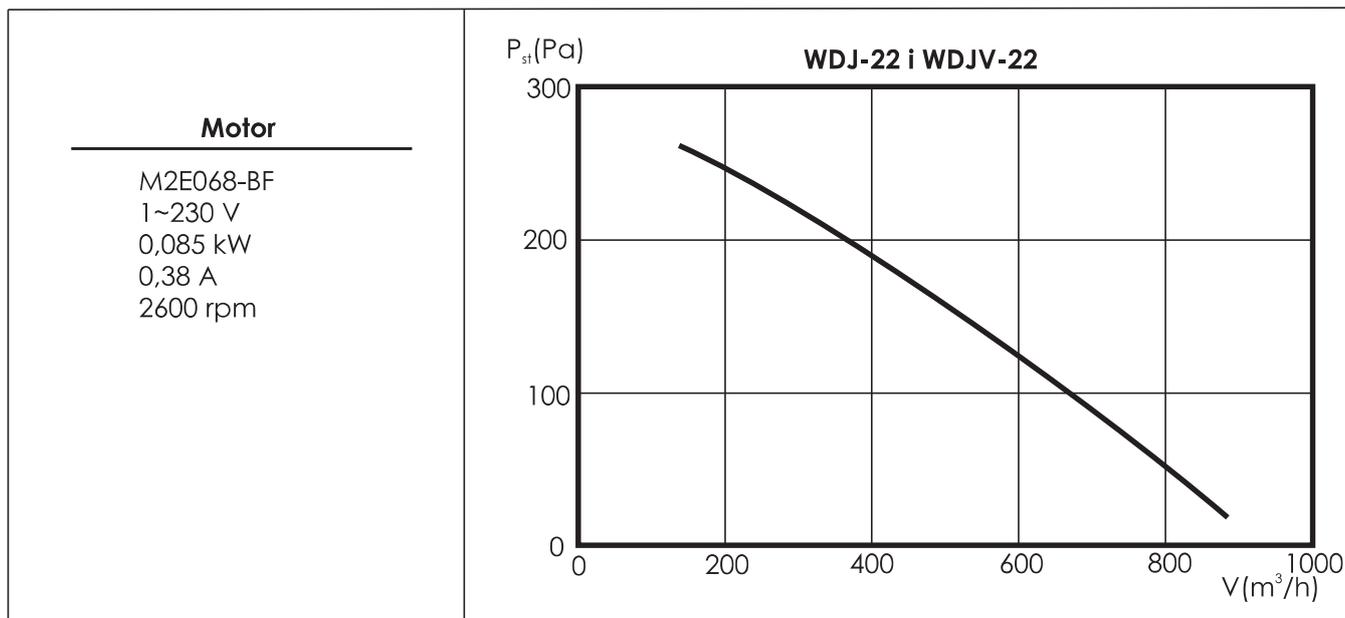


Fan size	ϕd [mm]	$\phi D1^*$ [mm]	$\phi D2^{**}$ [mm]	A [mm]	B [mm]	H1* [mm]	H2** [mm]	Weight [kg]	
								WDV	WDJV
WDJ(V)-17,5	125	440	350	367	330	245	156	4,5	3,5
WDJ(V)-19	125	495	350	367	330	250	156	5,5	5,5
WDJ(V)-22	155	495	371	367	330	270	189	6,0	4,5
WDJ(V)-22,5	146	615	420	367	330	340	209	7,0	5,5

* - dimension concerns WDJ type fans

** - dimensions concerns WDJV type fans





P_{st} –static negative pressure in the fan inlet

Operating noise level

Fan size	Revolutions [rpm]	Operating noise level [dB(A)] for WDJ fan		Operating noise level [dB(A)] for WDJV fan	
		at the air outlet side* at the distance of 1m	at the air inlet side* at the distance of 1m	at the air outlet side* at the distance of 1m	at the air inlet side* at the distance of 1m
WDJ(V)-17,5	2350	57	56	62	58
WDJ(V)-19	2500	59	58	65	60
WDJ(V)-22	2600	62	61	67	63
WDJ(V)-22,5	2650	65	63	71	65

**Operating noise level in dB(A) — acoustic pressure level at the air outlet side, in the free field with taking into consideration the directional factor Q=2 and at the distance of 1 m from the fan.

** Operating noise level in dB(A) – acoustic pressure level at the air inlet side with taking into consideration the accommodation absorption ability of the compartment A=100m², directional coefficient Q=2 and from distance of 1 m from the air inlet to the fan.

WDJV fans noise level at the air outlet side differs depending on the measurement direction

WDJV fans noise level at the distance of 1 measured perpendicularly to the fan axle in the plane parallel to the roof plane **reduces by ~3 dB.**

WDJV fans noise level at the distance of 1m measured along the axle **increases by ~1 dB.**

ADDITIONAL INFORMATION

For the WDJ and WDJV roof fans we can supply the universal bases and the additional elements.

Fan size	Roof base size		Additional elements			
			Assembly plate	Throttle	Inlet diffuser	Elastic spout
WDJ(V)-17,5	PU-1	PUT-1	PM-1	SWD-1	DW-1	KE-1
WDJ(V)-19	PU-1	PUT-1	PM-1	SWD-1	DW-1	KE-1
WDJ(V)-22	PU-1	PUT-1	PM-1	SWD-1	DW-1	KE-1
WDJ(V)-22,5	PU-1	PUT-1	PM-1	SWD-1	DW-1	KE-1

Elements necessary for assembling the WDJ and WDJV fans

- **PU** universal bases or **PUT** universal damping bases.

Additional elements supplied for the WDJ i WDJV fans

- PM assembly plates;
- SWD self-closing throttle or single-planed throttle operated manually or by the use of servo-motor
- DW inlet diffusers;
- KE elastic spouts.

PUT universal damping bases are used only in the exceptional cases because of low operational noise level of WDJ and WDJV fans.

Technical data of additional fans equipment are presented in the catalogue sheet of universal bases in this catalogue.

AUTOMATICS

Description of operation and fans automatics components selection are presented in the section: VENTILATORS CONTROL AND AUTOMATICS in this catalogue