

R2D190-AC08-22

# AC centrifugal fan

backward-curved, single-intake

## Nominal data

Type	R2D190-AC08-22		
Motor	M2D068-BF		
Phase		3~	3~
Nominal voltage	VAC	400	400
Wiring		Y	Y
Frequency	Hz	50	60
Method of obtaining data		fa	fa
Valid for approval/standard		CE	CE
Speed (rpm)	min <sup>-1</sup>	2450	2600
Power consumption	W	43	53
Current draw	A	0.09	0.09
Min. back pressure	Pa	0	0
Min. back pressure	inH <sub>2</sub> O	0	0
Min. ambient temperature	°C	-25	-25
Max. ambient temperature	°C	85	85
Starting current	A	0.2	0.2

ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment  
Subject to change

R2D190-AC08-22

# AC centrifugal fan

backward-curved, single-intake

## Technical description

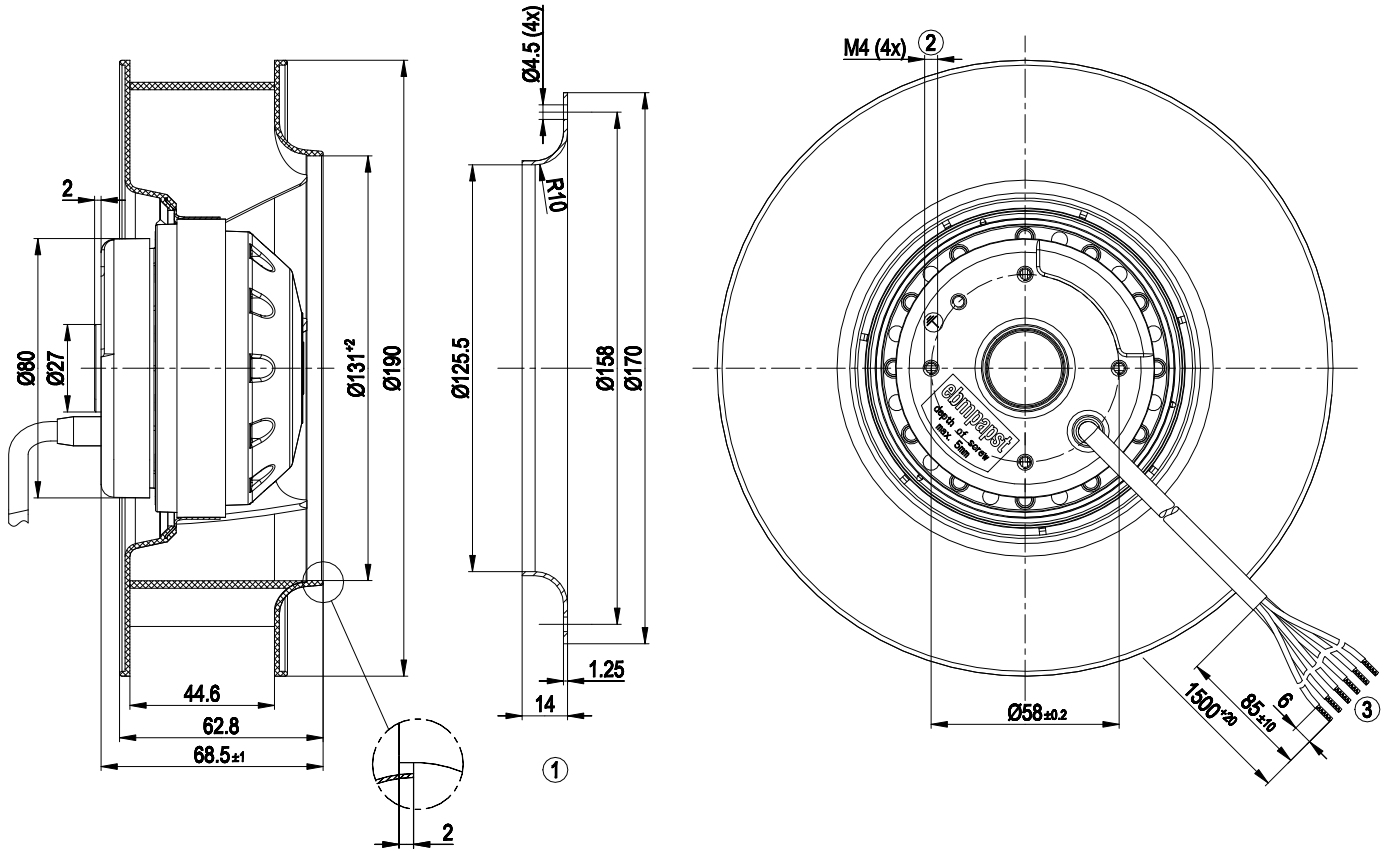
Weight	1.3 kg
Fan size	190 mm
Rotor surface	Painted black
Impeller material	PA66 plastic, glass-fiber reinforced
Number of blades	7
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP44
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	F5
Max. permitted ambient temp. for motor (transport/storage)	+ 80 °C
Min. permitted ambient temp. for motor (transport/storage)	- 40 °C
Installation position	Shaft horizontal or rotor on bottom; rotor on top on request
Condensation drainage holes	On rotor side
Mode	S1
Motor bearing	Ball bearing
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	< 0.75 mA
Motor protection	Thermal overload protector (TOP) with basic insulation
With cable	Axial
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60335-1; CE

R2D190-AC08-22

# AC centrifugal fan

backward-curved, single-intake

## Product drawing



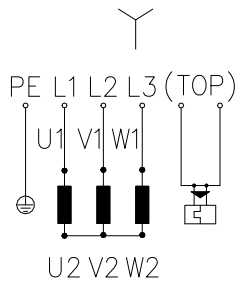
- |   |   |
|---|---|
| 1 | Accessory part: inlet ring 09576-2-4013 not included in scope of delivery |
| 2 | Max. clearance for screw 5 mm   |
| 3 | Cable halogen-free, 6x crimped splices                                    |

R2D190-AC08-22

# AC centrifugal fan

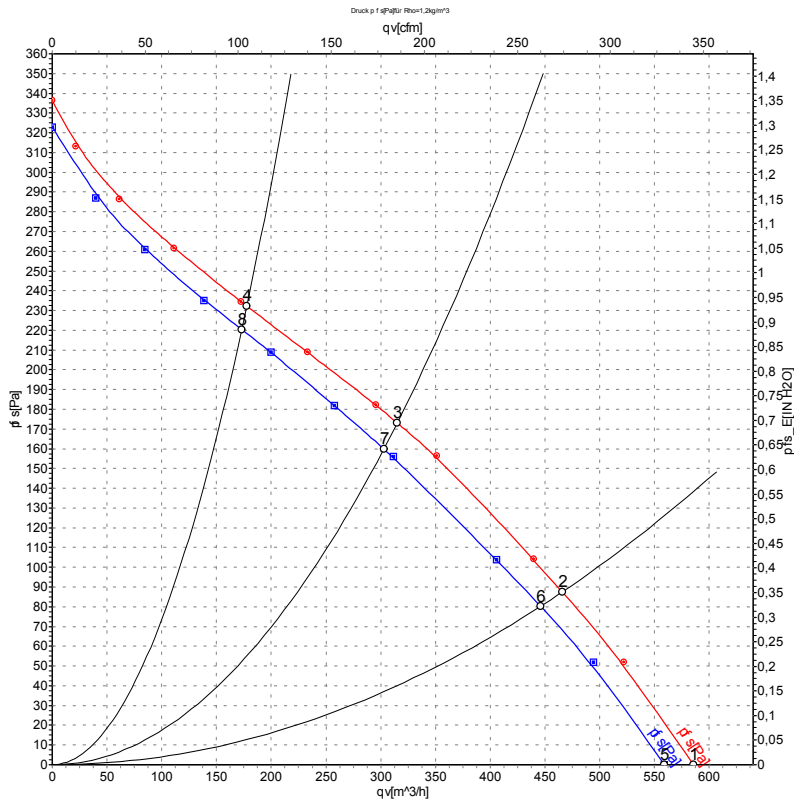
backward-curved, single-intake

## Connection diagram



Y	Star connection	L1	black	L2	blue
L3	brown	U1	black	V1	blue
W1	brown	U2	green	V2	white
W2	yellow	TOP	gray		

## Curves: Air performance 50 Hz



Measurement: LU-50948-1  
Measurement: LU-50798-1

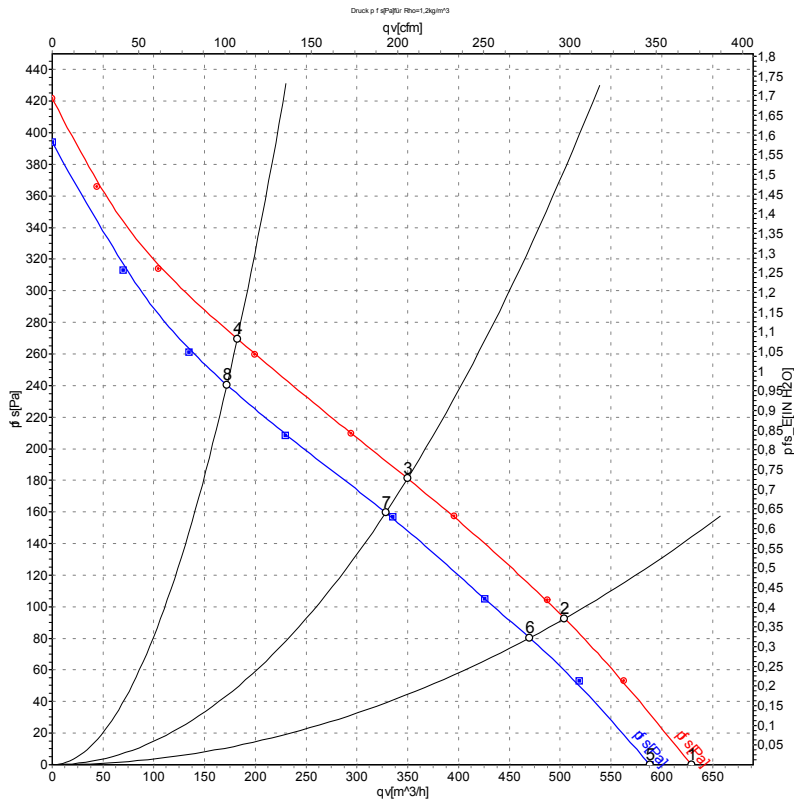
Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebm-papst. Intake sound level: Sound power level according to ISO 13347 / sound pressure level measured at 1 m distance from fan axis. The values given are valid under the specified measuring conditions and may vary due to conditions of installation. For deviations from the standard configuration, the parameters have to be checked on the installed unit.

## Measured values

	U	f	n	P <sub>e</sub>	I	qv	p <sub>fs</sub>	qv	p <sub>fs</sub>
	V	Hz	min <sup>-1</sup>	W	A	m <sup>3</sup> /h	Pa	CFM	inH <sub>2</sub> O
1	440	50	2550	51	0.11	585	0	345	0.00
2	440	50	2455	55	0.11	465	88	275	0.35
3	440	50	2400	58	0.11	315	173	185	0.69
4	440	50	2460	54	0.10	180	232	105	0.93
5	400	50	2450	43	0.09	560	0	330	0.00
6	400	50	2375	47	0.09	445	80	265	0.32
7	400	50	2310	50	0.09	305	160	180	0.64
8	400	50	2385	46	0.09	175	220	100	0.88

U = Power supply · f = Frequency · n = Speed (rpm) · P<sub>e</sub> = Power consumption · I = Current draw · qv = Air flow · p<sub>fs</sub> = Pressure increase

## Curves: Air performance 60 Hz



Measurement: LU-50949-1  
Measurement: LU-50800-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebm-papst. Intake sound level: Sound power level according to ISO 13347 / sound pressure level measured at 1 m distance from fan axis. The values given are valid under the specified measuring conditions and may vary due to conditions of installation. For deviations from the standard configuration, the parameters have to be checked on the installed unit.

## Measured values

	U	f	n	P <sub>e</sub>	I	qv	p <sub>fs</sub>	qv	p <sub>fs</sub>
	V	Hz	min <sup>-1</sup>	W	A	m <sup>3</sup> /h	Pa	CFM	inH <sub>2</sub> O
1	440	60	2700	58	0.09	630	0	370	0.00
2	440	60	2615	63	0.10	505	93	295	0.37
3	440	60	2525	67	0.10	350	181	205	0.73
4	440	60	2635	62	0.10	180	269	105	1.08
5	400	60	2600	53	0.09	590	0	345	0.00
6	400	60	2475	58	0.10	470	80	275	0.32
7	400	60	2375	61	0.10	330	160	195	0.64
8	400	60	2490	57	0.09	170	240	100	0.96

U = Power supply · f = Frequency · n = Speed (rpm) · P<sub>e</sub> = Power consumption · I = Current draw · qv = Air flow · p<sub>fs</sub> = Pressure increase