



ЈАВНО КОМУНАЛНО ПРЕДУЗЕЋЕ
НОВОСАДСКА ТОПЛАНА



Јавно комунално предузеће "Новосадска топлана" Нови Сад
Владимира Николића 1, 21000 Нови Сад
ПИБ: 100726741
Тел. (+381 21) 4881-101; Факс: 4881-253
Кориснички центар (тел.): 0800 100 021
E-mail: toplana@nstoplana.rs
www.nstoplana.rs

Шифра делатности: 3530
Матични број: 08038210;

Рачун: 160-121608-69 (Banca Intesa)
105-800199-85 (AIK Banka)
325-9500700008494-30 (OTP banka)

Нови Сад, 12.06.2017. године
Број: 1-12/17-П-9

Предмет: додатно појашњење бр. 9 у отвореном поступку јавне набавке добара: „Набавка електро материјала“, бр. јн 1-12/17, по позиву за подношење понуда објављеном на Порталу јавних набавки дана 08.05.2017. године.

Питање бр. 1:

Везано за јавну набавку бр.1-12/17 молим одговор на питање:
поз.139-140 ножасте ултрабрзи осигурачи, колики је захтевани напон (500 V или др.) ?

Одговор бр. 1:

Захтевани напон је 500 V.

Питање бр. 2:

Везано за јавну набавку бр.1-12/17 молим одговор на питање:
поз.219-222 с обзиром да смо добили одговор од произвођача да су то посебне изведбе а не каталожке, молим вас одговор да ли прихватате типове које нам је произвођач понудио као алтернативу (у прилогу су изводи из каталога за све 4 позиције)

W2E200-НК38-01 замена за поз.221
R2E225-RA92-09 замена за поз.220
R2E220-RB06-01 замена за поз.219
6078ES замена за поз.222

Одговор бр. 2:

Прихватљиви одговарајући типови за позиције 219-222 су наведени у Додатном појашњењу бр. 2 (питање/одговор бр. 4), као и у Измени конкурсне документације бр. 2.

КОМИСИЈА ЗА ЈАВНУ НАБАВКУ 1-12/17

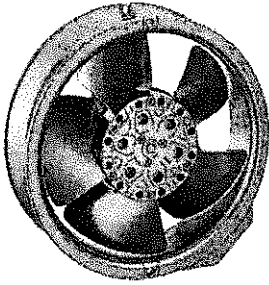


Прилог (достављен од стране заинтересованог лица у склопу питања број 2)

ПРИЛОГ

6078 ES

AC axial compact fan



ebm-papst St. Georgen GmbH & Co. KG
Hermann-Papst-Straße 1
78112 St. Georgen
Phone: +49 7724 81-0
Fax: +49 7724 81-1309
www.ebmpapst.com
info2@de.ebmpapst.com

Nominal data

Type	6078 ES
Nominal voltage	[VAC] 230
Frequency	[Hz] 50
Speed	[min ⁻¹] 2800
Power input	[W] 26,0
Min. ambient temperature	[°C] -30
Max. ambient temperature	[°C] 75
Air flow	[m ³ /h] 420
Sound power level	[B] 6,3
Sound pressure level	[dB(A)] 54

ml = max. load · me = max. efficiency · rfa = running at free air · cs = customer specs · cu = customer unit
Subject to alterations

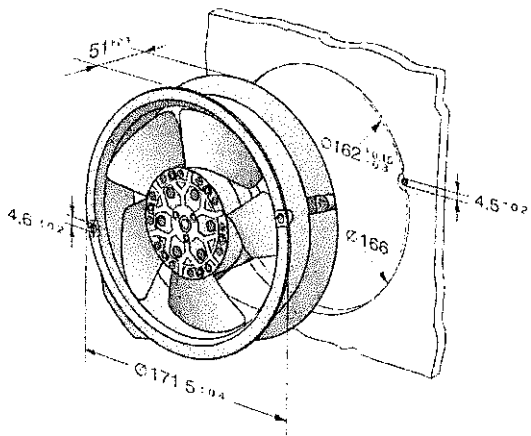
Technical features

Dimensions	172 Ø x 51 mm
General description	AC fan with external rotor shaded-pole motor
Connection line	2 single strands. Housing with grounding lug for tapping screw M4 x 6 (TORX).
Direction of protection	Left, looking at rotor
Direction of air flow	Air exhaust over bars
Bearing	Ball bearings
Lifetime L10 at 40 °C	37500 h
Lifetime L10 at maximum temperature	20000 h
Mass	1.000 kg
Housing material	Metal
Material of impeller	Metal
Motor protection	Protected from overload by a thermal switch
Approval	VDE, CSA, UL, CE

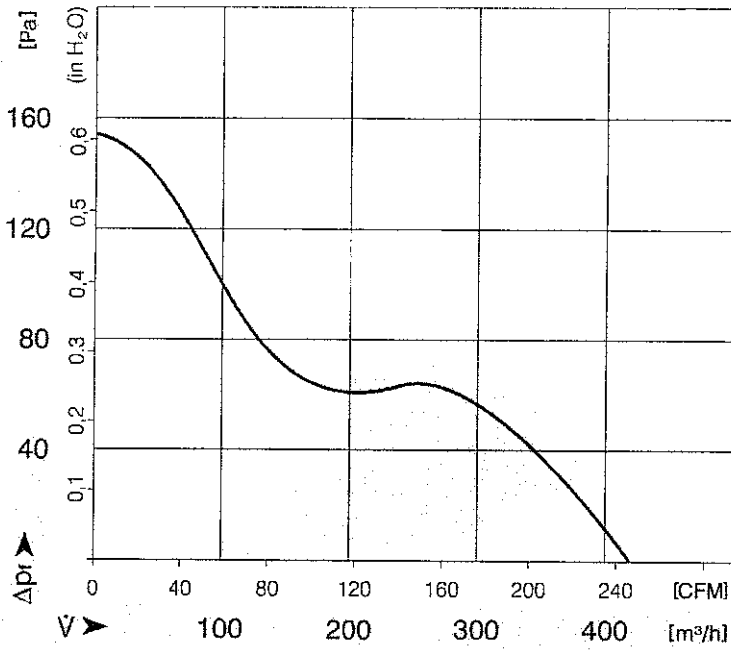
6078 ES

AC axial compact fan

Product drawing



Charts: Air flow



ebm-papst Mulfingen GmbH & Co. KG

Bachmühle 2 · D-74673 Mulfingen

Phone +49 7938 81-0

Fax +49 7938 81-110

info1@de.ebmpapst.com

www.ebmpapst.com

Limited partnership · Headquarters Mulfingen

County court Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen

County court Stuttgart · HRB 590142

Nominal data

Type	R2E220-RB06-01		
Motor	M2E068-CF		
Phase		1~	1~
Nominal voltage	VAC	230	230
Frequency	Hz	50	60
Type of data definition		ml	ml
Valid for approval / standard		CE	CE
Speed	min ⁻¹	2500	2650
Power input	W	102	135
Current draw	A	0.45	0.60
Motor capacitor	µF	2.5	2.5
Capacitor voltage	VDB	400	400
Capacitor standard		P0 (CE)	P0 (CE)
Min. back pressure	Pa	0	0
Min. ambient temperature	°C	-25	-25
Max. ambient temperature	°C	60	70
Starting current	A	0.85	0.82

ml = max. load · me = max. efficiency · fa = running at free air · cs = customer specs · cu = customer unit
Subject to alterations

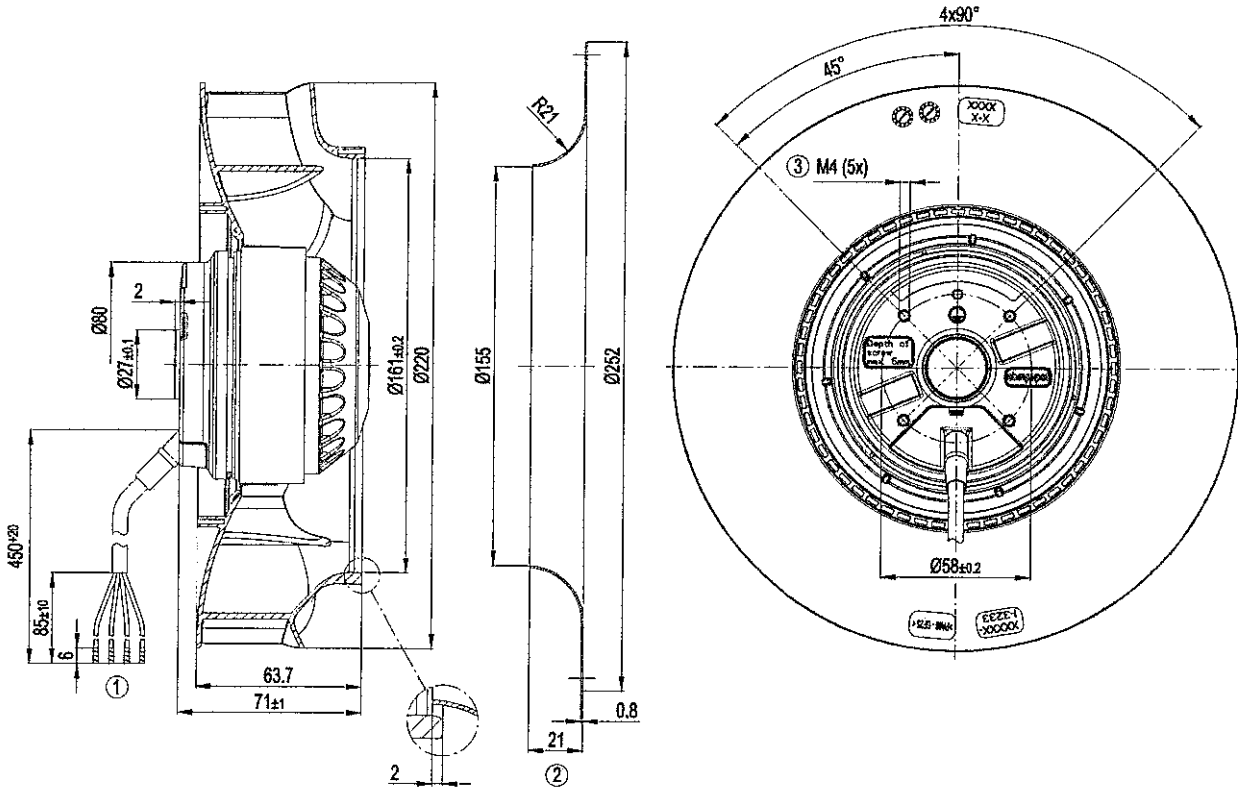


Technical features

Size	220 mm
Surface of rotor	Coated in black
Material of impeller	Plastic PA6, fibreglass-reinforced
Number of blades	7
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 44; Depending on installation and position as per EN 60034-5
Insulation class	"F"
Humidity class	F1-2
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Mounting position	Shaft horizontal or rotor on bottom; rotor on top on request
Condensate discharge holes	Rotor-side
Operation mode	S1
Motor bearing	Ball bearing
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	< 0,75 mA
Motor protection	Thermal overload protector (TOP) wired internally
Cable exit	Variable
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60335-1; CE
Approval	GOST

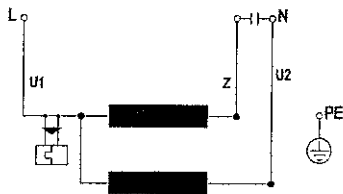


Product drawing



- 1 Connection line silicone 4G 0.5 mm², 4x brass lead tips crimped
- 2 Accessory part: Inlet nozzle 09609-2-4013, not included in the standard scope of delivery
- 3 Depth of screw max. 5 mm

Connection screen



U1 blue

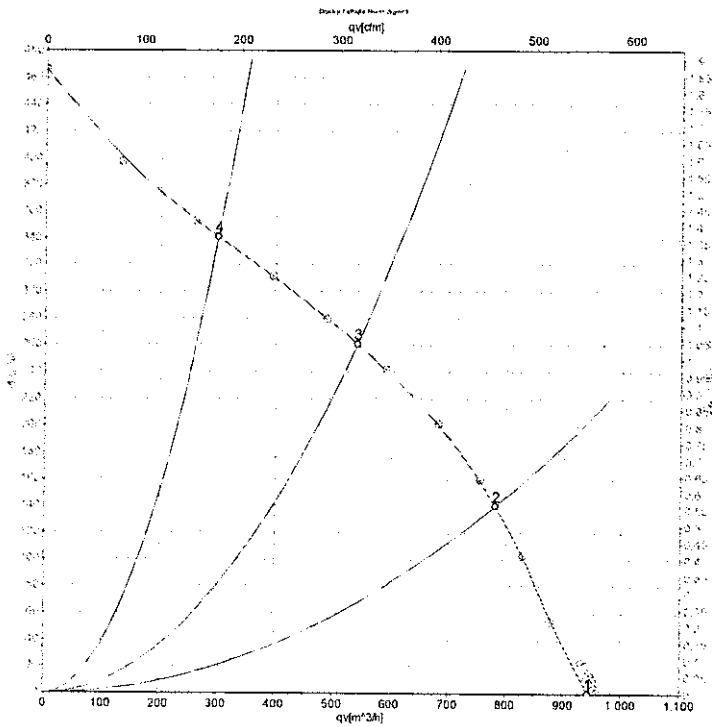
Z brown

U2 black

PE green/yellow



Charts: Air flow 50 Hz



Measurement LU-129485

Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebm-papst. Suction-side noise levels: LwA measured as per ISO 13347 / LpA measured with 1m distance to fan axis. The values given are valid under the measuring conditions mentioned above and may vary according to the actual installation situation. With any deviation from the standard set-up, the specific values have to be checked and reviewed with the unit installed.

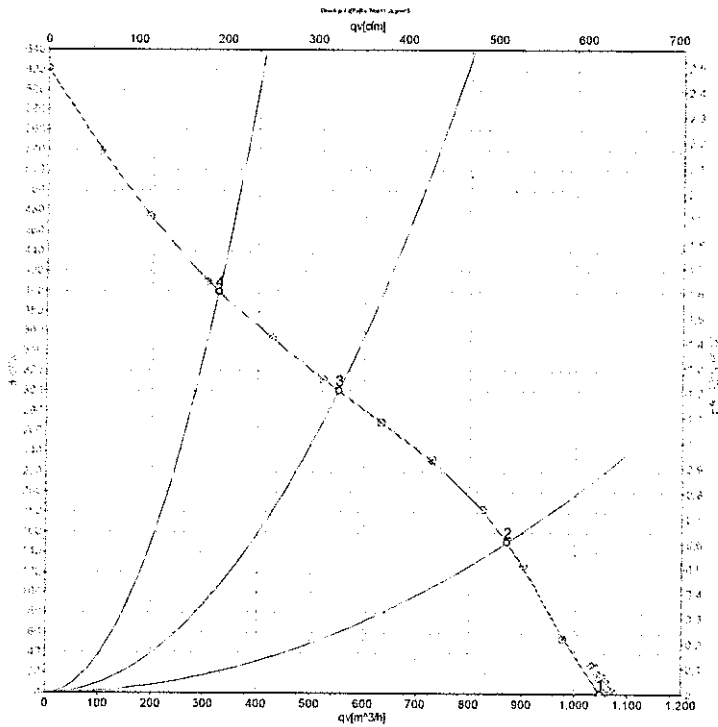
Measured values

	U	f	n	P _g	I	LpA _{in}	LwA _{in}	qv	P _{st}
	V	Hz	min ⁻¹	W	A	dB(A)	dB(A)	m ³ /h	Pa
1	230	50	2600	90	0.40	63	70	945	0
2	230	50	2575	95	0.43	59	66	780	140
3	230	50	2500	102	0.45	56	64	540	260
4	230	50	2580	95	0.42	59	67	300	340

U = Supply voltage · f = Frequency · n = Speed · P_g = Power input · I = Current draw · LpA_{in} = Sound pressure level inlet side · LwA_{in} = Sound power level inlet side · qv = Air flow
 p_{st} = Pressure increase



Charts: Air flow 60 Hz



Measurement LU-129467

Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebm-papst. Suction-side noise levels: LwA measured as per ISO 13347 / LpA measured with 1m distance to fan axis. The values given are valid under the measuring conditions mentioned above and may vary according to the actual installation situation. With any deviation from the standard set-up, the specific values have to be checked and reviewed with the unit installed.

Measured values

	U	f	n	P _e	I	LpA _{in}	LwA _{in}	qv	P _{fs}
	V	Hz	min ⁻¹	W	A	dB(A)	dB(A)	m ³ /h	Pa
1	230	60	2900	120	0.53	65	73	1050	0
2	230	60	2805	127	0.55	61	68	870	150
3	230	60	2650	135	0.60	58	66	550	300
4	230	60	2795	126	0.55	61	69	325	400

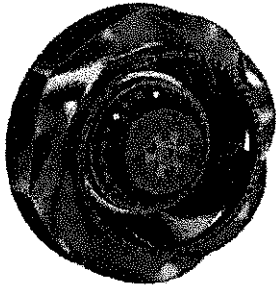
U = Supply voltage · f = Frequency · n = Speed · P_e = Power input · I = Current draw · LpA_{in} = Sound pressure level inlet side · LwA_{in} = Sound power level inlet side · qv = Air flow
P_{fs} = Pressure increase



R2E225-RA92-09

AC centrifugal fan - RadiCal

backward curved, single inlet



ebm-papst Mulfingen GmbH & Co. KG

Bachmühle 2 · D-74673 Mulfingen

Phone +49 7938 81-0

Fax +49 7938 81-110

info1@de.ebmpapst.com

www.ebmpapst.com

Limited partnership · Headquarters Mulfingen

County court Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen

County court Stuttgart · HRB 550142



Nominal data

Type	R2E225-RA92-09		
Motor	M2E068-DF		
Phase	1~	1~	
Nominal voltage	VAC	230	230
Frequency	Hz	50	60
Type of data definition		ml	ml
Valid for approval / standard		CE	CE
Speed	min ⁻¹	2500	2600
Power input	W	155	210
Current draw	A	0.68	0.92
Motor capacitor	µF	3.5	3.5
Capacitor voltage	VDB	450	450
Min. back pressure	Pa	0	0
Min. ambient temperature	°C	-25	-25
Max. ambient temperature	°C	70	65
Starting current	A	1.25	1.2

ml = max. load · me = max. efficiency · fa = running at free air · cs = customer specs · cu = customer unit
Subject to alterations

Data according to ErP directive

		Actual	Request 2013	Request 2015
Installation category	A			
Efficiency category	Static			
Variable speed drive	No			
Specific ratio*	1.00			
		Overall efficiency η_{ies}	42.5	38.5
		Efficiency grade N	62	58
		Power input P_e kW	0.14	
		Air flow q_v m ³ /h	705	
		Pressure increase p_{fs} Pa	320	
		Speed n min ⁻¹	2560	

Data established at point of optimum efficiency

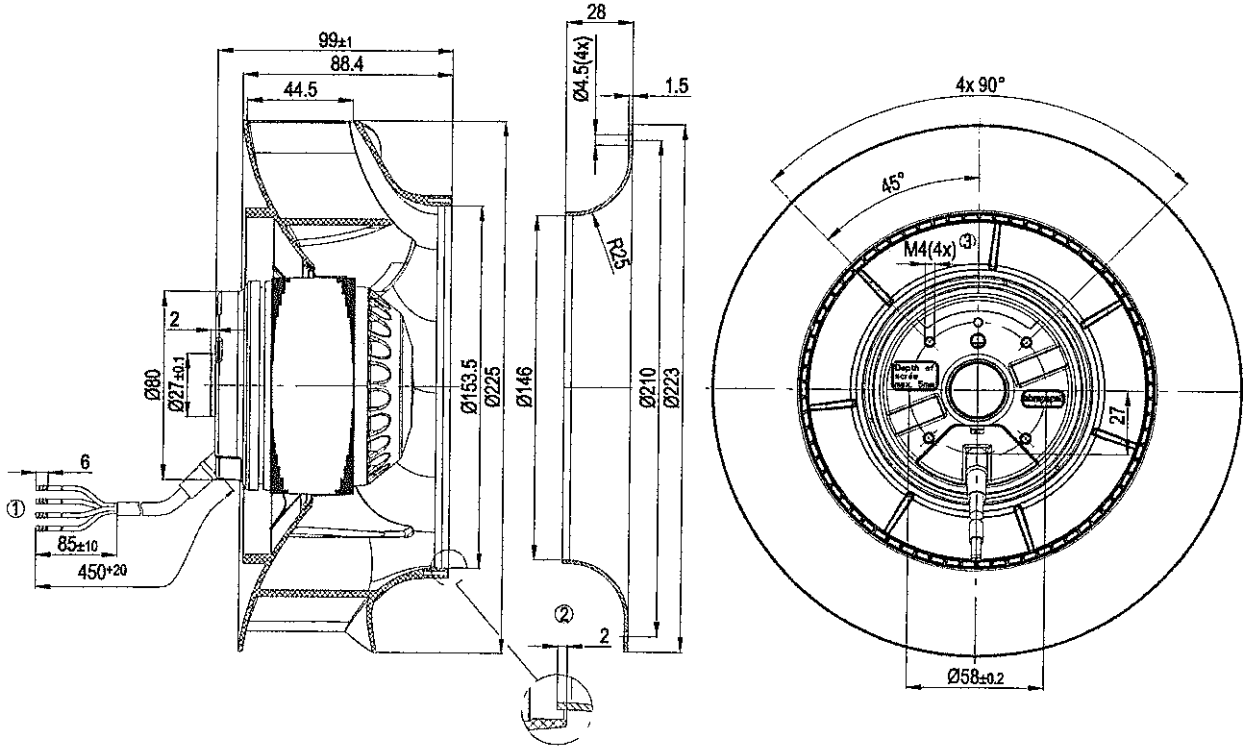


Technical features

Size	225 mm
Surface of rotor	Coated in black
Material of impeller	Plastic PA6, fibreglass-reinforced
Number of blades	7
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 44; Depending on installation and position as per EN 60034-5
Insulation class	"F"
Humidity class	F1-2
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Mounting position	Shaft horizontal or rotor on bottom; rotor on top on request
Condensate discharge holes	Rotor-side
Operation mode	S1
Motor bearing	Ball bearing
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	< 0,75 mA
Motor protection	Thermal overload protector (TOP) wired internally
Cable exit	Variable
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60335-1; CE

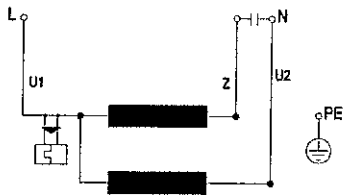


Product drawing



- 1 Connection line silicone 4G 0.5 mm², 4 x brass lead tips crimped
- 2 Accessory part: Inlet nozzle 96358-2-4013, not included in the standard scope of delivery.
- 3 Depth of screw max. 5 mm

Connection screen



U1 blue

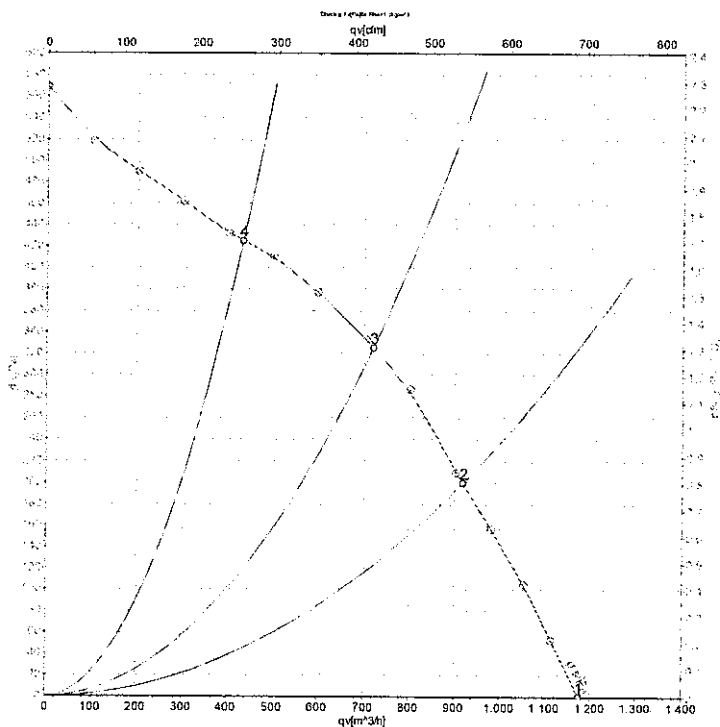
Z brown

U2 black

PE green/yellow



Charts: Air flow 50 Hz



Measurement: LU-127147

Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebmpapst. Suction-side noise levels: LwA measured as per ISO 13347 / LpA measured with 1m distance to fan axis. The values given are valid under the measuring conditions mentioned above and may vary according to the actual installation situation. With any deviation from the standard set-up, the specific values have to be checked and reviewed with the unit installed.

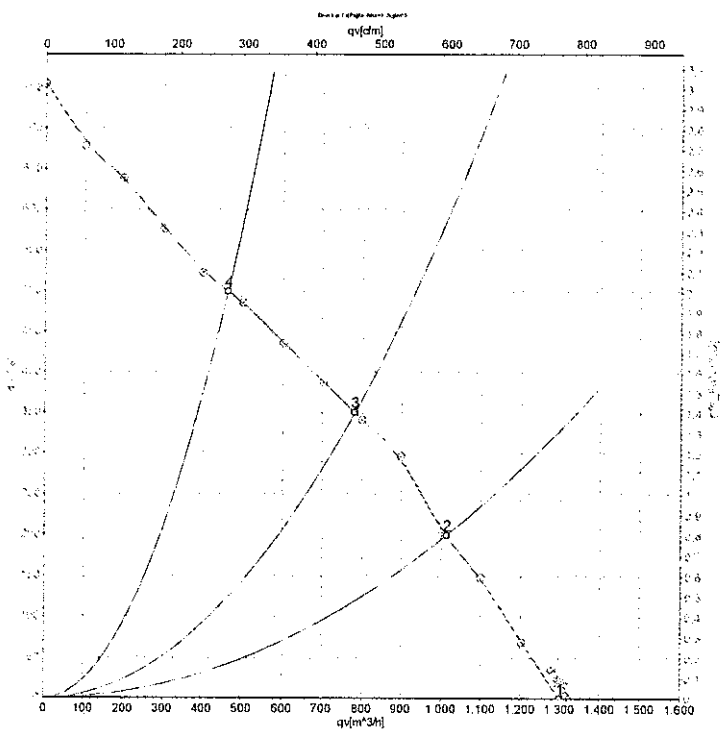
Measured values

	U	f	n	P _e	I	LpA _{in}	LwA _{in}	qv	P _{is}
	V	Hz	min ⁻¹	W	A	dB(A)	dB(A)	m ³ /h	Pa
1	230	50	2660	130	0.57	66	73	1175	0
2	230	50	2500	155	0.68	63	70	920	200
3	230	50	2560	150	0.65	58	66	720	325
4	230	50	2615	139	0.61	63	70	435	425

U = Supply voltage · f = Frequency · n = Speed · P_e = Power input · I = Current draw · LpA_{in} = Sound pressure level inlet side · LwA_{in} = Sound power level inlet side · qv = Air flow
P_{is} = Pressure increase



Charts: Air flow 60 Hz



Measurement: LU-127148

Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebm-papst. Suction-side noise levels: LwA measured as per ISO 13347 / LpA measured with 1m distance to fan axis. The values given are valid under the measuring conditions mentioned above and may vary according to the actual installation situation. With any deviation from the standard set-up, the specific values have to be checked and reviewed with the unit installed.

Measured values

	U	f	n	P _e	I	LpA _{in}	LwA _{in}	qv	P _{fs}
	V	Hz	min ⁻¹	W	A	dB(A)	dB(A)	m ³ /h	Pa
1	230	60	2900	190	0.83	69	76	1300	0
2	230	60	2700	210	0.92	64	72	1010	200
3	230	60	2700	207	0.90	60	68	780	350
4	230	60	2815	196	0.85	66	73	460	500

U = Supply voltage · f = Frequency · n = Speed · P_e = Power input · I = Current draw · LpA_{in} = Sound pressure level inlet side · LwA_{in} = Sound power level inlet side · qv = Air flow
 p_s = Pressure increase



ebm-papst Muldingen GmbH & Co. KG

Bachmühle 2 · D-74673 Muldingen

Phone +49 7938 81-0

Fax +49 7938 81-110

info1@de.ebmpapst.com

www.ebmpapst.com

Limited partnership · Headquarters Muldingen

County court Stuttgart · HRA 590344

General partner Elektrobau Muldingen GmbH · Headquarters Muldingen

County court Stuttgart · HRB 590142

Nominal data

Type	W2E200-HK38-01		
Motor	M2E068-BF		
Phase		1~	1~
Nominal voltage	VAC	230	230
Frequency	Hz	50	60
Type of data definition		fa	fa
Valid for approval / standard		CE	CE
Speed	min ⁻¹	2550	2800
Power input	W	64	80
Current draw	A	0.29	0.35
Motor capacitor	µF	1.5	1.5
Capacitor voltage	VDB	450	450
Capacitor standard		P0 (CE)	P0 (CE)
Max. back pressure	Pa	80	95
Max. ambient temperature	°C	60	65
Starting current	A	0.55	0.54

ml = max. load · me = max. efficiency · fa = running at free air · cs = customer specs · cu = customer unit
Subject to alterations



Technical features

Mass	2.1 kg
Size	200 mm
Surface of rotor	Coated in black
Material of blades	Sheet steel, coated in black
Material of wall ring	Die-cast aluminium
Number of blades	7
Direction of air flow	"V"
Direction of rotation	Counter-clockwise, seen on rotor
Type of protection	IP 44; Depending on installation and position
Insulation class	"B"
Humidity class	F0
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Mounting position	Any
Condensate discharge holes	None
Operation mode	S1
Motor bearing	Ball bearing
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	< 0.75 mA
Electrical leads	Via terminal strips, integrated capacitor connected via terminal strips
Motor protection	Thermal overload protector (TOP) wired internally
Cable exit	Variable
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60335-1; CE
Approval	CSA C22.2 Nr.77; UL 2111; VDE; GOST; CCC

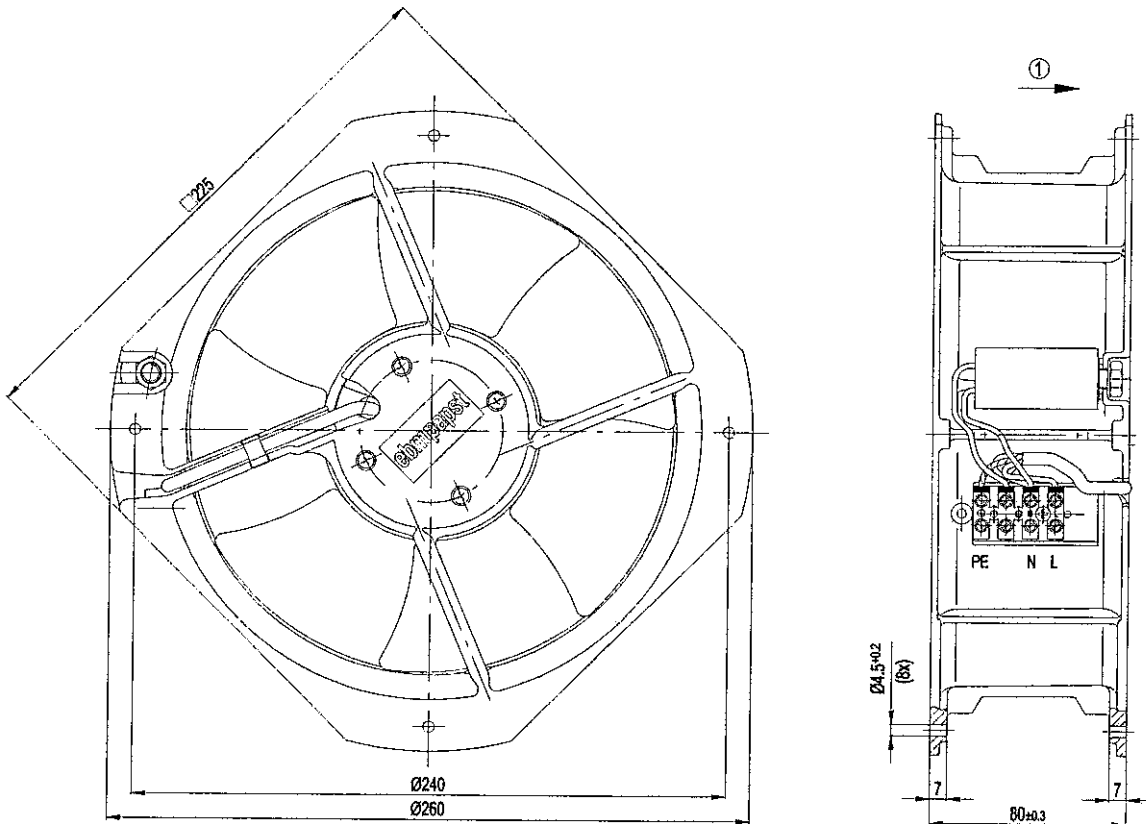


W2E200-HK38-01

AC axial compact fan

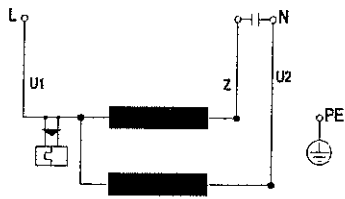
sickled blades (S series)

Product drawing



1 Direction of air flow "V"

Connection screen



U1 blue

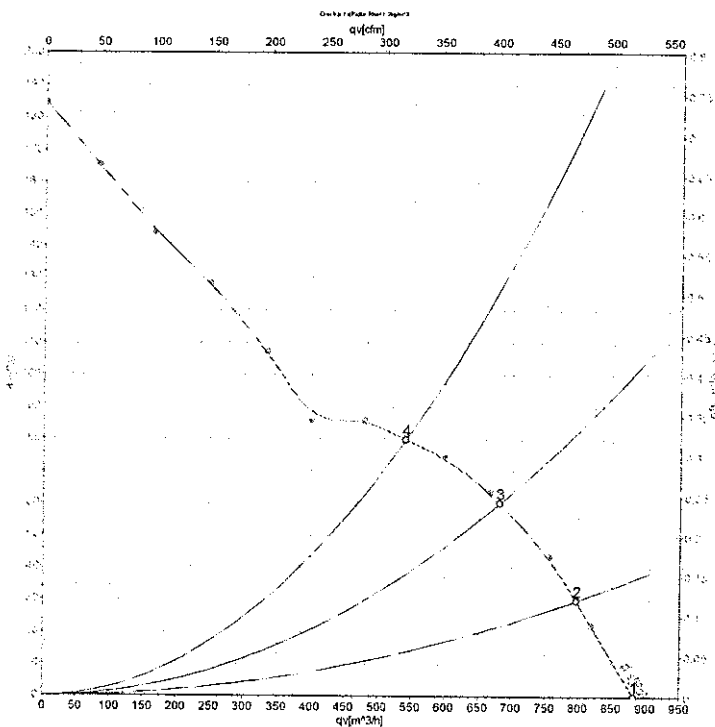
PE green/yellow

Z brown

U2 black



Charts: Air flow 50 Hz



Measurement LU-62128

Air performance measured as per ISO 5801 installation category A. For detailed information on the measuring set-up, please contact ebm-papst. Suction-side noise levels: LwA measured as per ISO 13347 / LpA measured with 1m distance to fan axis. The values given are valid under the measuring conditions mentioned above and may vary according to the actual installation situation. With any deviation from the standard set-up, the specific values have to be checked and reviewed with the unit installed.

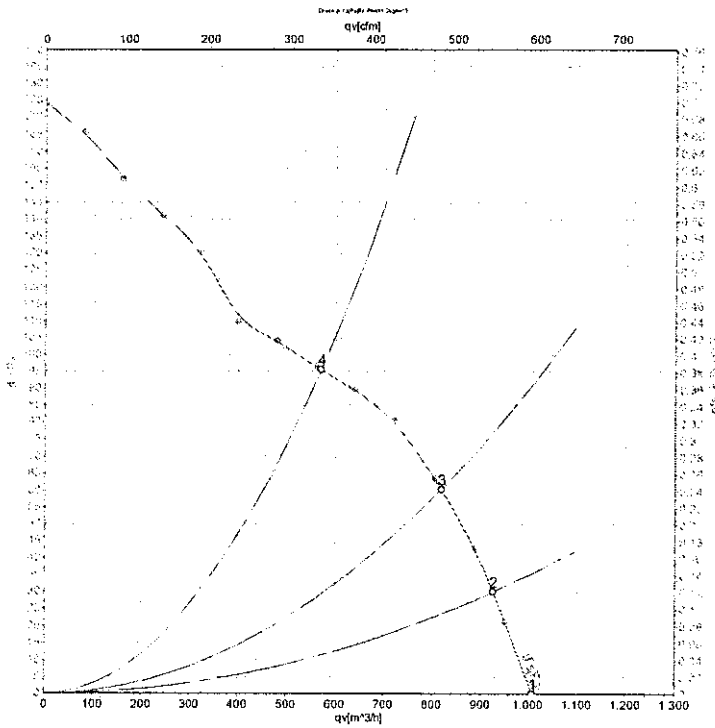
Measured values

	U	f	n	P _e	I	qv	P _{is}
	V	Hz	min ⁻¹	W	A	m ³ /h	Pa
1	230	50	2630	60	0,30	880	0
2	230	50	2585	64	0,31	795	30
3	230	50	2530	66	0,31	680	60
4	230	50	2480	69	0,32	540	80

U = Supply voltage · f = Frequency · n = Speed · P_e = Power input · I = Current draw · qv = Air flow · p_{is} = Pressure increase



Charts: Air flow 60 Hz



Measurement: LU-62129

Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebm-papst. Suction-side noise levels: LwA measured as per ISO 13347 / LpA measured with 1m distance to fan axis. The values given are valid under the measuring conditions mentioned above and may vary according to the actual installation situation. With any deviation from the standard set-up, the specific values have to be checked and reviewed with the unit installed.

Measured values

	U	f	n	P _e	I	q _v	P _s
	V	Hz	min ⁻¹	W	A	m ³ /h	Pa
1	230	60	3000	70	0.31	1000	0
2	230	60	2935	73	0.32	925	30
3	230	60	2850	77	0.34	820	60
4	230	60	2705	83	0.36	570	95

U = Supply voltage · f = Frequency · n = Speed · P_e = Power input · I = Current draw · q_v = Air flow · p_s = Pressure increase

