

EL 400 D2 O 01

159298

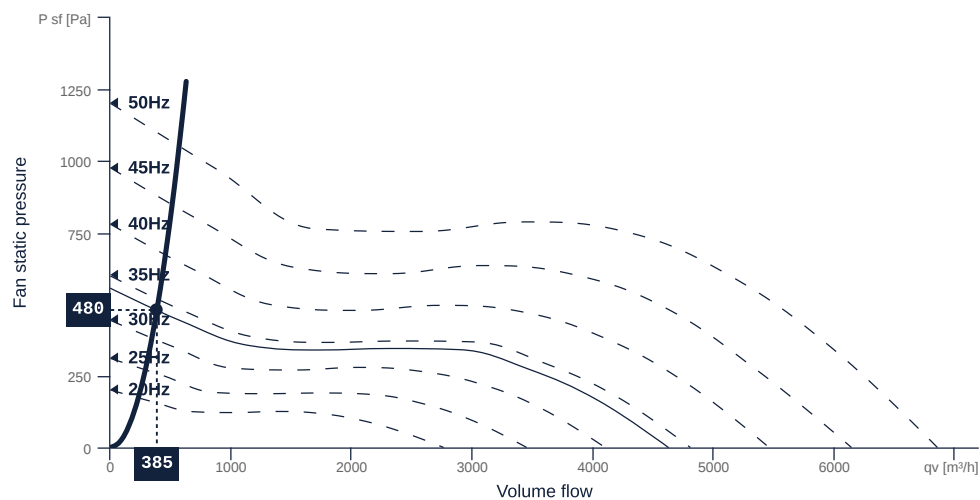
ruck

- Innovative, high-efficiency diagonal fan
- The benchmark for efficiency since 2007
- Optimally tuned, CFD-optimized aerodynamics
- Efficient IE3 motor, frequency controllable
- Conveyed medium temperature up to 60 °C in continuous operation
- Housing made of aluminium AlMg3
- Attention! See note in the operating manual at FU-operation



FAN CURVES

Name	Value	Unit
Volume flow	385	m³/h
Pressure	480	Pa



to the product detail page

TECHNICAL SPECIFICATIONS

Name	Value	Unit	Formula symbol
Volume flow	385	m³/h	QV _{calc}
Pressure	480	Pa	psf _{calc}
Fan pressure	480	Pa	pf
Fan static pressure	480	Pa	psf
Current consumption Motor	1	A	I _e
Electrical power consumption	440	W	P _{ek}
Frequency	33	Hz	f _{rq}
Rotation speed	1926	1/min	N
Total static efficiency	11	%	etaFaPeK
Total efficiency	11	%	etatPeK
SFP (entire device)	4120	W/(m³/s)	sfp _{device}
Sound power level inlet	81	dB(A)	LwA5
Sound power level outlet	85	dB(A)	LwA6
Sound power level housing radiation	75	dB(A)	LwA2

SOUND DATA

Sound power	mid-frequency tape										Unit	Formula symbol
	Σ	63	125	250	500	1000	2000	4000	8000	16000		
suction	81	56	65	72	76	76	75	70	62	42	dB(A)	LwA5
blowout	86	57	69	75	81	81	77	73	65	48	dB(A)	LwA6
Casing break out	75	58	57	63	70	71	66	63	53	40	dB(A)	LwA2

SOUND PRESSURE LEVEL CALCULATOR

Name	Value	Unit
Enveloping surface	Halphsphere	
Distance	3	m

Sound pressure	NR	mid-frequency tape										Unit	Formula symbol
		Σ	63	125	250	500	1000	2000	4000	8000	16000		
suction	59	64	39	47	54	58	58	57	52	44	25	dB(A)	LwA5
blowout	64	68	39	51	58	64	63	59	55	47	31	dB(A)	LwA6
Casing break out	53	57	40	40	46	53	53	49	46	36	23	dB(A)	LwA2



GENERAL DATA

Name	Value	Unit	Formula symbol
Labeling	CE, UKCA		
Duct size	-		$W \times H_{duct}$
Pipe connection size (DN)	DN400		DN
Rated voltage (entire device)	400	V	U_{rated}
Phases (entire device)	3~		phase
Electrical protection (entire device)	6 A		fuse
Housing material	Aluminium		mat_{casing}
Impeller material	Aluminium		$mat_{impeller}$
IP-protection class (entire device)	IPX4		IP_{compl}
Weight	19.5	kg	m
Fan type	Diagonal		Fan_{type}
Category / Installation situation	B		cat

MAXIMAL DATA

Name	Value	Unit	Formula symbol
Max. power consumption (device)	1590	W	$P_{ed, max}$
Max. operating current (device)	3	A	$I_{ed, max}$
Max. speed	2870	1/min	n_{max}
Max. stat. efficiency	54.9	%	η_{es}
Max. fan efficiency	58.4	%	η_e
Max. flowrate	6850	m ³ /h	Q_v, max
Max. stat pressure	1200	Pa	$p_{sf, max}$
Max. medium temperature	60	°C	T_m, max
Max. environment temperature	60	°C	$T_{amb, max}$
Min. environment temperature	-20	°C	$T_{amb, min}$



MOTOR DATA

Name	Value		Unit	Formula symbol
	50 Hz	60 Hz		
Rated frequency (device)		50		f
Motor type		AC 3~		phase
Control type		frequency-controlled		ctrltype
Installation type		IRM (In)		install
Rotation direction		right		rotation
Isolation class		ISO F		ISOclass
Protection class		IP55		IPmotor
Is pole-changeable		No		polexch
Type of power supply		AC 3~		pwrsupmotor
Number of poles (1)		2.000000		num polesw1
Connection	Δ	Y		wiringw1
Connection (wiring 2)	Y			wiringw2
Rated voltage	230	460	V	U _{rated, f1}
Rated voltage (wiring 2)	400		V	U _{rated, f2}
Rated current	4.03	2.05	A	I _{rated, f1}
Rated current (wiring 2)	2.32		A	I _{rated, f2}
Shaft power	1100	1100	W	P _{out, f1}
Shaft power (wiring 2)	1100		W	P _{out, f2}
Speed	2830	3450	1/min	n _{f1}
Speed (wiring 2)	2830		1/min	n _{f2}
Starting current	29.9	16.4	A	I _{start, f1}
Starting current (wiring 2)	17.2		A	I _{start, f2}
Efficiency	83.5	84	%	$\eta_m, f1$
Efficiency (wiring 2)	83.5		%	$\eta_m, f2$
Efficiency class	IE3			IE _{motor}
Min. temperature	-20		°C	T _{motor, min}
Cos Phi	0.820000	0.800000		cos φ
UL-Certification motor		UL recognized		ULcert


[to the product detail page](#)

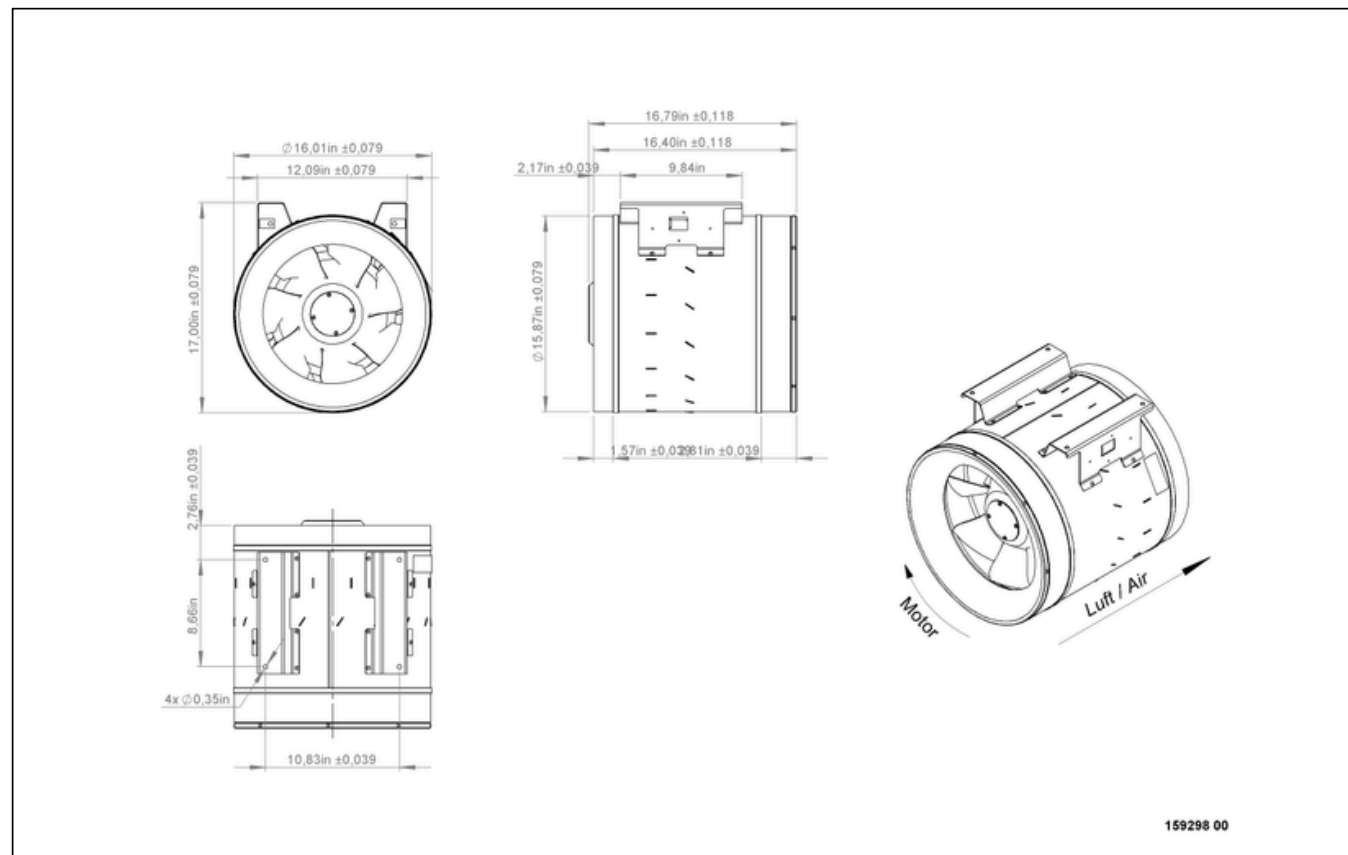
ERP DATA (LOT11)

Name	Value	Unit	Formula symbol
Speed at the energy efficiency optimum	2805	1/min	n_{opt}
Efficiency level	63.7	%	N
Efficiency category	total		cat _{efficiency}
Input power of the motor at the energy efficiency optimum	1.56	kW	$P_{e, opt}$
Overall efficiency	72.2	%	η_{ges}
Measurement category	B		meas cat
Fan pressure at energy efficiency optimum	760	Pa	$p_{f, opt}$
Flowrate at energy efficiency optimum	4395	m³/h	$q_{v, opt}$



to the product detail page

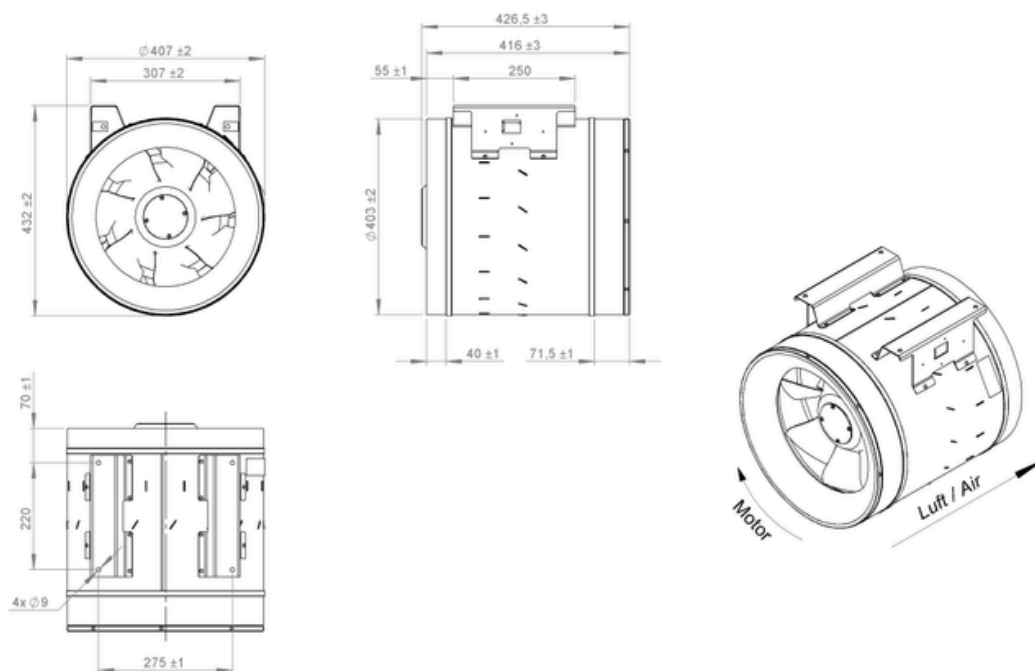
CIRCUIT DIAGRAMS / DIMENSIONAL DRAWINGS



EL 400 D2 O 01

159298

ruck



159298 00

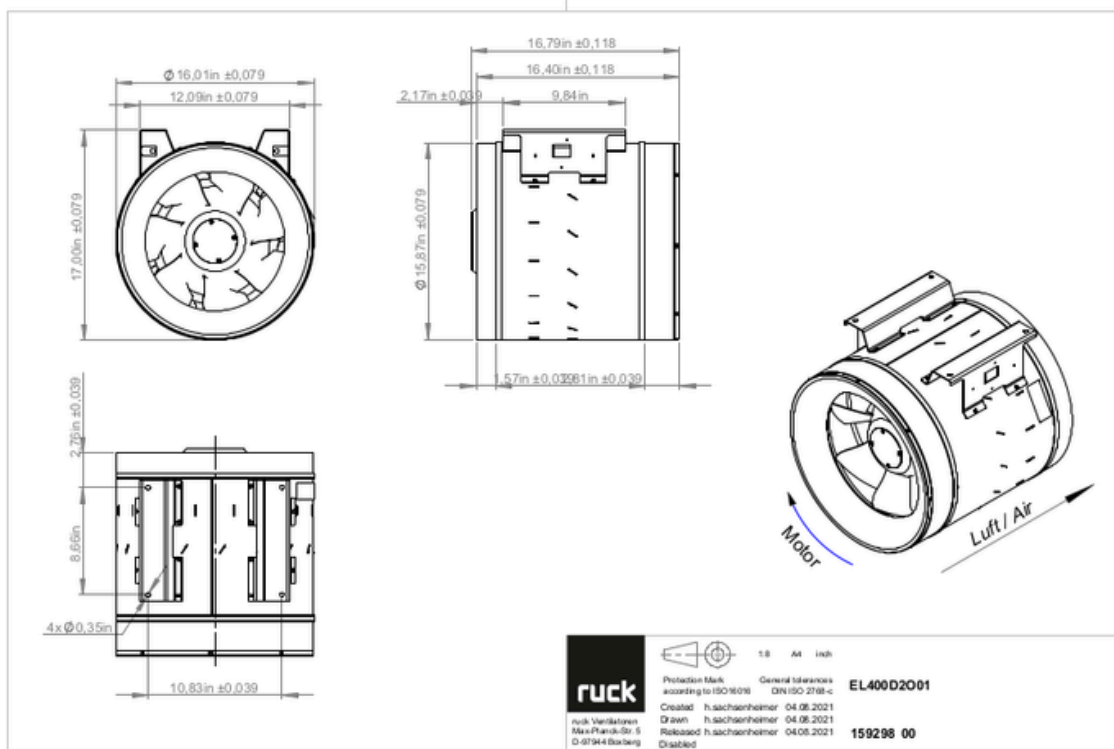


to the product detail page

EL 400 D2 O 01

159298

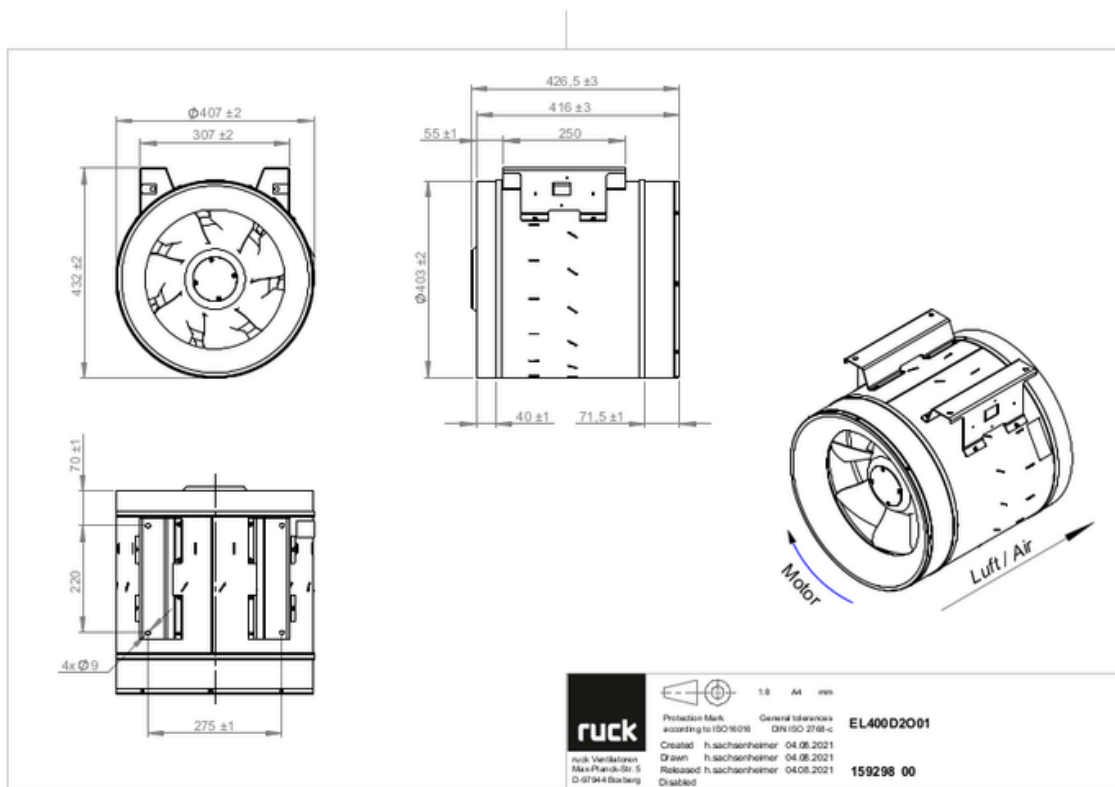
ruck

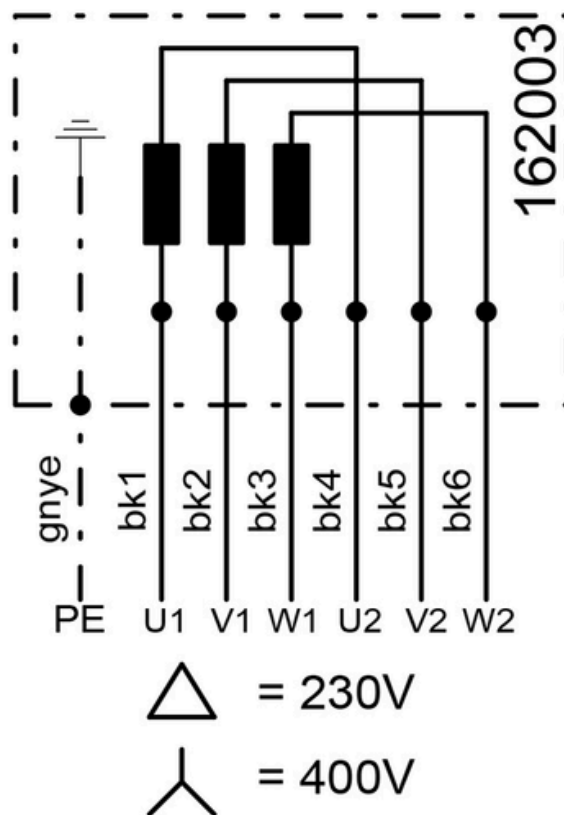


EL 400 D2 O 01

159298

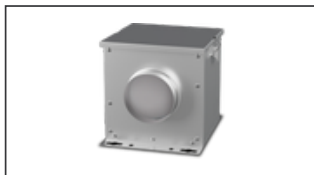
ruck





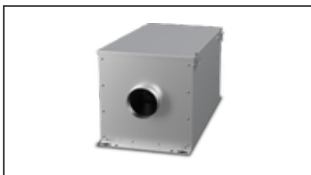
MECHANICAL ACCESSORIES

FV 400 | 112836



- Air filter box with mat filter ISO Coarse 45 % (G3)
- Toggle-type fastener

FT 400 | 112848



- Air filter box for pocket filter
- Toggle-type fastener
- Galvanized steel sheet housing
- Without filter

FTW 400 | 112857



- Air filter box with pocket filter M5
- Integrated warm water heating coil
- Galvanized steel sheet housing
- Toggle-type fastener

RSK 400 | 102691



- Back draught shutter for tube fitting
- Galvanized steel sheet housing
- Aluminum flaps

RSK 400D | 113490



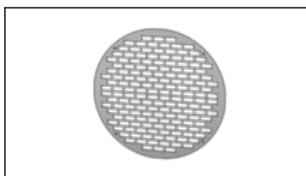
- Back draught shutter for tube fitting
- Galvanized steel sheet housing
- Aluminum flaps
- Integrated gasket

VM 400 | 102654



- Fast clamps for sound decoupling and sealing
- Galvanized steel sheet, 5 mm Neopren gasket
- 1 Pack = 2 pieces

SG 400 02 | 123949



- Inlet protection grille for Etaline
- Galvanized steel sheet

SDS 400 | 169612



- Rigid tube silencer
- Galvanized steel sheet
- Sound insulation packing 50 mm (mineral wool)

SDF 400 | 169647



- Flexible tube silencer
- Galvanized steel sheet
- Sound insulation packing 50 mm



ELECTRICAL ACCESSORIES

MS 02 | 140409



- Motor protection switch with Isolator switchfunktion
- I_{max} = 400 V, 50/60 Hz
- Max. 1.5 kW
- Protection class IP 55

MTP 20 | 128146



- Potentiometer 10 kΩ
- Switching contact 1A/250V AC - 2,5A/12V DC
- Max. ambient temperature 50 °C
- VDE

MTP 30 | 143289



- Stepped potentiometer 10 kΩ
- Step 1 + 2 settable 10 % - 100 % Vdc
- Step 3 100 % Vdc
- Supply voltage+10 Vdc

MTP 40 | 147359



- Potentiometer 10 kΩ
- Connection in terminal box
- Max. ambient temperature 50 °C
- PU: 20 pieces

SEN AIR | 148641



- Airflow and temperature transducer
- Measuring range temperature 0...+50 °C
- With adjustable switching threshold (air speed)
- Measuring range air velocity up to 20 m/s

CON P1000 | 115259



- Constant pressure control
- Actual value display possible via optional control unit
- Output 0-10 V DC + FC enable + setpoint reached
- Pressure setting by means of decade switch

FU 15 40 | 160041



- Frequency converter
- Supply voltage 230 V 1~ 50/60 Hz
- Output voltage 0 - 230 V 3~
- Protection class IP 20, for switch cabinet

FU 15 41 | 160042



- Frequency converter IP66
- Supply voltage 230 V 1~ 50/60 Hz
- Output voltage 0 - 230 V 3~
- Fire mode function (smoke extract fans)

FU 15 42 | 160043



- Frequency converter
- Supply voltage 400 V 3~ 50/60 Hz
- Output voltage 0 - 400 V 3~
- Protection class IP 20, for switch cabinet

FU 15 43 | 160044



- Frequency converter
- Supply voltage 400 V 3~ 50/60 Hz
- Output voltage 0 - 400 V 3~
- Fire mode function (smoke extract fans)

MTP 50 | 168752



- Potentiometer with multifunction output
- 230 VAC ±10 % / 50-60 Hz
- Selectable output: 1-10 VDC / 2-20 mA / 10-100 % PWM
- Min. and max. output value adjustable

GS 02 | 169671



- Isolator switch
- U_{max} = 400 V, 50/60 Hz
- Switching capacity 400 V 3~ = 7,5 kW
- I_{max} = 25 A

