

AL 1000 D4 F4 04

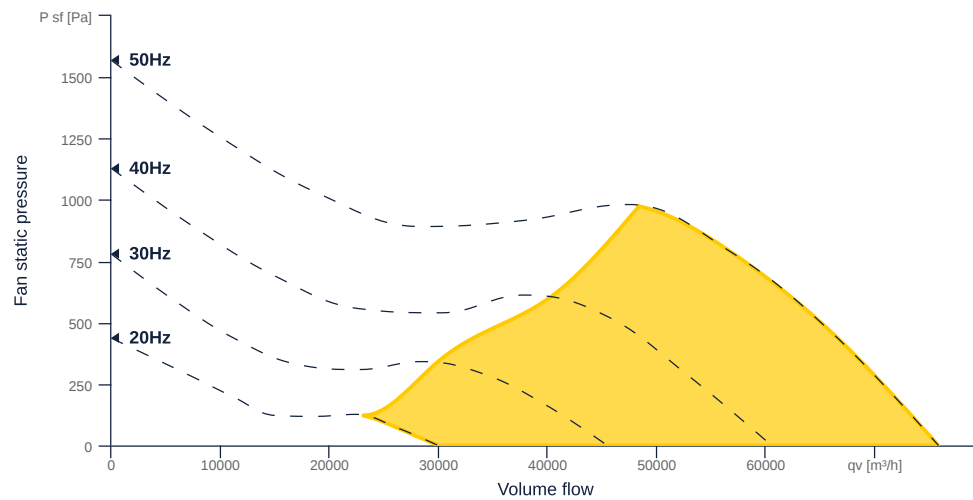
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- Innovative, high-efficiency axial fan
- Optimally tuned, CFD-optimized aerodynamics
- Housing weight optimized, powder coated
- Efficient IE3 motor, frequency controllable
- Smoke extract fan F400, 60 °C continuous operation, dual-use
- Exceeds current ErP regulation



FAN CURVES

Name	Value	Unit
Volume flow	0	m³/h
Pressure	0	Pa



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GENERAL DATA

Name	Value	Unit	Formula symbol
Labeling	CE, UKCA		
Duct size	-		$W \times H_{duct}$
Pipe connection size (DN)	DN1000		DN
Rated voltage (entire device)	400	V	U_{rated}
Phases (entire device)	3~		phase
Electrical protection (entire device)	50 A		fuse
Housing material	Steel		matcasing
Impeller material	Steel		matimpeller
IP-protection class (entire device)	IPX4		IPcompl
IP-Protection class (terminal box)	IP55		IPebox
Weight	313	kg	m
Fan type	Axial		Fan _{type}
Category / Installation situation	B		cat

MAXIMAL DATA

Name	Value	Unit	Formula symbol
Max. power consumption (device)	22034	W	$P_{ed, max}$
Max. operating current (device)	41.1	A	$I_{ed, max}$
Max. speed	1490	1/min	n_{max}
Max. stat. efficiency	58.1	%	η_{es}
Max. fan efficiency	72.4	%	η_e
Max. flowrate	75810	m ³ /h	$Q_{v, max}$
Max. stat pressure	980	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
Isolation class		ISO H		ISOclass
Protection class		IP55		IPmotor
Is pole-changeable		No		polexch
Type of power supply		AC 3~		pwsupmotor
Number of poles (1)		4.000000		num polesw1
Connection	Δ			wiringw1
Connection (wiring 2)	Y			wiringw2
Rated voltage	400		V	Urated, f1
Rated voltage (wiring 2)	690		V	Urated, f2
Rated current	41		A	Irated, f1
Rated current (wiring 2)	23.8		A	Irated, f2
Shaft power	22000		W	Pout, f1
Shaft power (wiring 2)	22000		W	Pout, f2
Speed	1470		1/min	n _{f1}
Speed (wiring 2)	1470		1/min	n _{f2}
Starting current	299		A	Istart, f1
Starting current (wiring 2)	174		A	Istart, f2
Efficiency	93.2		%	η _m , f1
Efficiency (wiring 2)	93.2		%	η _m , f2
Efficiency class	IE3			IE _{motor}
Min. temperature	-20		°C	T _{motor} , min
Cos Phi	0.830000	0.000000		cos φ
UL-Certification motor		None		ULcert

ERP DATA (LOT11)

Name	Value	Unit	Formula symbol
Speed at the energy efficiency optimum	1478	1/min	n _{opt}
Efficiency level	67.1	%	N
Efficiency category	total		cat _{efficiency}
Input power of the motor at the energy efficiency optimum	21.6	kW	P _e , opt
Overall efficiency	66.6	%	η _{ges}
Measurement category	B		meas cat
Fan pressure at energy efficiency optimum	974	Pa	p _f , opt
Flowrate at energy efficiency optimum	52252	m³/h	Q _v , opt

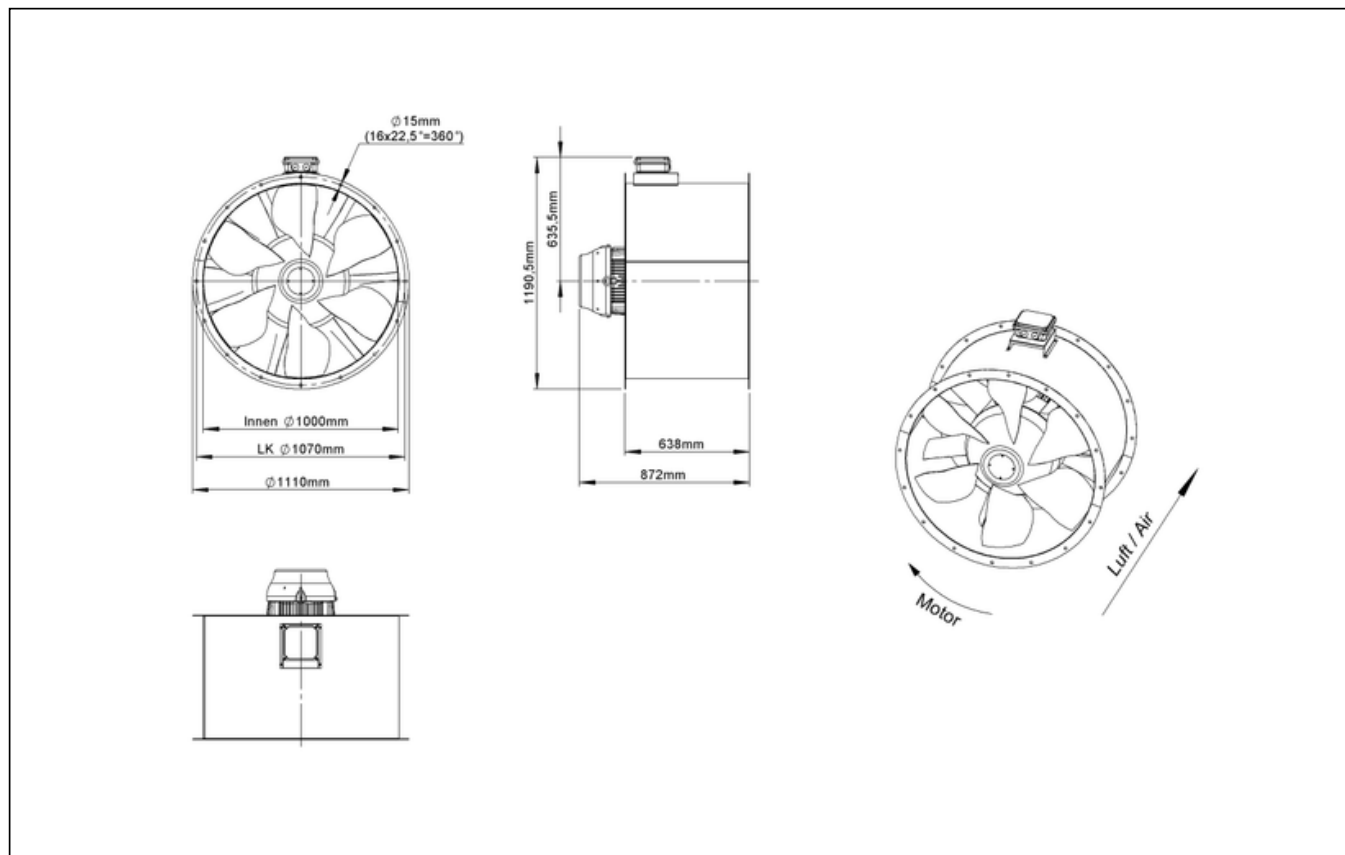


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SMOKE EXTRACT DATA

Name	Value	Unit	Formula symbol
Maximum resistance temperature	400	°C	T _{fire}
Maximum resistance time	120.000000		t _{fire}
Fire resistance class	F 400 (120)		F _{class}
Snow load class	-		SL _{class}

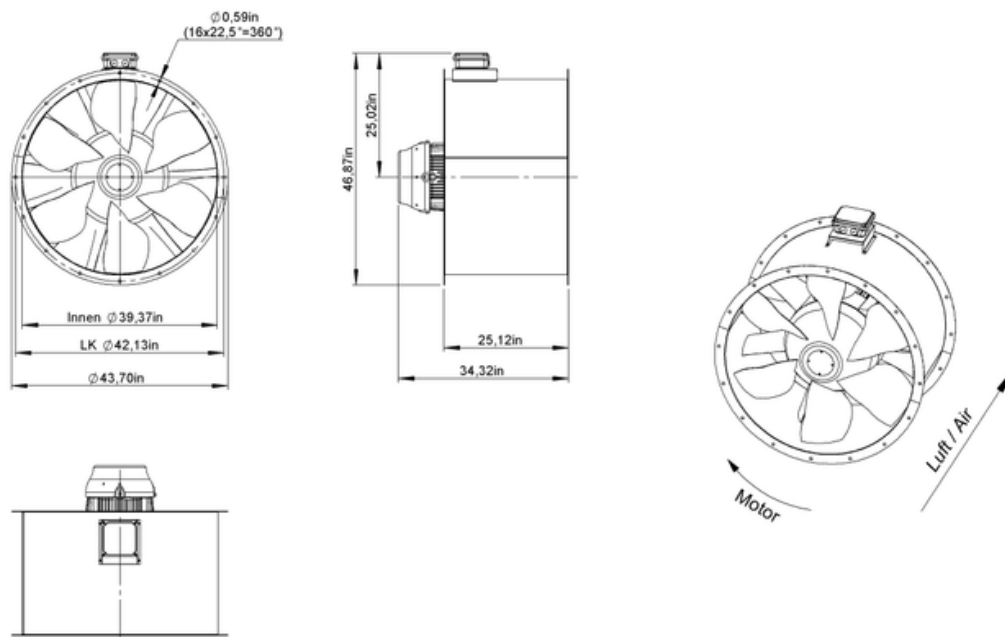
CIRCUIT DIAGRAMS / DIMENSIONAL DRAWINGS



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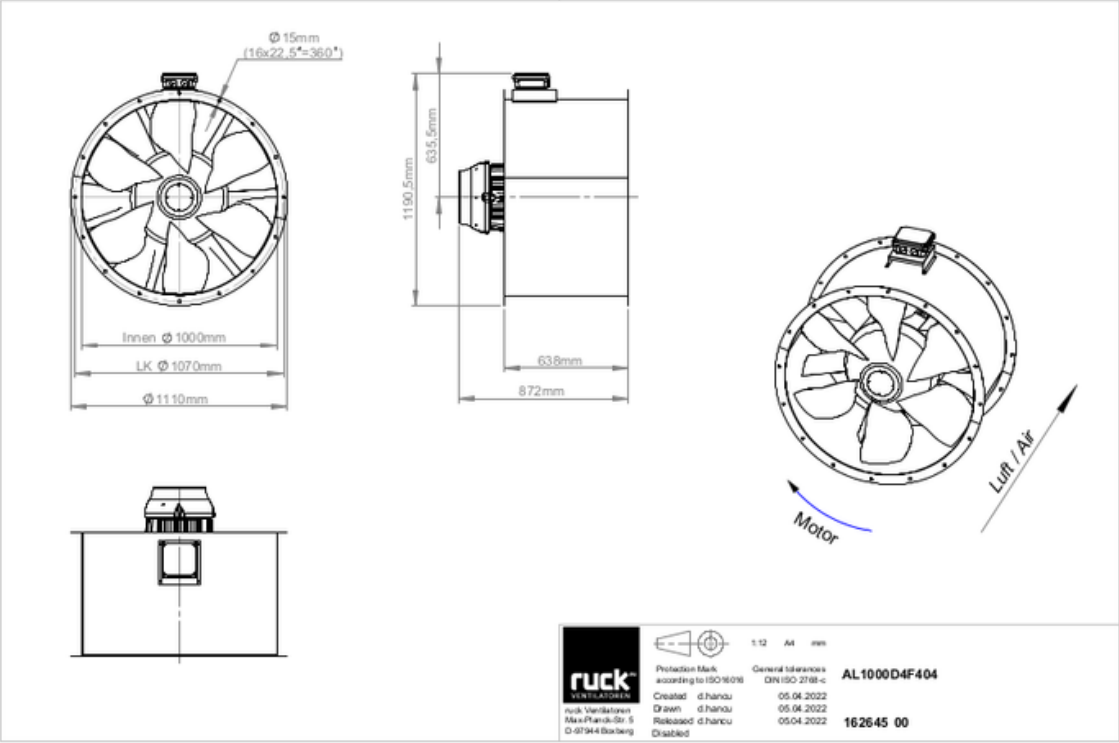
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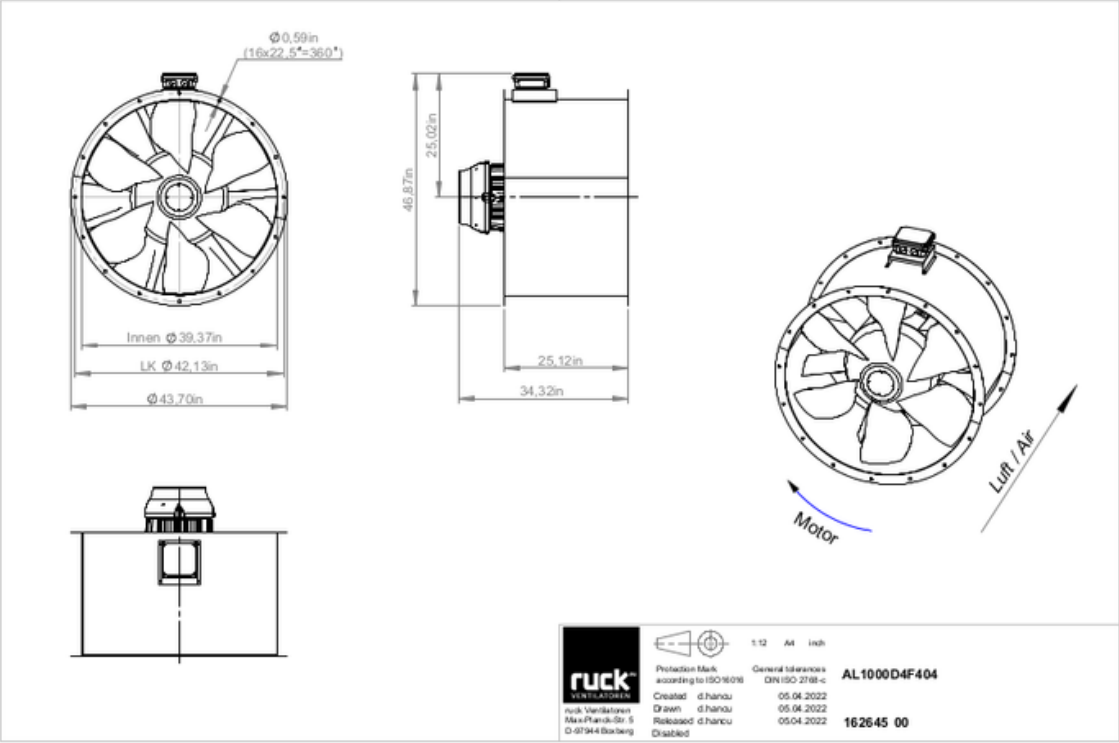
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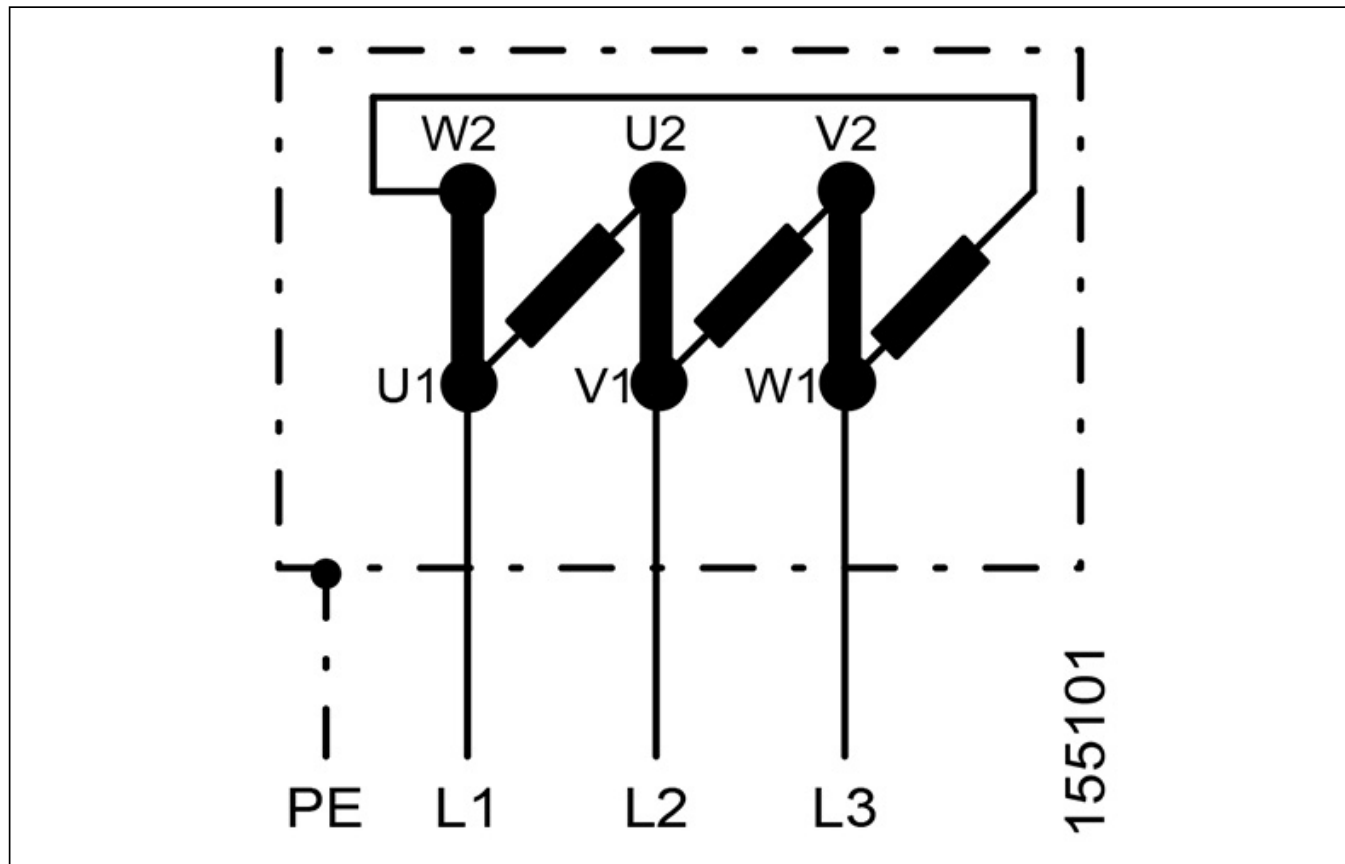
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MECHANICAL ACCESSORIES

RAF 1000 | 157414



- Round flange
- Sheet steel, powder coated

RVS 1000-01 | 157480



- Tube connection spigot
- Sheet steel, powder coated
- Suitable for outdoor installation
- Flange mounting

ESD 1000 | 157569



- Inlet cone
- Steel sheet, powder coated
- Flange mounting

RAS 1000 F4 | 157694



- Round spigot, flexible
- Galvanized steel sheet, silicone band
- 400 °C/120 min. conf. DIN EN 12101-3 F400, 75 °C continuous operation
- Flange mounting

RVK 1000 F4 | 157768



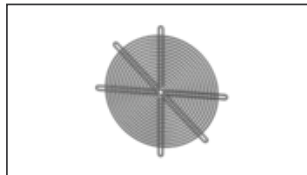
- Automatic tube shutter
- Sheet steel, powder coated
- For vertical installation
- Flange mounting

FAL 1000 | 157899



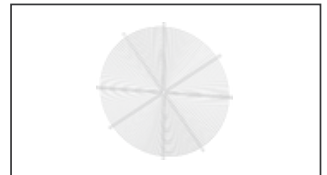
- Mounting foot
- Sheet steel, powder coated
- Flange mounting

SGE 1000 | 159518



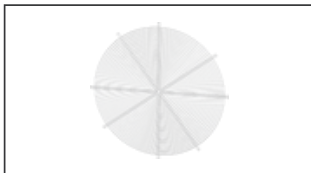
- Protection grille, narrow meshed
- Steel sheet, galvanized
- Flange mounting

SGW 1000 | 159542



- Protection grille, wide meshed
- Steel sheet, galvanized
- Flange mounting

SGW 1120 | 159543



- Protection grille, wide meshed
- Steel sheet, galvanized
- Flange mounting

RVK H 1000 F4 | 159574



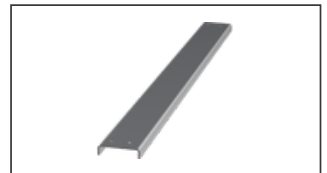
- Automatic tube shutter
- Sheet steel, powder coated
- For horizontal installation
- Flange mounting

FSD 11 | 162489



- Set of 4 vibration dampers
- All metal design, galvanized

TRA1000 | 162924



- Crossbeam
- Connection between mounting feet
- Galvanized steel sheet



ELECTRICAL ACCESSORIES

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

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

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

GS 10 F4 | 157319



- Device switch F4
- F400, 400 °C/120 min. (DIN EN 12101-3)
- Umax = 400 V, 50/60 Hz, Imax = 63 A
- Switching capacity 400 V 3~ = 22 kW

FU 300 03 | 161409



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

FU 300 04 | 161410



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



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