

AL 900 D4 F4 03

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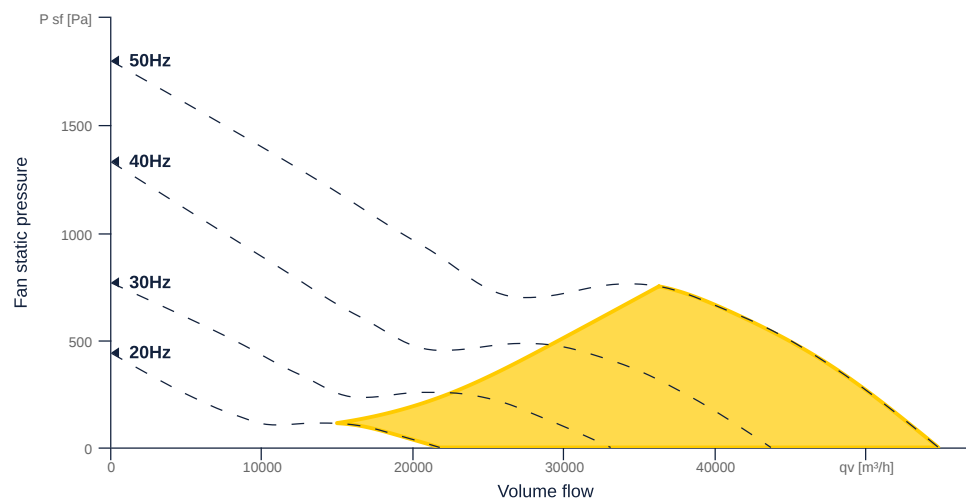
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- Innovative, high-efficiency axial fan
- Optimally tuned, CFD-optimized aerodynamics
- Housing weight optimized, powder coated
- Efficient IE3 motor, frequency controllable
- Smoke extract fan F400, 60 °C continuous operation, dual-use
- Exceeds current 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)	DN900		DN
Rated voltage (entire device)	400	V	U_{rated}
Phases (entire device)	3~		phase
Electrical protection (entire device)	32 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	206.2	kg	m
Fan type	Axial		Fan _{type}
Category / Installation situation	B		cat

MAXIMAL DATA

Name	Value	Unit	Formula symbol
Max. power consumption (device)	13233	W	$P_{ed, max}$
Max. operating current (device)	25.21	A	$I_{ed, max}$
Max. speed	1480	1/min	n_{max}
Max. stat. efficiency	54.6	%	η_{es}
Max. fan efficiency	70.1	%	η_e
Max. flowrate	54730	m ³ /h	$Q_{v, max}$
Max. stat pressure	760	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	20.9		A	Irated, f1
Rated current (wiring 2)	12.1		A	Irated, f2
Shaft power	11000		W	Pout, f1
Shaft power (wiring 2)	11000		W	Pout, f2
Speed	1475		1/min	n1
Speed (wiring 2)	1475		1/min	n2
Starting current	157		A	Istart, f1
Starting current (wiring 2)	90.9		A	Istart, f2
Efficiency	91.6		%	ηm, f1
Efficiency (wiring 2)	91.6		%	ηm, f2
Efficiency class	IE3			IEmotor
Min. temperature	-20		°C	Tmotor, 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	1476	1/min	n _{opt}
Efficiency level	70.4	%	N
Efficiency category	total		cat _{efficiency}
Input power of the motor at the energy efficiency optimum	12.98	kW	P _{e, opt}
Overall efficiency	70.3	%	η _{ges}
Measurement category	B		meas cat
Fan pressure at energy efficiency optimum	745	Pa	p _{f, opt}
Flowrate at energy efficiency optimum	44197	m³/h	Q _{v, opt}

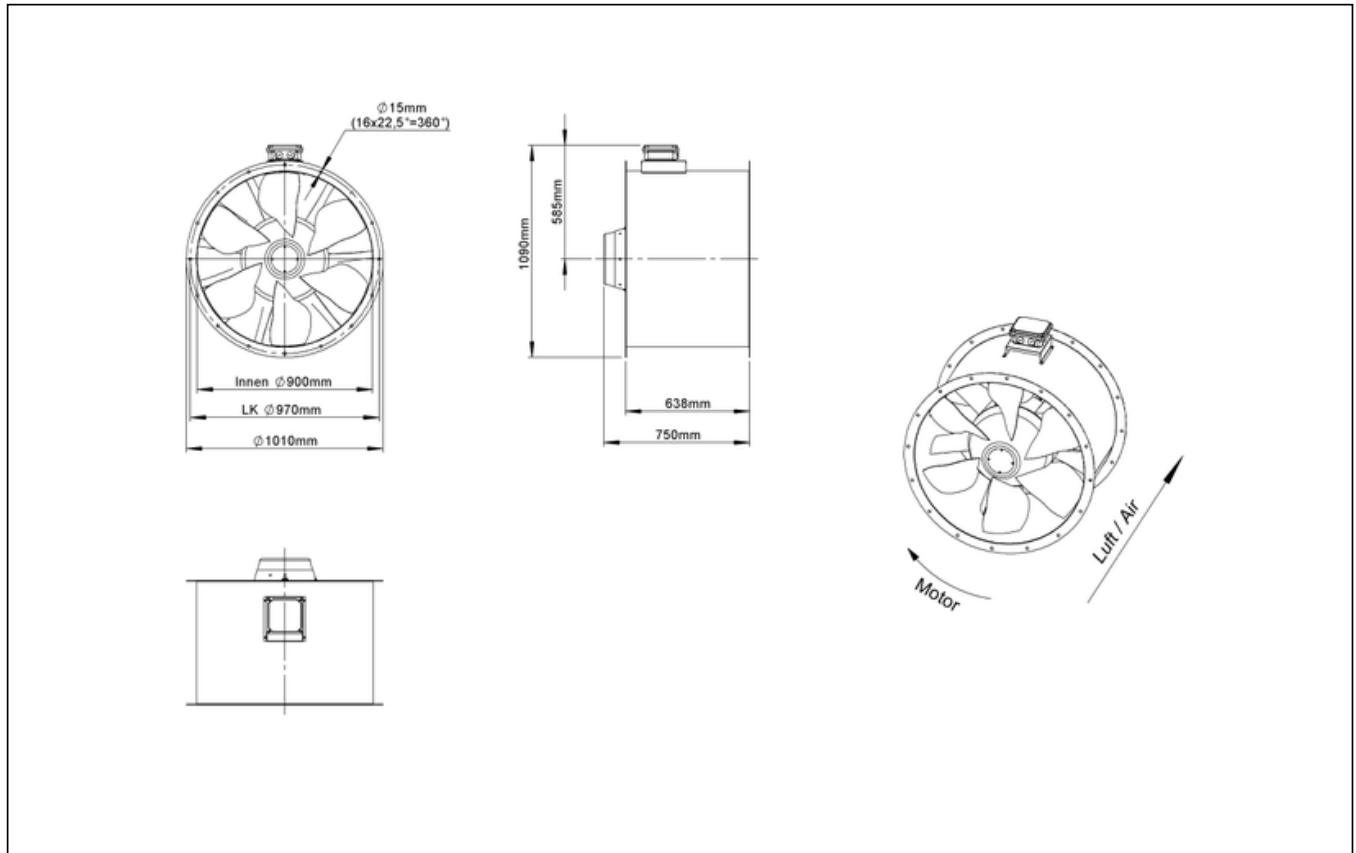


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SMOKE EXTRACT DATA

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}

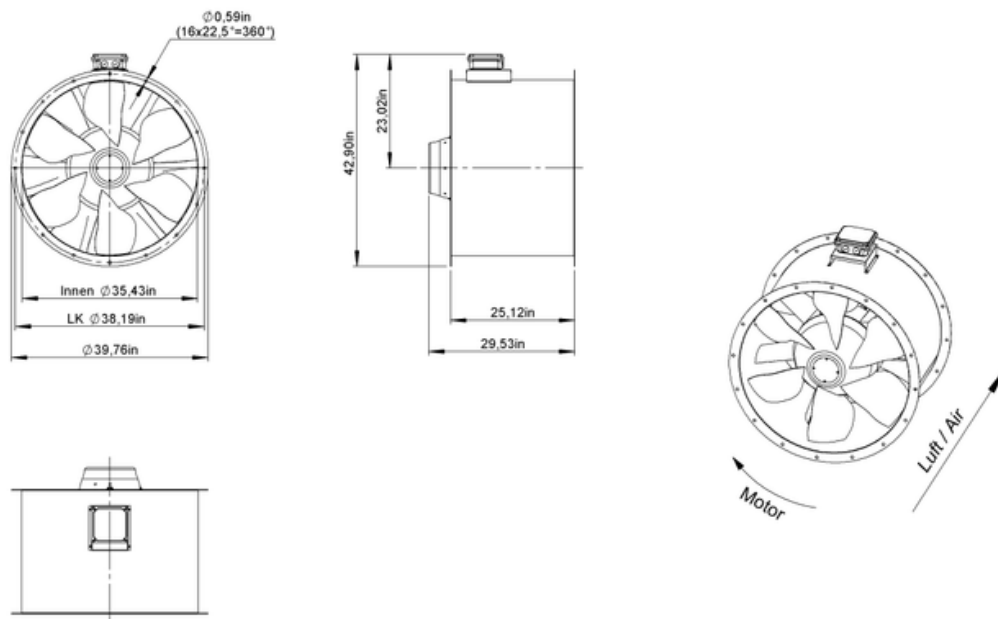
CIRCUIT DIAGRAMS / DIMENSIONAL DRAWINGS



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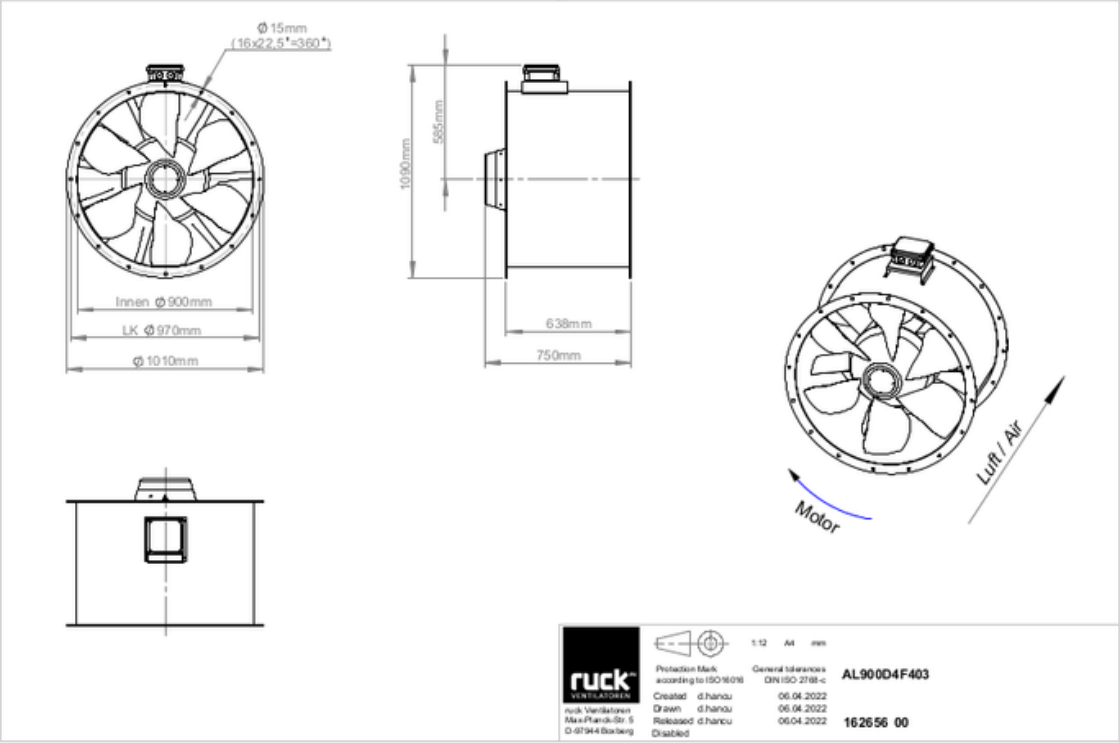
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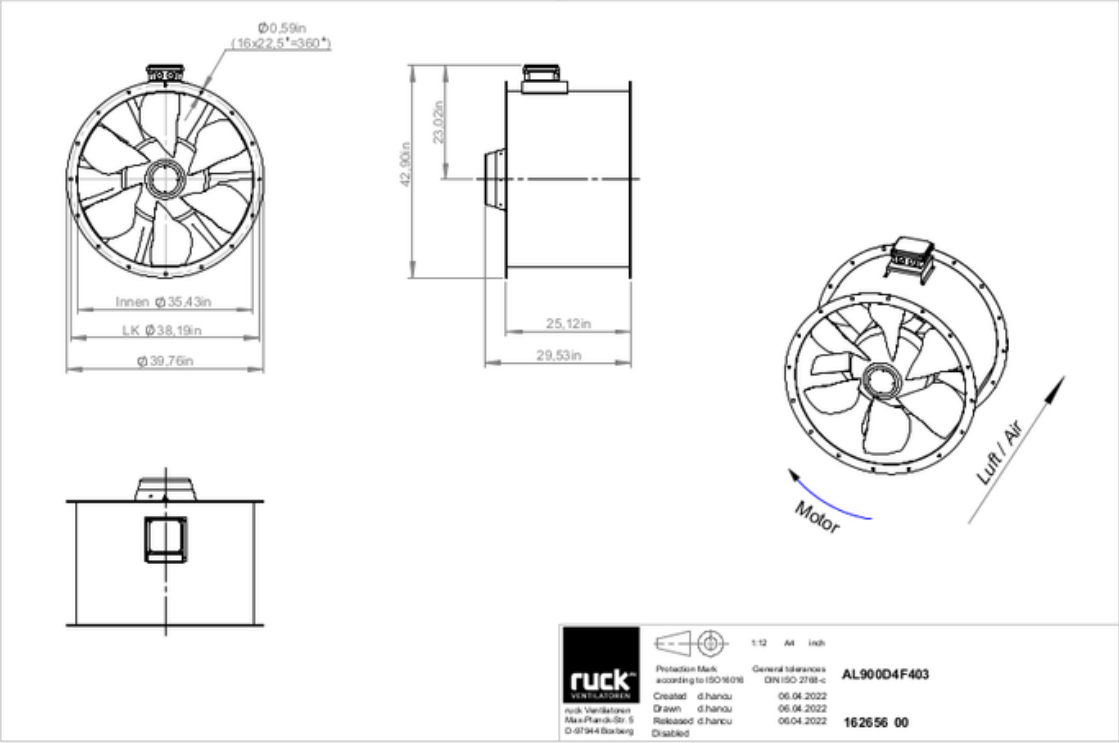
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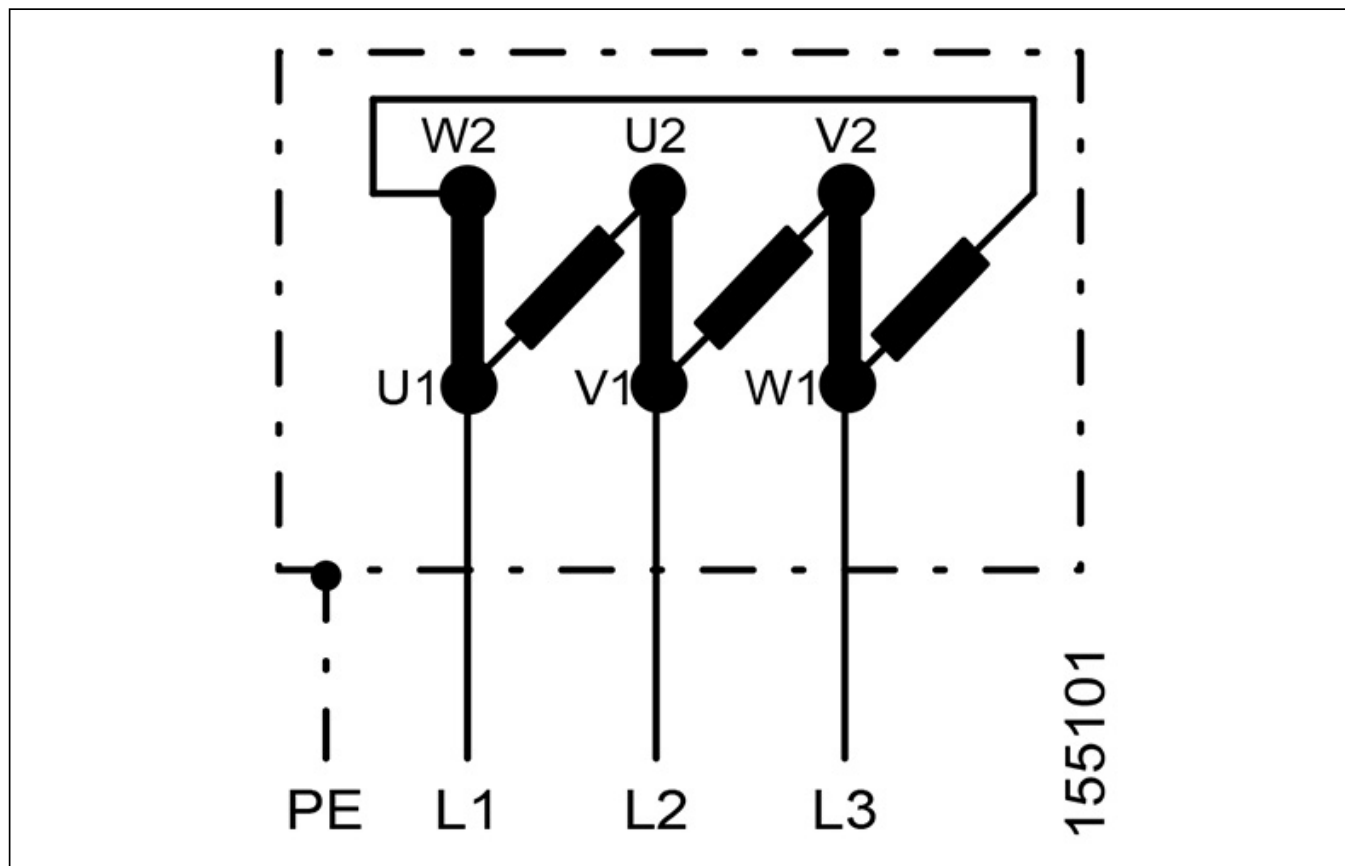


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MECHANICAL ACCESSORIES

RAF 900 | 157406



- Round flange
- Sheet steel, powder coated

RVS 900-01 | 157479



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

ESD 900 | 157543



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

RAS 900 F4 | 157692



- 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 900 F4 | 157756



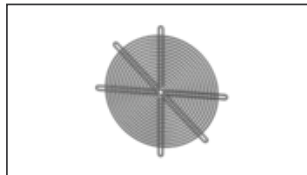
- Automatic tube shutter
- Sheet steel, powder coated
- For vertical installation
- Flange mounting

FAL 900 | 157898



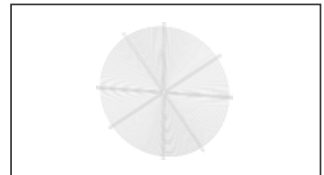
- Mounting foot
- Sheet steel, powder coated
- Flange mounting

SGE 900 | 159517



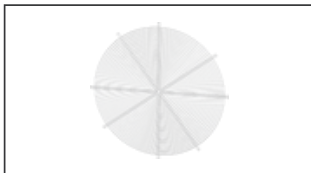
- Protection grille, narrow meshed
- Steel sheet, galvanized
- Flange mounting

SGW 900 | 159541



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

SGW 1000 | 159542



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

RVK H 900 F4 | 159557



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

FSD10 | 162484



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



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

MTP 30 | 143289



- Stepped potentiometer 10 k Ω
- 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 09 F4 | 157318



- Device switch F4
- F400, 400 °C/120 min. (DIN EN 12101-3)
- Umax = 400 V, 50/60 Hz, Imax = 40 A
- Switching capacity 400 V 3~ = 18 kW

FU 110 08 | 161391



- 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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