

AL 1000 D4 03

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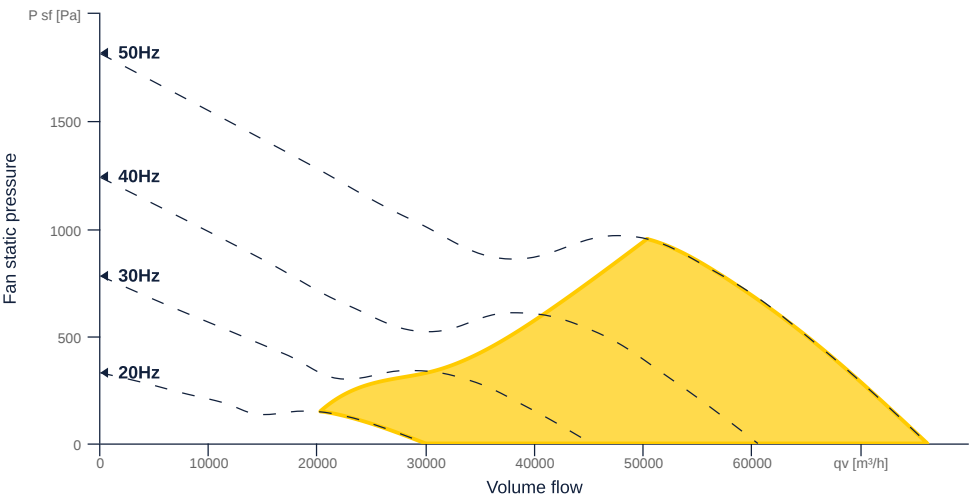


- Innovative, high-efficiency axial fan
- Optimally tuned, CFD-optimized aerodynamics
- Housing weight optimized, powder coated
- Efficient IE3 motor, frequency controllable
- Conveyed medium temperature up to 60 °C in continuous operation
- Exceeds current ErP regulation by 15 - 20%



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
Weight	280	kg	m
Fan type	Axial		Fan _{type}
Category / Installation situation	B		cat

MAXIMAL DATA

Name	Value	Unit	Formula symbol
Max. power consumption (device)	23206	W	$P_{ed, max}$
Max. operating current (device)	41.4	A	$I_{ed, max}$
Max. speed	1480	1/min	n_{max}
Max. stat. efficiency	56.6	%	η_{es}
Max. fan efficiency	72.3	%	η_e
Max. flowrate	76095	m ³ /h	$Q_{v, max}$
Max. stat pressure	970	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 F		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	U _{rated, f1}
Rated voltage (wiring 2)	690		V	U _{rated, f2}
Rated current	35.2		A	I _{rated, f1}
Rated current (wiring 2)	20.4		A	I _{rated, f2}
Shaft power	18500		W	P _{out, f1}
Shaft power (wiring 2)	18500		W	P _{out, f2}
Speed	1474		1/min	n _{f1}
Speed (wiring 2)	1474		1/min	n _{f2}
Starting current	292		A	I _{start, f1}
Starting current (wiring 2)	169		A	I _{start, f2}
Efficiency	92.6		%	η _{m, f1}
Efficiency (wiring 2)	92.6		%	η _{m, f2}
Min. temperature	-20		°C	T _{motor, min}
Cos Phi	0.820000	0.000000		cos φ
UL-Certification motor		UL recognized		ULcert

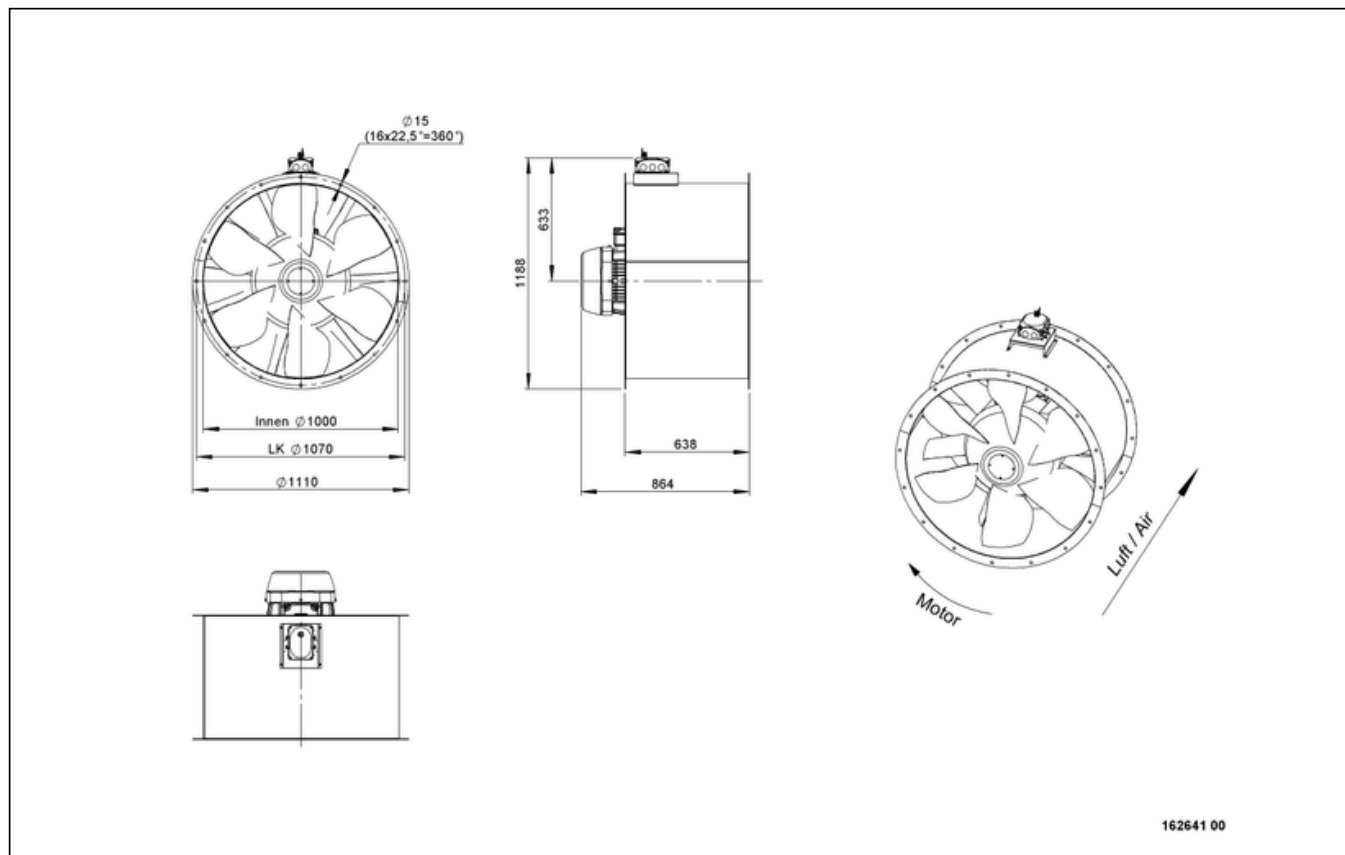
ERP DATA (LOT11)

Name	Value	Unit	Formula symbol
Speed at the energy efficiency optimum	1480	1/min	n _{opt}
Efficiency level	70.6	%	N
Efficiency category	total		cat _{efficiency}
Input power of the motor at the energy efficiency optimum	19.62	kW	P _{e, opt}
Overall efficiency	70.2	%	η _{ges}
Measurement category	B		meas cat
Fan pressure at energy efficiency optimum	854	Pa	p _{f, opt}
Flowrate at energy efficiency optimum	53811	m³/h	Q _{v, opt}



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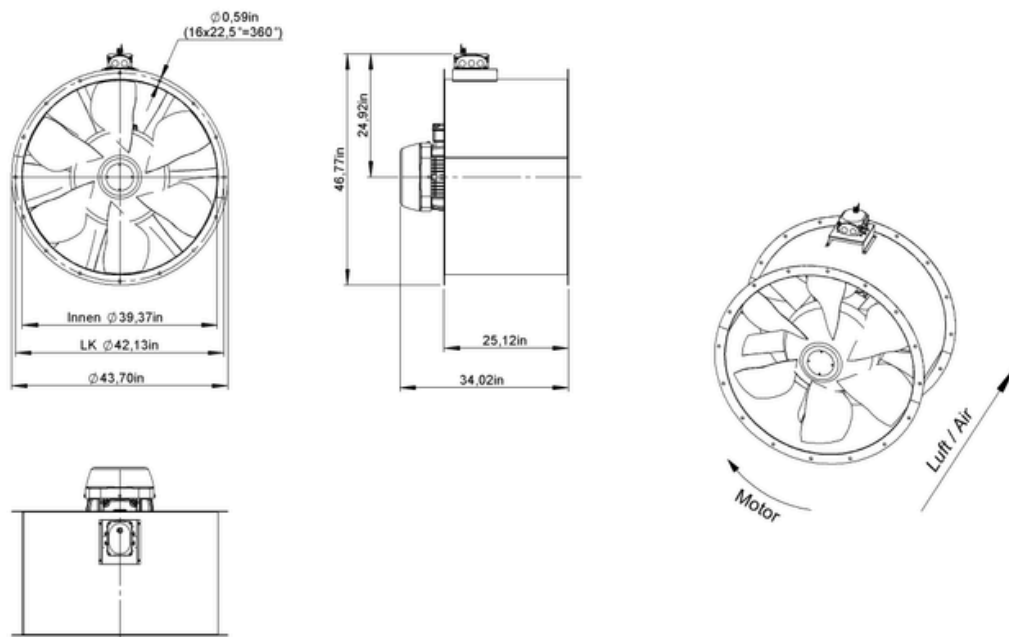
CIRCUIT DIAGRAMS / DIMENSIONAL DRAWINGS



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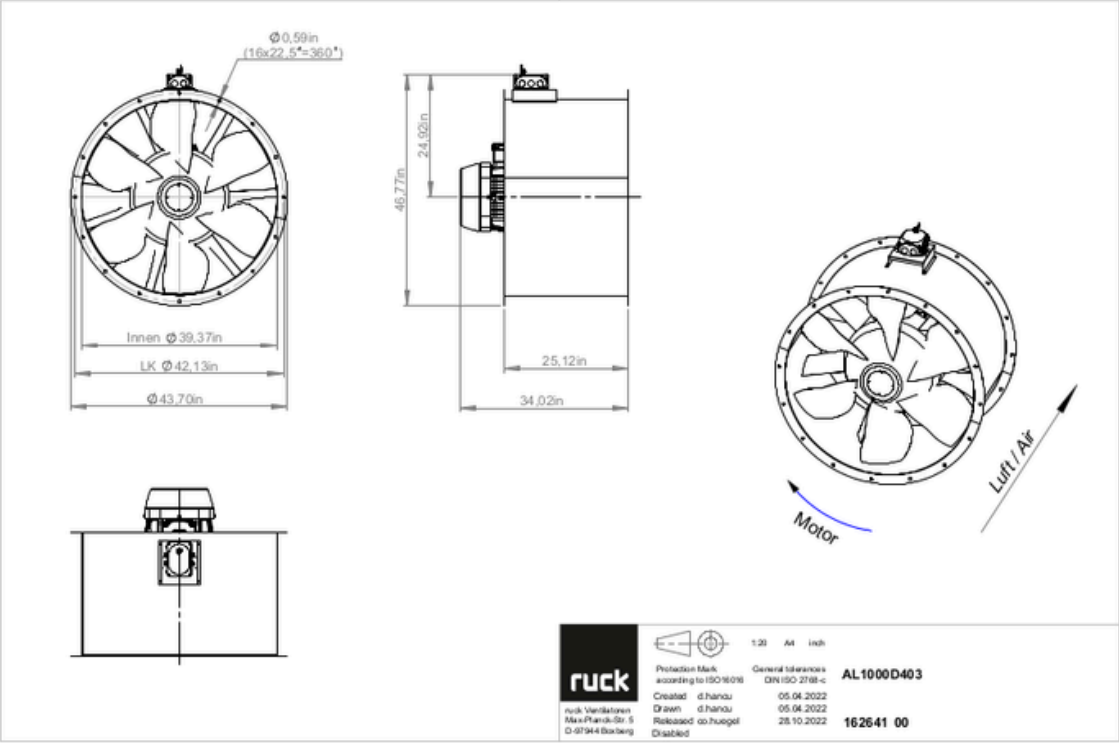
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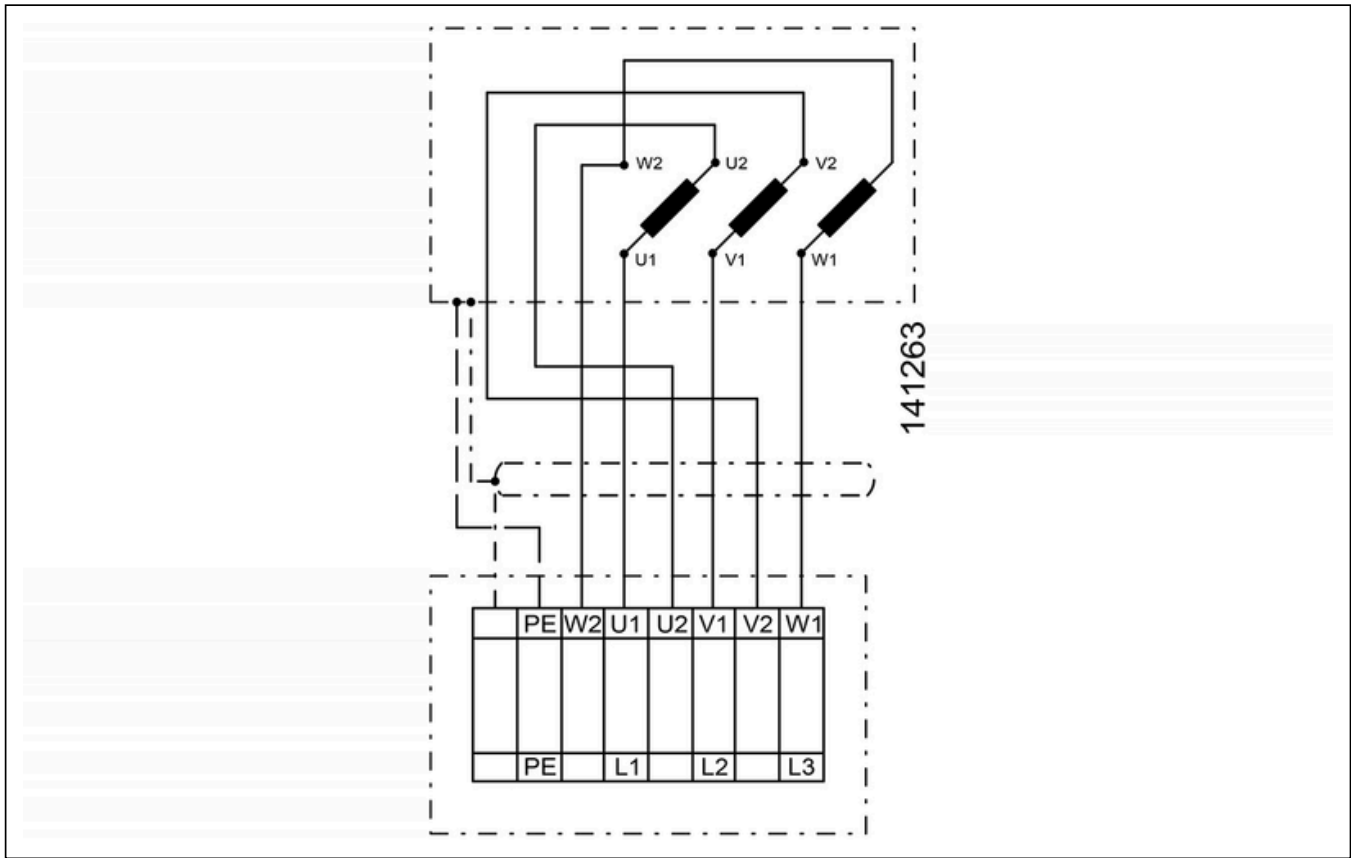
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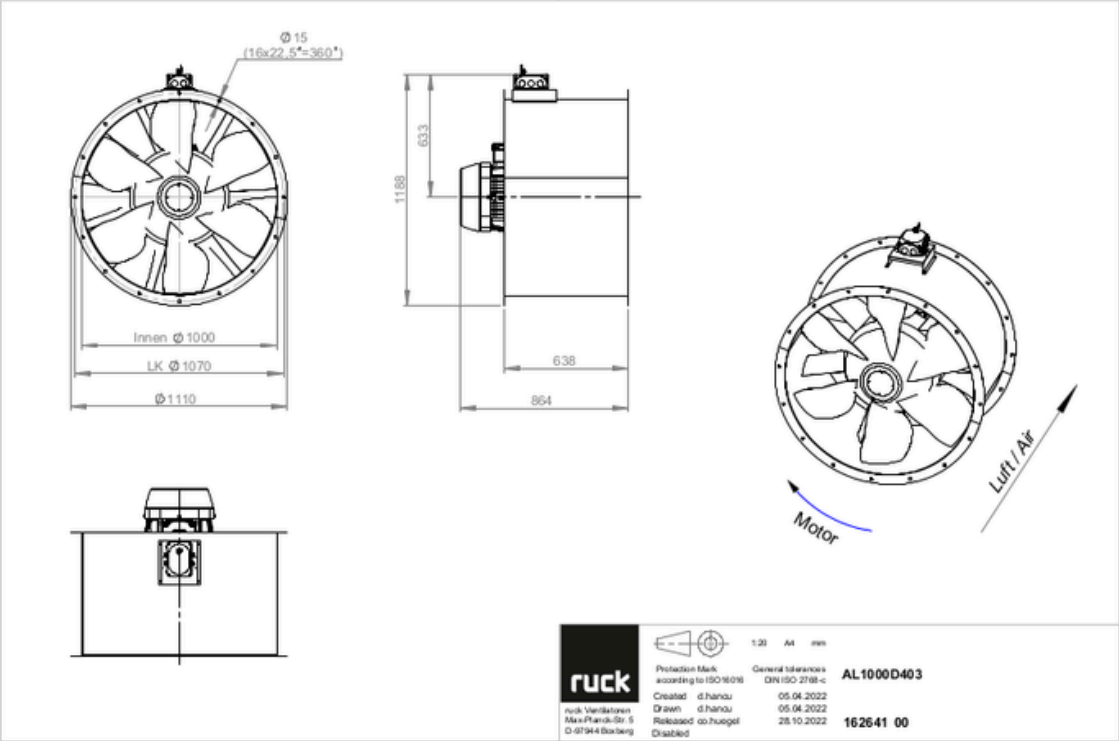
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MECHANICAL ACCESSORIES

RVK H 1000 | 159573



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

RVS 1000-01 | 157480



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

ESD 1000 | 157569



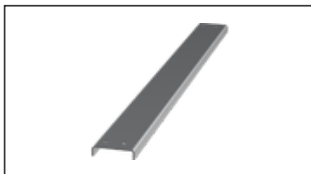
- Inlet cone
- Steel sheet, powder coated
- Flange mounting

FAL 1000 | 157899



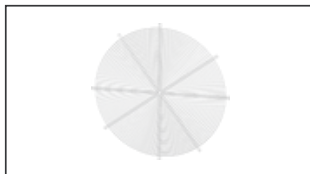
- Mounting foot
- Sheet steel, powder coated
- Flange mounting

TRA1000 | 162924



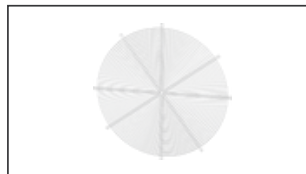
- Crossbeam
- Connection between mounting feet
- Galvanized steel sheet

SGW 1000 | 159542



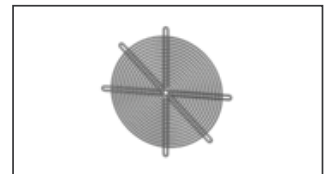
- Protection grille, wide meshed
- Steel sheet, galvanized
- Flange mounting

SGW 1120 | 159543



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

SGE 1000 | 159518



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

FSD 08 | 162473



- Set of 4 vibration dampers
- Made of natural rubber, hardness 55 Shore A

RAF 1000 | 157414



- Round flange
- Sheet steel, powder coated

RAS 1000 | 157632



- Round spigot, flexible
- Galvanized steel sheet, plastic band (PES)
- Temperature resistant up to 75 °C
- Flange mounting

FSD 11 | 162489



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

RVK 1000 | 157766



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

MR 1000 | 164951



- Mounting ring
- For vertical mounting
- Powder-coated sheet steel
- Flange mounting DN 1000



ELECTRICAL ACCESSORIES

MS 07 | 160185



- Motor protection switch with device switch function
- For three phase motors
- I_{max} = 25 A

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 % V_{dc}
- Step 3 100 % V_{dc}
- Supply voltage +10 V_{dc}

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 185 08 | 161408



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

FU 185 07 | 161407



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

