

AL 1000 D4 F4 03

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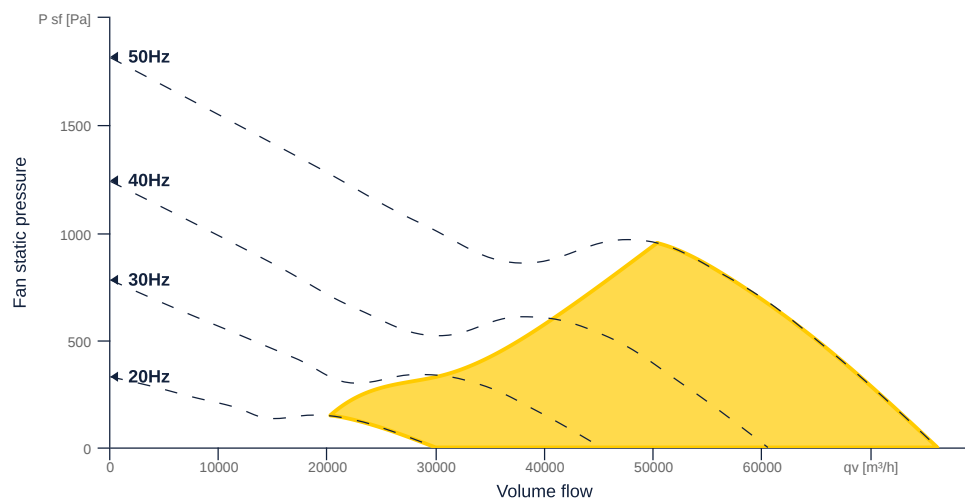
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- Innovative, high-efficiency axial fan
- Optimally tuned, CFD-optimized aerodynamics
- Housing weight optimized, powder coated
- Efficient IE3 motor, frequency controllable
- Smoke extract fan F400, 60 °C continuous operation, dual-use
- Exceeds current 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	-		WxH _{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		mat _{casing}
Impeller material	Steel		mat _{impeller}
IP-protection class (entire device)	IPX4		IP _{compl}
IP-Protection class (terminal box)	IP55		IP _{ebox}
Weight	295	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	m³/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}



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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	35.2		A	Irated, f1
Rated current (wiring 2)	20.4		A	Irated, f2
Shaft power	18500		W	Pout, f1
Shaft power (wiring 2)	18500		W	Pout, f2
Speed	1470		1/min	n1
Speed (wiring 2)	1470		1/min	n2
Starting current	264		A	Istart, f1
Starting current (wiring 2)	153		A	Istart, f2
Efficiency	92.6		%	ηm, f1
Efficiency (wiring 2)	92.6		%	ηm, f2
Efficiency class	IE3			IEmotor
Min. temperature	-20		°C	Tmotor, min
Cos Phi	0.820000	0.000000		cos φ
UL-Certification motor		None		ULcert

ERP DATA (LOT11)

Name	Value	Unit	Formula symbol
Speed at the energy efficiency optimum	1470	1/min	n _{opt}
Efficiency level	72	%	N
Efficiency category	total		cat _{efficiency}
Input power of the motor at the energy efficiency optimum	22.33	kW	P _{e, opt}
Overall efficiency	71.5	%	η _{ges}
Measurement category	B		meas cat
Fan pressure at energy efficiency optimum	977	Pa	p _{f, opt}
Flowrate at energy efficiency optimum	59233	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}



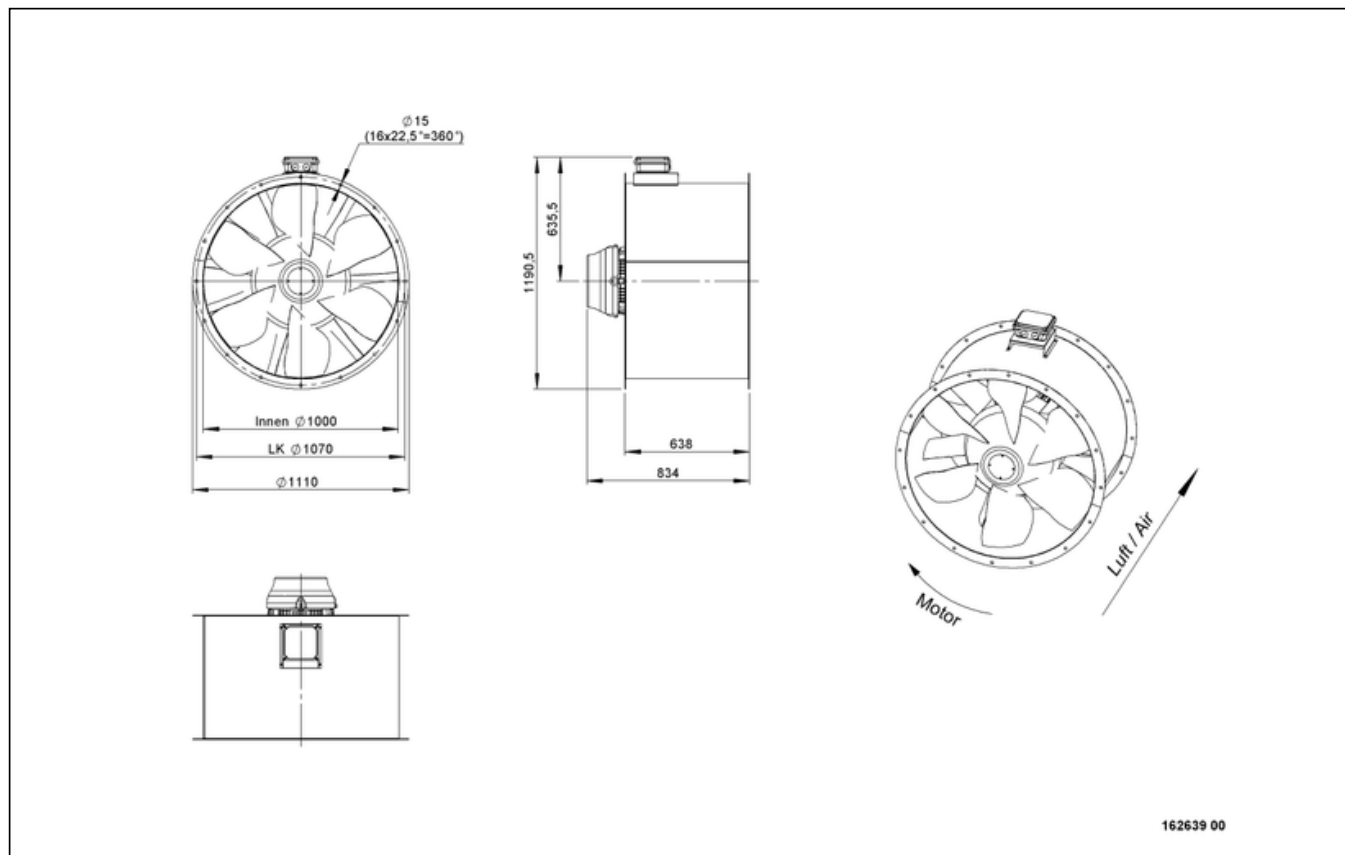
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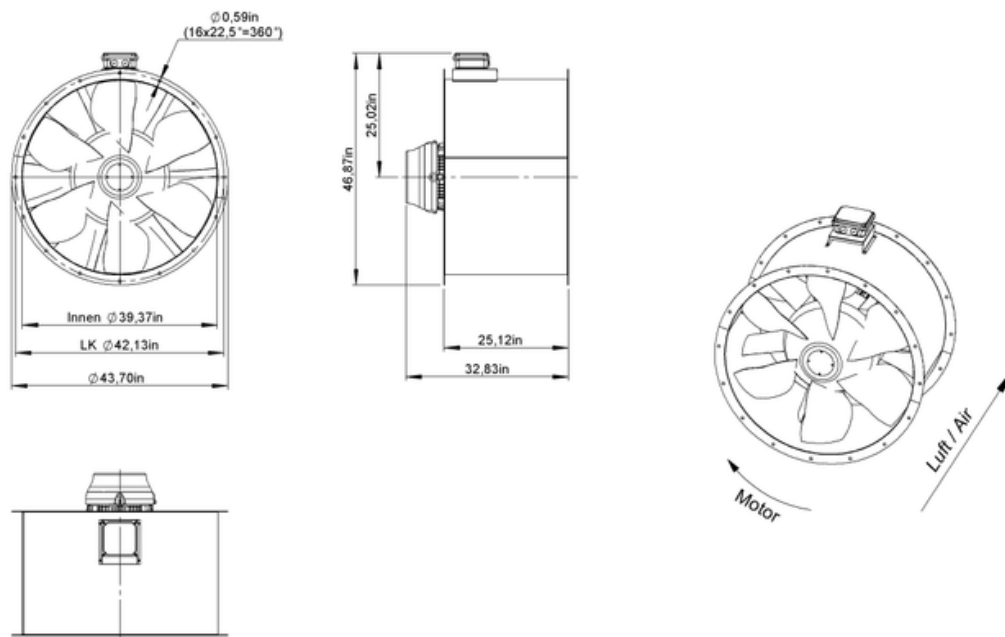
CIRCUIT DIAGRAMS / DIMENSIONAL DRAWINGS



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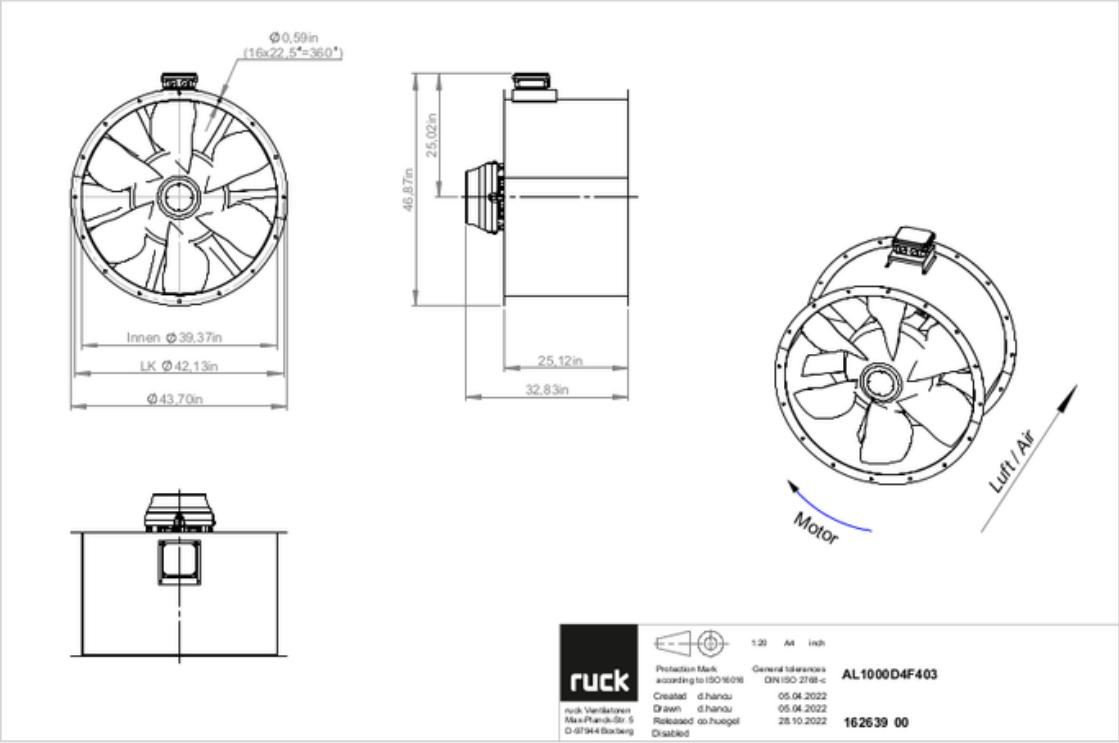
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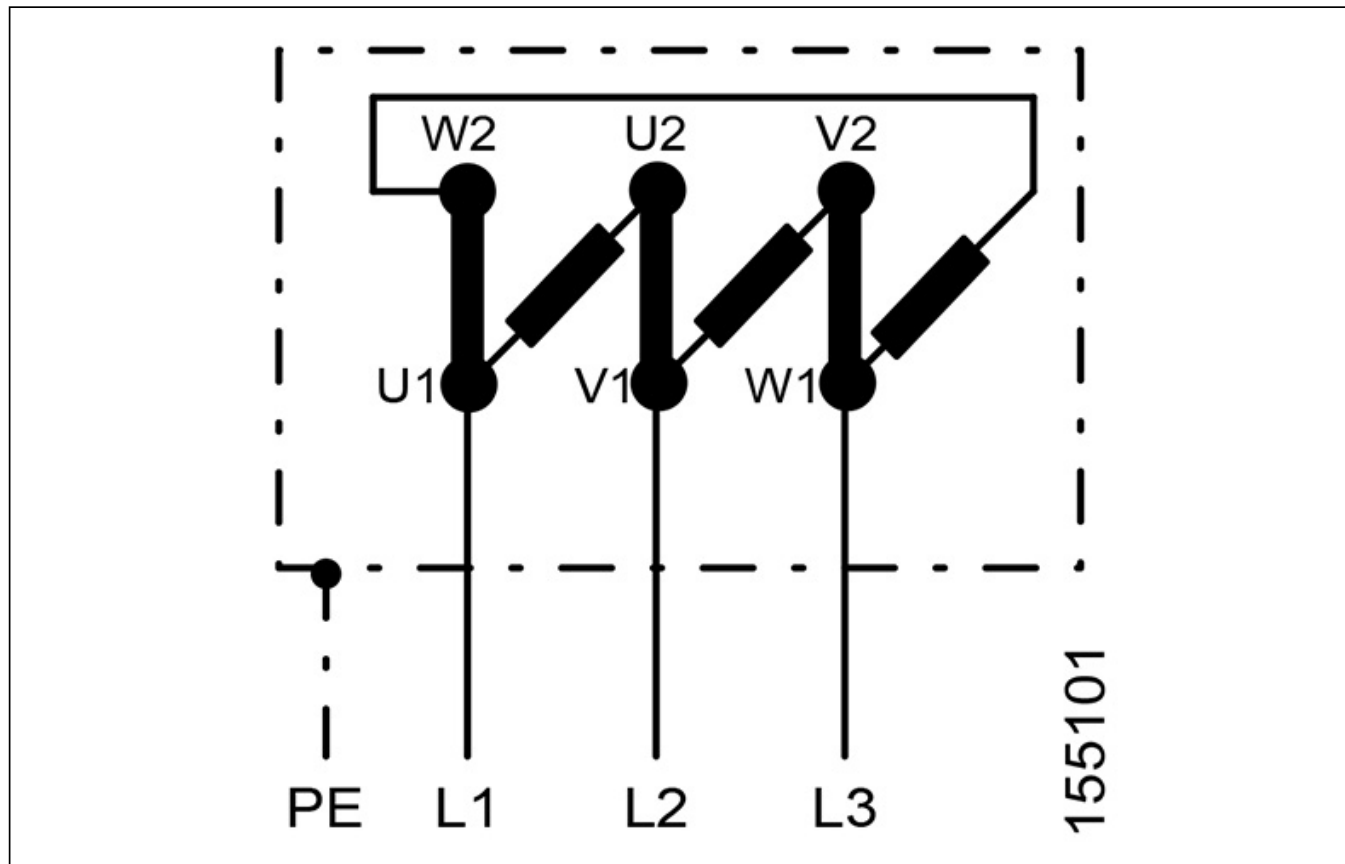
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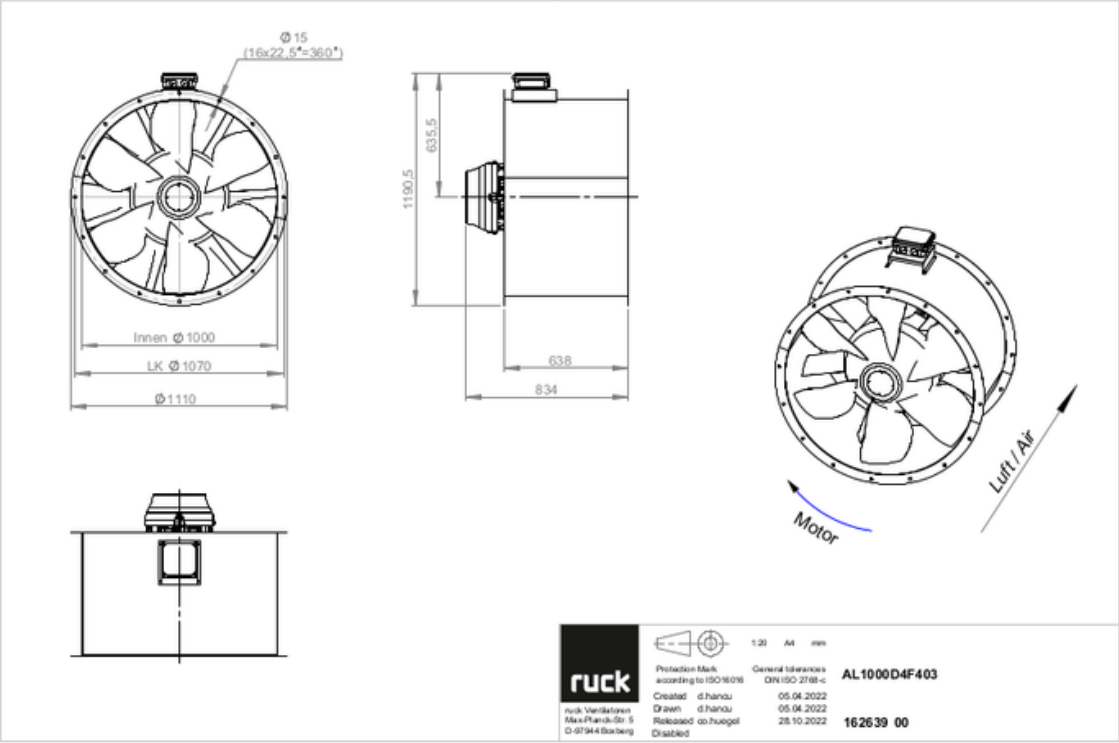
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MECHANICAL ACCESSORIES

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



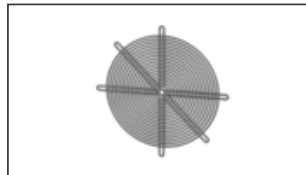
- Automatic tube shutter
- Sheet steel, powder coated
- For vertical installation
- Flange mounting

FAL 1000 | 157899



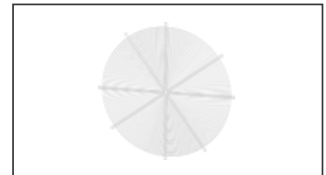
- Mounting foot
- Sheet steel, powder coated
- Flange mounting

SGE 1000 | 159518



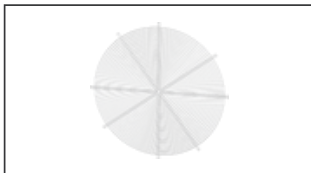
- Protection grille, narrow meshed
- Steel sheet, galvanized
- Flange mounting

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



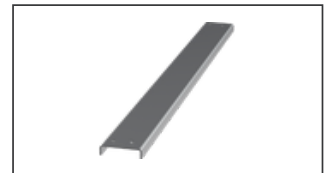
- Automatic tube shutter
- Sheet steel, powder coated
- For horizontal installation
- Flange mounting

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 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 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

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)



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