EL 315 E2 10

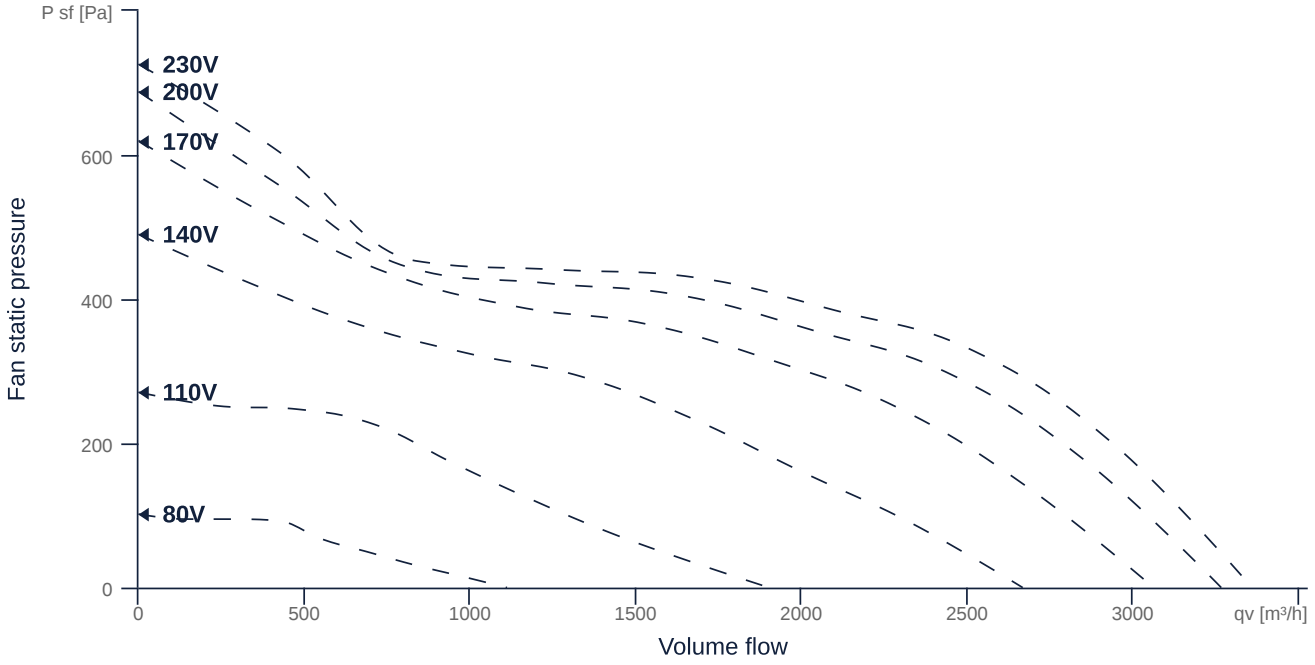
130320

- Innovative, high-efficiency diagonal fan
- Optimally tuned, CFD-optimized aerodynamics
- The benchmark for efficiency since 2007
- Robust single phase AC motor
- Conveyed medium temperature up to 60 °C in continuous operation
- Housing made of galvanized steel sheet
- Externally ventilated motor



FAN CURVES

Name	Value	Unit
Volume flow	2597.02	m³/h
Pressure	-243.9	Pa



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TECHNICAL SPECIFICATIONS

Name	Value	Unit	Formula symbol
Volume flow	2597	m³/h	qv_{calc}
Pressure	-244	Pa	psf_{calc}
Fan pressure	51	Pa	pf
Fan static pressure	-244	Pa	psf
Current consumption Motor	2.8	A	Ie
Electrical power consumption	386	W	Pe_K
Voltage	136	V	U
Rotation speed	2149	1/min	N
Total static efficiency	-46	%	etaFaPeK
Total efficiency	9	%	etatPeK
SFP (entire device)	536	W/(m³/s)	sfp_{device}
Sound power level inlet	74	dB(A)	LwA5
Sound power level outlet	78	dB(A)	LwA6
Sound power level housing radiation	61	dB(A)	LwA2

SOUND DATA

Sound power	mid-frequency tape										Unit	Formula symbol
	∑	63	125	250	500	1000	2000	4000	8000	16000		
suction	75	35	47	61	67	68	70	68	55	41	dB(A)	LwA5
blowout	79	30	48	65	73	74	72	68	56	38	dB(A)	LwA6
Casing break out	61	35	45	47	56	56	56	51	38	21	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
		∑	63	125	250	500	1000	2000	4000	8000	16000		
suction	54	57	18	29	43	49	51	52	51	38	23	dB(A)	LwA5
blowout	56	61	13	31	47	55	56	55	51	39	20	dB(A)	LwA6
Casing break out	40	44	18	27	29	38	38	39	34	21	4	dB(A)	LwA2

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GENERAL DATA

Name	Value	Unit	Formula symbol
Labeling	CE, UKCA		
Duct size	-		WxH_{duct}
Pipe connection size (DN)	DN315		DN
Rated voltage (entire device)	230	v	U_{rated}
Phases (entire device)	1~		phase
Electrical protection (entire device)	6 A		fuse
Housing material	Galvanized steel		mat_{casing}
Impeller material	Plastic		$mat_{impeller}$
IP-protection class (entire device)	IPX4		IP_{compl}
IP-Protection class (terminal box)	IP44		IP_{ebox}
Weight	15	kg	m
Fan type	Diagonal		Fan_{type}
Category / Installation situation	A		cat
Length	351	mm	
Width	349	mm	
Height	351	mm	

MAXIMAL DATA

Name	Value	Unit	Formula symbol
Max. power consumption (device)	511	w	$P_{ed,\ max}$
Max. operating current (device)	3.07	A	$I_{ed,\ max}$
Max. speed	2860	rpm	n_{max}
Max. stat. efficiency	44.9	p	η_{es}
Max. fan efficiency	49.3	p	η_{e}
Max. flowrate	3360	m^3/h	$q_{v,\ max}$
Max. stat pressure	720	Pa	$p_{sf,\ max}$
Max. medium temperature	80	°C	$T_{m,\ max}$
Max. environment temperature	60	°C	$T_{amb,\ max}$
Min. environment temperature	-25	°C	$T_{amb,\ min}$
Min. voltage	80	v	U_{min}
Stall current	8.5	A	I_{LRA}

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MOTOR DATA

Name	Value		Unit	Formula symbol
	50 Hz	60 Hz		
Rated frequency (device)		50		f
Motor type		AC 1~		phase
Control type		stepless-controlled		$ctrl_{type}$
Installation type		IRM (In)		install
Rotation direction		right		rotation
Isolation class		ISO F		ISO_{class}
Motor-protection		TMI		$protect_{motor}$
Protection class		IP54		IP_{motor}
Is pole-changeable		No		polexch
Type of power supply		AC 1~		$pwrsup_{motor}$
Capacity capacitor		10	µF	C_{cond}
Voltage capacitor		400	v	VU_{cond}
Number of poles (1)		2.000000		$num\ poles_{w1}$
Rated voltage	230		v	$U_{rated,\ f1}$
Rated current	1.9		A	$I_{rated,\ f1}$
Nominal power	300		w	P_a
Speed	2820		rpm	n_{f1}
Cos Phi	0.990000	0.000000		cos φ
UL-Certification motor		None		UL_{cert}

ERP DATA (LOT11)

Name	Value	Unit	Formula symbol
Speed at the energy efficiency optimum	2781	rpm	n_{opt}
Efficiency level	45.2	p	N
Efficiency category	statisch		$cat_{efficiency}$
Input power of the motor at the energy efficiency optimum	0.47	kw	$P_{e,\ opt}$
Overall efficiency	59.2	p	$η_{ges}$
Measurement category	A		meas cat
Fan pressure at energy efficiency optimum	389	Pa	$p_{f,\ opt}$
Flowrate at energy efficiency optimum	2076	m³/h	$q_{v,\ opt}$

SMOKE EXTRACT DATA

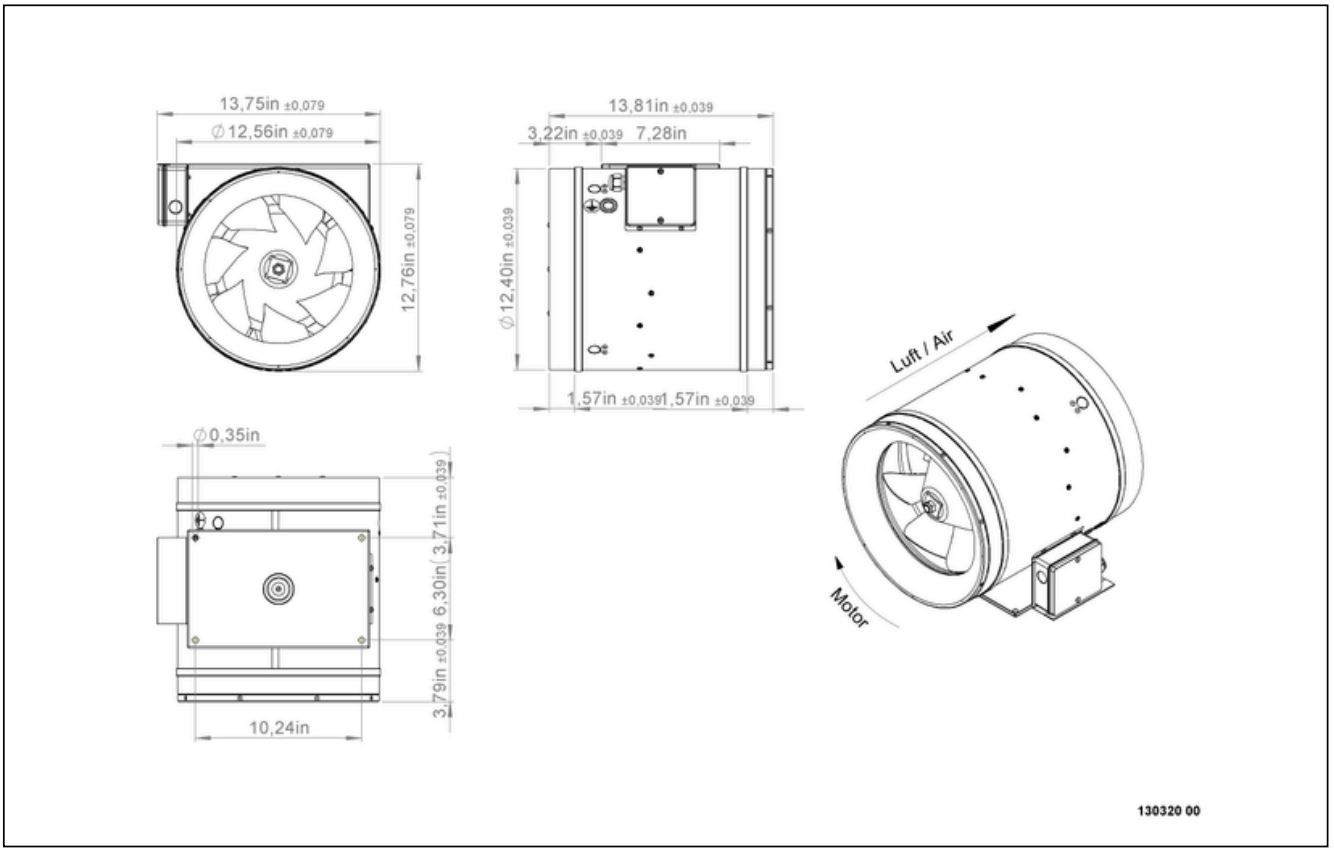
Name	Value	Unit	Formula symbol

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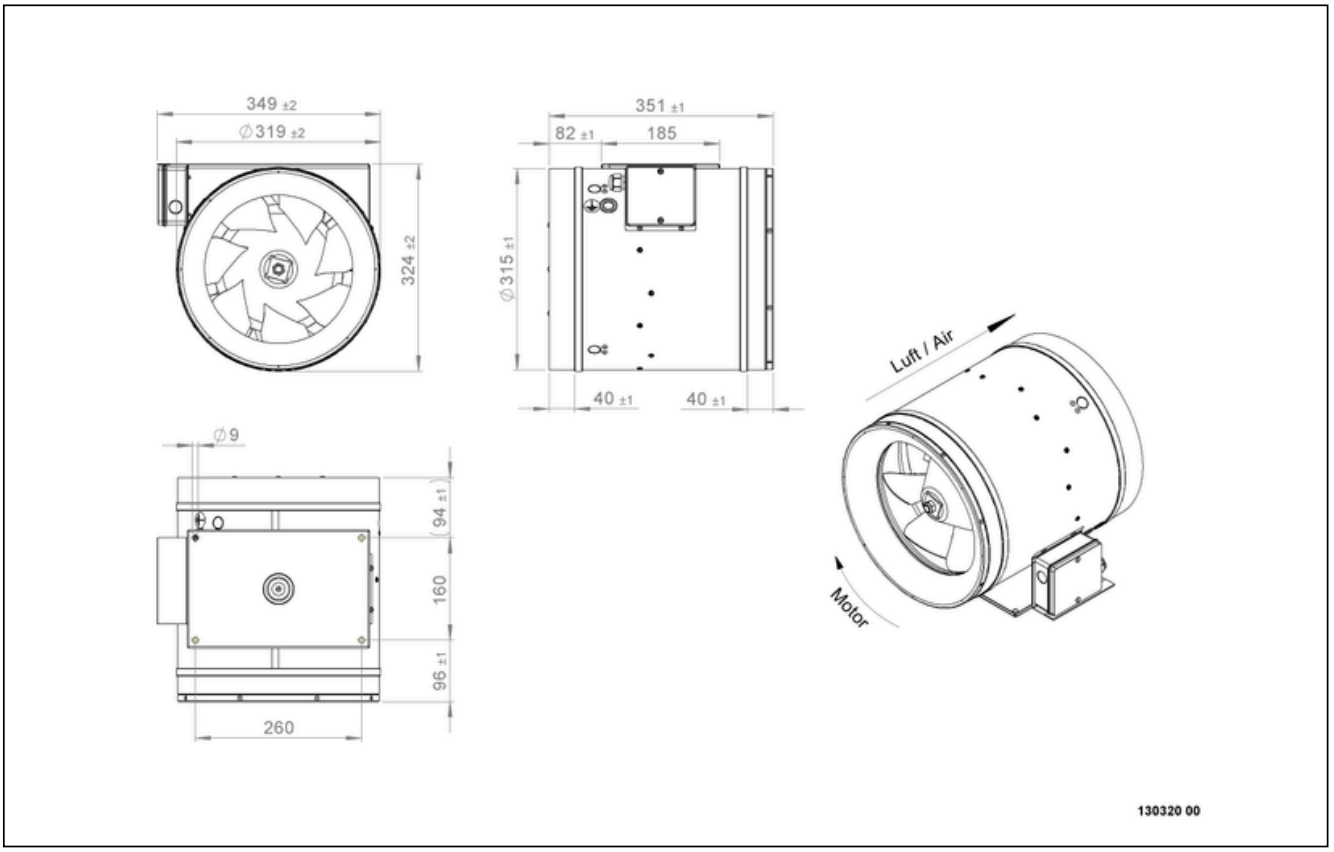
CIRCUIT DIAGRAMS / DIMENSIONAL DRAWINGS



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CIRCUIT DIAGRAMS / DIMENSIONAL DRAWINGS

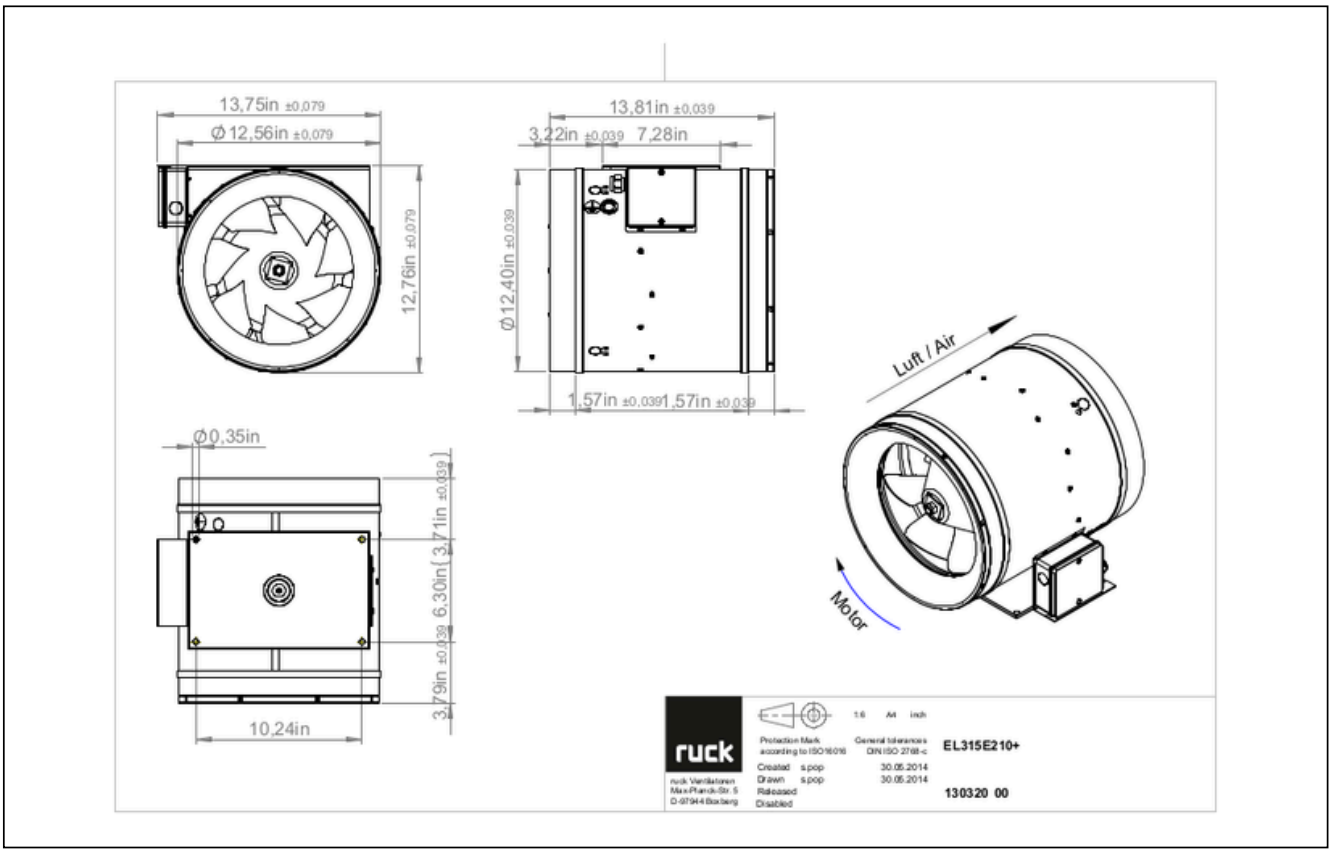


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CIRCUIT DIAGRAMS / DIMENSIONAL DRAWINGS

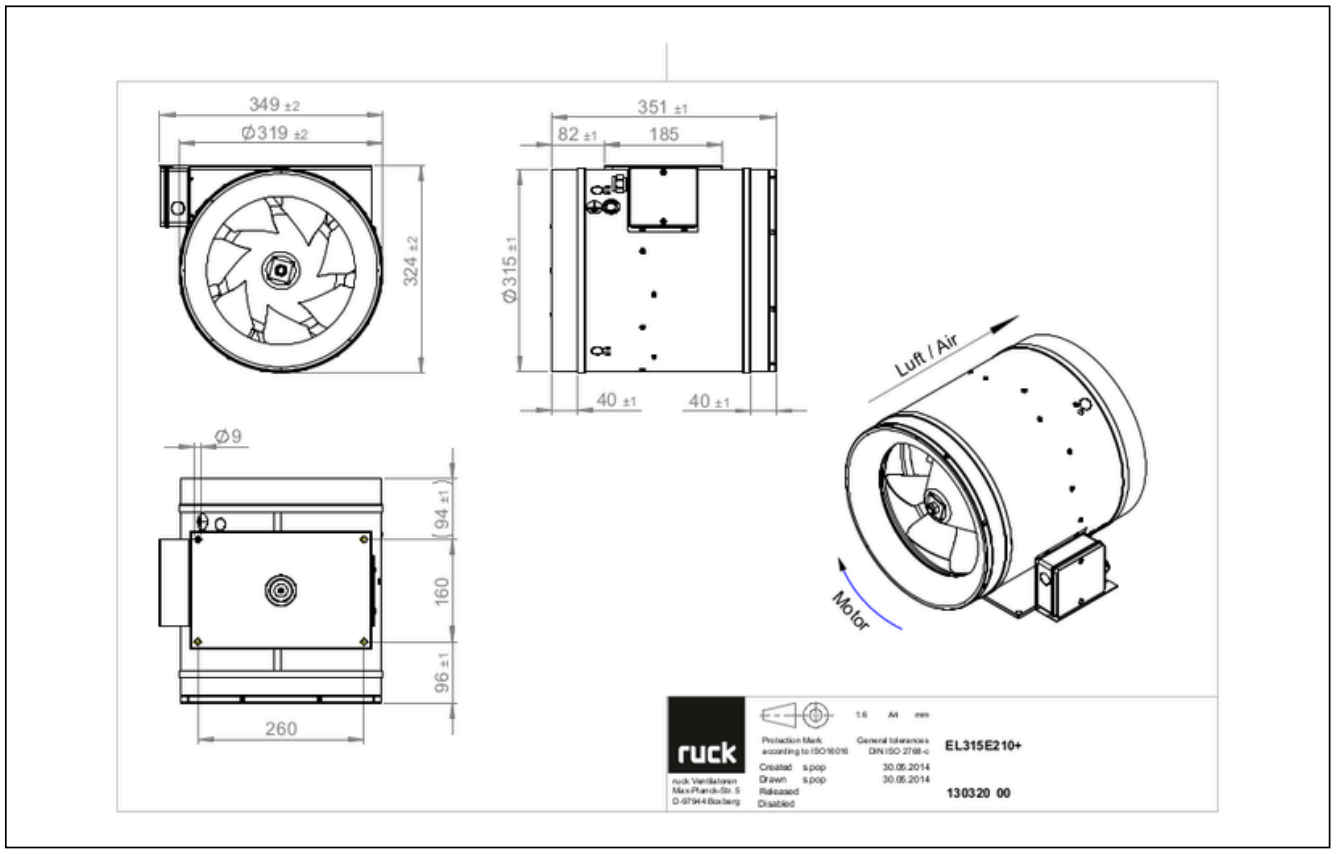


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CIRCUIT DIAGRAMS / DIMENSIONAL DRAWINGS

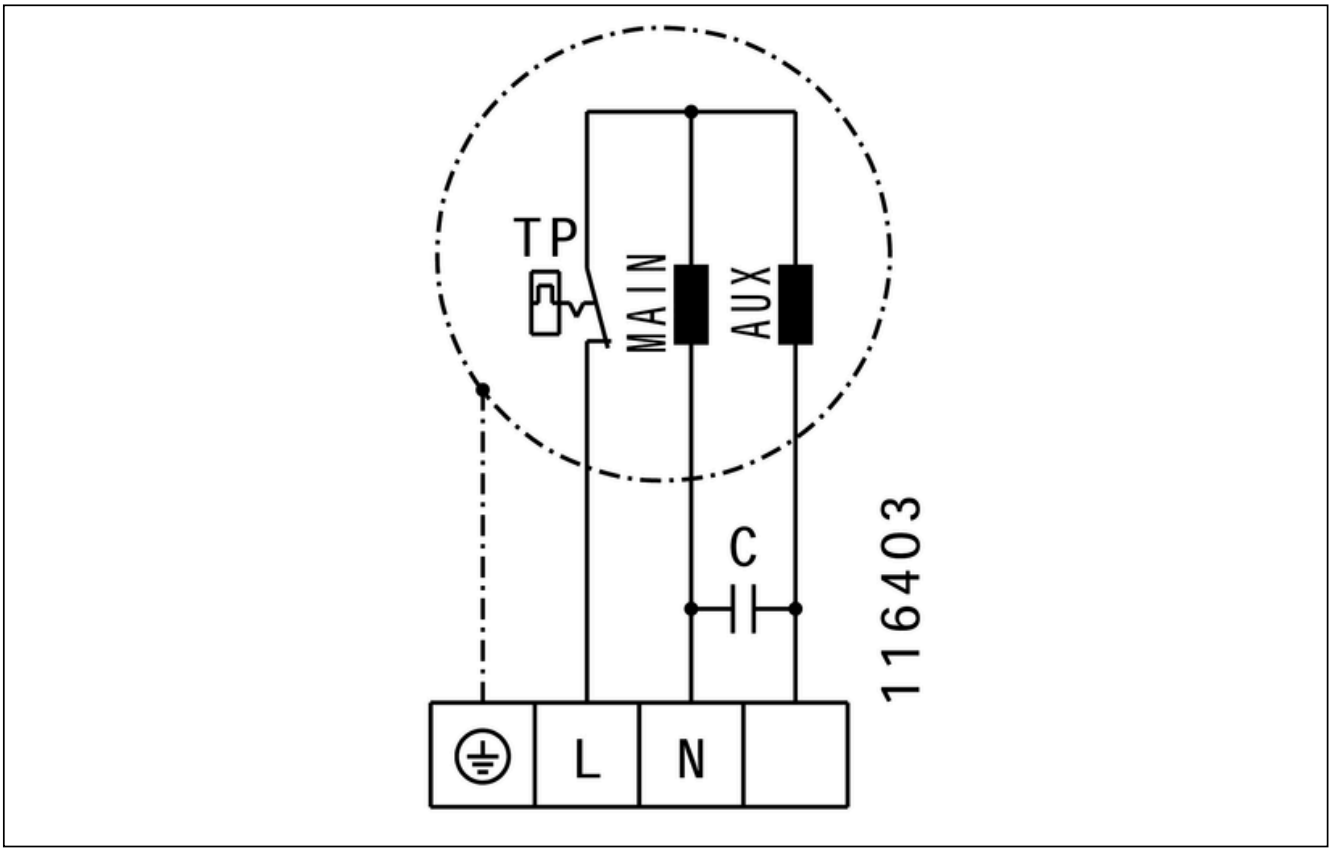


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CIRCUIT DIAGRAMS / DIMENSIONAL DRAWINGS

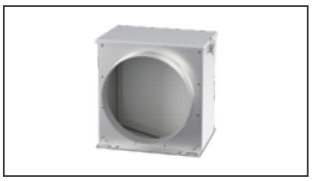


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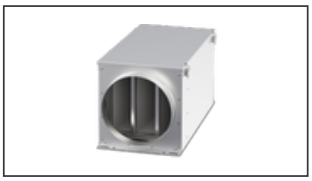
MECHANICAL ACCESSORIES

FV 315 | 112834



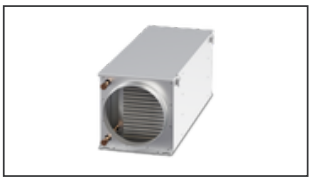
- Air filter box with mat filter ISO Coarse 45 % (G3)
- Toggle-type fastener

FT 315 | 112846



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

FTW 315 | 112855



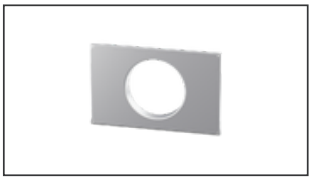
- Air filter box with pocket filter M5
- Integrated warm water heating coil
- Galvanized steel sheet housing
- Toggle-type fastener

RSK 315 | 102664



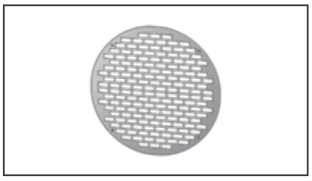
- Back draught shutter for tube fitting
- Galvanized steel sheet housing
- Aluminum flaps

UKR 6030 03 | 114640



- Transition duct / tube
- Steel sheet, galvanized
- 600 x 300 mm / NW 315

SG 315 02 | 112675



- Inlet protection grille for Etaline
- Galvanized steel sheet

RSK 315D | 113489



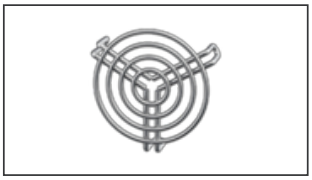
- Back draught shutter for tube fitting
- Galvanized steel sheet housing
- Aluminum flaps
- Integrated gasket

VM 315 | 102652



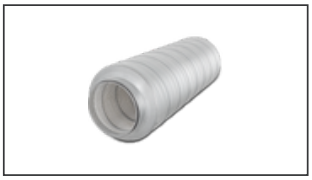
- Fast clamps for sound decoupling and sealing
- Galvanized steel sheet, 5 mm Neopren gasket
- 1 Pack = 2 pieces

SG 315 01 | 169592



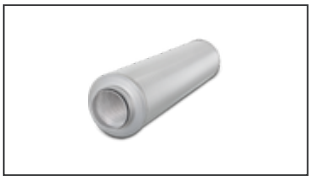
- Protection grille for tube connection
- Galvanized wire

SDS 315 | 169609



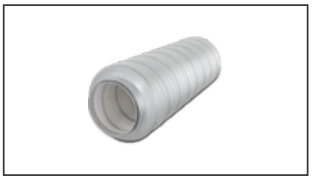
- Rigid tube silencer
- Galvanized steel sheet
- Sound insulation packing 50 mm (mineral wool)

SDF 315 | 169645



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

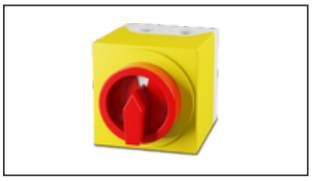
SDS 315 02 | 178874



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

ELECTRICAL ACCESSORIES

GS 01 | 102787



- Isolator switch
- Umax = 400 V, 50/60 Hz
- Switching capacity 400 V 3~ = 7,5 kW
- Imax = 25 A

TEM 035 | 103502



- 5-step transformer
- 230 V, 50/60 Hz, 3.5 A
- Output voltage: 230-190-170-140-110-80-0 V
- Protection class IP 54

TES 035 02 | 146195



- 5-step transformer
- 230 V, 50/60 Hz, 3.5 A
- Without housing, control cabinet installation
- Protection class IP 20

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