

EM 160L E2M 01

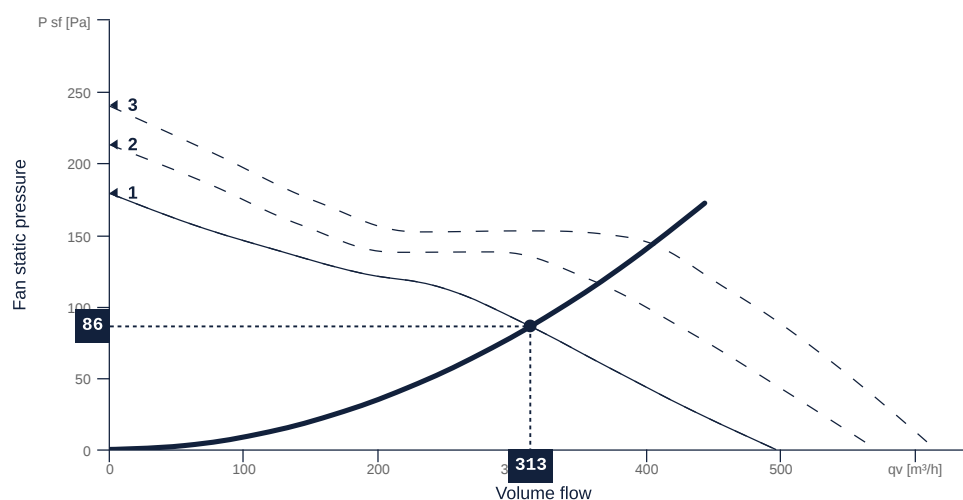
126549

- Innovative, high-efficiency diagonal fan
- Optimally tuned, CFD-optimized aerodynamics
- Housing made of impact-resistant, reinforced polypropylene
- Robust AC motor, 3-steps controllable
- Conveyed medium temperature up to 60 °C in continuous operation
- The benchmark for efficiency since 2012



FAN CURVES

Name	Value	Unit
Volume flow	313.15	m³/h
Pressure	86.02	Pa



\$unit: 1



to the product detail page

EM 160L E2M 01

126549

ruck

TECHNICAL SPECIFICATIONS

Name	Value	Unit	Formula symbol
Volume flow	313	m³/h	qV _{calc}
Pressure	86	Pa	psf _{calc}
Fan pressure	97	Pa	pf
Fan static pressure	86	Pa	psf
Current consumption Motor	0	A	I _e
Electrical power consumption	34	W	P _{ek}
Step	1		stage
Rotation speed	2147	1/min	N
Total static efficiency	21	%	etaFaPeK
Total efficiency	24	%	etatPeK
SFP (entire device)	391	W/(m³/s)	sfp _{device}
Sound power level inlet	63	dB(A)	LwA5
Sound power level outlet	60	dB(A)	LwA6
Sound power level housing radiation	52	dB(A)	LwA2

SOUND DATA

Sound power	mid-frequency tape										Unit	Formula symbol
	Σ	63	125	250	500	1000	2000	4000	8000	16000		
suction	63	28	36	45	62	51	51	47	39	13	dB(A)	LwA5
blowout	60	31	36	49	56	55	51	50	42	14	dB(A)	LwA6
Casing break out	52	23	28	37	52	38	40	33	18	5	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
		Σ	63	125	250	500	1000	2000	4000	8000	16000		
suction	43	45	11	18	27	45	33	34	30	22	0	dB(A)	LwA5
blowout	37	43	13	19	31	38	38	34	33	24	0	dB(A)	LwA6
Casing break out	33	35	6	11	19	34	20	22	16	1	0	dB(A)	LwA2



to the product detail page

EM 160L E2M 01

126549

ruck

GENERAL DATA

Name	Value	Unit	Formula symbol
Labeling	CE, UKCA		
Duct size	-		$W \times H_{duct}$
Pipe connection size (DN)	DN160		DN
Rated voltage (entire device)	230	V	U_{rated}
Phases (entire device)	1~		phase
Electrical protection (entire device)	6 A		fuse
Housing material	Plastic		matcasing
Impeller material	Plastic		matimpeller
IP-protection class (entire device)	IPX4		IPcompl
IP-Protection class (terminal box)	IP44		IPebox
Weight	2.55	kg	m
Fan type	Diagonal		Fan _{type}
Category / Installation situation	A		cat

MAXIMAL DATA

Name	Value	Unit	Formula symbol
Max. power consumption (device)	45	W	$P_{ed, max}$
Max. operating current (device)	0.29	A	$I_{ed, max}$
Max. speed	2820	1/min	n_{max}
Max. stat. efficiency	33.9	%	η_{es}
Max. fan efficiency	37.5	%	η_e
Max. flowrate	615	m ³ /h	$Q_{v, max}$
Max. stat pressure	240	Pa	$p_{sf, max}$
Max. medium temperature	60	°C	$T_{m, max}$
Max. environment temperature	60	°C	$T_{amb, max}$
Min. environment temperature	-25	°C	$T_{amb, min}$
Min. voltage	230	V	U_{min}
Stall current	0.44	A	I_{LRA}



EM 160L E2M 01

126549

MOTOR DATA

Name	Value		Unit	Formula symbol
	50 Hz	60 Hz		
Rated frequency (device)		50		f
Motor type		AC 1~		phase
Control type		step-controlled		ctrltype
Installation type		IRM (In)		install
Rotation direction		right		rotation
Isolation class		ISO F		ISOclass
Motor-protection		TAI		protectmotor
Protection class		IP00		IPmotor
Is pole-changeable		No		polexch
Type of power supply		AC 1~		pwrsupmotor
Capacity capacitor		1.5	µF	Ccond
Voltage capacitor		450	V	VUcond
Number of poles (1)		2.000000		num polesw1
Rated voltage	230		V	Urated, f1
Rated current	0.22		A	Irated, f1
Shaft power	25		W	Pa
UL-Certification motor		None		ULcert

ERP DATA (LOT11)

Name	Value	Unit	Formula symbol
Speed at the energy efficiency optimum	2739	1/min	n _{opt}
Efficiency level	34.3	%	N
Efficiency category	statisch		catefficiency
Input power of the motor at the energy efficiency optimum	0.04	kW	P _{e, opt}
Overall efficiency	59	%	η _{ges}
Measurement category	A		meas cat
Fan pressure at energy efficiency optimum	146	Pa	p _{f, opt}
Flowrate at energy efficiency optimum	397	m³/h	q _{v, opt}

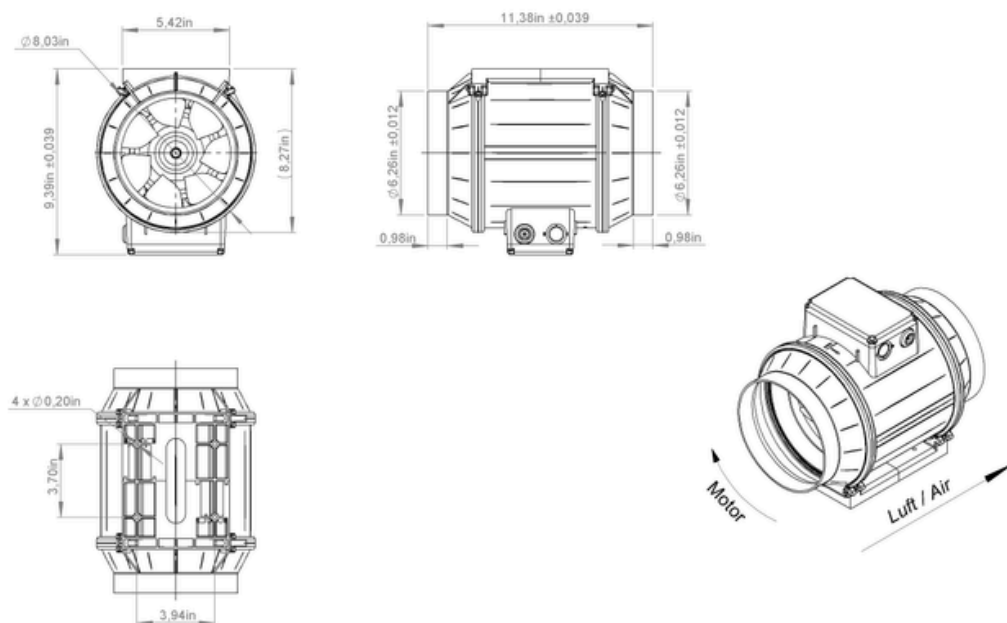


to the product detail page

EM 160L E2M 01

126549

CIRCUIT DIAGRAMS / DIMENSIONAL DRAWINGS



126549 03

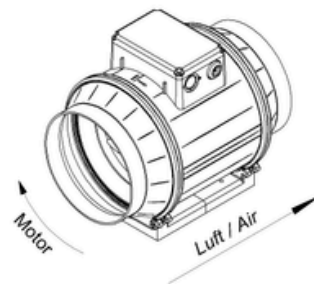
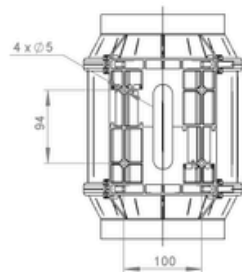
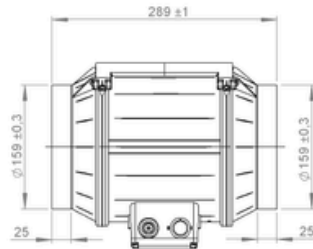
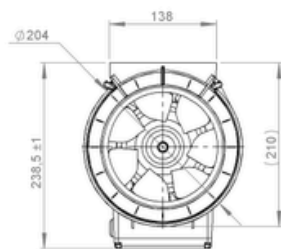


to the product detail page

EM 160L E2M 01

126549

ruck



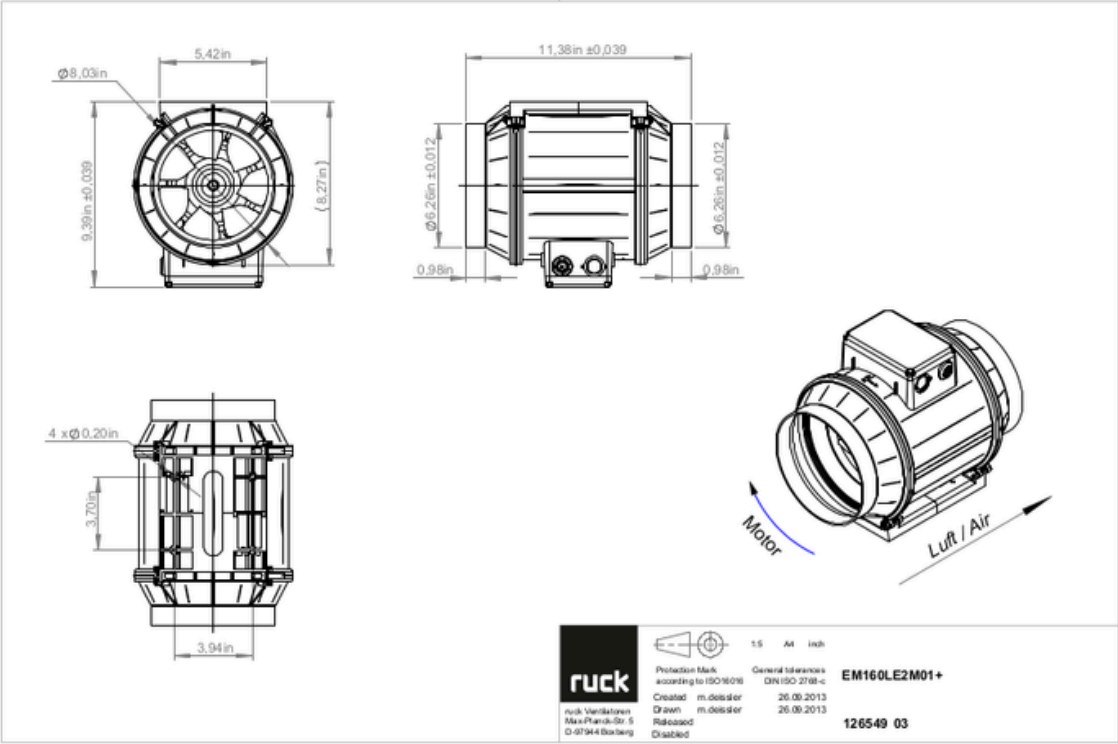
126549 03



to the product detail page

EM 160L E2M 01

126549

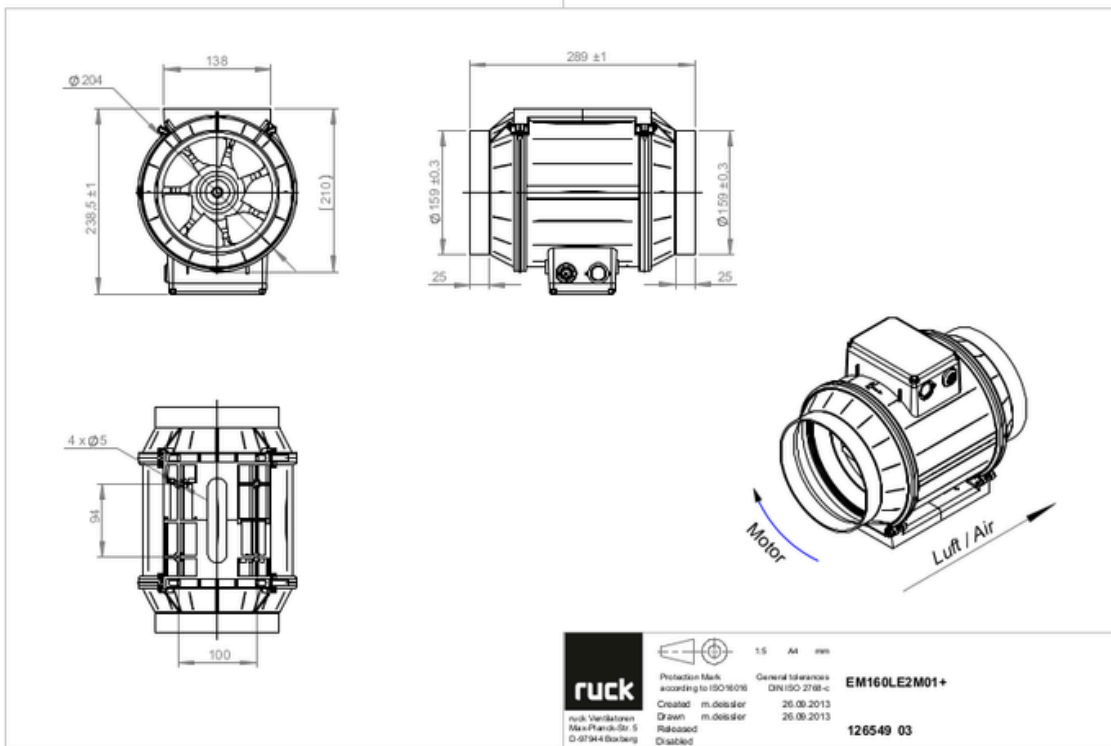


to the product detail page

EM 160L E2M 01

126549

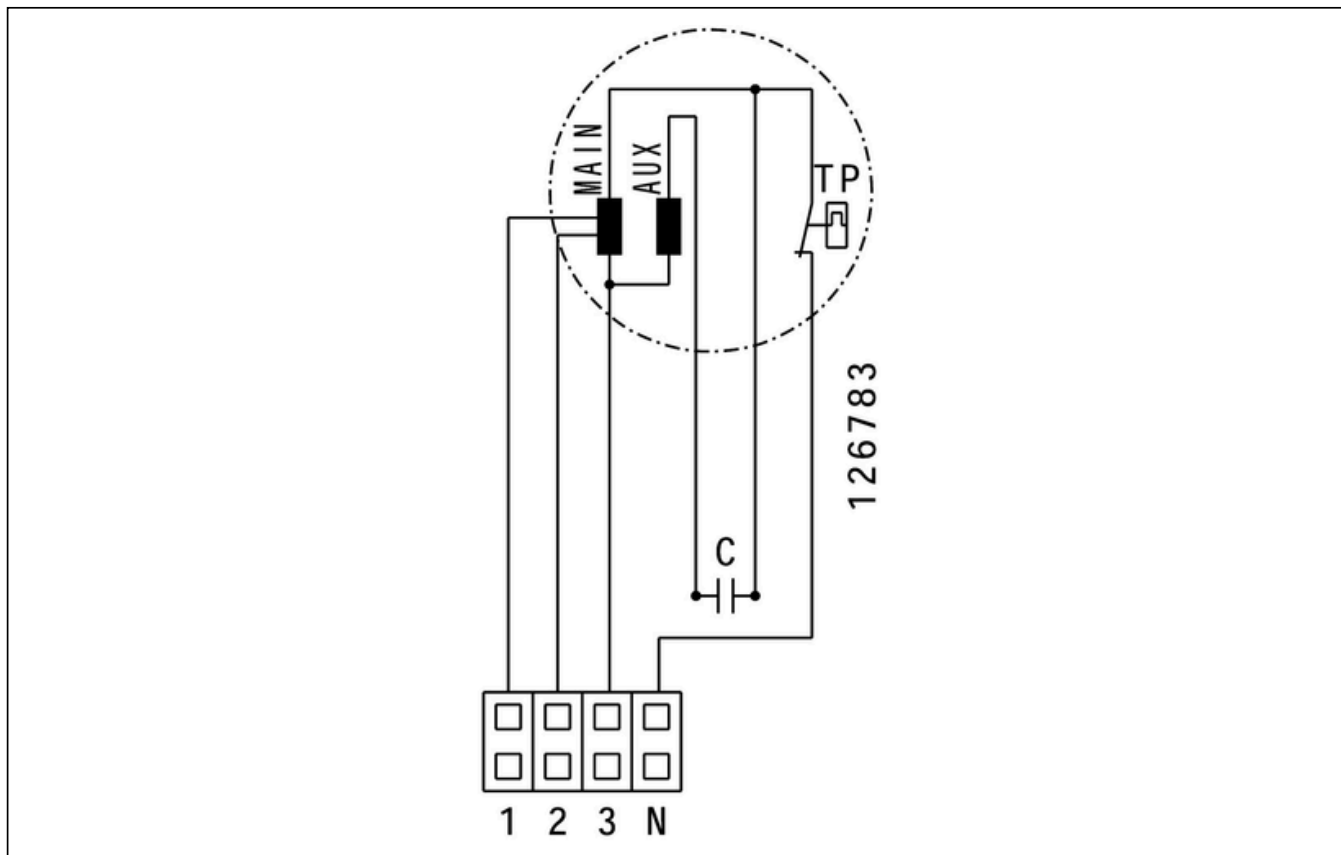
ruck



to the product detail page

EM 160L E2M 01

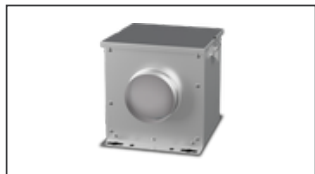
126549



to the product detail page

MECHANICAL ACCESSORIES

FV 160 | 112831



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

FT 160 | 112841



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

FTW 160 | 112852



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

RSK 160 | 102661



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

RSK 160D | 113485



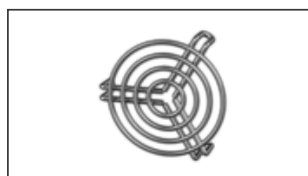
- Back draught shutter for tube fitting
- Galvanized steel sheet housing
- Aluminum flaps
- Integrated gasket

VM 160 | 102649



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

SG 160 01 | 169591



- Protection grille for tube connection
- Galvanized wire

SDS 160 | 169605



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

SDF 160 | 169642



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

ELECTRICAL ACCESSORIES

GS 03 | 107633



- Device switch
- Umax = 400 V, I_{max} = 25 A
- Switching capacity 400 V 3~ = 7,5 kW
- Protection class IP 55

MTS 10 | 128145



- 3-step switch
- Max. ambient temperature 50 °C
- Surface and flush mounting
- IP 44



to the product detail page