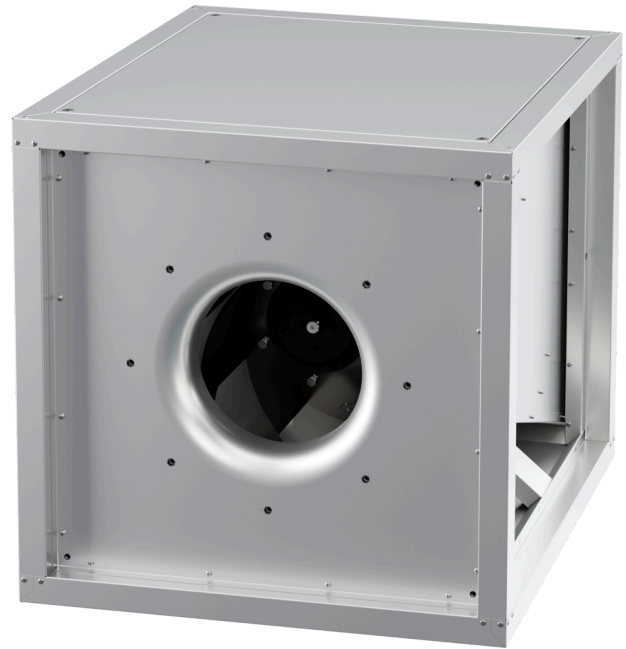


# MPC 500 D4 T40

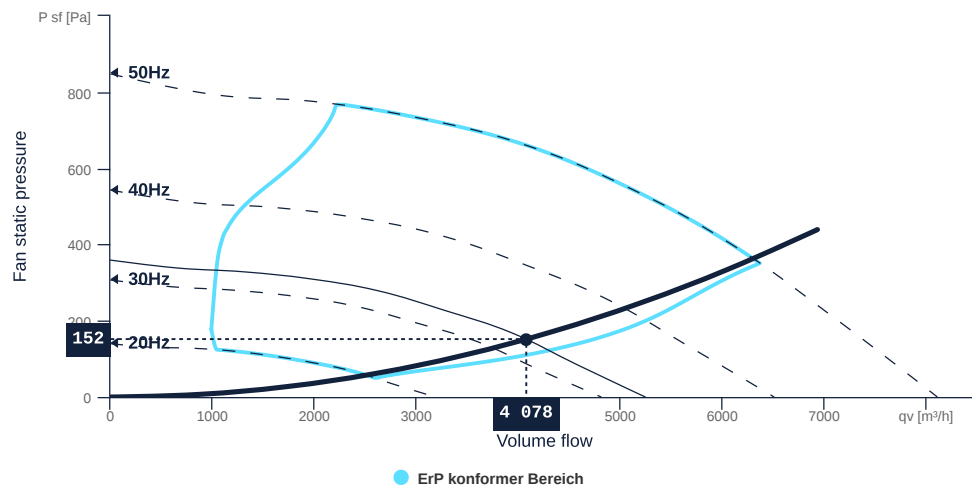
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- Backward curved centrifugal impeller
- Removable side walls, variable discharge direction
- Sheet steel housing double-walled, 30 mm mineral wool
- IE3 motor outside the airflow, controllable
- Conveyed medium temperature up to 120 °C in continuous operation
- Housing bottom designed with integrated drain



## FAN CURVES

Name	Value	Unit
Volume flow	4078	m³/h
Pressure	152	Pa



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# MPC 500 D4 T40

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## TECHNICAL SPECIFICATIONS

Name	Value	Unit	Formula symbol
Volume flow	4078	m³/h	qv <sub>calc</sub>
Pressure	152	Pa	ps <sub>fcalc</sub>
Fan pressure	158	Pa	pf
Fan static pressure	152	Pa	psf
Current consumption Motor	1	A	le
Current consumption Electric	0	A	led
Electrical power consumption	413	W	Pek
Electrical power consumption	463	W	Pedk
Frequency	32	Hz	frq
Rotation speed	946	1/min	N
Total static efficiency	41	%	etaFaPeK
Total speed controlled static efficiency	37	%	etaFaPedK
Total efficiency	43	%	etatPeK
Total speed controlled efficiency	38	%	etatPedK
SFP (entire device)	364	W/(m³/s)	sfp <sub>device</sub>
Sound power level inlet	76	dB(A)	LwA5
Sound power level outlet	76	dB(A)	LwA6
Sound power level housing radiation	67	dB(A)	LwA2

## SOUND DATA

Sound power	mid-frequency tape										Unit	Formula symbol
	Σ	63	125	250	500	1000	2000	4000	8000	16000		
suction	77	48	64	67	73	72	68	62	59	38	dB(A)	LwA5
blowout	77	47	64	66	72	72	68	62	58	38	dB(A)	LwA6
Casing break out	67	46	60	57	62	61	59	50	51	38	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	54	59	30	46	50	55	54	50	45	41	21	dB(A)	LwA5
blowout	54	59	30	46	49	55	54	50	44	41	20	dB(A)	LwA6
Casing break out	43	50	29	43	40	45	43	41	33	34	20	dB(A)	LwA2



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## GENERAL DATA

Name	Value	Unit	Formula symbol
Labeling	CE, UKCA		
Duct size	-		WxH <sub>duct</sub>
Pipe connection size (DN)	DN500		DN
Rated voltage (entire device)	400	V	U <sub>rated</sub>
Phases (entire device)	3~		phase
Electrical protection (entire device)	6 A		fuse
Housing material	Galvanized steel		mat <sub>casing</sub>
Impeller material	Coated steel		mat <sub>impeller</sub>
Weight	75	kg	m
Nominal air flow rate, nominal point m <sup>3</sup> /h	4482	m <sup>3</sup> /h	q <sub>v,nom</sub>
Nominal external pressure, static	621.2	Pa	p <sub>s,nom</sub>
Fan type	Radial		Fan <sub>type</sub>
Category / Installation situation	A		cat

## ERP DATA (LOT 6)

Name	Value	Unit	Formula symbol
Nominal air flow rate, nominal point m <sup>3</sup> /s	1.25	m <sup>3</sup> /s	q <sub>v,nom</sub>
Actual electrical input power, nominal point	1.4	kW	P <sub>e,nom</sub>
Face velocity, nominal point	3.9	m/s	v <sub>nom</sub>
Nominal external pressure, static	621.2	Pa	p <sub>s,nom</sub>
supply air fan static efficiency, nominal point	63.7	%	η <sub>es,SUP</sub>
Highest external air leakage rate	0.07	%	
Enclosure sound level, nominal point	81	dB(A)	L <sub>WA2</sub>
Rating	Product is compliant 2018		

## MAXIMAL DATA

Name	Value	Unit	Formula symbol
Max. power consumption (device)	1440	W	P <sub>ed, max</sub>
Max. operating current (device)	2.85	A	I <sub>ed, max</sub>
Max. speed	1485	1/min	n <sub>max</sub>
Max. stat. efficiency	51.5	%	η <sub>es</sub>
Max. fan efficiency	52.2	%	η <sub>e</sub>
Max. flowrate	8090	m <sup>3</sup> /h	q <sub>v, max</sub>
Max. stat pressure	840	Pa	p <sub>sf, max</sub>
Max. medium temperature	120	°C	T <sub>m, max</sub>
Max. environment temperature	60	°C	T <sub>amb, max</sub>
Min. environment temperature	-20	°C	T <sub>amb, min</sub>



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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
Rotation direction		right		rotation
Isolation class		ISO F		ISOclass
Protection class		IP55		IPmotor
Is pole-changeable		No		polexch
Type of power supply		AC 3~		pwrsupmotor
Number of poles (1)		4.000000		num polesw1
Connection	$\Delta$	Y		wiringw1
Connection (wiring 2)	Y			wiringw2
Rated voltage	230	460	V	U <sub>rated, f1</sub>
Rated voltage (wiring 2)	400		V	U <sub>rated, f2</sub>
Rated current	4.17	2.1	A	I <sub>rated, f1</sub>
Rated current (wiring 2)	2.4		A	I <sub>rated, f2</sub>
Shaft power	1100	1100	W	P <sub>out, f1</sub>
Shaft power (wiring 2)	1100		W	P <sub>out, f2</sub>
Speed	1455	1760	1/min	n <sub>f1</sub>
Speed (wiring 2)	1455		1/min	n <sub>f2</sub>
Starting current	31.7	17.9	A	I <sub>start, f1</sub>
Starting current (wiring 2)	18.2		A	I <sub>start, f2</sub>
Efficiency	84.8	86.5	%	$\eta_m, f1$
Efficiency (wiring 2)	84.8		%	$\eta_m, f2$
Efficiency class	IE3	IE3		IE <sub>motor</sub>
Min. temperature	-20		°C	T <sub>motor, min</sub>
Cos Phi	0.780000	0.760000		cos $\varphi$
UL-Certification motor		UL recognized		ULcert

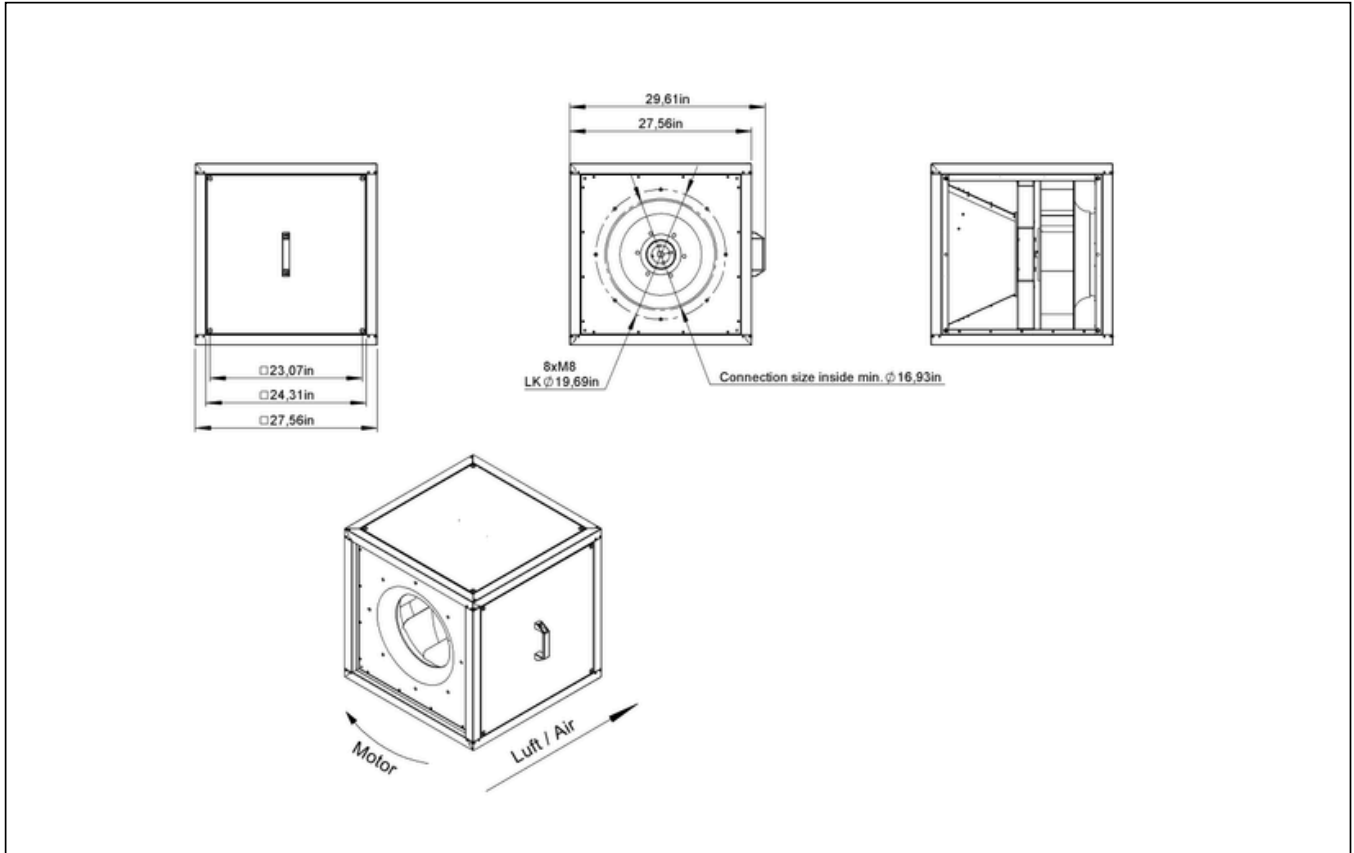


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# MPC 500 D4 T40

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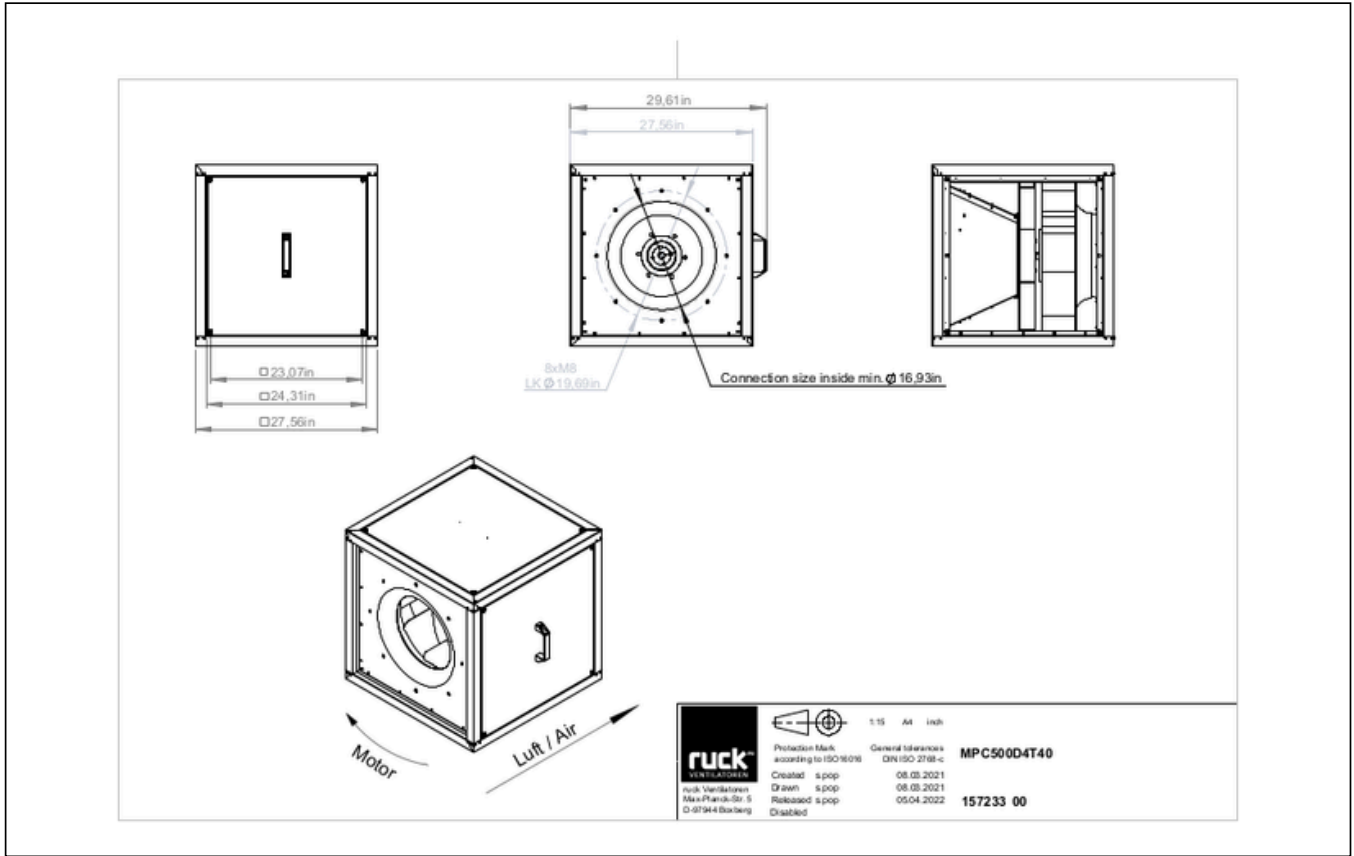
## CIRCUIT DIAGRAMS / DIMENSIONAL DRAWINGS



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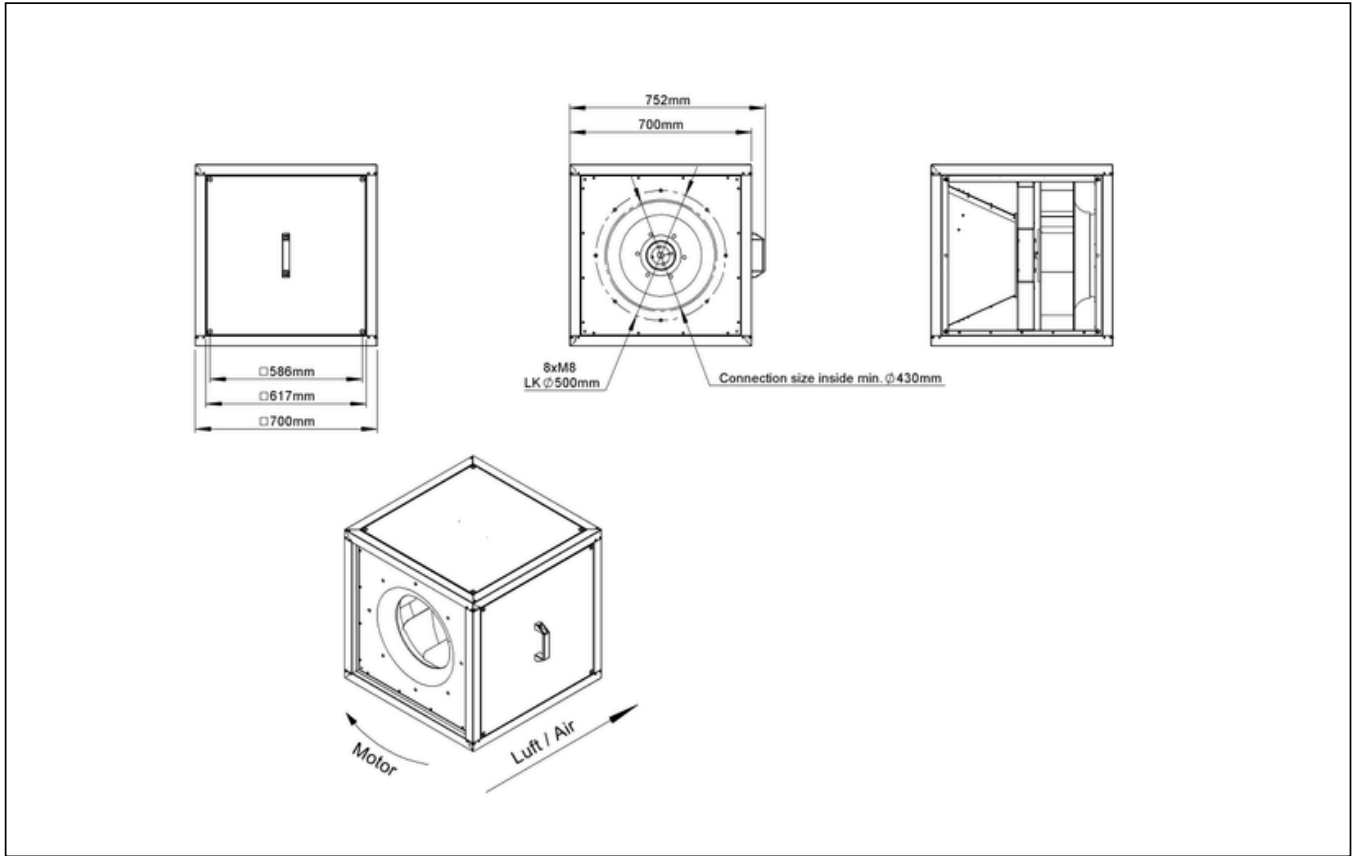
# MPC 500 D4 T40

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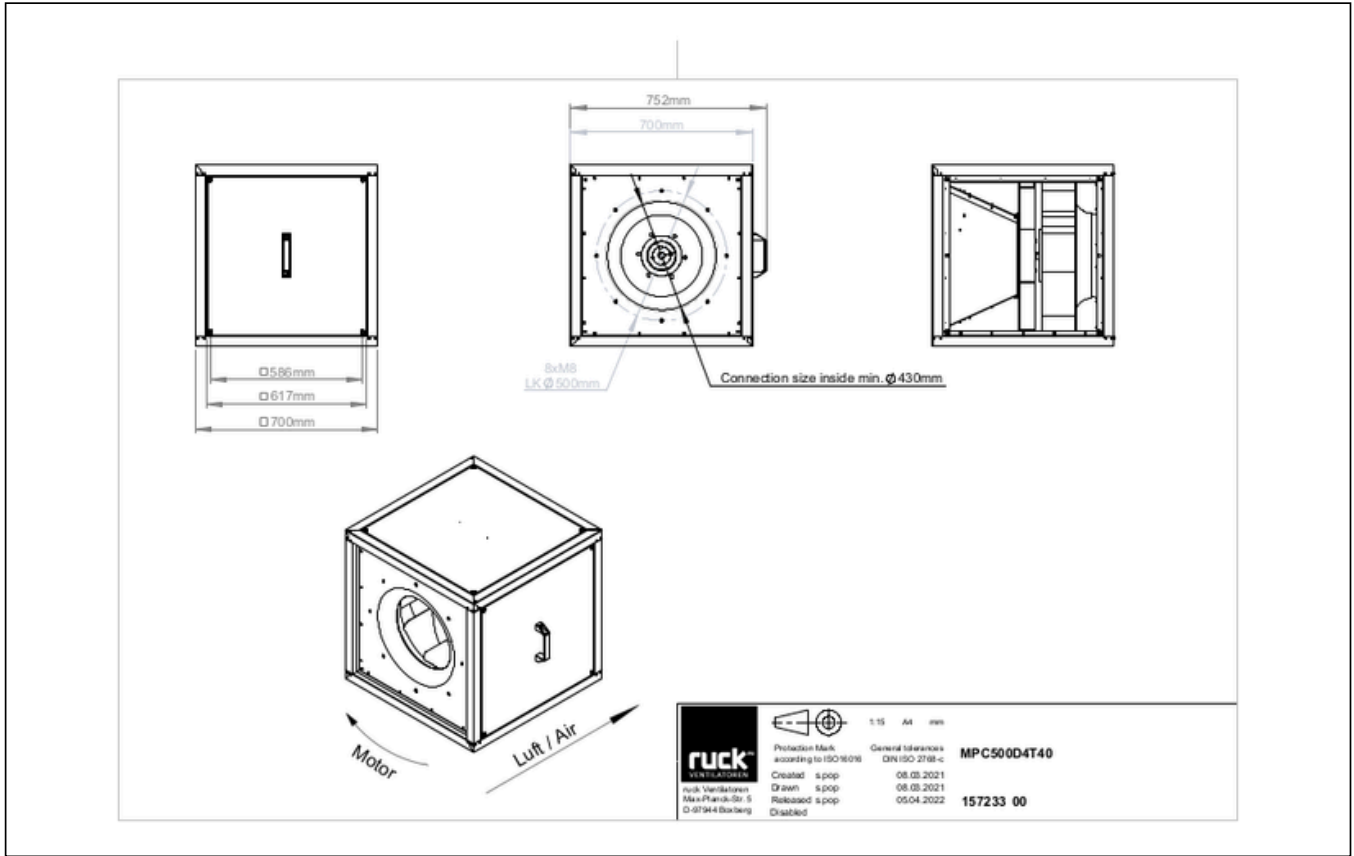
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# MPC 500 D4 T40

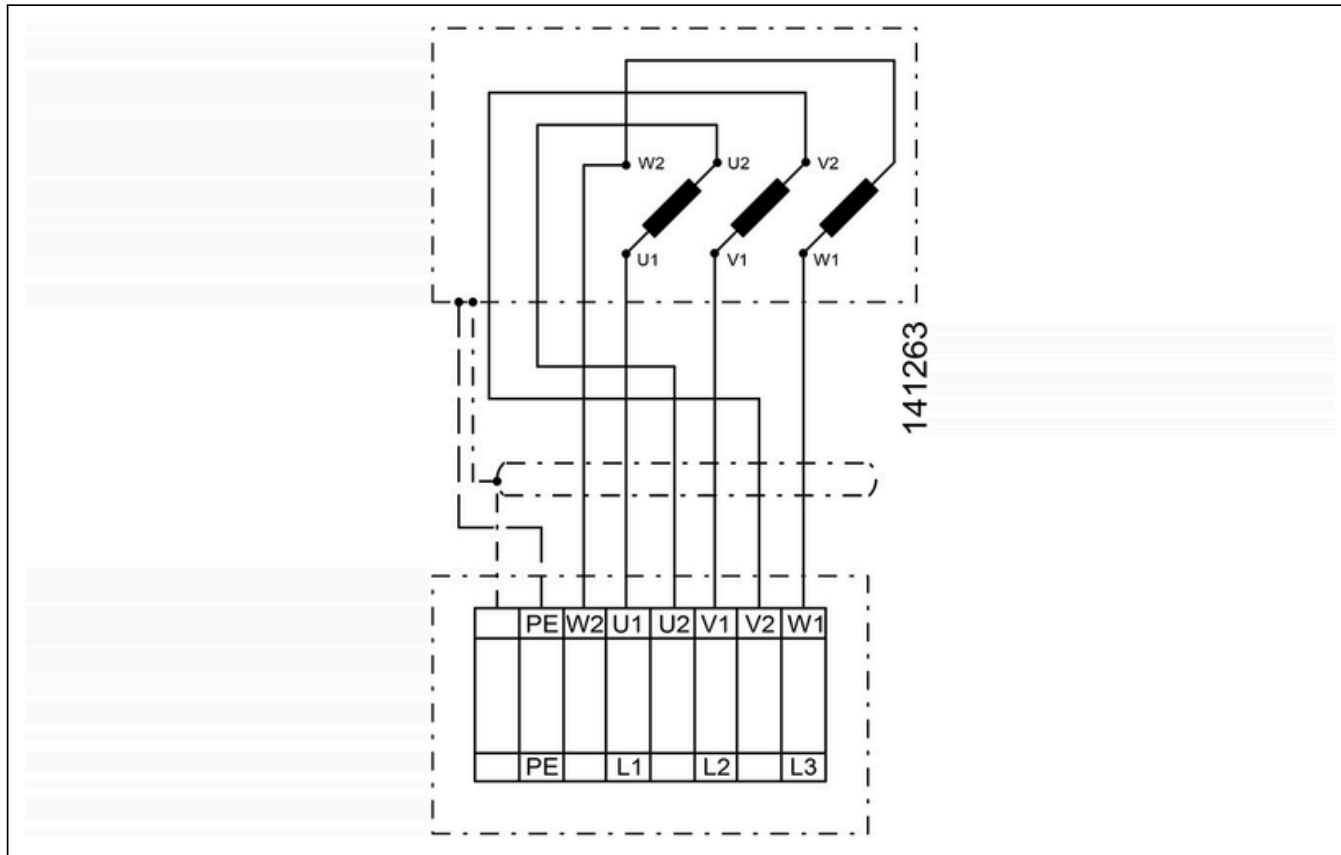
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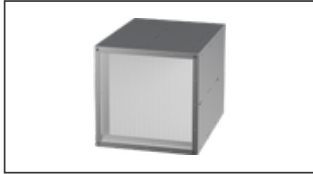
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# MPC 500 D4 T40

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## MECHANICAL ACCESSORIES

**FB 700 | 160866**



- Air filter box for panel filter
- For MPC box 700
- For 1 or 2 filter (not included)
- Housing made of galvanized sheet steel

**USM 700 400 | 107214**



- Transition spigot
- Galvanized steel sheet
- Insulated

**USM 700 450 | 107240**



- Transition spigot
- Galvanized steel sheet
- Insulated

**USM 700 500 | 107241**



- Transition spigot
- Galvanized steel sheet
- Insulated

**MB MPC 02 | 116410**



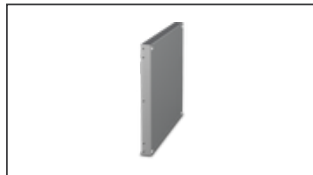
- Motor protection shield
- Sendzimir galvanized sheet

**GR MPC 02 | 123432**



- Base frame für MPC
- Galvanized steel sheet

**UCP 700 | 142568**



- Closed panel
- Galvanized steel sheet

**RVK 450 | 153895**



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

**RVK H 450 | 154743**



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

**UQR 700 400 01 | 139863**



- Transition duct/tube
- Galvanized steel sheet
- Incl. 4 cylinder cap screws (M8 x 16 mm), 4 serrated lock washers for nominal size M8

**UQR 700 450 01 | 139868**



- Transition duct/tube
- Galvanized steel sheet
- Incl. 4 cylinder cap screws (M8 x 16 mm), 4 serrated lock washers for nominal size M8

**UQR 700 500 01 | 139871**



- Transition duct/tube
- Galvanized steel sheet
- Incl. 4 cylinder cap screws (M8 x 16 mm), 4 serrated lock washers for nominal size M8

**VM 400 | 102654**



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

**VM 500 | 118094**



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

**VM 450 | 119495**



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

**AS MPC 400 | 140847**



- Inlet spigot
- Galvanized steel sheet

**AS MPC 450 | 140852**

**AS MPC 500 | 140871**

**RAF 450 | 154020**

**RVS 450 | 154189**



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# MPC 500 D4 T40

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- Inlet spigot
- Galvanized steel sheet



- Inlet spigot
- Galvanized steel sheet



- Round flange
- Sheet steel, powder coated



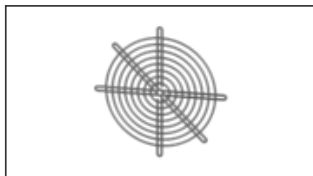
- Tube connection spigot
- Sheet steel, powder coated
- Suitable for outdoor installation
- Flange mounting

## ESD 450 | 153957



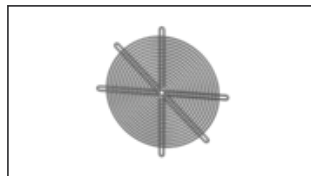
- Inlet cone
- Steel sheet, powder coated
- Flange mounting

## SGW 450 | 154051



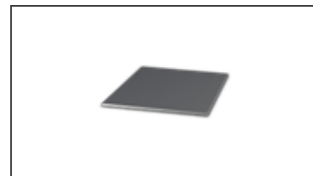
- Protection grille, wide meshed
- Steel sheet, galvanized
- Flange mounting

## SGE 450 | 154075



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

## RD MPC 700 | 140093



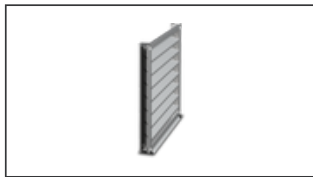
- Rain cover for outdoor installation
- Galvanized steel sheet

## WSH MPC 02 | 123433



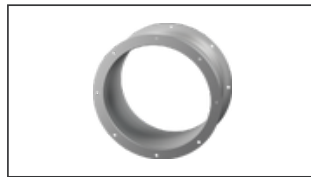
- Weather protection hood
- Galvanized steel sheet

## WSG MPC 700 | 140748



- Weather protection grille
- Galvanized steel sheet

## RAS 450 | 154249



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



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## ELECTRICAL ACCESSORIES

GS 03 | 107633



- Device switch
- $U_{max} = 400\text{ V}$ ,  $I_{max} = 25\text{ A}$
- Switching capacity  $400\text{ V } 3\sim = 5,5\text{ kW}$
- Protection class IP 55

MS 02 | 140409



- Motor protection switch with Isolator switchfunktion
- $I_{max} = 400\text{ V}$ , 50/60 Hz
- Max. 1.5 kW
- Protection class IP 55

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

MTP 40 | 147359



- Potentiometer 10 kΩ
- Connection in terminal box
- Max. ambient temperature 50 °C
- PU: 20 pieces

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 15 13 | 141855



- Frequency converter IP66
- Supply voltage 230 V 1~ 50/60 Hz
- Output voltage 0 - 230 V 3~
- Fire mode function (smoke extract fans)

FU 15 19 | 141877



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

FU 15 10 | 141844



- Frequency converter
- Supply voltage 230 V 1~ 50/60 Hz
- Output voltage 0 - 230 V 3~
- Protection class IP 20, for switch cabinet

FU 15 16 | 141866



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

MTP 50 | 153133



- Potentiometer with multifunction output
- 230 VAC  $\pm 10\%$  / 50-60 Hz
- Selectable output: 1-10 VDC / 2-20 mA / 10-100 % PWM
- Min. and max. output value adjustable

