

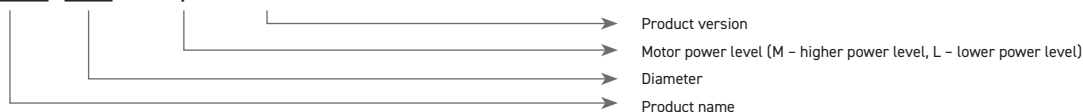
# VKAP 3.0 |

Circular duct fans with AC-type motor



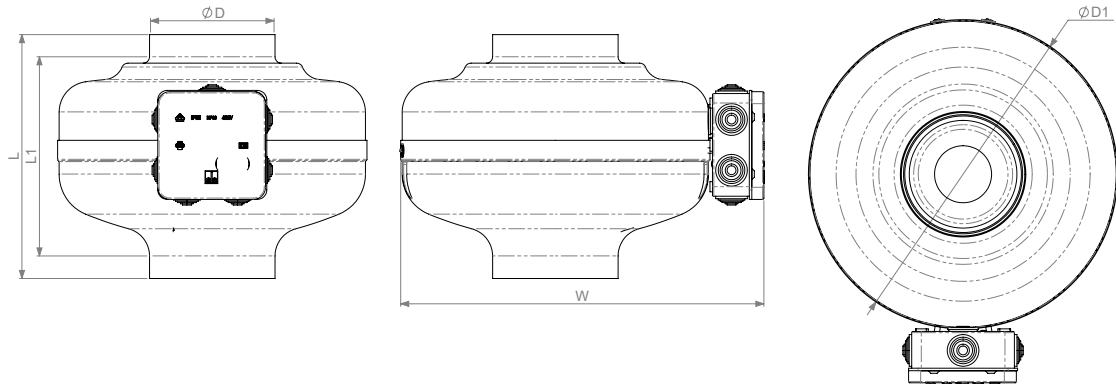
Application	Circular duct fans VKAP 3.0 are used in low-to medium-pressure ducted systems. Fans are suitable for air supply or exhaust of residential buildings, warehouses, bathrooms, lavatories, auxiliary premises and other premises where the heat recovery is not required, also as boost fans in ventilation systems.
Features	<ul style="list-style-type: none"><li>&gt; Diameter - 100 mm to 315 mm;</li><li>&gt; Airflow up to 1450 m<sup>3</sup>/h;</li><li>&gt; Easily mounted in any position;</li><li>&gt; Backward-curved impeller;</li><li>&gt; Low ambient temperatures;</li><li>&gt; Cost-effective.</li></ul>
Power supply	230V/50Hz/1f
Temperature range	-40°C to +55°C.
Sizes	100, 125, 150, 160, 200, 250, 315.
Construction	<ul style="list-style-type: none"><li>&gt; Casing: galvanized sheet steel;</li><li>&gt; Fan: centrifugal impeller and external rotor motor;</li><li>&gt; Motor protection with built-in thermal-contact;</li><li>&gt; Motor protection class: IP44;</li><li>&gt; Terminal box protection class: IP55.</li></ul>
Installation	<ul style="list-style-type: none"><li>&gt; Mounting with ducts: Spiro, flexible aluminium or plastic. Mounting bracket LAV is included;</li><li>&gt; Device can only be used indoors;</li><li>&gt; Not suitable for polluted air or volatile and explosive gases.</li></ul>
Speed control options	<ul style="list-style-type: none"><li>&gt; Electronic voltage controller (phase cut);</li><li>&gt; Voltage controlled speed controller.</li></ul>

## VKAP 100 MD/LD 3.0



# VKAP 3.0

Circular duct fans with AC-type motor



Type	Dimensions [mm]				
	D1	L	L1	øD	W
VKAP 100 LD 3.0	244	192	157	100	287
VKAP 100 MD 3.0	244	192	157	100	287
VKAP 125 LD 3.0	243	184	146	125	285
VKAP 125 MD 3.0	243	184	146	125	285
VKAP 150 LD 3.0	344	222	172	150	386
VKAP 160 LD 3.0	344	221	170	160	386
VKAP 160 MD 3.0	244	189	143	160	286

Type	Dimensions [mm]				
	D1	L	L1	øD	W
VKAP 200 LD 3.0	344	231	179	200	386
VKAP 200 MD 3.0	344	219	167	200	386
VKAP 250 LD 3.0	344	233	173	250	386
VKAP 250 MD 3.0	344	225	165	250	386
VKAP 315 LD 3.0	402	256	188	315	443
VKAP 315 MD 3.0	402	243	175	315	443

Type	Accessories										
	TGRV	ETY	AP	AGO	RSK	MUTE	FD	FDI	EKA	AVS	AVA
VKAP 100 LD 3.0	1,5	1,5	100	100	100	100	100	100	100	100	100
VKAP 100 MD 3.0	1,5	1,5	100	100	100	100	100	100	100	100	100
VKAP 125 LD 3.0	1,5	1,5	125	125	125	125	125	125	125	125	125
VKAP 125 MD 3.0	1,5	1,5	125	125	125	125	125	125	125	125	125
VKAP 150 LD 3.0	1,5	1,5	150	150	150	-	-	-	-	-	-
VKAP 160 LD 3.0	1,5	1,5	160	160	160	160	160	160	160	160	160
VKAP 160 MD 3.0	1,5	1,5	160	160	160	160	160	160	160	160	160
VKAP 200 LD 3.0	1,5	1,5	200	200	200	200	200	200	200	200	200
VKAP 200 MD 3.0	1,5	1,5	200	200	200	200	200	200	200	200	200
VKAP 250 LD 3.0	1,5	1,5	250	250	250	250	250	250	250	250	250
VKAP 250 MD 3.0	1,5	1,5	250	250	250	250	250	250	250	250	250
VKAP 315 LD 3.0	1,5	1,5	315	315	315	315	315	315	315	315	315
VKAP 315 MD 3.0	1,5	1,5	315	315	315	315	315	315	315	315	315

## Accessories

Single phase speed controller



TGRV

Single phase speed controller



ETY

Mounting clamp



AP

Guard grille



AGO

Damper circular backdraught



RSK

Circular duct silencer



MUTE

Filter cassette



FD

Filter cassette



FDI

Electric duct heater



EKA

Heating coil



AVS

Duct water cooler



AVA

# VKAP 3.0 |

Circular duct fans with AC-type motor

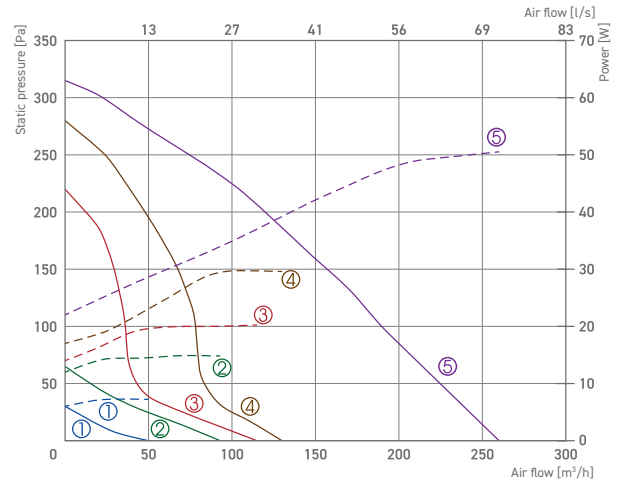
## VKAP 100 MD 3.0

— Performance  
 - - - Power consumption

1. 80V | 2. 120V | 3. 140V | 4. 170V | 5. 230V

VKAP 100 MD 3.0	LWA total, dB(A)	Lwa, dB(A)							
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	
Inlet	66	54	62	62	58	53	46	32	
Outlet	65	54	60	59	57	53	47	34	
Surrounding	51	26	38	44	48	43	37	35	

Measured at 159 m<sup>3</sup>/h, 124 Pa



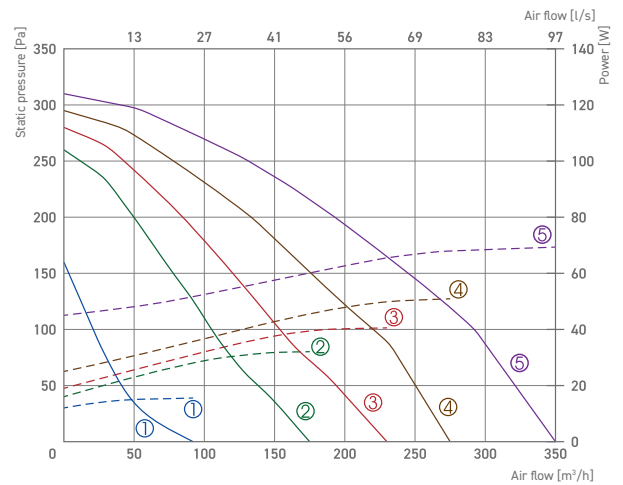
## VKAP 100 LD 3.0

— Performance  
 - - - Power consumption

1. 80V | 2. 120V | 3. 140V | 4. 170V | 5. 230V

VKAP 100 LD 3.0	LWA total, dB(A)	Lwa, dB(A)							
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	
Inlet	71	58	65	66	64	58	53	40	
Outlet	69	59	63	62	63	58	54	43	
Surrounding	57	31	41	48	53	50	48	45	

Measured at 219 m<sup>3</sup>/h, 157 Pa



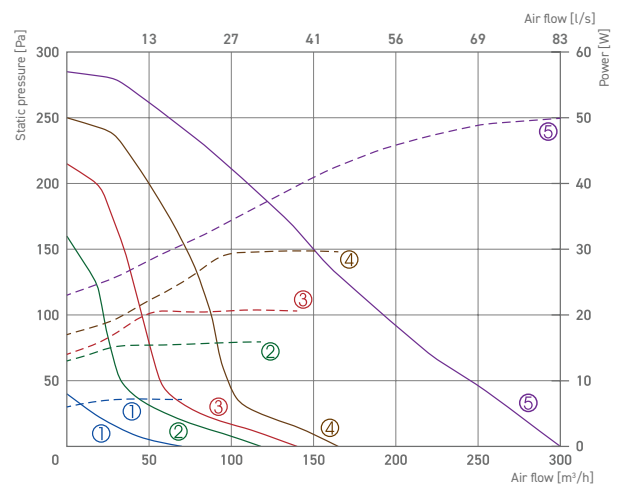
## VKAP 125 MD 3.0

— Performance  
 - - - Power consumption

1. 80V | 2. 120V | 3. 140V | 4. 170V | 5. 230V

VKAP 125 MD 3.0	LWA total, dB(A)	Lwa, dB(A)							
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	
Inlet	65	55	60	61	56	54	45	31	
Outlet	63	54	57	57	55	52	46	30	
Surrounding	46	20	32	39	43	37	34	28	

Measured at 219 m<sup>3</sup>/h, 67 Pa



The fan characteristic curves were determined in accordance with EN ISO 5801. The sound levels were determined in accordance with DIN 45635 resp. ISO 3744 at a distance of 1 m from the fan.

# VKAP 3.0

## Circular duct fans with AC-type motor

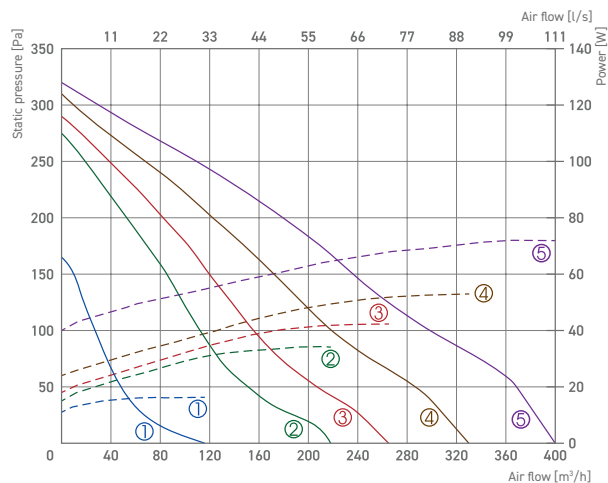
### VKAP 125 LD 3.0

— Performance  
 - - - - Power consumption

1. 80V | 2. 120V | 3. 140V | 4. 170V | 5. 230V

VKAP 125 LD 3.0	Lwa total, dB(A)	Lwa, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	72	60	65	68	65	62	54	42
Outlet	70	61	63	64	63	60	55	42
Surrounding	54	27	38	43	52	44	46	42

Measured at 311 m<sup>3</sup>/h, 68 Pa



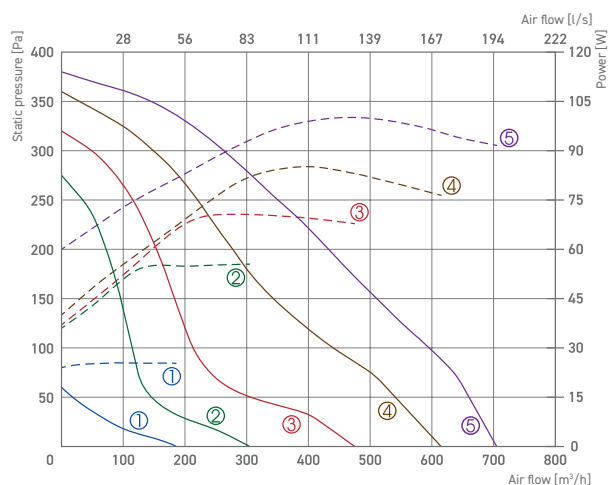
### VKAP 150 LD 3.0

— Performance  
 - - - - Power consumption

1. 80V | 2. 120V | 3. 140V | 4. 170V | 5. 230V

VKAP 150 LD 3.0	Lwa total, dB(A)	Lwa, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	80	67	73	77	74	70	63	51
Outlet	75	67	68	69	70	67	61	47
Surrounding	56	28	41	49	52	52	49	36

Measured at 465 m<sup>3</sup>/h, 220 Pa



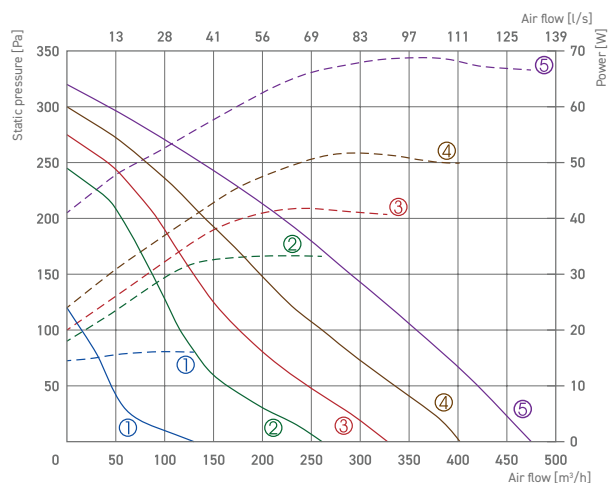
### VKAP 160 MD 3.0

— Performance  
 - - - - Power consumption

1. 80V | 2. 120V | 3. 140V | 4. 170V | 5. 230V

VKAP 160 MD 3.0	Lwa total, dB(A)	Lwa, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	69	57	61	64	63	61	52	49
Outlet	67	58	60	61	62	59	53	44
Surrounding	56	32	42	46	54	45	43	41

Measured at 354 m<sup>3</sup>/h, 98 Pa



The fan characteristic curves were determined in accordance with EN ISO 5801. The sound levels were determined in accordance with DIN 45635 resp. ISO 3744 at a distance of 1 m from the fan.

# VKAP 3.0 |

Circular duct fans with AC-type motor

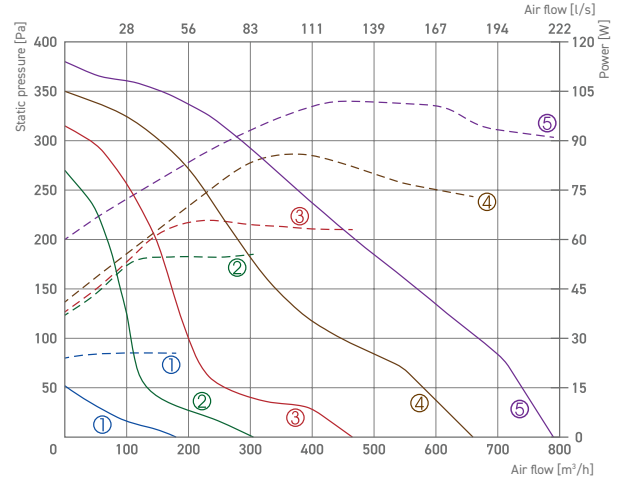
## VKAP 160 LD 3.0

— Performance  
 - - - Power consumption

1. 80V | 2. 120V | 3. 140V | 4. 170V | 5. 230V

VKAP 160 LD 3.0	Lwa total, dB(A)	Lwa, dB(A)							
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	
Inlet	77	58	68	74	72	68	63	51	
Outlet	73	57	63	67	69	66	61	48	
Surrounding	57	28	40	49	53	52	50	36	

Measured at 609 m<sup>3</sup>/h, 126 Pa



VKAP		100 MD 3.0	100 LD 3.0	125 MD 3.0	125 LD 3.0	150 LD 3.0	160 MD 3.0	160 LD 3.0
<b>Electrical data</b>								
Phase/Voltage/Frequency	[V/Hz]	~1, 230/50	~1, 230/50	~1, 230/50	~1, 230/50	~1, 230/50	~1, 230/50	~1, 230/50
Max. power consumption	[kW]	0,048	0,074	0,049	0,074	0,103	0,075	0,103
Max. current	[A]	0,2	0,3	0,2	0,3	0,5	0,3	0,5
Capacitor	[µF]	4	2	4	2	2	2	2
Wiring diagram		No. 2	No. 1	No. 2	No. 1	No. 1	No. 1	No. 1
Fan speed controller		TGRV 1.5/ ETY-1,5	TGRV 1.5/ ETY-1,5	TGRV 1.5/ ETY-1,5	TGRV 1.5/ ETY-1,5	TGRV 1.5/ ETY-1,5	TGRV 1.5/ ETY-1,5	TGRV 1.5/ ETY-1,5
<b>Technical data</b>								
Max. airflow	[m <sup>3</sup> /h]	190	291	150	296	596	358	668
Fan impeller speed	[min <sup>-1</sup> ]	2750	2800	2750	2800	2796	2800	2796
Weight	[kg]	2,7	2,7	2,6	2,6	2,6	2,7	4,0
Ambient temperature limits	[°C]	-40/40	-40/40	-40/40	-40/40	-40/40	-40/40	-40/40
Impeller type		Backwards curved	Backwards curved	Backwards curved	Backwards curved	Backwards curved	Backwards curved	Backwards curved
Protection class: motor		IP44	IP44	IP44	IP44	IP54	IP54	IP54
Protection class: terminal box		IP55	IP55	IP55	IP55	IP55	IP55	IP55
<b>Ecodesign data</b>								
Classification*		RVU	RVU	RVU	RVU	RVU	RVU	RVU
Energy efficiency class		C	C	C	C	C	C	C
Casing sound power level	[dB(A)]	49	54	38	48	52	50	49
Reference airflow	[m <sup>3</sup> /s]	0,037	0,057	0,029	0,058	0,116	0,07	0,13
Reference pressure	[Pa]	50	50	50	50	50	50	50
SPI	[W/(m <sup>3</sup> /h)]	0,25	0,2	0,28	0,2	0,18	0,17	0,16
ErP Compliance RVU**		2018	2018	2018	2018	2018	2018	2018

\* RVU - residential ventilation unit.

\*\* with external sensors.

The fan characteristic curves were determined in accordance with EN ISO 5801. The sound levels were determined in accordance with DIN 45635 resp. ISO 3744 at a distance of 1 m from the fan.

# VKAP 3.0

## Circular duct fans with AC-type motor

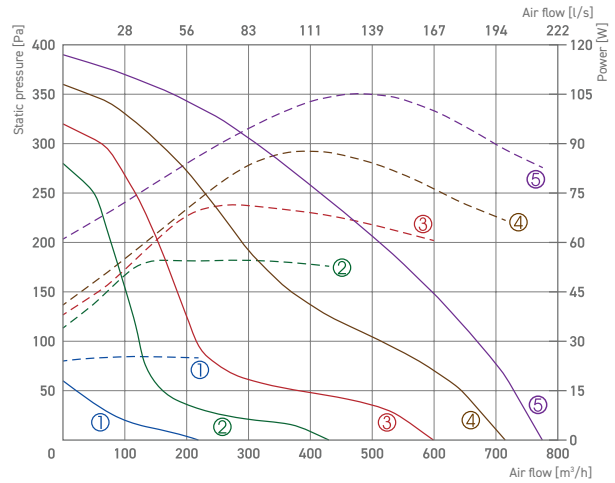
### VKAP 200 MD 3.0

— Performance  
 - - - - - Power consumption

1. 80V | 2. 120V | 3. 140V | 4. 170V | 5. 230V

VKAP 200 MD 3.0	LWA total, dB(A)	Lwa, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	74	65	68	69	69	65	59	48
Outlet	71	62	64	63	66	64	59	44
Surrounding	57	38	45	53	52	50	47	35

Measured at 601 m<sup>3</sup>/h, 141 Pa



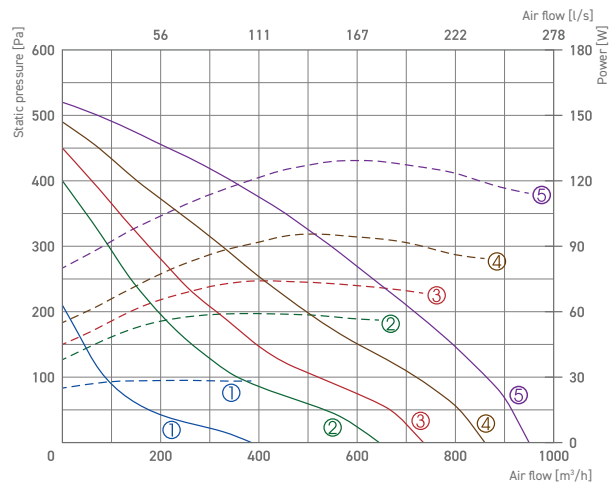
### VKAP 200 LD 3.0

— Performance  
 - - - - - Power consumption

1. 80V | 2. 120V | 3. 140V | 4. 170V | 5. 230V

VKAP 200 LD 3.0	LWA total, dB(A)	Lwa, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	72	58	66	66	67	64	63	57
Outlet	68	57	61	60	63	61	60	50
Surrounding	56	38	45	50	53	49	45	42

Measured at 788 m<sup>3</sup>/h, 151 Pa



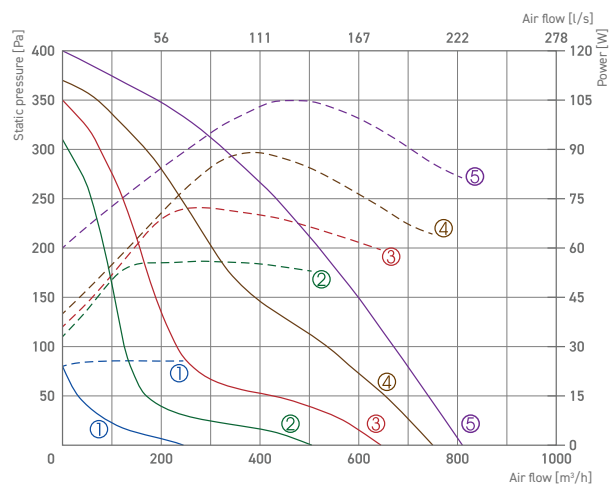
### VKAP 250 MD 3.0

— Performance  
 - - - - - Power consumption

1. 80V | 2. 120V | 3. 140V | 4. 170V | 5. 230V

VKAP 250 MD 3.0	LWA total, dB(A)	Lwa, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	76	63	68	70	70	67	66	62
Outlet	73	62	66	66	68	65	64	55
Surrounding	55	34	41	48	51	50	48	40

Measured at 710 m<sup>3</sup>/h, 75 Pa



The fan characteristic curves were determined in accordance with EN ISO 5801. The sound levels were determined in accordance with DIN 45635 resp. ISO 3744 at a distance of 1 m from the fan.

# VKAP 3.0 |

Circular duct fans with AC-type motor

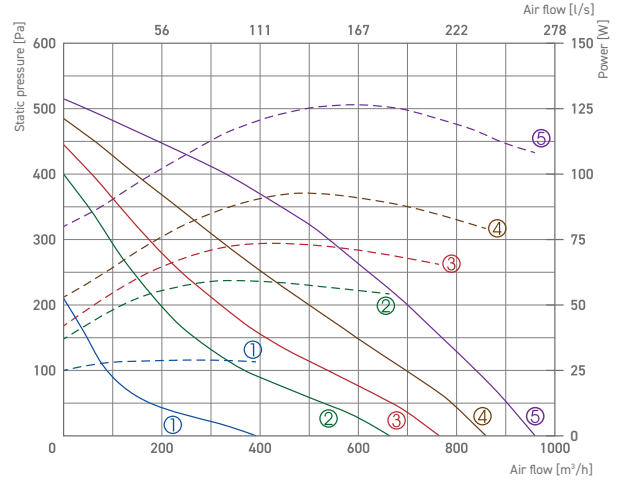
## VKAP 250 LD 3.0

—— Performance  
 - - - - Power consumption

1. 80V | 2. 120V | 3. 140V | 4. 170V | 5. 230V

VKAP 250 LD 3.0	L <sub>WA</sub> total, dB(A)	L <sub>WA</sub> , dB(A)							
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	
Inlet	72	59	65	65	66	63	64	57	
Outlet	69	56	61	60	64	61	60	53	
Surrounding	54	37	43	48	50	47	45	39	

Measured at 764 m<sup>3</sup>/h, 157 Pa



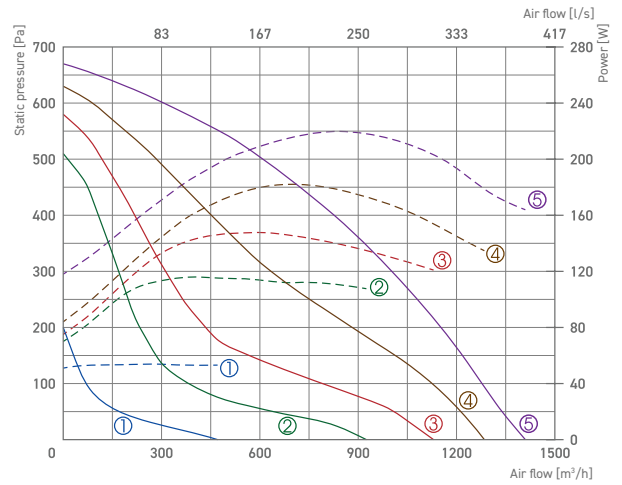
## VKAP 315 MD 3.0

—— Performance  
 - - - - Power consumption

1. 80V | 2. 120V | 3. 140V | 4. 170V | 5. 230V

VKAP 315 MD 3.0	L <sub>WA</sub> total, dB(A)	L <sub>WA</sub> , dB(A)							
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	
Inlet	75	58	68	67	69	69	69	62	
Outlet	73	57	64	63	67	68	67	60	
Surrounding	58	42	46	48	51	53	52	45	

Measured at 1233 m<sup>3</sup>/h, 152 Pa



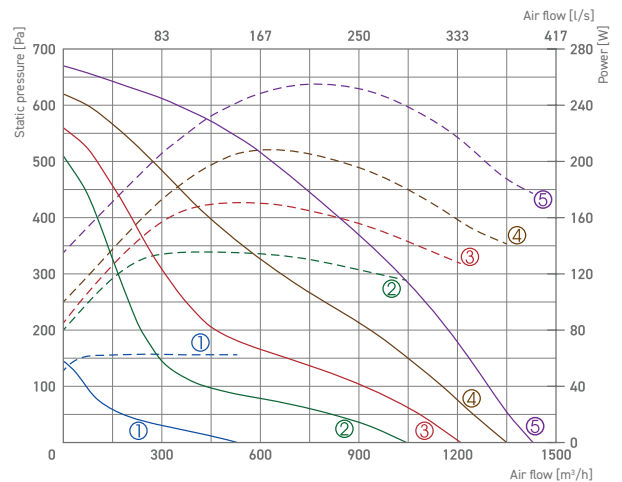
## VKAP 315 LD 3.0

—— Performance  
 - - - - Power consumption

1. 80V | 2. 120V | 3. 140V | 4. 170V | 5. 230V

VKAP 315 LD 3.0	L <sub>WA</sub> total, dB(A)	L <sub>WA</sub> , dB(A)							
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	
Inlet	79	61	71	72	74	72	71	66	
Outlet	77	60	67	69	73	72	68	62	
Surrounding	61	40	48	54	56	56	52	49	

Measured at 1245 m<sup>3</sup>/h, 158 Pa



The fan characteristic curves were determined in accordance with EN ISO 5801. The sound levels were determined in accordance with DIN 45635 resp. ISO 3744 at a distance of 1 m from the fan.

# VKAP 3.0

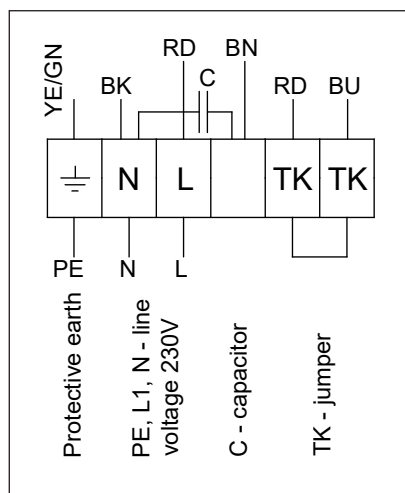
Circular duct fans with AC-type motor

VKAP		200 MD 3.0	200 LD 3.0	250 MD 3.0	250 LD 3.0	315 MD 3.0	315 LD 3.0
<b>Electrical data</b>							
Phase/Voltage/Frequency	[V/Hz]	~1, 230/50	~1, 230/50	~1, 230/50	~1, 230/50	~1, 230/50	~1, 230/50
Max. power consumption	[kW]	0,103	0,140	0,140	0,140	0,219	0,278
Max. current	[A]	0,5	0,6	0,5	0,6	0,9	1,2
Capacitor	[ $\mu$ F]	2	4	4	4	5	5
Wiring diagram		No. 1	No. 1	No. 1	No. 1	No. 1	No. 1
Fan speed controller		TGRV 1.5/ETY-1,5	TGRV 1.5/ETY-1,5	TGRV 1.5/ETY-1,5	TGRV 1.5/ETY-1,5	TGRV 1.5/ETY-1,5	TGRV 1.5/ETY-1,5
<b>Technical data</b>							
Max. airflow	[m <sup>3</sup> /h]	816	1007	817	967	1372	1448
Fan impeller speed	[min <sup>-1</sup> ]	2796	2659	2659	2659	2704	2762
Weight	[kg]	4,1	4,5	4,1	4,4	5,6	6,3
Ambient temperature limits	[°C]	-40/40	-40/40	-40/40	-40/40	-40/40	-40/40
Impeller type		Backwards curved	Backwards curved	Backwards curved	Backwards curved	Backwards curved	Backwards curved
Protection class: motor		IP44	IP44	IP44	IP44	IP54	IP54
Protection class: terminal box		IP55	IP55	IP55	IP55	IP55	IP55
<b>Ecodesign data</b>							
Classification***		NRVU	NRVU	NRVU	NRVU	NRVU	NRVU
Casing sound power level	[dB(A)]	58	56	55	52	55	61
Nominal flow rate	[m <sup>3</sup> /s]	0,11	0,14	0,11	0,14	0,23	0,22
Nominal external pressure	[Pa]	265	323	274	321	409	418
Static efficiency of fans used in accordance with Regulation No 327/2011	[%]	28,3	34,7	28,2	34,4	39,5	37,7
ERP compliance NRVU		2018	2018	2018	2018	2018	2018

\*\*\* NRVU - non-residential ventilation unit.

The fan characteristic curves were determined in accordance with EN ISO 5801. The sound levels were determined in accordance with DIN 45635 resp. ISO 3744 at a distance of 1 m from the fan.

## Wiring diagram No. 1



## Wiring diagram No. 2

