

Fresh air from

ÖSTBERG
THE FAN COMPANY

TKC, TKS, TKK

Roof fans



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ROOF FANS THAT FITS EVERYWHERE



Roof fans from Östberg - The Fan Company

We have three different types of roof fans, TKC, TKS och TKK for air volumes up to 9.400 m³/h. They have good performances and are easy to install. Great importance has been placed in making them easy to clean and maintain as all our roof fans have the added benefit of a swing-out motor and impeller assembly.

Our roof fans are manufactured from galvanized sheet steel which can be polyester plastic coated.

HIGH QUALITY AND SAFETY OF OPERATION

Each fan has a high quality external rotor motor with a backward curved impeller guaranteeing a long and safe operation life. The ball bearing motor is fully speed controllable as well as

being protected in accordance with IP 44.

Matching accessories such as roof curbs and silencers are available for all our roof fans.

TKC AND TKS

TKC and TKS with horizontal discharge are identical except for the duct connection. TKC has a circular connection and TKS has a square one. TKC and TKS can be used even when they are not operating continuously.

There are two sizes of TKC and TKS available each with 3 different capacities.



TKK

TKK is a square roof fan for vertical discharge. This type must operate continuously.

TKK is available in 7 sizes with between 2 and 7 capacities in each size.



All our roof fans are provided with a swing-out motor and impeller. A simple handgrip makes inspection and cleaning easy!

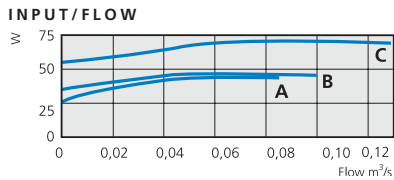
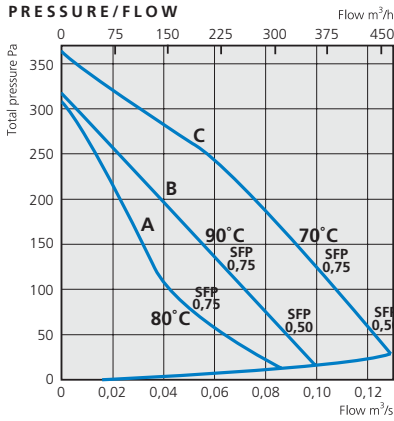
TKC 300 A/B/C

TKC 400 A/B/C

Circular roof fan with circular connection and swing-out



TKC 300 A/B/C



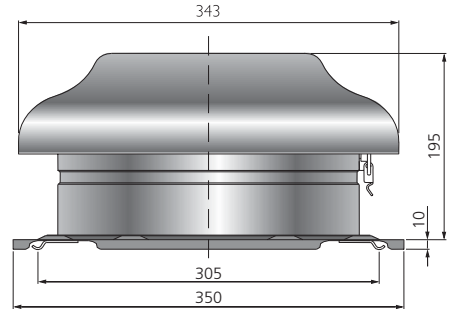
ACCESSORIES

Roof curb and silencer TG, see page 16

TECHNICAL DATA

TKC 300	A	B	C
Voltage, V/Hz	230/50	230/50	230/50
Current, A	0,19	0,20	0,31
Input, W	44	45	71
Speed, rpm	1700	2250	2460
Weight, kg	4,1	4,1	4,1
Wiring diagram	4040002	4040002	4040001
Capacitor, µF	2	5	2
Insulation class, motor	F	F	F
Motor protection	IP 44	IP 44	IP 44

DIMENSIONS (mm)

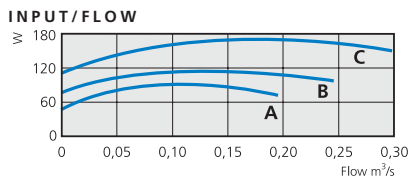
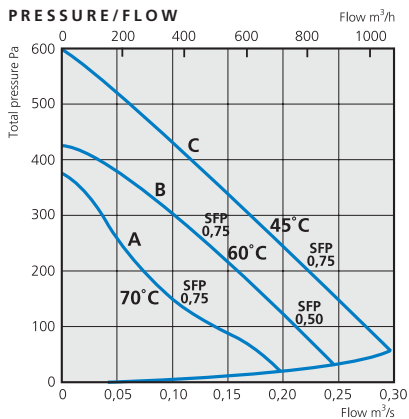


SOUND DATA

TKC 300 A, 32 l/s 155 Pa	L _{pA}	L _{WA} tot dB (A)	63	125	250	500	1K	2K	4K	8K
Inlet		55	37	47	50	49	47	44	34	19
Inlet with TFU		46	34	41	42	38	37	30	16	9
Environment at 10 m	28	56	48	33	44	48	52	48	39	33
TKC 300 B, 53 l/s 150 Pa	L _{pA}	L _{WA} tot dB (A)	63	125	250	500	1K	2K	4K	8K
Inlet		61	42	50	57	55	54	52	44	31
Inlet with TFU		52	40	43	49	44	43	37	25	12
Environment at 10 m	34	62	48	38	50	54	59	56	48	39
TKC 300 C, 70 l/s 217 Pa	L _{pA}	L _{WA} tot dB (A)	63	125	250	500	1K	2K	4K	8K
Inlet		65	46	53	60	59	58	57	49	38
Inlet with TFU		56	43	47	52	49	47	42	31	20
Environment at 10 m	39	67	48	40	54	58	64	62	54	45

General fan facts on page 18-19.

TKC 400 A/B/C



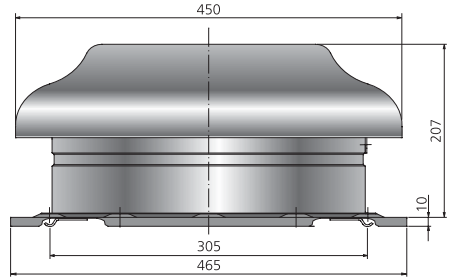
ACCESSORIES

Roof curb and silencer TG, see page 16

TECHNICAL DATA

TKC 400	A	B	C
Voltage, V/Hz	230/50	230/50	230/50
Current, A	0,42	0,50	0,76
Input, W	91	113	172
Speed, rpm	1850	2580	2420
Weight, kg	5,5	5,5	5,5
Wiring diagram	4040002	4040001	4040001
Capacitor, µF	4	4	2
Insulation class, motor	F	F	F
Motor protection	IP 44	IP 44	IP 44

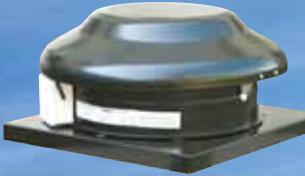
DIMENSIONS (mm)



SOUND DATA

TKC 400 A, 110 l/s 135 Pa	L _{pA}	L _{WA} tot dB (A)	63	125	250	500	1K	2K	4K	8K
Inlet		65	46	58	60	59	57	52	44	30
Inlet with TFU		55	41	52	50	48	42	31	25	17
Environment at 10 m	37	65	42	44	56	60	60	57	51	38
TKC 400 B, 150 l/s 230 Pa	L _{pA}	L _{WA} tot dB (A)	63	125	250	500	1K	2K	4K	8K
Inlet		72	50	61	68	67	64	59	53	40
Inlet with TFU		61	44	54	57	55	48	38	35	27
Environment at 10 m	44	72	44	47	63	66	67	65	60	48
TKC 400 C, 180 l/s 300 Pa	L _{pA}	L _{WA} tot dB (A)	63	125	250	500	1K	2K	4K	8K
Inlet		71	54	62	64	67	63	58	57	48
Inlet with TFU		61	49	55	53	58	49	42	40	35
Environment at 10 m	48	76	48	48	61	69	72	70	63	57

General fan facts on page 18-19.

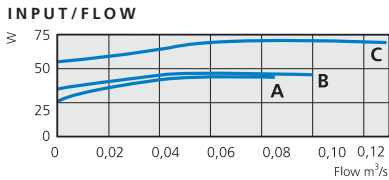
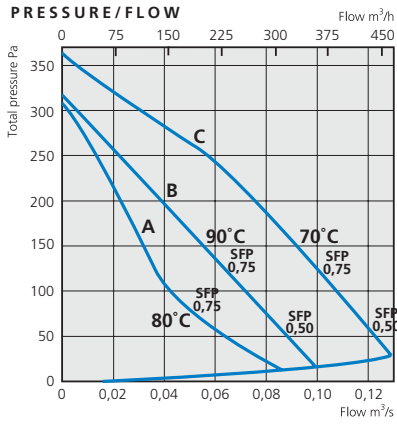


TKS 300 A/B/C

TKS 400 A/B/C

Circular roof fan with square connection and swing-out

TKS 300 A/B/C



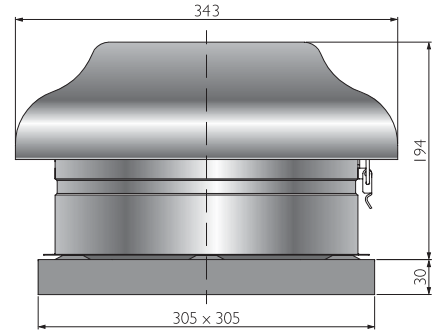
ACCESSORIES

Roof curb TFU, see page 16

TECHNICAL DATA

TKS 300	A	B	C
Voltage, V/Hz	230/50	230/50	230/50
Current, A	0,19	0,20	0,31
Input, W	44	45	71
Speed, rpm	1700	2250	2460
Weight, kg	4,1	4,1	4,1
Wiring diagram	4040002	4040002	4040001
Capacitor, μF	2	5	2
Insulation class, motor	F	F	F
Motor protection	IP 44	IP 44	IP 44

DIMENSIONS (mm)

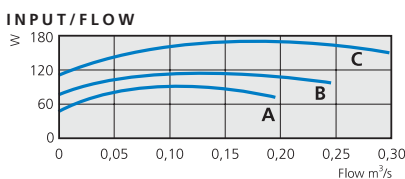
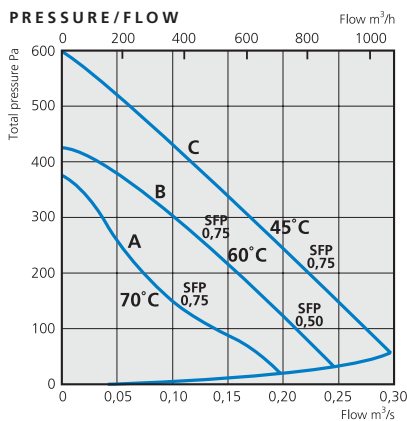


SOUND DATA

TKS 300 A, 32 l/s 155 Pa	L_{pA}	L_{WA}	tot dB (A)	63	125	250	500	1K	2K	4K	8K
Inlet		55		37	47	50	49	47	44	34	19
Inlet with TFU		46		34	41	42	38	37	30	16	9
Environment at 10 m	28	56	48	33	44	48	52	48	39	33	
TKC 300 B, 53 l/s 150 Pa	L_{pA}	L_{WA}	tot dB (A)	63	125	250	500	1K	2K	4K	8K
Inlet		61		42	50	57	55	54	52	44	31
Inlet with TFU		52		40	43	49	44	43	37	25	12
Environment at 10 m	34	62	48	38	50	54	59	56	48	39	
TKC 300 C, 70 l/s 217 Pa	L_{pA}	L_{WA}	tot dB (A)	63	125	250	500	1K	2K	4K	8K
Inlet		65		46	53	60	59	58	57	49	38
Inlet with TFU		56		43	47	52	49	47	42	31	20
Environment at 10 m	39	67	48	40	54	58	64	62	54	45	

General fan facts on page 18-19.

TKS 400 A/B/C



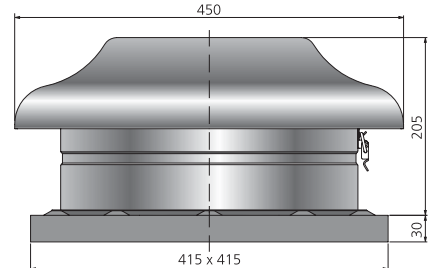
ACCESSORIES

Roof curb TFU, see page 16

TECHNICAL DATA

TKS 400	A	B	C
Voltage, V/Hz	230/50	230/50	230/50
Current, A	0,42	0,50	0,76
Input, W	91	113	172
Speed, rpm	1850	2580	2420
Weight, kg	5,5	5,5	5,5
Wiring diagram	4040002	4040001	4040001
Capacitor, μF	4	4	2
Insulation class, motor	F	F	F
Motor protection	IP 44	IP 44	IP 44

DIMENSIONS (mm)



SOUND DATA

TKS 400 A, 110 l/s 135 Pa	L_{pA}	L_{WA}	tot dB (A)	63	125	250	500	1K	2K	4K	8K
Inlet		65		46	58	60	59	57	52	44	30
Inlet with TFU		55		41	52	50	48	42	31	25	17
Environment at 10 m	37	65	42	44	56	60	60	57	51	38	
TKC 400 B, 150 l/s 230 Pa	L_{pA}	L_{WA}	tot dB (A)	63	125	250	500	1K	2K	4K	8K
Inlet		72		50	61	68	67	64	59	53	40
Inlet with TFU		61		44	54	57	55	48	38	35	27
Environment at 10 m	44	72	44	47	63	66	67	65	60	48	
TKC 400 C, 180 l/s 300 Pa	L_{pA}	L_{WA}	tot dB (A)	63	125	250	500	1K	2K	4K	8K
Inlet		71		54	62	64	67	63	58	57	48
Inlet with TFU		61		49	55	53	58	49	42	40	35
Environment at 10 m	48	76	48	48	61	69	72	70	63	57	

General fan facts on page 18-19.

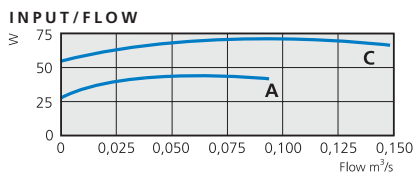
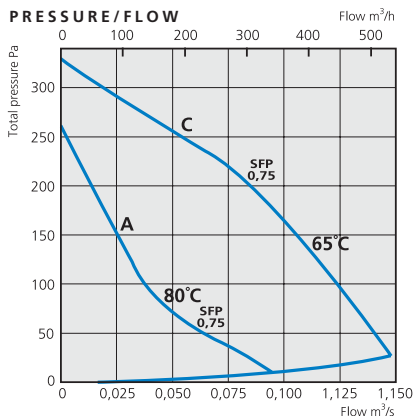
TKK 300 A/C

TKK 400 A/B/C/D

Rectangular roof fan with square connection and swing-out



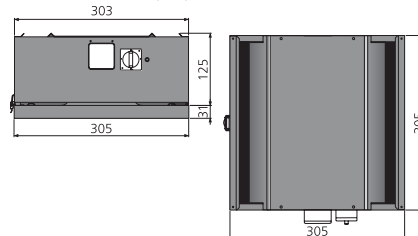
TKK 300 A/C



TECHNICAL DATA

TKK 300	A	C
Voltage, V/Hz	230/50	230/50
Current, A	0,20	0,32
Input, W	46	73
Speed, rpm	1715	2410
Weight, kg	5,5	5,5
Wiring diagram	4040010	4040011
Capacitor, µF	2	2
Insulation class, motor	F	F
Motor protection	IP 44	IP 44

DIMENSIONS (mm)



ACCESSORIES

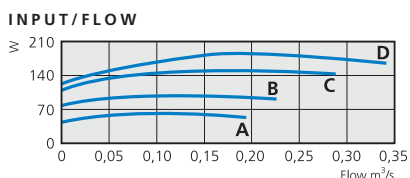
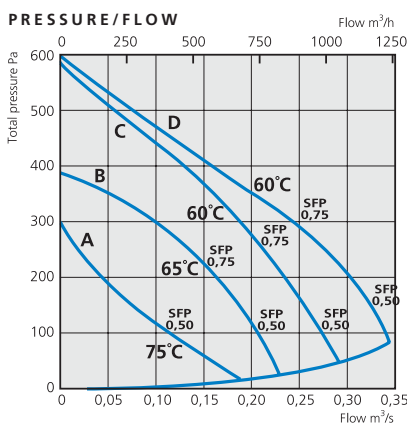
Roof curb TFU, see page 16

SOUND DATA

TKK 300 A, 30 l/s 120 Pa	L _{pA}	L _{WA} tot dB (A)	63	125	250	500	1K	2K	4K	8K
Inlet		57	44	50	53	50	46	42	34	19
Inlet with TFU		49	40	45	45	41	38	32	18	3
Environment at 10 m	29	57	43	38	47	52	51	49	41	35
TKK 300 C, 100 l/s 190 Pa	L _{pA}	L _{WA} tot dB (A)	63	125	250	500	1K	2K	4K	8K
Inlet		66	51	57	61	61	59	57	50	38
Inlet with TFU		58	47	51	53	52	49	45	34	22
Environment at 10 m	41	69	42	45	57	63	64	65	59	47

General fan facts on page 18-19.

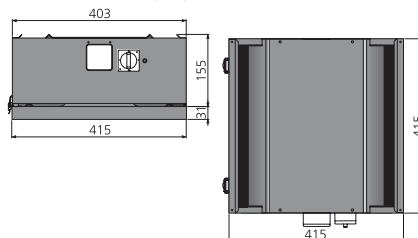
TKK 400 A/B/C/D



TECHNICAL DATA

TKK 400	A	B	C	D
Voltage, V/Hz	230/50	230/50	230/50	230/50
Current, A	0,27	0,45	0,67	0,82
Input, W	62	102	153	186
Speed, rpm	1705	2480	2490	2460
Weight, kg	8,2	8,2	8,2	8,3
Wiring diagram	4040010	4040011	4040011	4040011
Capacitor, µF	4	3	4	5
Insulation class, motor	F	F	F	F
Motor protection	IP 44	IP 44	IP 44	IP 44

DIMENSIONS (mm)



SOUND DATA

TKK 400 A, 110 l/s 108 Pa	L _{pA}	L _{WA} tot dB (A)	63	125	250	500	1K	2K	4K	8K
Inlet		62	44	54	57	57	55	49	41	26
Inlet with TFU		51	39	46	47	44	37	29	23	13
Environment at 10 m	37	65	41	41	57	59	58	60	52	37
TKK 400 B, 148 l/s 232 Pa	L _{pA}	L _{WA} tot dB (A)	63	125	250	500	1K	2K	4K	8K
Inlet		72	51	60	66	68	64	58	54	42
Inlet with TFU		60	47	53	55	56	47	39	36	27
Environment at 10 m	47	75	43	48	64	69	68	71	65	52
TKK 400 C, 167 l/s 338 Pa	L _{pA}	L _{WA} tot dB (A)	63	125	250	500	1K	2K	4K	8K
Inlet		71	52	59	62	68	63	59	56	49
Inlet with TFU		61	49	54	53	58	50	42	39	35
Environment at 10 m	48	76	49	50	63	71	71	70	66	59
TKK 400 D, 250 l/s 280 Pa	L _{pA}	L _{WA} tot dB (A)	63	125	250	500	1K	2K	4K	8K
Inlet		72	54	61	64	68	64	60	59	50
Inlet with TFU		63	50	55	54	61	52	44	40	34
Environment at 10 m	51	79	44	49	63	74	73	73	68	61

General fan facts on page 18-19.

ACCESSORIES

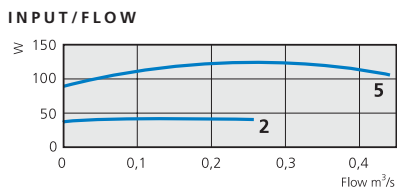
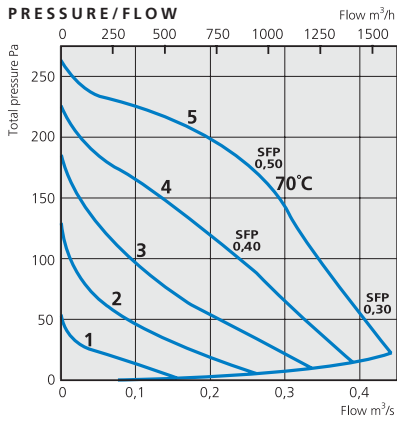
Roof curb TFU, see page 16



TKK 560 A1 TKK 560 B1

Rectangular roof fan with square connection and swing-out

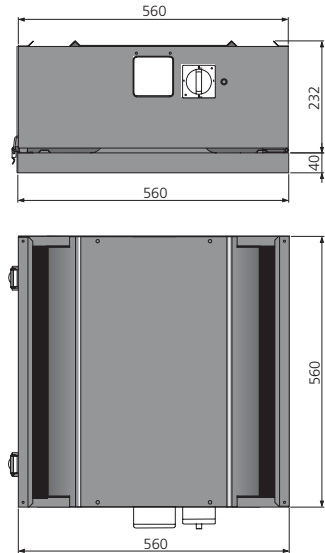
TKK 560 A1



TECHNICAL DATA

TKK 560	A1
Voltage, V/Hz	230/50
Current, A	0,56
Input, W	125
Speed, rpm	1300
Weight, kg	16
Wiring diagram	4040001
Capacitor, μF	5
Insulation class, motor	F
Motor protection	IP 44

DIMENSIONS (mm)



ACCESSORIES

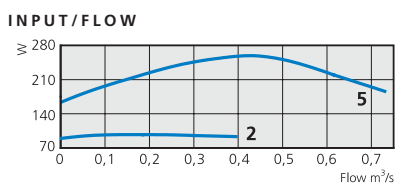
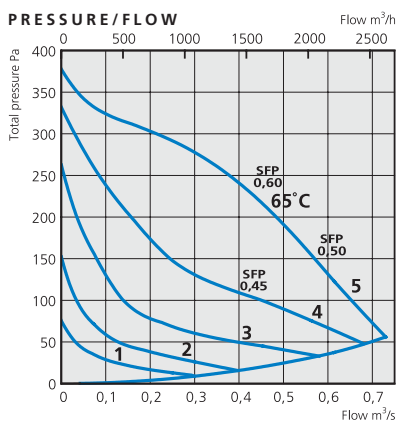
Roof curb TFU and silencer TKLD, see page 16

SOUND DATA

TKK 560 A1, 264 l/s 166 Pa	L_{pA}	L_{wA} tot dB (A)	63	125	250	500	1K	2K	4K	8K
Inlet		64	53	61	58	57	50	48	48	34
Inlet with TFU		62	47	59	56	55	45	37	43	30
Environment at 10 m	40	68	44	52	62	64	61	58	57	45

General fan facts on page 18-19.

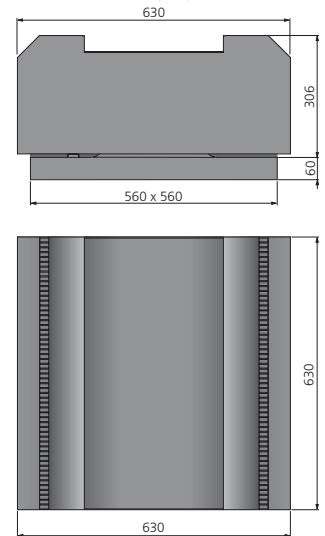
TKK 560 B1



TECHNICAL DATA

TKK 560	B1
Voltage, V/Hz	230/50
Current, A	1,15
Input, W	255
Speed, rpm	1290
Weight, kg	27
Wiring diagram	4040005
Capacitor, μF	5
Insulation class, motor	F
Motor protection	IP 44

DIMENSIONS (mm)



ACCESSORIES

Roof curb TFU and silencer TKLD, see page 16

SOUND DATA

TKK 560 B1, 389 l/s 253 Pa	L_{pA}	L_{wA} tot dB (A)	63	125	250	500	1K	2K	4K	8K
Inlet		70	57	65	63	64	56	54	47	38
Inlet with TFU		67	56	63	61	62	51	55	46	34
Environment at 10 m	45	73	50	59	68	67	67	66	58	52
Environment with TKLD at 10 m	41	69	49	59	66	63	60	59	53	45

General fan facts on page 18-19.

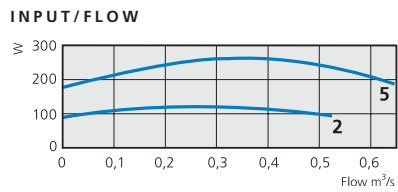
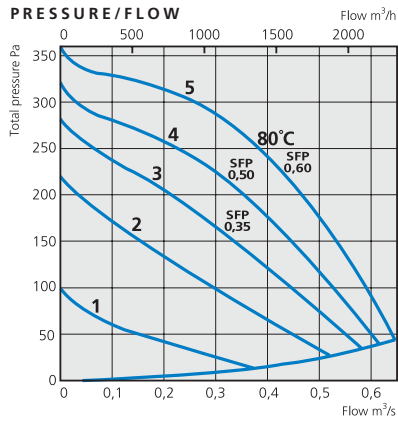
TKK 560 B3

TKK 660 B1

Rectangular roof fan with square connection and swing-out



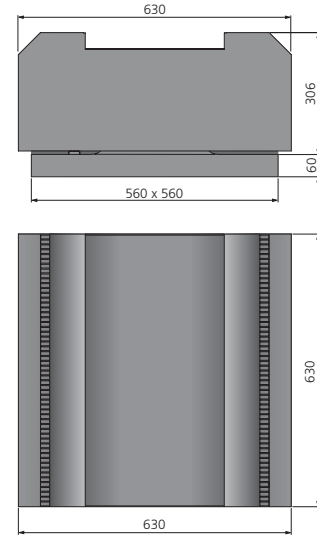
TKK 560 B3



TECHNICAL DATA

TKK 560	B3
Voltage, V/Hz	400/50
Current, A	0,51
Input, W	245
Speed, rpm	1305
Weight, kg	27
Wiring diagram	4040030
Capacitor, μF	-
Insulation class, motor	F
Motor protection	IP 44

DIMENSIONS (mm)



ACCESSORIES

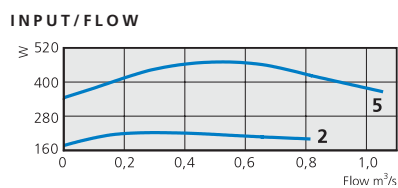
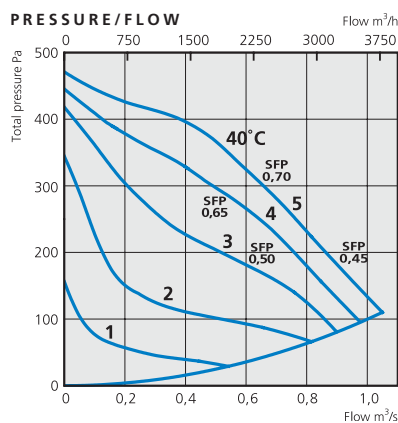
Roof curb TFU and silencer TKLD, see page 16

SOUND DATA

TKK 560 B3, 430 l/s 245 Pa	L_{pA}	L_{wA}	tot dB (A)	63	125	250	500	1K	2K	4K	8K
Inlet		72	58	67	66	66	58	59	53	45	
Inlet with TFU		70	57	65	65	65	53	50	45	38	
Environment at 10 m	47	75	51	59	70	68	68	68	61	53	
Environment with TKLD at 10 m	43	71	51	59	68	64	60	62	56	49	

General fan facts on page 18-19.

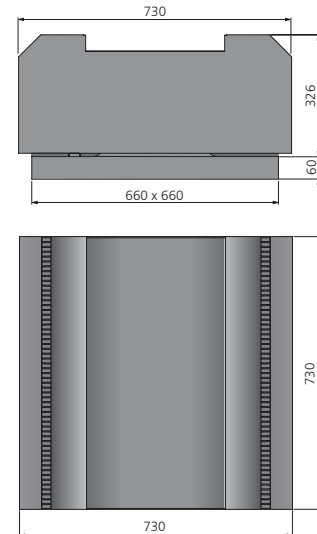
TKK 660 B1



TECHNICAL DATA

TKK 660	B1
Voltage, V/Hz	230/50
Current, A	2,3
Input, W	470
Speed, rpm	1395
Weight, kg	34
Wiring diagram	4040005
Capacitor, μF	12
Insulation class, motor	F
Motor protection	IP 44

DIMENSIONS (mm)



ACCESSORIES

Roof curb TFU and silencer TKLD, see page 16

SOUND DATA

TKK 660 B1, 640 l/s 296 Pa	L_{pA}	L_{wA}	tot dB (A)	63	125	250	500	1K	2K	4K	8K
Inlet		74	63	69	68	69	61	61	55	43	
Inlet with TFU		71	60	66	66	67	56	51	47	33	
Environment at 10 m	49	77	55	63	72	71	72	70	62	53	
Environment with TKLD at 10 m	44	72	53	62	69	66	62	62	57	48	

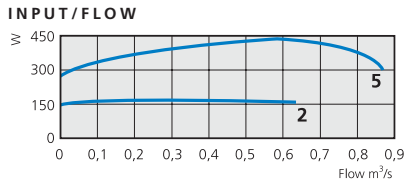
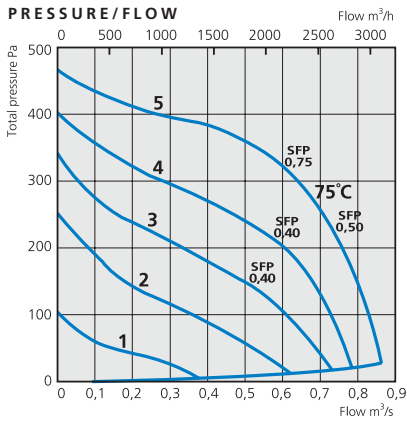
General fan facts on page 18-19.



TKK 660 B3 TKK 760 A1

Rectangular roof fan with square connection and swing-out

TKK 660 B3



TECHNICAL DATA

TKK 660	B3
Voltage, V/Hz	400/50
Current, A	0,79
Input, W	395
Speed, rpm	1345
Weight, kg	34
Wiring diagram	4040004, 4040030
Capacitor, μF	-
Insulation class, motor	F
Motor protection	IP 44

ACCESSORIES

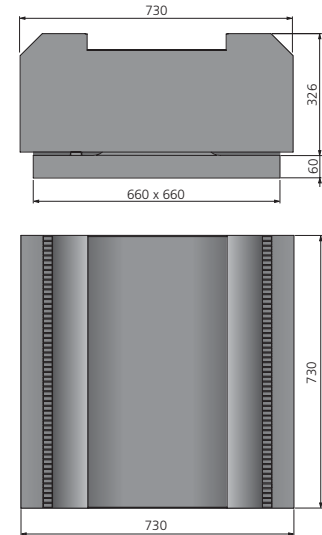
Roof curb TFU and silencer TKLD, see page 16

SOUND DATA

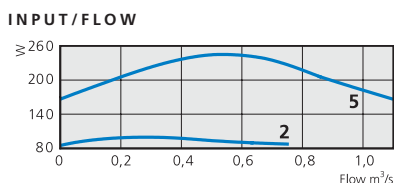
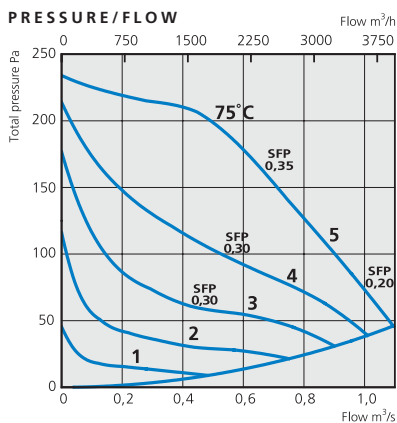
TKK 660 B3, 653 l/s 298 Pa	L_{pA}	L_{wA}	tot dB (A)	63	125	250	500	1K	2K	4K	8K
Inlet			74	63	70	68	68	61	60	53	44
Inlet with TFU			71	60	66	66	67	67	53	47	37
Environment at 10 m	48	76	52	62	71	70	71	67	60	53	
Environment with TKLD at 10 m	45	73	52	62	69	67	64	64	59	50	

General fan facts on page 18-19.

DIMENSIONS (mm)



TKK 760 A1



TECHNICAL DATA

TKK 760	A1
Voltage, V/Hz	230/50
Current, A	1,10
Input, W	245
Speed, rpm	865
Weight, kg	39
Wiring diagram	4040005
Capacitor, μF	5
Insulation class, motor	F
Motor protection	IP 44

ACCESSORIES

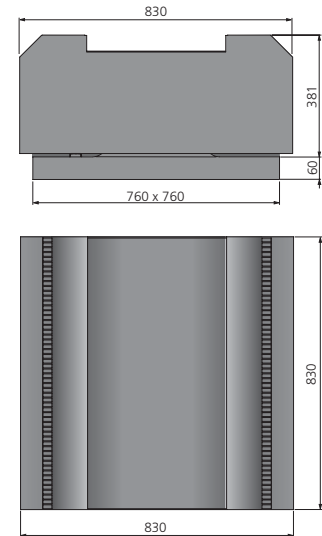
Roof curb TFU and silencer TKLD, see page 16

SOUND DATA

TKK 760 A1, 612 l/s 134 Pa	L_{pA}	L_{wA}	tot dB (A)	63	125	250	500	1K	2K	4K	8K
Inlet			62	54	58	55	56	49	46	44	27
Inlet with TFU			57	52	52	50	48	38	38	30	16
Environment at 10 m	36	64	50	50	57	60	60	53	47	38	
Environment with TKLD at 10 m	32	60	50	50	55	55	51	47	43	36	

General fan facts on page 18-19.

DIMENSIONS (mm)



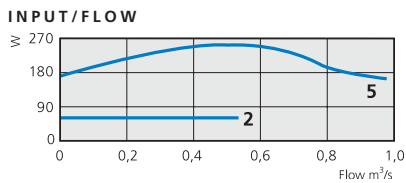
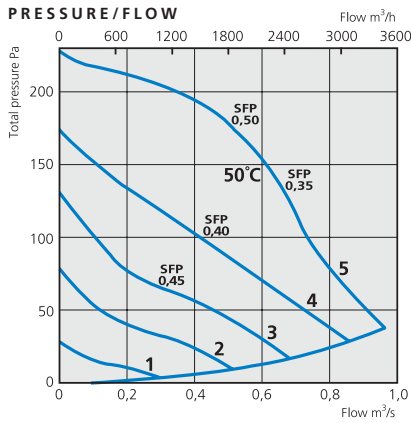
TKK 760 A3

TKK 760 B1

Rectangular roof fan with square connection and swing-out



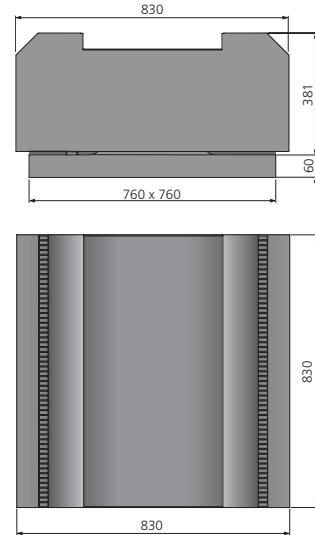
TKK 760 A3



TECHNICAL DATA

TKK 760	A3
Voltage, V/Hz	400/50
Current, A	0,59
Input, W	255
Speed, rpm	910
Weight, kg	39
Wiring diagram	4040030
Capacitor, μF	-
Insulation class, motor	F
Motor protection	IP 44

DIMENSIONS (mm)



ACCESSORIES

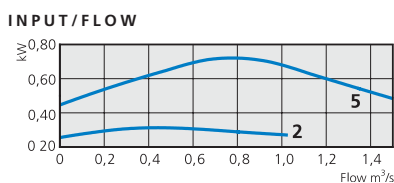
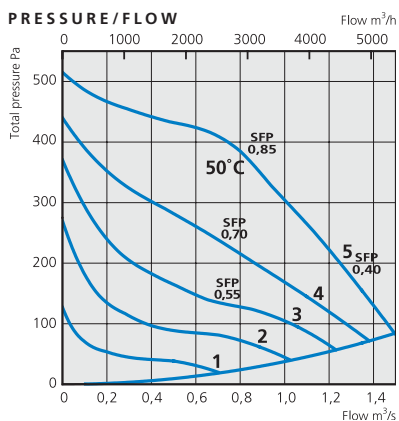
Roof curb TFU and silencer TKLD, see page 16

SOUND DATA

TKK 760 A3, 576 l/s 163 Pa	L_{pA}	L_{WA}	tot dB (A)	63	125	250	500	1K	2K	4K	8K
Inlet		64	56	60	57	58	50	47	43	30	
Inlet with TFU		59	53	54	53	51	40	40	32	20	
Environment at 10 m	36	64	48	50	58	58	59	55	50	41	
Environment with TKLD at 10 m	33	61	47	50	57	55	51	49	46	38	

General fan facts on page 18-19.

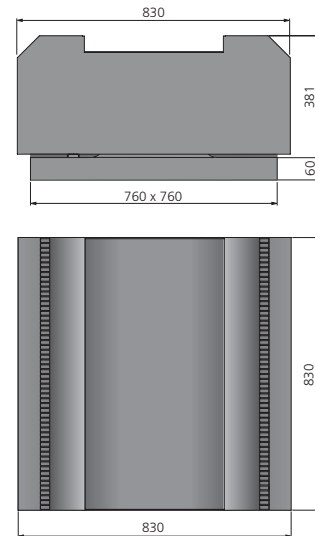
TKK 760 B1



TECHNICAL DATA

TKK 760	B1
Voltage, V/Hz	230/50
Current, A	3,55
Input, kW	0,72
Speed, rpm	1230
Weight, kg	43
Wiring diagram	4040005
Capacitor, μF	10
Insulation class, motor	F
Motor protection	IP 44

DIMENSIONS (mm)



ACCESSORIES

Roof curb TFU and silencer TKLD, see page 16

SOUND DATA

TKK 760 B1, 920 l/s 360 Pa	L_{pA}	L_{WA}	tot dB (A)	63	125	250	500	1K	2K	4K	8K
Inlet		75	64	69	70	70	63	60	55	46	
Inlet with TFU		70	60	65	65	65	50	52	44	34	
Environment at 10 m	52	80	58	67	74	75	74	68	61	54	
Environment with TKLD at 10 m	47	75	58	68	70	70	66	61	57	49	

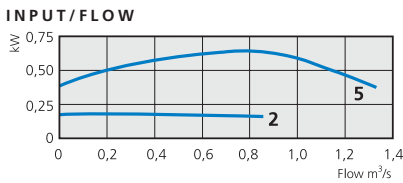
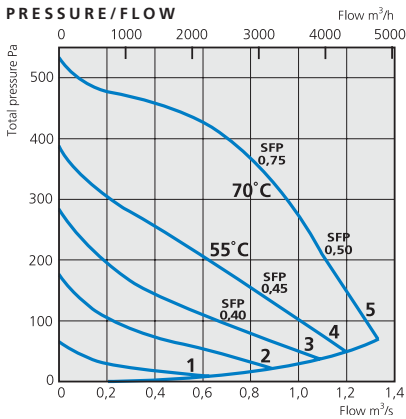
General fan facts on page 18-19.



TKK 760 B3 TKK 960 A1

Rectangular roof fan with square connection and swing-out

TKK 760 B3



TECHNICAL DATA

TKK 760	B3
Voltage, V/Hz	400/50
Current, A	1,40
Input, kW	0,68
Speed, rpm	1300
Weight, kg	40
Wiring diagram	4040030
Capacitor, μF	-
Insulation class, motor	F
Motor protection	IP 44

ACCESSORIES

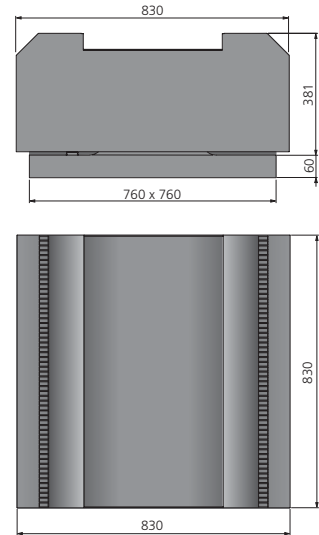
Roof curb TFU and silencer TKLD, see page 16

SOUND DATA

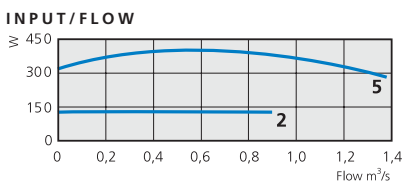
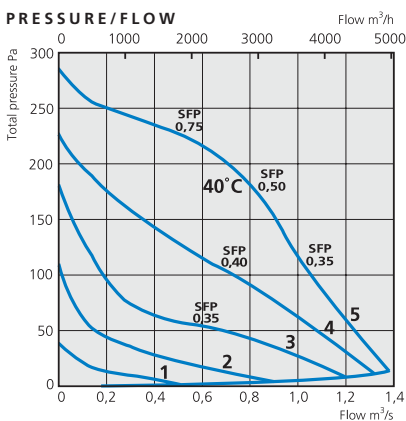
TKK 760 B3, 967 l/s 300 Pa	L_{pA}	L_{wA} tot dB (A)	63	125	250	500	1K	2K	4K	8K
Inlet		75	65	69	70	71	65	61	55	45
Inlet with TFU		70	61	64	65	65	50	52	43	33
Environment at 10 m	51	79	57	65	73	75	75	69	62	54
Environment with TKLD at 10 m	46	74	57	65	70	70	66	61	57	49

General fan facts on page 18-19.

DIMENSIONS (mm)



TKK 960 A1



TECHNICAL DATA

TKK 960	A1
Voltage, V/Hz	230/50
Current, A	1,85
Input, W	425
Speed, rpm	1030
Weight, kg	61
Wiring diagram	4040005
Capacitor, μF	-
Insulation class, motor	F
Motor protection	IP 44

ACCESSORIES

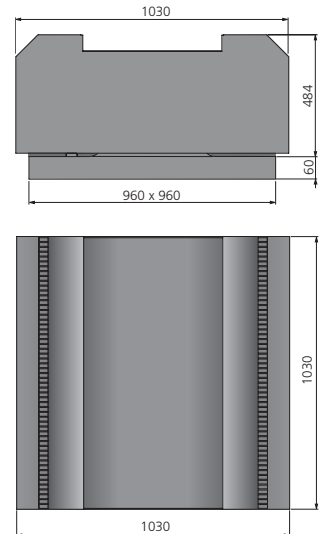
Roof curb TFU and silencer TKLD, see page 16

SOUND DATA

TKK 960 A1, 820 l/s 179 Pa	L_{pA}	L_{wA} tot dB (A)	63	125	250	500	1K	2K	4K	8K
Inlet		68	59	63	60	59	58	58	50	36
Environment at 10 m	44	72	52	57	64	67	66	64	57	47
Environment with TKLD at 10 m	39	67	52	57	60	60	57	57	52	42

General fan facts on page 18-19.

DIMENSIONS (mm)



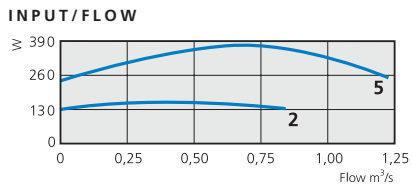
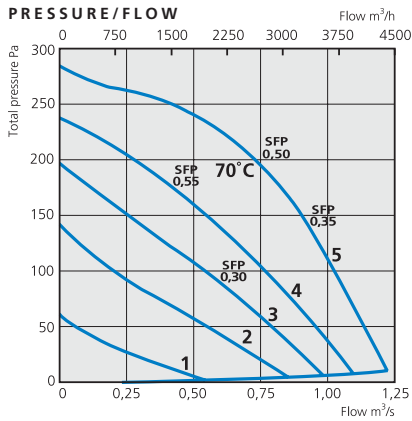
TKK 960 A3

TKK 960 B1

Rectangular roof fan with square connection and swing-out



TKK 960 A3



TECHNICAL DATA

TKK 960	A3
Voltage, V/Hz	400/50
Current, A	0,84
Input, W	375
Speed, rpm	910
Weight, kg	60
Wiring diagram	4040030
Capacitor, μF	-
Insulation class, motor	F
Motor protection	IP 44

ACCESSORIES

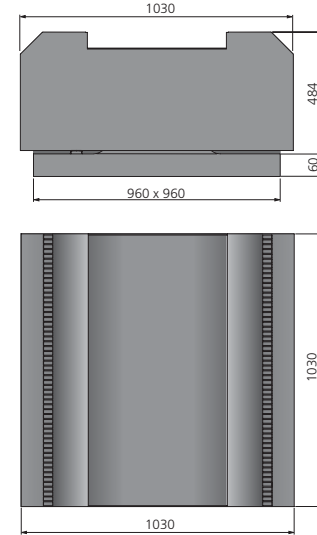
Roof curb TFU and silencer TKLD, see page 16

SOUND DATA

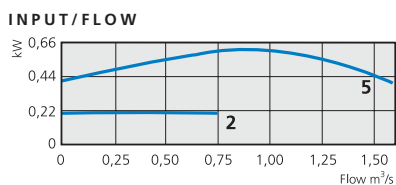
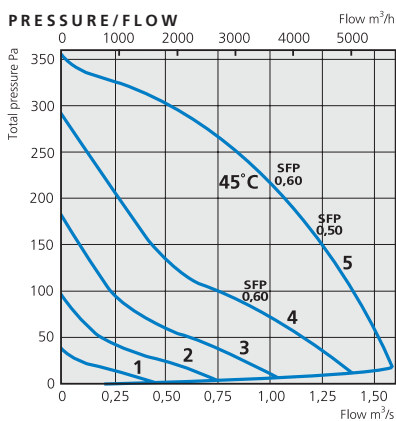
TKK 960 A3, 740 l/s 200 Pa	L_{pA}	L_{WA} tot dB (A)	63	125	250	500	1K	2K	4K	8K
Inlet		68	60	61	62	61	60	59	52	39
Environment at 10 m	45	73	53	56	64	69	68	65	58	48
Environment with TKLD at 10 m	39	67	53	56	61	62	58	58	53	44

General fan facts on page 18-19.

DIMENSIONS (mm)



TKK 960 B1



TECHNICAL DATA

TKK 960	B1
Voltage, V/Hz	230/50
Current, A	3,15
Input, kW	0,64
Speed, rpm	860
Weight, kg	62
Wiring diagram	4040005
Capacitor, μF	14
Insulation class, motor	F
Motor protection	IP 44

ACCESSORIES

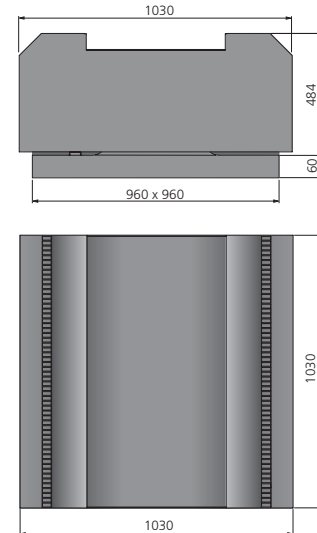
Roof curb TFU and silencer TKLD, see page 16

SOUND DATA

TKK 960 B1, 1062 l/s 213 Pa	L_{pA}	L_{WA} tot dB (A)	63	125	250	500	1K	2K	4K	8K
Inlet		70	62	63	64	62	61	61	54	41
Environment at 10 m	46	74	54	59	67	68	68	66	60	50
Environment with TKLD at 10 m	40	68	54	59	63	61	59	59	54	45

General fan facts on page 18-19.

DIMENSIONS (mm)

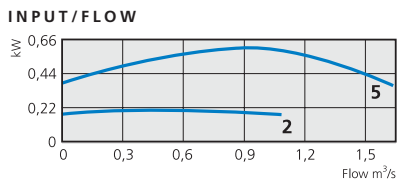
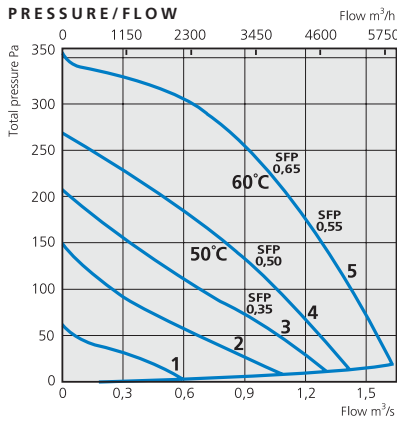




TKK 960 B3 TKK 960 C1

Rectangular roof fan with square connection and swing-out

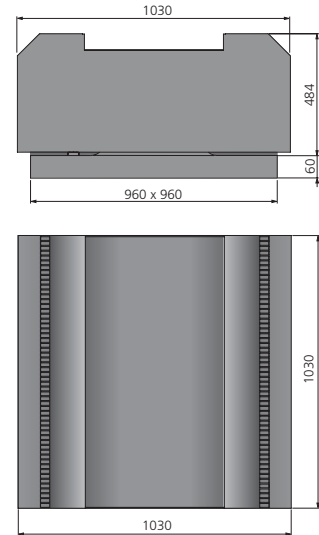
TKK 960 B3



TECHNICAL DATA

TKK 960	B3
Voltage, V/Hz	400/50
Current, A	1,30
Input, kW	0,67
Speed, rpm	880
Weight, kg	65
Wiring diagram	4040030
Capacitor, μF	-
Insulation class, motor	F
Motor protection	IP 44

DIMENSIONS (mm)



ACCESSORIES

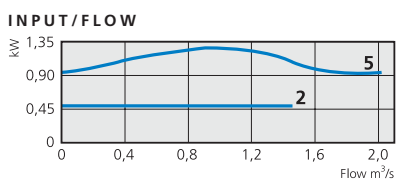
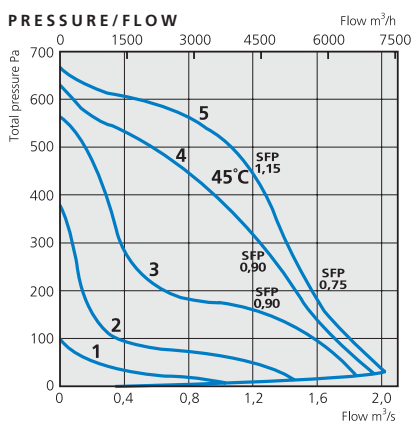
Roof curb TFU and silencer TKLD, see page 16

SOUND DATA

TKK 960 B3, 1000 l/s 235 Pa	L_{pA}	L_{wA}	tot dB (A)	63	125	250	500	1K	2K	4K	8K
Inlet		71		62	64	65	63	62	63	56	43
Environment at 10 m	47	75		55	59	68	70	70	67	61	52
Environment with TKLD at 10 m	41	69		55	59	64	64	61	61	56	47

General fan facts on page 18-19.

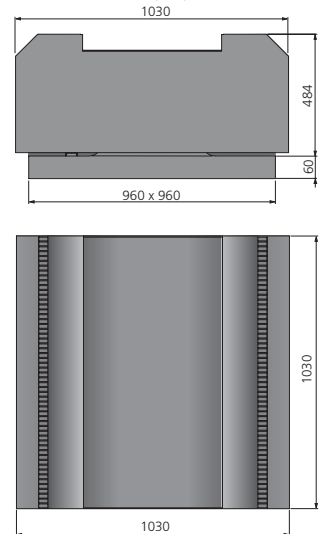
TKK 960 C1



TECHNICAL DATA

TKK 960	C1
Voltage, V/Hz	230/50
Current, A	7,10
Input, kW	1,43
Speed, rpm	1420
Weight, kg	71
Wiring diagram	4040005
Capacitor, μF	35
Insulation class, motor	F
Motor protection	IP 44

DIMENSIONS (mm)



ACCESSORIES

Roof curb TFU and silencer TKLD, see page 16

SOUND DATA

TKK 960 C1, 1174 l/s 465 Pa	L_{pA}	L_{wA}	tot dB (A)	63	125	250	500	1K	2K	4K	8K
Inlet		79		68	74	74	73	71	67	59	48
Environment at 10 m	55	83		61	69	75	78	79	73	65	59
Environment with TKLD at 10 m	49	77		61	69	72	71	70	66	60	54

General fan facts on page 18-19.

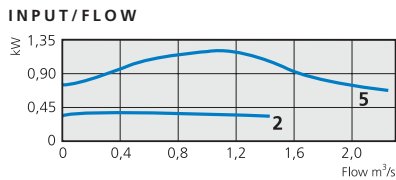
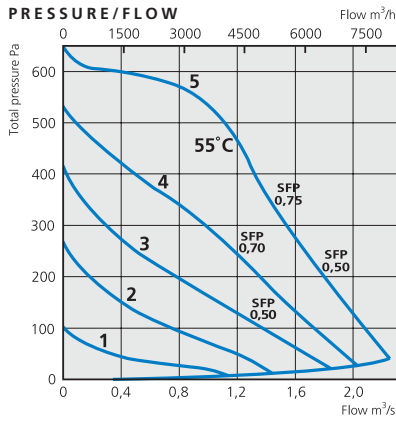
TKK 960 C3

TKK 960 D3

Rectangular roof fan with square connection and swing-out



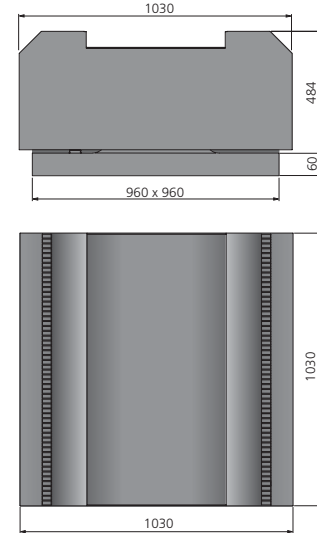
TKK 960 C3



TECHNICAL DATA

TKK 960	C3
Voltage , V/Hz	400/50
Current , A	2,70
Input , kW	1,27
Speed , rpm	1365
Weight , kg	67
Wiring diagram	4040030
Capacitor , μ F	-
Insulation class , motor	F
Motor protection	IP 44

DIMENSIONS (mm)



ACCESSORIES

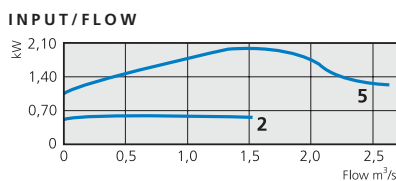
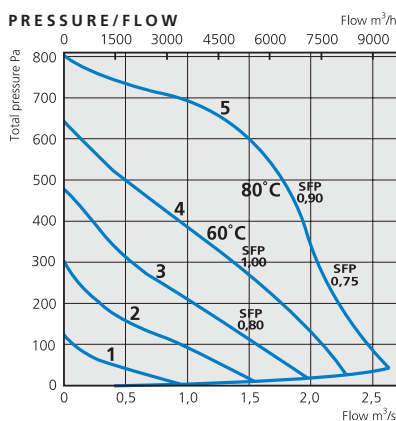
Roof curb TFU and silencer TKLD, see page 16

SOUND DATA

TKK 960 C3, 1195 l/s 472 Pa	L_{pA}	L_{WA} tot dB (A)	63	125	250	500	1K	2K	4K	8K
Inlet		79	68	72	74	71	71	70	64	52
Environment at 10 m	54	82	61	68	75	76	77	74	70	62
Environment with TKLD at 10 m	48	76	61	68	72	69	68	68	65	57

General fan facts on page 18-19.

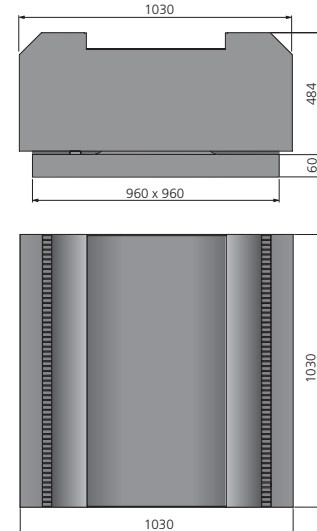
TKK 960 D3



TECHNICAL DATA

TKK 960	D3
Voltage , V/Hz	400/50
Current , A	4,35
Input , kW	2,07
Speed , rpm	1375
Weight , kg	75
Wiring diagram	4040030
Capacitor , μ F	-
Insulation class , motor	F
Motor protection	IP 44

DIMENSIONS (mm)



ACCESSORIES

Roof curb TFU and silencer TKLD, see page 16

SOUND DATA

TKK 960 D3, 1600 l/s 590 Pa	L_{pA}	L_{WA} tot dB (A)	63	125	250	500	1K	2K	4K	8K
Inlet		82	71	75	77	75	72	72	67	56
Environment at 10 m	57	85	63	72	79	79	80	76	73	66
Environment with TKLD at 10 m	52	80	63	71	76	73	71	70	68	61

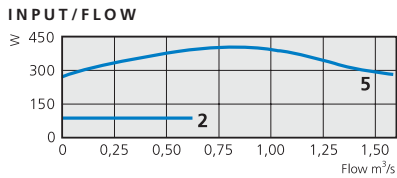
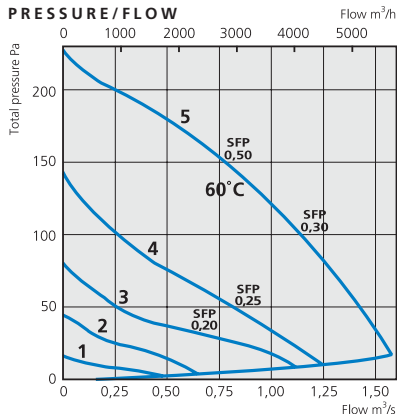
General fan facts on page 18-19.



TKK 1060 A3 TKK 1060 B3

Rectangular roof fan with square connection and swing-out

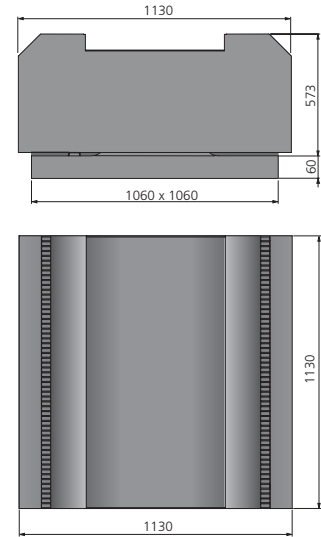
TKK 1060 A3



TECHNICAL DATA

TKK 1060	A3
Voltage , V/Hz	400/50
Current , A	0,82
Input , W	395
Speed , rpm	605
Weight , kg	90
Wiring diagram	4040004
Capacitor , µF	-
Insulation class, motor	F
Motor protection	IP 44

DIMENSIONS (mm)



ACCESSORIES

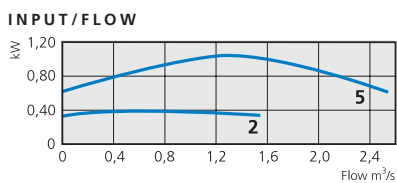
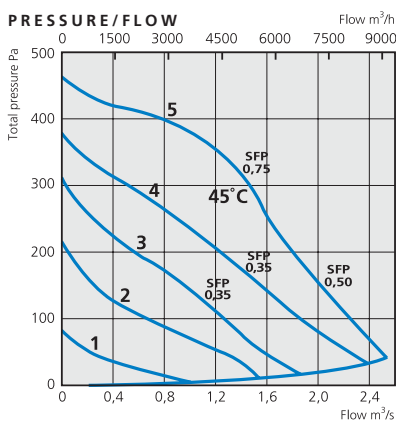
Roof curb TFU and silencer TKLD, see page 16

SOUND DATA

TKK 1060 A3, 1046 l/s 118 Pa	L _{pA}	L _{WA} tot dB (A)	63	125	250	500	1K	2K	4K	8K
Inlet		65	57	56	61	61	52	50	39	26
Environment at 10 m	39	67	50	54	61	62	61	56	48	40
Environment with TKLD at 10 m	34	62	50	53	58	56	52	49	43	36

General fan facts on page 18-19.

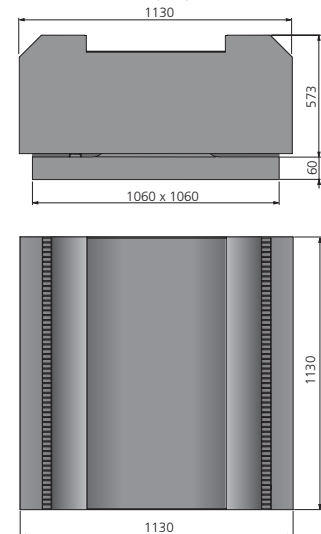
TKK 1060 B3



TECHNICAL DATA

TKK 1060	B3
Voltage , V/Hz	400/50
Current , A	2,10
Input , kW	0,96
Speed , rpm	870
Weight , kg	95
Wiring diagram	4040030
Capacitor , µF	-
Insulation class, motor	F
Motor protection	IP 44

DIMENSIONS (mm)



ACCESSORIES

Roof curb TFU and silencer TKLD, see page 16

SOUND DATA

TKK 1060 B3, 1455 l/s 310 Pa	L _{pA}	L _{WA} tot dB (A)	63	125	250	500	1K	2K	4K	8K
Inlet		75	65	68	71	69	63	62	53	41
Environment at 10 m	50	78	59	66	71	74	72	67	60	53
Environment with TKLD at 10 m	44	72	59	65	68	66	63	60	55	49

General fan facts on page 18-19.

ACCESSORIES

ROOF CURB AND SILENCER, TG

The top mounting plate, TGÖ is designed for used with our roof fan TKC for mounting on a one family house.

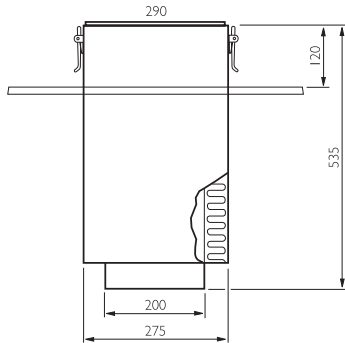
TGÖ is manufactured in polyester plastic coated galvanized plastic sheet steel and is available plain or profiled. The profiled version is for use with concrete roof tiles.

The top mounting plate is provided with a "shackle lock" for securing TKC roof fan (with a circular connection). A cable of two meters is provided as standard, as well as 30 mm insulation. TGÖ must be mounted at right angles to the roof, irrespective of the roof inclination.

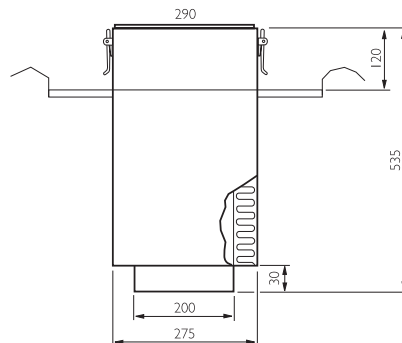


The bottom fixing plate, TGU, is manufactured from galvanized sheet steel.

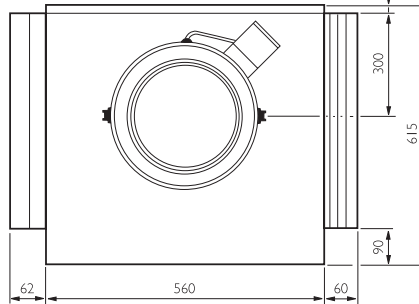
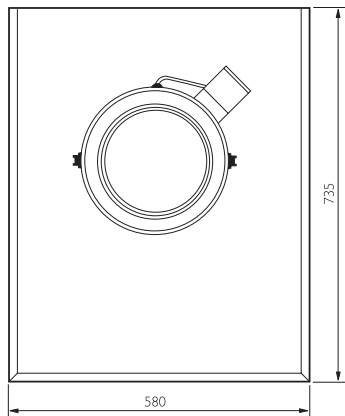
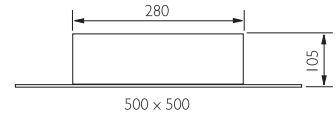
TGÖ PLAIN DIMENSIONS (mm)



TGÖ PROFILE DIMENSIONS (mm)



TGU DIMENSIONS (mm)



ROOF COWL, TH

TH comprises of the cowl THC (300/400), a roof curb THÖ and a bottom fixing plate TGU. The roof cowl and curb are manufactured

from polyester plastic coated galvanized sheet steel. TGU is manufactured from galvanized sheet steel. THÖ is available either plain or profiled.



ROOF CURB, TF

Our acoustic curb TFU is manufactured from galvanized sheet steel and has 50 mm of sound absorbing insulation the face of which is coated for ease of cleaning. A plastic conduit for the power cable is included as stan-

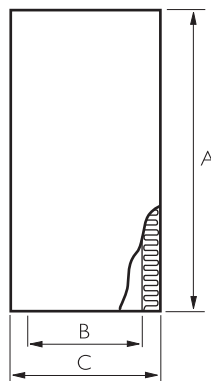
dard for the sizes up to 760. The TF is available in two lengths, 600 mm or 900 mm.

A bottom fixing plate with a circular connection is also available as an accessory.



DIMENSIONS (mm)

TYPE	A	B	C
TFU 300/600	600	□ 190	□ 295
TFU 300/900	900	□ 190	□ 295
TFU 400/600	600	□ 290	□ 395
TFU 400/900	900	□ 290	□ 395
TFU 560/900	900	□ 402	□ 506
TFU 660/900	900	□ 502	□ 606
TFU 760/900	900	□ 602	□ 706
TFU 960/900	900	□ 805	□ 910
TFU 1060/900	900	□ 905	□ 1010



SILENCER, TKLD

The silencer TKLD is manufactured from galvanized sheet steel and is provided with 50 mm of sound absorbing insulation the face of which is coated for ease of cleaning.

TKLD is available in either galvanized sheet steel or a black polyester plastic coated finish.

There are sizes of TKLD for our roof fans TKK 560 B1 and larger.



SOUND ABSORPTION

Size	63Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
TKLD 560	0	0	2	4	8	7	5	5
TKLD 660	0	0	2	4	8	7	5	5
TKLD 760	0	0	2	5	8	7	5	5
TKLD 960	0	0	4	7	9	7	5	5
TKLD 1060	0	1	3	7	9	7	5	4

GENERAL FAN FACTS

DESCRIPTION

- The fan is used for transportation of “clean” air, meaning not intended for fire-dangerous substances, explosives, grinding dust, soot, etc.
- The fan is equipped with an asynchronous external rotor induction motor with maintenance-free sealed ball-bearings.
- The capacitor has finite lifetime and should be exchanged after 45.000 hours of operation (about 5 years) to secure maximum function. Defective capacitor can cause damage.
- To achieve maximum life time for installations in damp or cold environments, the fan should be operating continuously.
- The fan can be installed outside or in other damp environments. Make sure that the fan-house is equipped with drainage.
- The fan is used at the voltages/frequencies according to the product label.

INSTALLATION

- The fan must be installed according to the air direction label on the fan.
- The fan must be connected to duct or equipped with a safety grille.
- The fan should be installed in a safe way and make sure that no foreign objects are left behind.
- The fan should be installed in a way that makes service and maintenance easy.
- The fan should be installed in a way that vibrations can not be transfused to duct or building.
- To regulate the speed, a transformer, a triac or a frequency converter can be connected.
- A wiring diagram is applied on the inside of the junction box or separately enclosed.

- The fan must be installed and connected electrically in the correct way grounded.
- Always use the internal thermo-contact, see wiring diagram.
- Electrical installations must be made by an authorized electrician.
- Electrical installations must be connected to a locally situated tension free switcher or by a lockable head switcher.

OPERATION

When starting, make sure that:

- the current does not exceed more than +5 % of what is stated on the label.
- the connecting voltage is in between +6% to -10% of the rated voltage.
- no noise appears when starting the fan.
- the rotation direction at 3-phase motors are according to the label.

HOW TO HANDLE

- The fan must be transported in its packing until installation. This prevents transport damages, scratches and the fan from getting dirty.
- Attention, look out for sharp edges and corners.

MAINTENANCE

- Before service, maintenance or repair begins, the fan must be tension free and the impeller must have stopped.
- Consider the weight of the fan when removing or opening larger fans to avoid jamming and contusions.
- The fan must be cleaned when needed, at least once per year to maintain the capacity and to avoid unbalance which may cause unnecessary damages on the bearings.

- The fan bearings are maintenance-free and should be renewed only when necessary.
- When cleaning the fan, high-pressure cleaning or strong dissolvent must **not** be used.
- Cleaning should be done without dislodging or damaging the impeller.
- Make sure that there is no noise from the fan.

FAULT DETECTION

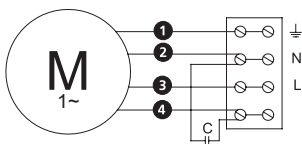
1. Make sure that there is tension to the fan.
2. Cut the tension and verify that the impeller is not blocked.
3. Check the thermo-contact/motor protector. If it is disconnected the cause of overheating must be taken care of, not to be repeated. To restore the manual thermo-protector the tension will be cut for a couple of minutes. Larger motors than 1,6 A may have manual resetting on the motor. If it has automatic thermo-protector the resetting will be done automatically when the motor is cold.
4. Make sure that the capacitor is connected, (single phase only) according to the wiring diagram.
5. If the fan still does not work, the first thing to do is to renew the capacitor.
6. If nothing of this works, contact your fan supplier.
7. If the fan is returned to the supplier, it must be cleaned, the motor cable undamaged and a detailed nonconformity report enclosed.

WARRANTY

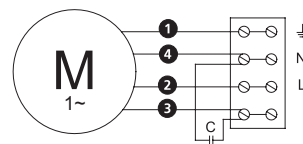
The warranty is only valid under condition that the fan is used according to this “Directions for use”.

Wiring diagrams

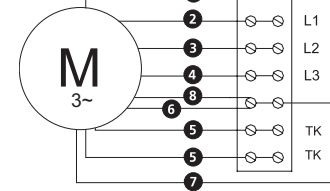
4040001
Single phase



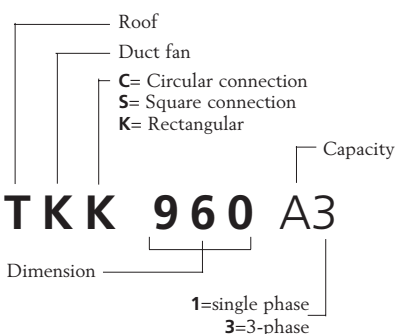
4040002
Single phase



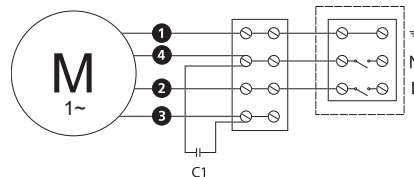
4040004
3-phase Y 400 V



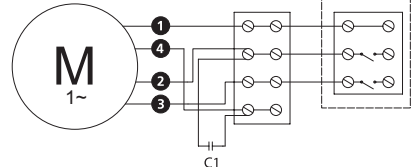
Key to model types



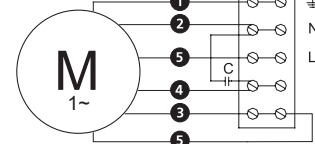
4040010
Single phase with switch



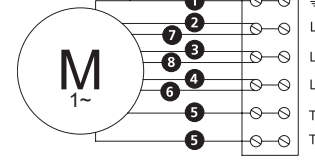
4040011
Single phase with switch



4040005
Single phase with outdrawn thermo-contact



4040030
3-phase, 400V



- (M) = Fan Motor
- (M1) = Fan Motor
- (M2) = Fan Motor
- (M3) = Rotor Motor
- 1 = Yellow/Green
- 2 = Black
- 3 = Blue
- 4 = Brown
- 5 = White (TW)
- 6 = Orange
- 7 = Grey
- 8 = Red

Pressure/flow-curves explanation

FIG. 1:

The fan curve describes the capacity of the fan, i.e. the flow of the fan at different pressures at a certain input voltage.

The fan diagram has the pressure in Pascal, Pa, on the vertical axis and the flow in cubic metres per second, m³/s, on the horizontal axis.

The point on the fan curve showing the current pressure and flow is called the fans working point. In our example it is marked with P.

If the pressure increases in the ducts, the working point moves along the fan curve and hence a lower flow is obtained. In the example the working point would move from P1 to P2.

FIG. 1:

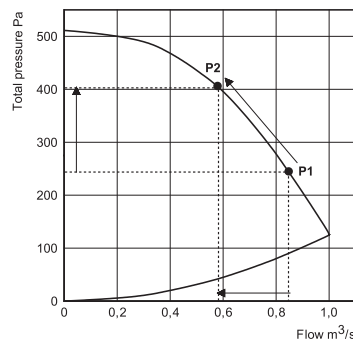


FIG. 2:

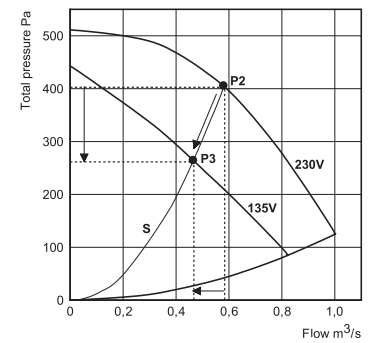


FIG. 2:

The system line describes the total behaviour of a ventilation system (ducts, silencers and valves etc.).

Along this system line, S, the working point is moved from P2 to P3 as the rotational speed is changed.

Distinct voltage steps with eg. a transformer produces different fan curves, 135 V and 230 V, indicated in the example.

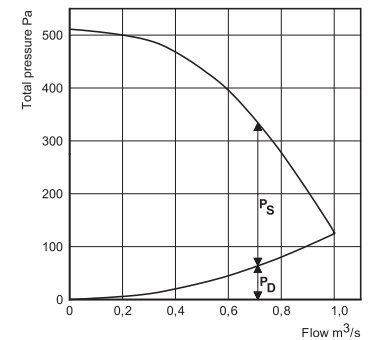
FIG. 3:

Our fan curves present the total pressure in Pascal. Total pressure = Static + Dynamic pressure.

The static pressure is the pressure of the fan compared to the atmospheric pressure. It is this pressure that shall overcome the pressure losses of the ventilation system.

The dynamic pressure is a calculated pressure that arises at the outlet of the fan, and is mostly due to air velocity. The dynamic pressure thus describes how the fan is working. The dynamic pressure is presented with a curve, starting at origo, that increases with increased flow. A high dynamic pressure can with wrong duct connection produce a high pressure loss. If the pressure loss in the system is known, a fan whose difference between the total and the dynamic pressure corresponds to the pressure loss in the system must be found.

FIG. 3:



Sound data explanation

SOUND DATA IN THIS BROCHURE IS BASED ON FOLLOWING DEFINITIONS:

The points for which the sound data is presented are along the system line defined by the pressure and flow stated in the sound data table for each fan. There are three types of sound in these tables; inlet- and outlet sound are measured in duct, while the surrounding sound is measured outside the fan and duct system. For all these types of sound, the sound power levels are presented in octave bands. For the surrounding sound, also the sound pressure level has been calculated.

THE SOUND POWER LEVEL

The sound power level, L_w(A) is used to calculate the sound from the whole ventilation system. This system can be a composition of grilles, dampers and diffusers for example.

The sound power level is a measured value according to standards, and it does not tell how the sound appears as the sound power is independent of the characteristics of the placement of the fan. In order to resemble the human ear, the A-filter is used indicated with L_w(A) measured in dB(A).

THE SOUND PRESSURE LEVEL

The sound pressure level, L_p or L_p(A), tells how the human ear registers the sound. It is dependent on the sound power level, distance from the source, restrictions of the propagation and the acoustic characteristics of the room.

The sound pressure level is presented for a room with an equivalent absorption area of 20 m². 7 dB difference correspond to a distance of ca 3 m, where the sound is emitted in a semi spherical propagation.

The sound pressure level can be calculated as:

$$L_p = L_w + 10 \log (Q/4\pi r^2 + 4/A)$$

A = is the room's equivalent absorption area

Q = is the propagation type:

Q=1 is spherical propagation

Q=2 is semi spherical propagation

Q=4 is quarter spherical propagation.

For the free field case, i.e. from a roof fan, the sound pressure level is calculated as:

$$L_p = L_w + 10 \log Q/4\pi r^2.$$

With L_w(A) tot at 63dB(A), a distance of 5 meters, semi spherical propagation and free field case, the result will be:

$$L_p(A) = 63 + 10 \log 2/4\pi 5^2 = 63 - 22 = 41 \text{ dB(A)}$$

And at 10 meters:

$$L_p(A) = 63 + 10 \log 2/4\pi 10^2 = 63 - 28 = 35 \text{ dB(A)}$$

Temperature of transported air

In pressure/flow diagrams or in the table of technical data there are facts about highest temperature of transported air. All motors have insulation class F which means that the thermal contact disconnects the power when the winding temperature is maximum 155°C. At this winding temperature the life time of the ball-bearings is not optimal. This is why the ambient

temperature is shown at a lower winding temperature so the life time of ball-bearings becomes optimal.

The winding temperature varies in the diagrams and depending on differences in power/current consumption. The temperatures in our diagrams are given at the highest winding temperature.

Specific fan power SFP

A roof fan should have a good SFP (Specific Fan Power). The SFP is a measurement for the size of the total power at a specific flow/pressure and is calculated in kW/m³/second.



ÖSTBERG - THE FAN COMPANY

Östberg – The Fan Company is one of the leading producers of centrifugal in-line duct fans in the world.

30 years ago the founder and owner was one of them who invented the first centrifugal in-line duct fan in the history.

We have continued to develop new products and today we offer a wide product range of centrifugal in-line duct fans.

Our goal has always been to offer quality products at competitive prices.

Fresh air from

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THE FAN COMPANY 

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