

max. 170 m³/h

DC axial fans

Series 4400 F 119 x 119 x 25 mm

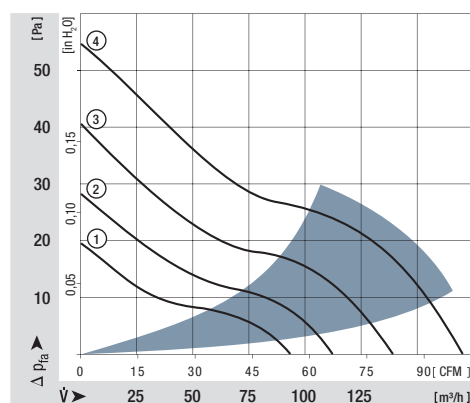


- **Material:** Housing: GRP¹⁾ (PBT)
Impeller: GRP¹⁾ (PA)
 - **Direction of air flow:** Exhaust over struts
 - **Direction of rotation:** Counter-clockwise, seen on rotor
 - **Connection:** Via single wires AWG 24, TR 64
 - **Highlights:** Ball bearings and plain bearings available
 - **Mass:** 175 g
- **Possible special versions:** (See chapter DC fans - specials)
 - Speed signal
 - Go / No-go alarm
 - Alarm with limit speed
 - External temperature sensor
 - Internal temperature sensor
 - PWM control input
 - Analogue control input
 - Protection against moisture

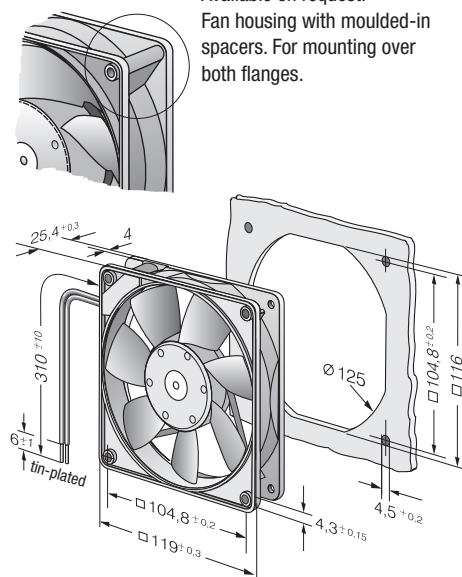
1) Fibreglass-reinforced plastic

Nominal data		Air flow	Air flow	Nominal voltage	Voltage range	Sound pressure level	Sound power level	Sintec sleeve bearings Ball bearings	Input power	Nominal speed	Temperature range	Service life L ₁₀ (40 °C) ebm-papst Standard	Service life L ₁₀ (T _{max}) ebm-papst Standard	Life expectancy L ₁₀ IPC (40 °C) see page 17	Curve
Type	m³/h	CFM	VDC	VDC	dB(A)	Bel(A)	■/■	Watts	rpm	°C	Hours	Hours	Hours		
4412 FGL	94	55	12	7...14	26	3,9	■	1,3	1 600	-20...+75	80 000 / 35 000	135 000	①		
4412 FGML	114	67	12	7...12,6	32	4,3	■	2,0	1 950	-20...+75	75 000 / 32 500	127 500	②		
4412 FML	114	67	12	7...12,6	32	4,3	■	2,0	1 950	-20...+75	75 000 / 32 500	127 500	②		
4412 FGM	140	82	12	7...12,6	38	4,8	■	3,2	2 400	-20...+75	70 000 / 30 000	117 500	③		
4412 FM	140	82	12	7...12,6	38	4,8	■	3,2	2 400	-20...+75	70 000 / 30 000	117 500	③		
4412 FG	170	100	12	8...12,6	43	5,3	■	5,3	2 900	-20...+60	60 000 / 37 500	102 500	④		
4412 F	170	100	12	8...12,6	43	5,3	■	5,3	2 900	-20...+60	60 000 / 37 500	102 500	④		
4414 FL	94	55	24	18...28	26	3,9	■	1,2	1 600	-20...+75	80 000 / 35 000	135 000	①		
4414 FM	140	82	24	12...28	38	4,8	■	3,1	2 400	-20...+75	70 000 / 30 000	117 500	③		
4414 FG	170	100	24	12...28	43	5,3	■	5,0	2 900	-20...+60	60 000 / 37 500	102 500	④		
4414 F	170	100	24	12...28	43	5,3	■	5,0	2 900	-20...+60	60 000 / 37 500	102 500	④		
4418 FG	170	100	48	28...53	43	5,3	■	5,4	2 900	-20...+60	60 000 / 37 500	102 500	④		
4418 F	170	100	48	28...53	43	5,3	■	5,4	2 900	-20...+60	60 000 / 37 500	102 500	④		
Subject to alternations															

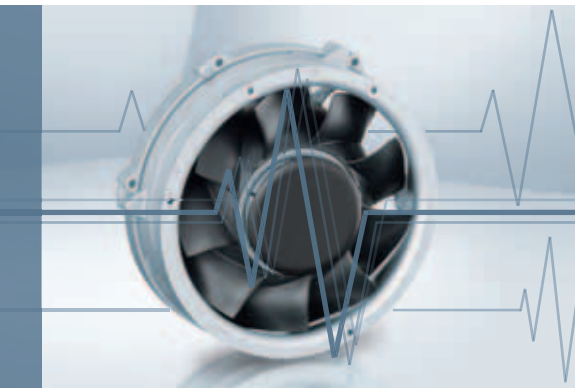
Subject to alternations



Available on request:
Fan housing with moulded-in
spacers. For mounting over
both flanges.

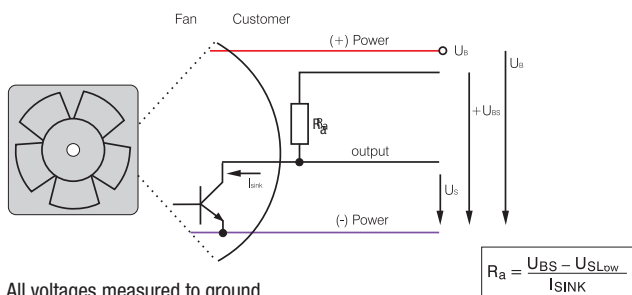


Speed signal /2



- Speed-proportional rectangular pulse for external speed monitoring of fan motor
- 2, 3 or 6 pulses per revolution
- Open collector signal output
- Extremely wide operating voltage range
- Easy adaptation to user interface
- Connection via separate lead
- The sensor signal also serves as a major comparison variable for setting and maintaining the setpoint speed for interactive or controlled cooling with one or several interconnected fans.

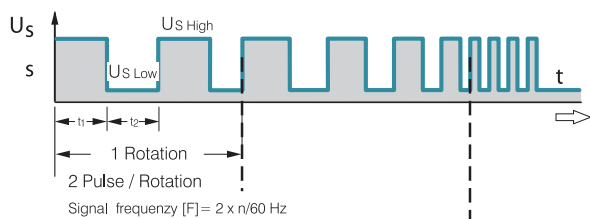
Electrical connection



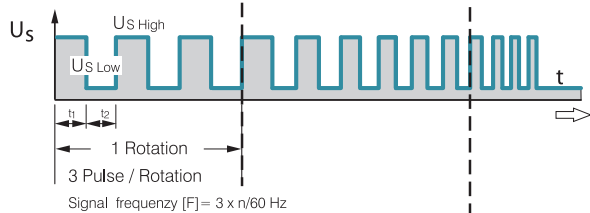
All voltages measured to ground.
External load resistor R_a / U_S / U_{BS} required.

Signal output voltage

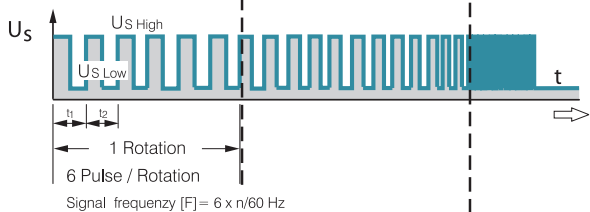
Standard signal for all models (exceptions see below)



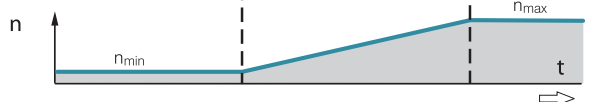
only for 4100 NH7 and NH8



Alle TD Lüfter. Bsp.: 6400 TD



Fan Speed



Signal data	Speed signal $U_{S\text{ Low}}$		Condition: Isink		Speed signal $U_{S\text{ High}}$		Condition: Isource		Sensor operating voltage $U_{BS\text{ max.}}$		Perm. sink current $I_{\text{sink max.}}$		Pulses per revolution	Fan description Basic type
	Type	VDC	mA	VDC	mA	VDC	mA	VDC	mA	mA	mA	mA		
250		$\leq 0,4$	2	≤ 30	0	30	2	2	2	2	2	2	31	
400 F		$\leq 0,4$	1	≤ 30	0	30	2	2	2	2	2	2	32	
400		$\leq 0,4$	1	≤ 30	0	30	2	2	2	2	2	2	33	
420 J		$\leq 0,4$	2	≤ 15	0	15	4	2	2	2	2	2	34	
500 F		$\leq 0,4$	1	≤ 30	0	30	2	2	2	2	2	2	35	
600 F		$\leq 0,4$	1	≤ 30	0	30	2	2	2	2	2	2	36	
620		$\leq 0,4$	2	≤ 30	0	30	4	2	2	2	2	2	37	
630 U		$\leq 0,4$	2	≤ 30	0	30	4	2	2	2	2	2	38	
600 N		$\leq 0,4$	2	≤ 28	0	28	4	2	2	2	2	2	39	
600 J		$\leq 0,4$	2	≤ 30	0	30	4	2	2	2	2	2	41	
700 F		$\leq 0,4$	2	≤ 30	0	30	4	2	2	2	2	2	42	
8450		$\leq 0,4$	2	≤ 28	0	28	4	2	2	2	2	2	43	
8400 N		$\leq 0,4$	2	≤ 28	0	28	4	2	2	2	2	2	44	
8400 N VARIOFAN		$\leq 0,4$	2	≤ 30	0	30	4	2	2	2	2	2	45	
8300		$\leq 0,4$	2	≤ 30	0	30	4	2	2	2	2	2	46	
8200 J		$\leq 0,4$	2	≤ 30	0	30	4	2	2	2	2	2	47	
3400 N		$\leq 0,4$	2	≤ 28	0	28	4	2	2	2	2	2	48	
3400 N VARIOFAN		$\leq 0,4$	2	≤ 30	0	30	4	2	2	2	2	2	49	
3300		$\leq 0,4$	2	≤ 30	0	30	4	2	2	2	2	2	50	
3300 N		$\leq 0,4$	2	≤ 30	0	30	4	2	2	2	2	2	51	
3212 J / 3214 J		$\leq 0,4$	2	≤ 30	0	30	4	2	2	2	2	2	52	
3218 J		$\leq 0,4$	2	≤ 60	0	60	4	2	2	2	2	2	52	
3250 J		$\leq 0,4$	2	≤ 60	0	60	4	3	3	3	3	3	53	
4412 F / 4414 F		$\leq 0,4$	2	≤ 30	0	30	4	2	2	2	2	2	54	
4418 F		$\leq 0,4$	2	≤ 60	0	60	4	2	2	2	2	2	54	
4400 FN		$\leq 0,4$	2	≤ 30	0	30	4	2	2	2	2	2	55	
4312 / 4314		$\leq 0,4$	2	≤ 30	0	30	4	2	2	2	2	2	56	
4318		$\leq 0,4$	2	≤ 60	0	60	4	2	2	2	2	2	56	
4312 / 4314 VARIOFAN		$\leq 0,4$	2	≤ 30	0	30	4	2	2	2	2	2	57	
4318 VARIOFAN		$\leq 0,4$	2	≤ 60	0	60	4	2	2	2	2	2	57	
4400		$\leq 0,4$	2	≤ 30	0	30	4	2	2	2	2	2	58/59	
4100 N		$\leq 0,4$	2	≤ 30	0	30	4	2	2	2	2	2	60	
4100 NHH...NH6		$\leq 0,4$	2	≤ 60	0	60	10	2	2	2	2	2	61	
4100 NH7...NH8		$\leq 0,4$	2	≤ 60	0	60	20	3	3	3	3	3	62	
DV 4100		$\leq 0,4$	2	≤ 30	0	30	4	2	2	2	2	2	63	

Subject to alterations

Available on request:

- Electrically isolated sensor and signal circuit
- Varying voltage potentials for power and logic circuit

Signal data	Speed signal U _S Low	Condition: I _{sink}	Speed signal U _S High	Condition: I _{source}	Sensor operating voltage U _{GS} max.	Perm. sink current I _{sink} max.	Pulses per revolution	Fan description Basic type
Type	VDC	mA	VDC	mA	VDC	mA		Page
5200 N	≤ 0,4	2	≤ 30	0	30	4	2	64
DV 5200	≤ 0,4	2	≤ 30	0	30	4	2	65
5112 N	≤ 0,4	2	≤ 15	0	5	20	2	66
5114 N / 5118 N	≤ 0,4	2	≤ 60	0	60	20	2	66
5300	≤ 0,4	2	≤ 72	0	72	4	2	67
5300 TD	≤ 0,4	2	≤ 72	0	72	20	6	68
7112 N / 7118 N	≤ 0,4	2	≤ 60	0	60	20	2	69
7114 N	≤ 0,4	2	≤ 30	0	30	20	2	69
7200 N	≤ 0,4	2	≤ 15	0	15	20	2	70
6300	≤ 0,4	2	≤ 72	0	72	20	2	72
6300 TD	≤ 0,4	2	≤ 72	0	72	20	6	73/74
DV 6300	≤ 0,4	2	≤ 72	0	72	20	6	75
6400	≤ 0,4	2	≤ 60	0	60	20	2	76
2200 FTD	≤ 0,4	2	≤ 72	0	72	20	6	80
RL 48	≤ 0,4	2	≤ 30	0	30	4	2	95
RL 65	≤ 0,4	2	≤ 30	0	30	4	2	96
RL 90 N	≤ 0,4	2	≤ 30	0	30	4	2	97
RLF 100	≤ 0,4	2	≤ 30	0	30	4	2	98
RG 90 N	≤ 0,4	2	≤ 30	0	30	4	2	99
RG 125 N	≤ 0,4	2	≤ 30	0	30	4	2	100
RG 160 N	≤ 0,4	2	≤ 30	0	30	20	2	101
RG 160 NTD	≤ 0,4	2	≤ 60	0	60	20	6	102
RG 190 TD	≤ 0,4	2	≤ 72	0	72	20	6	103
RG 220 TD	≤ 0,4	2	≤ 72	0	72	20	6	104
RG 225 TD	≤ 0,4	2	≤ 72	0	72	20	6	105
RET 97 TD	≤ 0,4	2	≤ 72	0	72	20	6	106
REF 100	≤ 0,4	2	≤ 30	0	30	4	2	107
RER 120 TD	≤ 0,4	2	≤ 72	0	72	20	6	109
RER 133 TD	≤ 0,4	2	≤ 72	0	72	20	6	113
RER 160 NTD	≤ 0,4	2	≤ 60	0	60	20	6	115
REF 175 TD	≤ 0,4	2	≤ 72	0	72	20	6	116
RER 175 TD	≤ 0,4	2	≤ 72	0	72	20	6	117
RER 190 TD	≤ 0,4	2	≤ 72	0	72	20	6	118
RER 220 TD	≤ 0,4	2	≤ 72	0	72	20	6	124
RER 225 TD	≤ 0,4	2	≤ 72	0	72	20	6	125
Subject to alternations								

Note:

With these fan options, deviations in regard to temperature range, voltage range and power consumption are possible compared with standard fan data.