

max. 170 m<sup>3</sup>/h

# DC axial fans

Series 4400 F 119 x 119 x 25 mm

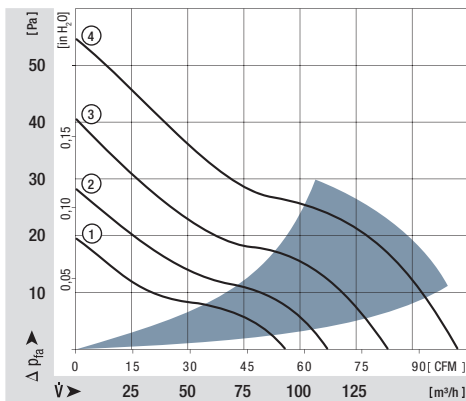
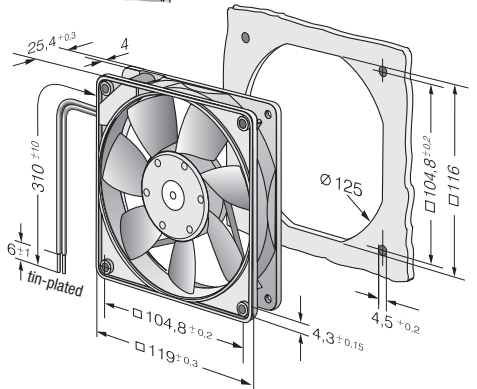
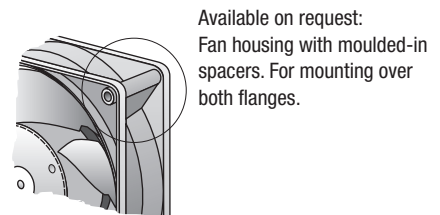


- **Material:** Housing: GRP<sup>1)</sup> (PBT)  
Impeller: GRP<sup>1)</sup> (PA)
  - **Direction of air flow:** Exhaust over struts
  - **Direction of rotation:** Counter-clockwise, seen on rotor
  - **Connection:** Via single wires AWG 24, TR 64
  - **Highlights:** Ball bearings and plain bearings 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

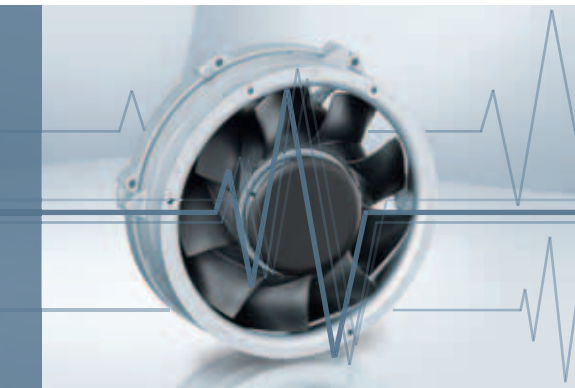
1) Fibreglass-reinforced plastic

Nominal data	Air flow		Nominal voltage	Voltage range	Sound pressure level	Sound power level	Sinter sleeve bearings Ball bearings	Input power	Nominal speed	Temperature range	Service life L <sub>10</sub> (40 °C) ebm-papst Standard	Service life L <sub>10</sub> (T <sub>max</sub> ) ebm-papst Standard	Life expectancy L <sub>10</sub> IPC (40 °C) see page 17	Curve
	m <sup>3</sup> /h	CFM												
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

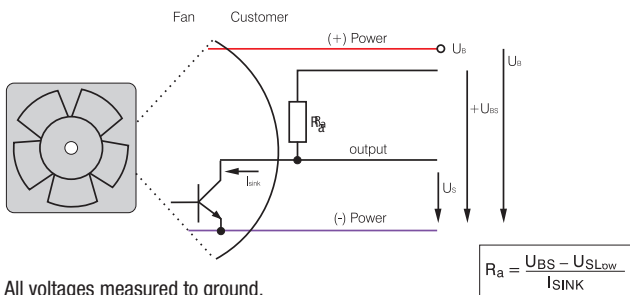


# Speed signal /2



- 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.

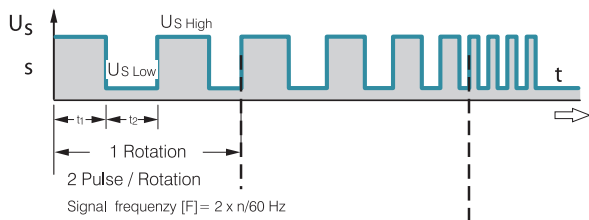
## Electrical connection



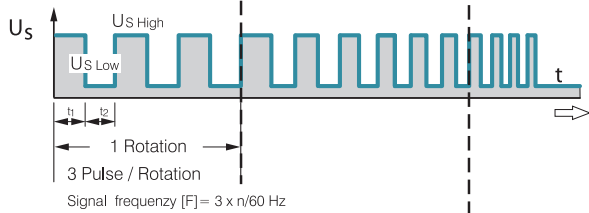
All voltages measured to ground.  
External load resistor  $R_a$  /  $U_S$  /  $U_{BS}$  required.

## Signal output voltage

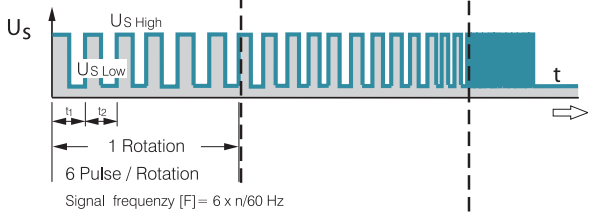
Standard signal for all models (exceptions see below)



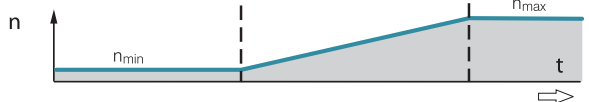
only for 4100 NH7 and NH8



Allé TD Lüfter. Bsp.: 6400 TD



## Fan Speed



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

Subject to alternations

**Available on request:**

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

Signal data	Speed signal U <sub>S</sub> Low	Condition: I <sub>sink</sub>	Speed signal U <sub>S</sub> High	Condition: I <sub>source</sub>	Sensor operating voltage U <sub>GS</sub> max.	Perm. sink current I <sub>sink</sub> 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.

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [DC Fans](#) category:*

*Click to view products by [ebm papst](#) manufacturer:*

Other Similar products are found below :

[614R](#) [AUB0612L](#) [AFB0948HH-S687](#) [G2E085-AA05-10](#) [4318/12T](#) [AUB0912H-F00](#) [3412N/2ME](#) [W2G110-AM39-01](#) [8412GLV](#) [8412NGL-12](#) [6448-384](#) [4114N/17-251](#) [622/2N](#) [4318/2R](#) [4412F/2D](#) [424JMU](#) [4414/2HH](#) [4112 N/12GL-175](#) [9GA0912F402](#) [9GA0812B20011](#) [AFB0824SHBAV1](#) [DV5214/2NP-230](#) [9GA0912H4021](#) [THC1548MGDJJ](#) [GFB1224SHG](#) [8500NU](#) [DC0401012V2B-3T0](#) [3254J/2HPU](#) [9A0612G402](#) [AD5012HB-C71](#) [AD5012MB-C71](#) [EF92251S3-1000U-A99](#) [PF80251B3-000U-Q99](#) [026758A](#) [3258J/2H3PU????](#) [412/2H](#) [4292](#) [MF60152V1-1000U-G99](#) [3610KL-04W-B50-D00](#) [EE92251B1-000U-G99](#) [8218J/2H4P](#) [4318NN](#) [4318NH3](#) [4314NL](#) [4312NM](#) [MITX-CORE-HTSNK](#) [ME45101V1-000U-A99](#) [OD1238-24HBIP55](#) [4312NHH](#) [612N/2GH](#)