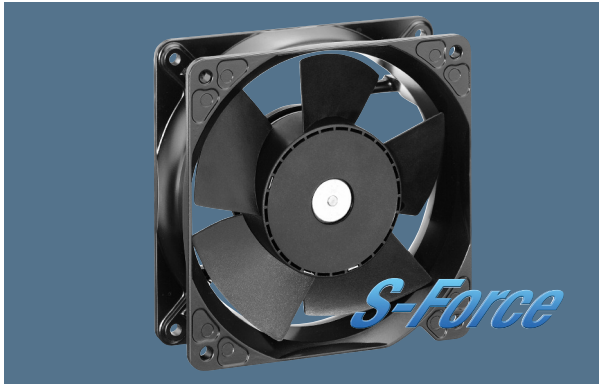


max. 440 m<sup>3</sup>/h

# DC axial fans

Series 4100 N High Performance 119 x 119 x 38 mm



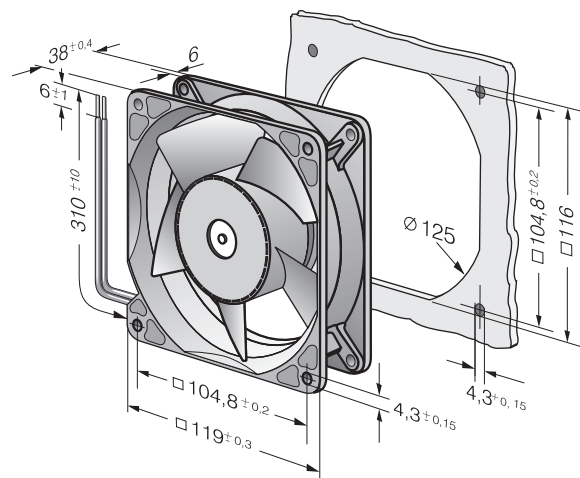
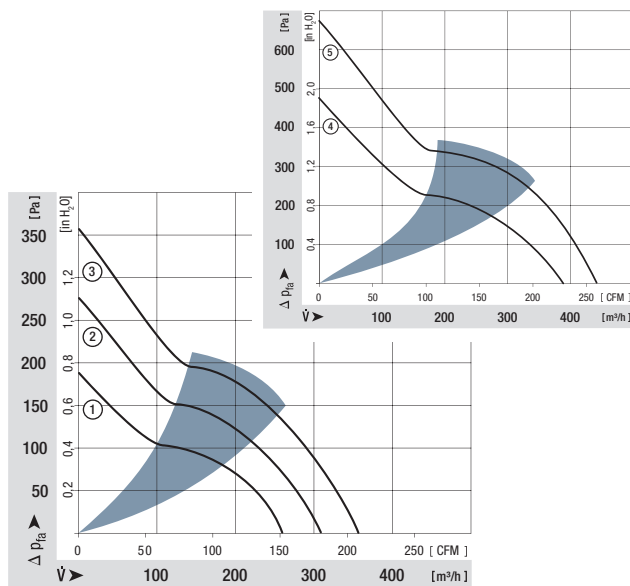
### Highlights:

- Very rigid compression curve for high air flow at high back pressure.
- Low operating noise level at high back pressure.
- Optional Vario-Pro: Highly adaptable software configuration of the fan enables a tailor-made solution to the specific requirements of your applications.

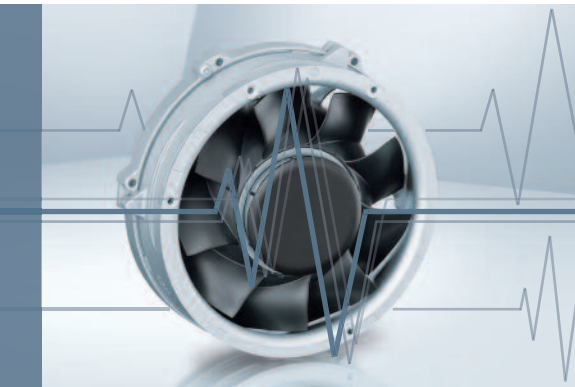
### General characteristics:

- Material: aluminium housing, fibreglass-reinforced PA impeller; housing with grounding lug for screw M4 x 8 (Torx).
- Fully integrated electronic commutation.
- Protected against reverse polarity and locking.
- Connection via single strands AWG 22, UL1007, TR 64, bared and tin-plated
- Air intake over struts. Direction of rotation clockwise, seen on rotor.
- Mass: 390 g.

Nominal data	Air flow		Nominal voltage	Voltage range	Sound pressure level	Sound power level	Sinter sleeve bearings Ball bearings	Power input	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> <sup>Δ</sup> (40 °C) see p. 15	Curve	Specials
	m <sup>3</sup> /h	CFM													
4112 NHH	260	152,9	12	9...15	60	6,8	■	13,3	5 000	-20...+65	70 000 / 55 000	147 500	1		
4112 NH3	310	182,4	12	9...15	65	7,2	■	21,6	6 000	-20...+65	65 000 / 37 500	132 500	2	/2	
4112 NH4	355	208,9	12	9...14	67	7,4	■	32,0	6 800	-20...+65	62 500 / 35 000	125 000	3	/2	
4114 NHH	260	152,9	24	16...30	60	6,8	■	12,4	5 000	-20...+65	70 000 / 52 500	147 500	1	/2	
4114 NH3	310	182,4	24	16...30	65	7,2	■	19,5	6 000	-20...+65	65 000 / 37 500	132 500	2	/2	
4114 NH4	355	208,9	24	16...30	67	7,4	■	30,0	6 800	-20...+65	62 500 / 35 000	125 000	3	/2	
4114 NH5	390	229,5	24	16...30	70	7,6	■	45,0	7 500	-20...+65	62 500 / 35 000	125 000	4	/2	
4114 NH6	440	259,0	24	16...30	73	8,1	■	65,0	8 400	-20...+65	60 000 / 32 500	120 000	5	/2	
4118 NHH	260	152,9	48	36...60	60	6,8	■	12,0	5 000	-20...+65	70 000 / 52 500	147 500	1	/2	
4118 NH3	310	182,4	48	36...60	65	7,2	■	20,0	6 000	-20...+65	65 000 / 37 500	132 500	2	/2	
4118 NH4	355	208,9	48	36...60	67	7,4	■	28,0	6 800	-20...+65	62 500 / 35 000	125 000	3	/2	
4118 NH5	390	229,5	48	36...60	70	7,6	■	45,0	7 500	-20...+65	62 500 / 35 000	125 000	4	/2	
4118 NH6	440	259,0	48	36...60	73	8,1	■	62,0	8 400	-20...+65	60 000 / 32 500	120 000	5	/2	

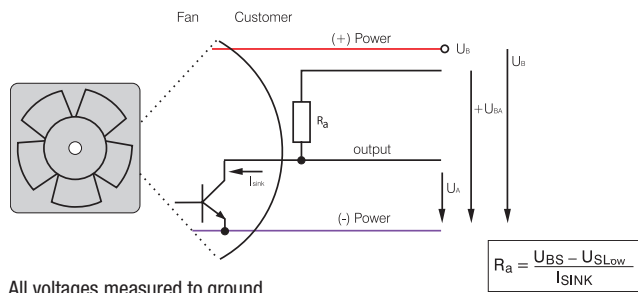


# Speed signal /2



- Speed-proportional, square-wave signal for external monitoring of the fan motor speed
- 2, 3, or 6 pulses per revolution
- Open-collector signal output
- Extremely wide operating voltage range
- Easy adaptation to user interface
- Connection via separate cable
- 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 more interconnected fans.

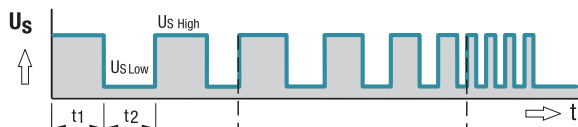
## Electrical hookup



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

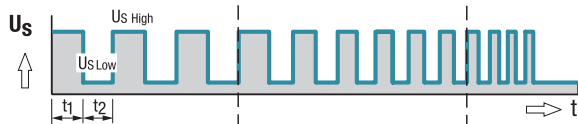
## Signal output voltage

Standard signal for all models (exceptions see below)



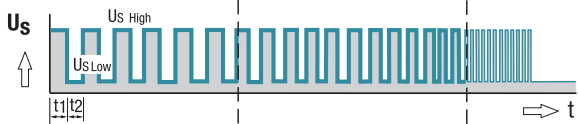
1 Rotation  
2 Pulse/Rotation  
Signal frequency  $[F] = 3 \times n / 60\text{Hz}$

For multi options control input and 4100 NH7 and NH8



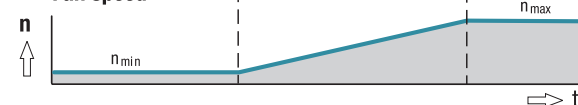
1 Rotation  
3 Pulse/Rotation  
Signal frequency  $[F] = 3 \times n / 60\text{Hz}$

All TD Fans e.g. 6300 TD



1 Rotation  
6 Pulse/Rotation  
Signal frequency  $[F] = 6 \times n / 60\text{Hz}$

## Fan speed



Signal data	Speed signal $U_{S\text{ Low}}$	Condition: $I_{\text{sink}}$	Speed signal $U_{S\text{ High}}$	Condition: $I_{\text{source}}$	Tach operating voltage $U_{BS\text{ max}}$	Admissible sink current $I_{\text{sink max}}$	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 N	≤ 0.4	2	≤ 30	0	30	4	2	50
3212 J / 3214 J	≤ 0.4	2	≤ 30	0	30	4	2	51
3218 J	≤ 0.4	2	≤ 60	0	60	4	2	51
3250 J	≤ 0.4	2	≤ 60	0	60	4	3	52
4412 F / 4414 F	≤ 0.4	2	≤ 30	0	30	4	2	53
4418 F	≤ 0.4	2	≤ 60	0	60	4	2	53
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
5200 N	≤ 0.4	2	≤ 30	0	30	4	2	64
DV 5200	≤ 0.4	2	≤ 30	0	30	4	2	65

Subject to change

**Available on request:**

- Electrically isolated speed 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: $I_{Source}$	Tach operating voltage $U_{GS, max.}$	Admissible sink current $I_{Sink, max.}$	Pulses per revolution	Fan description Basic type
Type	VDC	mA	VDC	mA	VDC	mA		Page
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	≤ 60	0	60	4	2	67
5300 TD	≤ 0.4	2	≤ 60	0	60	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
6400	≤ 0.4	2	≤ 60	0	60	20	2	71
6300 TD	≤ 0.4	2	≤ 60	0	60	20	6	75
6300 N	≤ 0.4	2	≤ 60	0	60	20	6	76
6300 NTD	≤ 0.4	2	≤ 60	0	60	20	6	77
6300	≤ 0.4	2	≤ 60	0	60	20	2	78
DV 6300 TD	≤ 0.4	2	≤ 60	0	60	20	6	80
2200 FTD	≤ 0.4	2	≤ 60	0	60	20	6	81
RL 48	≤ 0.4	2	≤ 30	0	30	4	2	97
RL 65	≤ 0.4	2	≤ 30	0	30	4	2	98
RL 90 N	≤ 0.4	2	≤ 30	0	30	4	2	99
RLF 100	≤ 0.4	2	≤ 30	0	30	4	2	100
RG 90 N	≤ 0.4	2	≤ 30	0	30	4	2	101
RG 125 N	≤ 0.4	2	≤ 30	0	30	4	2	102
RG 140 N	≤ 0.4	3	≤ 60	0	60	4	2	103
RG 160 N	≤ 0.4	2	≤ 30	0	30	20	2	104
RG 160 NTD	≤ 0.4	2	≤ 60	0	60	20	6	105
RG 190 TD	≤ 0.4	2	≤ 60	0	60	20	6	106
RG 220 TD	≤ 0.4	2	≤ 60	0	60	20	6	107
RG 225 TD	≤ 0.4	2	≤ 60	0	60	20	6	108
RET 97 TD	≤ 0.4	2	≤ 60	0	60	20	6	109
REF 100	≤ 0.4	2	≤ 30	0	30	4	2	110
RER 120 TD	≤ 0.4	2	≤ 60	0	60	20	6	112
RER 133 TD	≤ 0.4	2	≤ 60	0	60	20	6	117
RER 160 NTD	≤ 0.4	2	≤ 60	0	60	20	6	119
REF 175 TD	≤ 0.4	2	≤ 60	0	60	20	6	120
RER 175 TD	≤ 0.4	2	≤ 60	0	60	20	6	121
RER 190 TD	≤ 0.4	2	≤ 60	0	60	20	6	122
RER 220 TD	≤ 0.4	2	≤ 60	0	60	20	6	128
RER 225 TD	≤ 0.4	2	≤ 60	0	60	20	6	129

Subject to change

**Note:**

Fans that come with these fan specials could have variations with respect to the temperature range, voltage range, and power consumption compared to standard fans without specials.

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