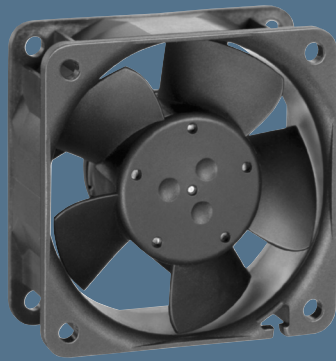


max. 56 m<sup>3</sup>/h

# DC axial fans

Series 600 N 60 x 60 x 25 mm



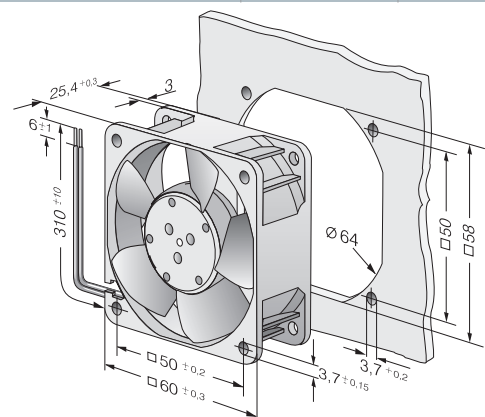
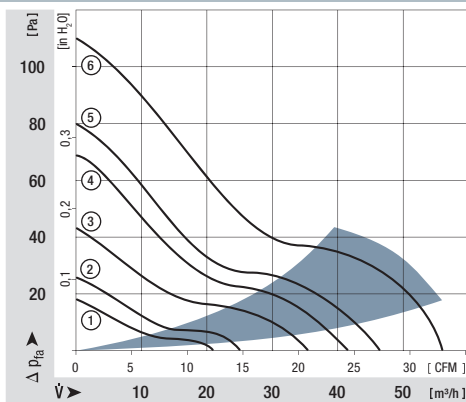
### Highlights:

- Ball bearings and sleeve bearings available.
- Some models suitable for use at high ambient temperatures up to 85 °C.

### General characteristics:

- Material: fibreglass-reinforced plastic. Impeller PA, housing PBT.
- Fully integrated electronic commutation.
- Protected against reverse polarity and locking.
- Connection via single strands AWG 22, TR 64. Bared and tin-plated.
- Air exhaust over struts. Direction of rotation clockwise, seen on rotor.
- Mass: 66 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> Δ (40 °C) see P. 15	Curve	Specials
	Type	m <sup>3</sup> /h													
612 NGL	21	12,4	12	8...15	16	3,6	□	0,6	2 500	-20...+85	80 000 / 27 500	160 000	1		
612 NLE	21	12,4	12	8...15	16	3,6	■	0,4	2 500	-20...+85	80 000 / 27 500	160 000	1		
612 NGMLE	25	14,7	12	8...15	19	3,9	□	0,7	3 000	-20...+80	80 000 / 32 500	160 000	2		
612 NMLE	25	14,7	12	8...15	19	3,9	■	0,4	3 000	-20...+85	80 000 / 27 500	160 000	2		
612 NGME	35	20,6	12	8...15	28	4,6	□	1,2	4 100	-20...+75	80 000 / 35 000	160 000	3		
612 NME	35	20,6	12	8...15	28	4,6	■	0,8	4 100	-20...+75	80 000 / 35 000	160 000	3	/2	
612 NN	42	24,7	12	8...15	35	5,0	■	1,6	5 100	-20...+70	70 000 / 35 000	140 000	4		
612 NH	46	27,1	12	8...15	37	5,3	■	2,0	5 600	-20...+70	70 000 / 35 000	140 000	5	/2	
612 NHH-118	56	33,0	12	8...15	41	5,7	■	2,9	6 800	-20...+70	60 000 / 30 000	120 000	6	/2	
614 NGL	21	12,4	24	18...28	16	3,6	□	1,0	2 500	-20...+70	80 000 / 40 000	160 000	1		
614 NL	21	12,4	24	18...28	16	3,6	■	0,9	2 500	-20...+70	80 000 / 40 000	160 000	1	/2	
614 NGML	25	14,7	24	18...28	19	3,9	□	1,2	3 000	-20...+70	80 000 / 40 000	160 000	2	/2	
614 NML	25	14,7	24	18...28	19	3,9	■	1,0	3 000	-20...+70	80 000 / 40 000	160 000	2		
614 NGM	35	20,6	24	18...28	28	4,6	□	1,7	4 100	-20...+70	80 000 / 40 000	160 000	3	/12	
614 NM	35	20,6	24	18...28	28	4,6	■	1,4	4 100	-20...+70	80 000 / 40 000	160 000	3	/2/39	
614 NN	42	24,7	24	18...28	35	5,0	■	1,8	5 100	-20...+70	70 000 / 35 000	140 000	4		
614 NH	46	27,1	24	18...26	37	5,3	■	2,1	5 600	-20...+70	70 000 / 35 000	140 000	5	/2	
614 NHH	56	33,0	24	18...26	41	5,7	■	3,0	6 850	-20...+70	60 000 / 30 000	120 000	6		
614 NHH-119	56	33,0	24	18...28	41	5,7	■	3,0	6 850	-20...+70	60 000 / 30 000	120 000	6	/2	
618 NM	35	20,6	48	36...56	28	4,6	■	1,4	4 100	-20...+70	80 000 / 40 000	160 000	3		
618 NN	42	24,7	48	36...56	35	5,0	■	2,1	5 100	-20...+65	70 000 / 40 000	140 000	4	/2/12/39	

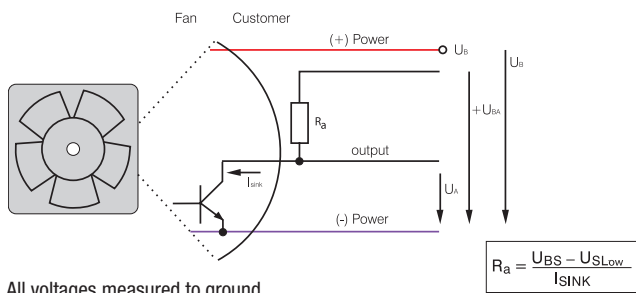


# Speed signal /2



- 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.

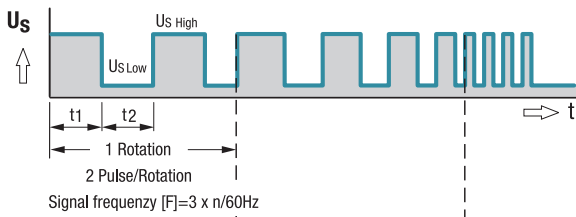
## Electrical hookup



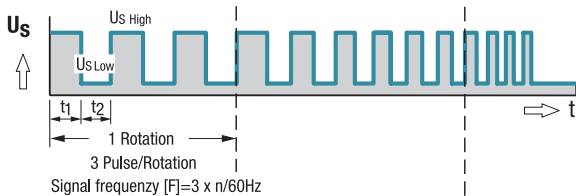
All voltages measured to ground.  
External load resistor  $R_a$  /  $U_S$  /  $U_{BS}$  required.

## Signal output voltage

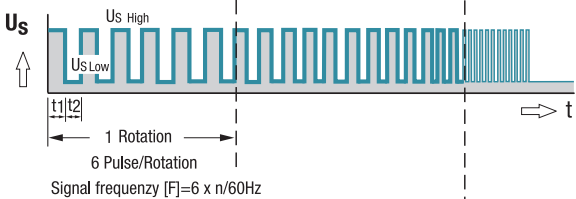
Standard signal for all models (exceptions see below)



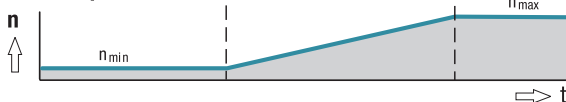
For multi options control input and 4100 NH7 and NH8



All TD Fans e.g. 6300 TD



## Fan speed



## Signal data

Type	Speed signal $U_{S Low}$ VDC	Condition: $I_{Sink}$ mA	Speed signal $U_{S High}$ VDC	Condition: $I_{Source}$ mA	Tach operating voltage $U_{BS max}$ VDC	Admissible sink current $I_{Sink max}$ mA	Pulses per revolution	Fan description Basic type	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 $U_{S\text{ Low}}$	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		
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.