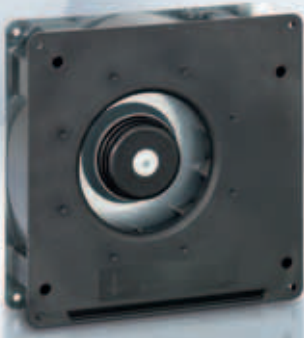


max. 137 m<sup>3</sup>/h

# DC centrifugal fans

Series RG 125 N 180 x 180 x 40 mm

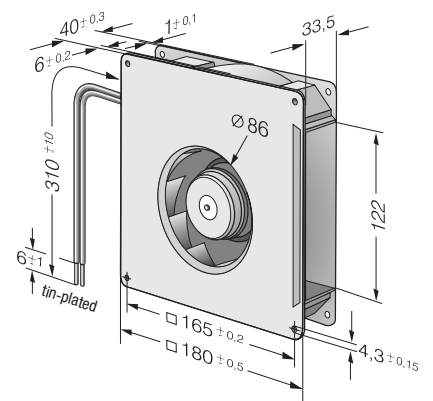
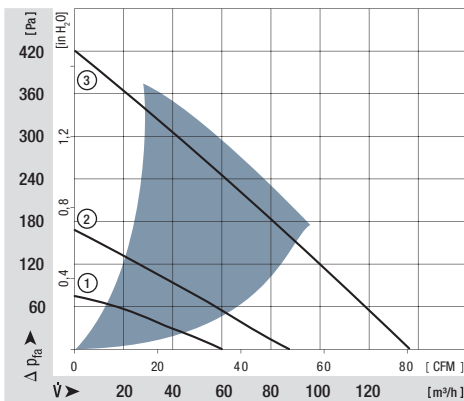


- **Material:** Scroll housing: GRP<sup>1)</sup>  
Impeller: GRP<sup>1)</sup>  
Housing base: Sheet steel
  - **Direction of air flow:** Axial: Intake  
Centrifugal: Exhaust
  - **Connection:** Via single wires AWG 22, TR 64  
48 V model: Flat plug  
6.3 x 0.8 mm for protective earth
  - **Highlights:** Backwards-curved impeller
  - **Mass:** 730 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
    - Protection against salt fog
    - Type of protection: IP 54 / IP 68

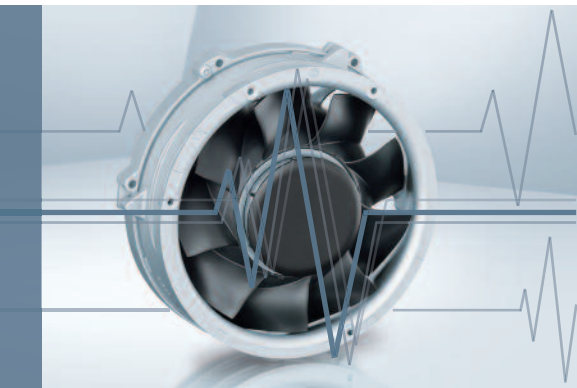
1) Fibreglass-reinforced plastic

Nominal data	Air flow		Nominal voltage	Voltage range	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											
RG 125-19/12 NM	60,0	35,3	12	7...15	4,8	■	2,0	1 750	-30...+75	70 000 / 30 000	117 500	117 500	①
RG 125-19/12 N	87,5	51,5	12	7...15	5,8	■	5,2	2 550	-30...+75	62 500 / 27 500	105 000	105 000	②
RG 125-19/14 NM	60,0	35,3	24	12...28	4,8	■	2,0	1 750	-30...+75	70 000 / 30 000	117 500	117 500	①
RG 125-19/14 N	87,5	51,5	24	12...28	5,8	■	4,9	2 550	-30...+75	62 500 / 27 500	105 000	105 000	②
RG 125-19/18 N	87,5	51,5	48	36...56	5,8	■	4,8	2 550	-30...+75	62 500 / 27 500	105 000	105 000	②
RG 125-19/18 NH	137	80,6	48	36...56	7,0	■	19,0	4 000	-20...+70	55 000 / 27 500	92 500	92 500	③

Subject to alternations

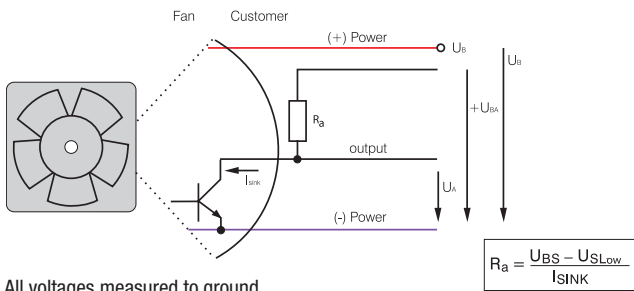


# Speed signal /2



- 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.

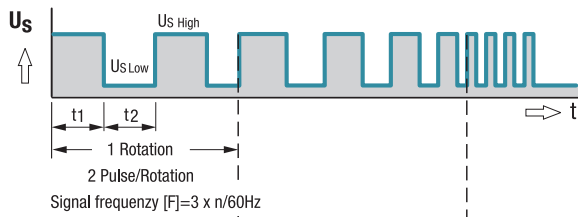
## Electrical hookup



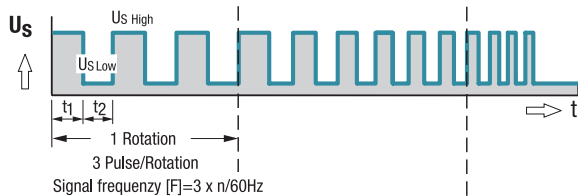
All voltages measured to ground.  
External load resistor  $R_a / U_S / U_{BS}$  required.

## Signal output voltage

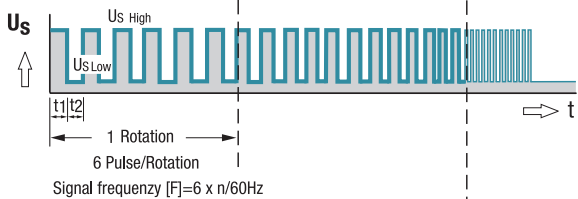
Standard signal for all models (exceptions see below)



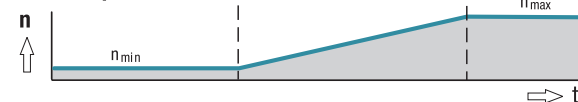
For multi options control input and 4100 NH7 and NH8



All TD Fans e.g. 6300 TD



## Fan speed



Signal data	Speed signal $U_{S\text{Low}}$		Condition: $I_{SINK}$		Speed signal $U_{S\text{High}}$		Condition: $I_{SOURCE}$		Tach operating voltage $U_{BS\text{max}}$	Admissible sink current $I_{SINK\text{max}}$	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 $U_{S\text{ Low}}$	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.