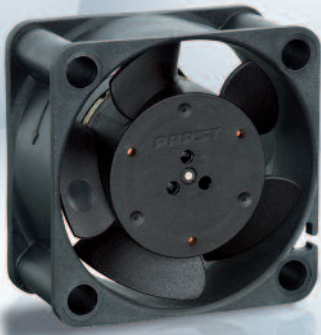


Max. 13.5 m<sup>3</sup>/h

# DC axial fans

□ 40 x 20 mm



- **Material:** Housing: GRP<sup>1)</sup> (PBT)  
Impeller: GRP<sup>1)</sup> (PA)
  - **Direction of air flow:** Exhaust over struts
  - **Direction of rotation:** Counterclockwise, looking towards rotor
  - **Connection:** Via single wires AWG 28, TR 64
  - **Highlights:** Some models are suitable for use at high ambient temperatures
  - **Weight:** 27 g
- **Possible special versions:** (See chapter DC fans - specials)
    - Speed signal
    - Go / NoGo alarm
    - PWM control input
    - Moisture protection

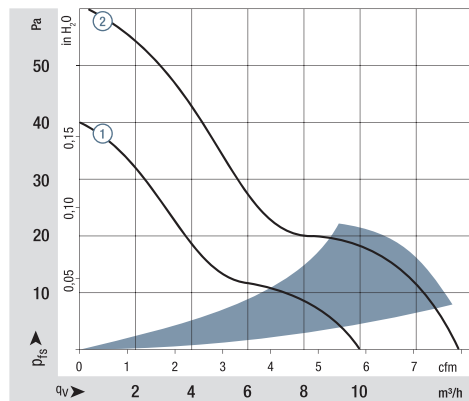
1) Fiberglass-reinforced plastic

## Series 400

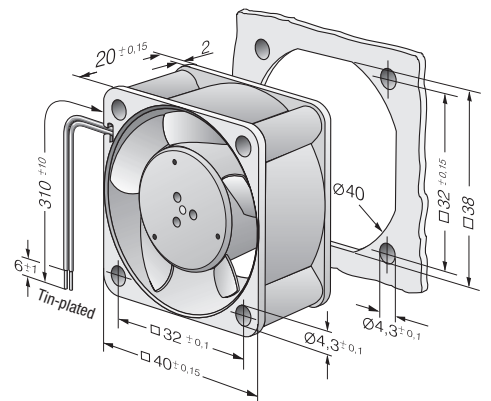
### Nominal data

Type	Air flow		Nominal voltage	Voltage range	Sound pressure level	Sound power level	Sinter sleeve bearings Ball bearings	Power consumption	Nominal speed	Temperature range	Service life L <sub>10</sub> (20 °C) ebm-papst standard	Service life L <sub>10</sub> (60 °C) ebm-papst standard	Life expectancy L <sub>10</sub> IPC (40 °C) see page 17	Curve
	m <sup>3</sup> /h	cfm												
405	10.0	5.9	5	4.5...5.5	18	3.8	■	0.9	6 000	-20...+70	50 000 / 20 000	52 500	52 500	①
412	10.0	5.9	12	10...14	18	3.8	■	0.8	6 000	-20...+70	50 000 / 20 000	52 500	52 500	①
412 H	13.5	7.9	12	10...14	29	4.7	■	1.6	8 100	-20...+60	45 000 / 17 500	47 500	47 500	②
414	10.0	5.9	24	20...28	18	3.8	■	1.0	6 000	-20...+70	50 000 / 20 000	52 500	52 500	①
414 H	13.5	7.9	24	20...26.5	29	4.7	■	1.7	8 100	-20...+60	45 000 / 17 500	47 500	47 500	②
Model with temperature range up to +85 °C.														
412-099	10.0	5.9	12	10...14	18	3.8	■	0.8	6 000	-20...+85	50 000 / 20 000	52 500	52 500	①

Subject to change

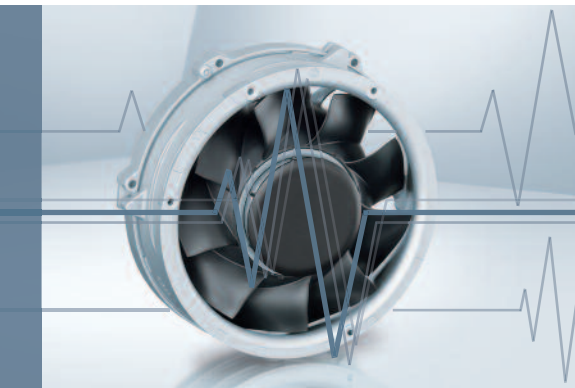


Air performance measured according to: ISO 5801.  
Installation category A, without contact protection.  
Noise: Total sound power level L<sub>WA</sub> ISO 103002 measured on a hemisphere with a radius of 2 m.  
Sound pressure level L<sub>PA</sub> measured at 1 m distance from fan axis.  
The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions.  
In the event of deviation from the standard configuration, the parameters must be checked after installation!  
For detailed information see <http://www.ebmpapst.com/general conditions>



# Alarm signal /39

Go / NoGo alarm



- Alarm signal for speed monitoring
- Signal output via open collector
- The fan emits a continuous low signal during trouble-free operation within the permissible voltage range.
- High signal when speed limit is not reached
- After elimination of the fault, the fan returns to its setpoint speed; the alarm signal reverts to low.

Alarm signal data	Alarm output voltage $U_A$ Low			Alarm output voltage $U_A$ High			Alarm operating voltage $U_{BA}$ max.	Max. permissible Sink current $I_{sink}$	Alarm delay time $t_d$	Condition:	Speed limit $n_G$	Fan description Basic type
	Type	VDC	mA	VDC	mA	Condition: source						
412/39	$\leq 0.5$	$n > n_G$	2	$\leq 28$	$n = n_G$	0	28	10	$< 1$	*	0	33
612 F/39 H	$\leq 0.5$	$n > n_G$	2	$\leq 28$	$n = n_G$	0	28	10	$< 1$	*	0	36
614 N/39 M	$\leq 0.5$	$n > n_G$	2	$\leq 28$	$n = n_G$	0	28	10	$< 1$	*	0	39
618 N/39 N	$\leq 0.5$	$n > n_G$	2	$\leq 28$	$n = n_G$	0	28	10	$< 1$	*	0	39
3412 N/39 H	$\leq 0.5$	$n > n_G$	2	$\leq 28$	$n = n_G$	0	28	10	$< 1$	*	0	48
3414 N/39 HH	$\leq 0.5$	$n > n_G$	2	$\leq 28$	$n = n_G$	0	28	10	$< 1$	*	0	48
4412 F/39 GL	$\leq 0.5$	$n > n_G$	2	$\leq 28$	$n = n_G$	0	28	10	$< 1$	*	0	53
4412 F/39 M	$\leq 0.5$	$n > n_G$	2	$\leq 28$	$n = n_G$	0	28	10	$< 1$	*	0	53
4414 F/39	$\leq 0.5$	$n > n_G$	2	$\leq 28$	$n = n_G$	0	28	10	$< 1$	*	0	53
4414 FN/39 H	$\leq 0.4$	$n > n_G$	2	$\leq 30$	$n = n_G$	0	30	4	$< 1$	*	0	55

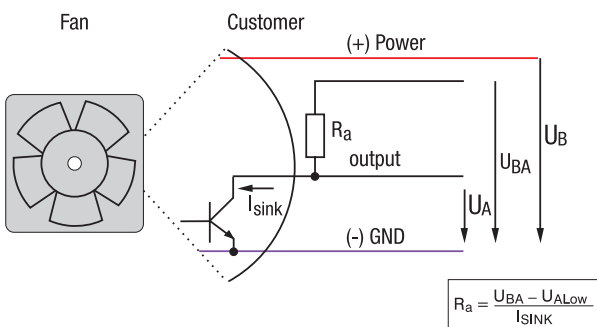
Subject to change

\* After switching on  $U_B$

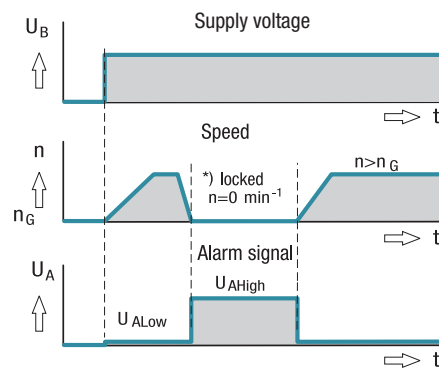
## Note:

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.

## Electrical hookup



All voltages measured to ground  
External load resistor  $R_a$  from  $U_A$  to  $U_{BA}$  required.



\* Speed limit  $n_G = 0$  rpm