

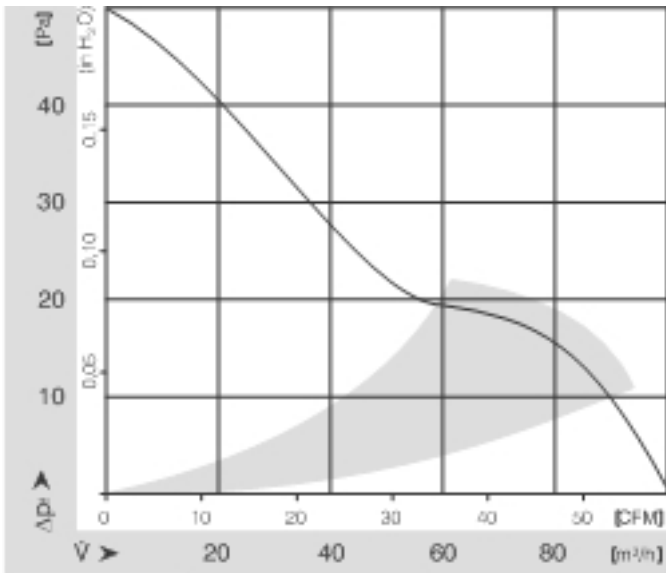
# 3412 NHH



## Brief description

- **General description:** DC fan with electronically commutated external rotor motor. Commutation electronics completely integrated.
- **Impeller material:** Fiberglass-reinforced PA plastic
- **Housing material:** Fiberglass-reinforced PBTP plastic

## Output curve



## Technical data

Voltage 12 VDC

Voltage range VDC 8 - 13.2 VDC

Air flow 102  $\text{m}^3/\text{h}$

Speed 3250 1/min

Power consumption 3.2 W

Sound level 5.1 Bel

Sound pressure level 39 dB(A)

Ambient temperature -20 .. 60 °C

L10 service life at 40 °C 70000 h

L10 service life at max. temp. 45000 h

Weight 0.100 kg

## 3412 NHH: DESCRIPTION

General description	DC fan with electronically commutated external rotor motor. Commutation electronics completely integrated.
Impeller material	Fiberglass-reinforced PA plastic
Housing material	Fiberglass-reinforced PBTP plastic
Bearings	Ball bearings
Direction of rotation	Left, looking at rotor
Direction of air flow	Air exhaust over bars
Electrical connection	Single strands AWG 24, TR 64
Motor protection	Reverse-polarity protected. The fan runs only if the polarity is correct.
Approvals	VDE, CSA, UL, CE
Option	Speed signal, Vario-Pro

Compact DC Fans														
Part No.	sleeve	Ball	Voltage	Power	Airflow	Noise Level	Width x Height x Depth			nom speed	Temp range	Tacho signal	RS Part no.	Farnell Part no.
			(Vdc)	Input (W)	(m3/h)	(dBA)	(mm)			(rpm)	(degC)		<a href="#">Click here for other distributors</a>	
<b>25mm micro miniature</b>														
255M	x		5	0.2	2.1	5	25	25	8	6000	-10 to +70			9600710
255N	x		5	0.4	3.2	15	25	25	8	9000	-10 to +70		3642130	9600728
252N	x		12	0.5	3.2	15	25	25	8	9000	-10 to +70		3642118	9600744
252/2N	x		12	0.5	3.2	15	25	25	8	9000	-10 to +70	Yes		9600752
255H	x		5	0.6	4.5	28	25	25	8	12000	-10 to +55		3642124	9600736
<b>40mm miniature</b>														
405F	x		5	0.7	8	22.1	40	40	10	5400	-20 to +70		3642146	9600620
412F	x		12	0.7	8	22.1	40	40	10	5400	-20 to +70		2007750	9601260
414F	x		24	0.8	8	26	40	40	10	5400	-20 to +70		2007788	9601295
405FH	x		5	0.9	9	26	40	40	10	6000	-20 to +70		4577352	
412FH	x		12	0.8	9	26	40	40	10	6000	-20 to +70		2007766	9601279
<b>40mm low noise</b>														
405	x		5	0.9	10	18	40	40	20	6000	-20 to +70		1018541	9600639
412	x		12	0.9	10	18	40	40	20	6000	-20 to +70		2007794	9601287
414	x		24	1.0	10	18	40	40	20	6000	-20 to +70		2058310	9601309
412H	x		12	1.6	13.5	29	40	40	20	8100	-20 to +60		3642152	
414H	x		24	1.6	13.5	29	40	40	20	8100	-20 to +60		4577346	
<b>40mm Ultra high performance</b>														
412J		x	12	2.4	19	39	40	40	25	10300	-20 to +70		250814	1293489
414J		x	24	2.4	19	39	40	40	25	10300	-20 to +70		250836	9600795
412JH		x	12	3.0	22	43	40	40	25	11700	-20 to +70		4577403	9600760
414JH		x	24	3.0	22	43	40	40	25	11700	-20 to +70		4577425	9600809
414J/2H		x	24	3.0	22	43	40	40	25	11700	-20 to +70	Yes		9600817
412JHH		x	12	3.3	24	46	40	40	25	13000	-20 to +60		4577419	9600779

412J/2HH		x	12	3.3	24	46	40	40	25	13000	-20 to +60	Yes		9600787
414JHH		x	24	3.6	24	46	40	40	25	13000	-20 to +60		4577447	9600825
414J/2HH		x	24	3.6	24	46	40	40	25	13000	-20 to +60	Yes		9600833
<b>50mm slimline</b>														
512F	x		12	1.0	20	30	50	50	15	5000	-20 to +70		2991497	9600191
514F	x		24	1.0	20	30	50	50	15	5000	-20 to +70		2991504	9600205
<b>60mm slimline</b>														
612FL	x		12	0.4	19	16	60	60	15	2650	0 to +70		3642174	
612F	x		12	1.0	29	27	60	60	15	3900	-20 to +70		2991510	9600086
614F	x		24	1.1	29	27	60	60	15	3900	-20 to +70		2991526	9600094
612FH	x		12	1.4	33	31	60	60	15	4500	-20 to +60		4577368	
<b>60mm standard</b>														
612L		x	12	0.7	21	26	60	60	25	3000	-20 to +65			9601317
612NGL	x		12	0.7	21	16	60	60	25	2500	-20 to +70		3373036	9600280
614NGL	x		24	1.0	21	16	60	60	25	2500	-20 to +70		3373064	9600329
612NLE		x	12	0.7	21	26	60	60	25	2500	-20 to +70		581537	
614NL		x	24	0.8	21	26	60	60	25	2500	-20 to +70		581543	
612NGML	x		12	0.9	25	19	60	60	25	3000	-20 to +85		3224401	
614NGML	x		24	1.2	25	19	60	60	25	3000	-20 to +70		3246681	
612NGM	x		12	1.3	35	28	60	60	25	4100	-20 to +75		3224417	9600299
614NGM	x		24	1.7	35	28	60	60	25	4100	-20 to +70		3373070	9600337
612NN		x	12	2.5	40	40	60	60	25	5100	-20 to +70		501913	
614NN		x	24	2.5	40	40	60	60	25	5100	-20 to +70		501929	
612NGN	x		12	2.0	42	35	60	60	25	5100	-20 to +70		3373042	9600302
614NGN	x		24	2.1	42	35	60	60	25	5100	-20 to +70		3224445	9600345
612NGH	x		12	2.4	46	38	60	60	25	5600	-20 to +70		3373058	9600310
614NGH	x		24	2.4	46	38	60	60	25	5600	-20 to +70			9600353
612NGHH	x		12	2.9	56	41	60	60	25	6800	-20 to +70		3224423	9600647
614NGHH	x		24	3.6	56	43	60	60	25	6850	-20 to +70		3224467	9600655
<b>60mm high pressure</b>														
622N		x	12	1.9	40	36	60	60	25	6100	-20 to +70		5143017	
622HH		x	12	3.5	56	43	60	60	25	8200	-20 to +70		5142884	
624N		x	24	2.2	40	36	60	60	25	6100	-20 to +70		5142890	
624HH		x	24	3.6	56	43	60	60	25	8200	-20 to +70		5142913	
<b>60mm Ultra high performance</b>														
612JH		x	12	7.7	70	53	60	60	32	11700	-20 to +70		5142929	
614JH		x	24	7.7	70	53	60	60	32	11700	-20 to +70		250921	1372289
<b>70mm slimline</b>														

712F	x		12	1.7	44	38	70	70	15	5300	-20 to +70		4577380	9600841
714F	x		24	1.5	44	38	70	70	15	5300	-20 to +70		4577396	
<b>80mm standard</b>														
8412NGL	x		12	0.6	33	12	80	80	25	1500	-20 to +70		2991396	9600981
8412N/2GL	x		12	0.6	33	12	80	80	25	1500	-20 to +70	Yes		9599983
8414NGL	x		24	0.7	33	12	80	80	25	1500	-20 to +70		2991403	9600990
8414N/2GL	x		24	0.7	33	12	80	80	25	1500	-20 to +70	Yes		9600027
8412NLE		x	12	0.3	33	17	80	80	25	1500	-20 to +70		581559	
8414NL		x	24	0.7	33	17	80	80	25	1500	-20 to +70		581565	
8412NGM	x		12	1.3	58	26	80	80	25	2600	-20 to +70		2000771	9601007
8412N/2GM	x		12	1.3	58	26	80	80	25	2600	-20 to +70	Yes		9599991
8414NGM	x		24	1.4	58	26	80	80	25	2600	-20 to +70		2813763	9601015
8414N/2GM	x		24	1.4	58	26	80	80	25	2600	-20 to +70	Yes		9600035
8412NG	x		12	2.0	69	32	80	80	25	3100	-20 to +70		2005861	9601023
8414NG	x		24	2.0	69	32	80	80	25	3100	-20 to +70		2813779	9601031
8412N/2G	x		12	2.0	69	32	80	80	25	3100	-20 to +70	Yes	2991453	9600000
8414N/2G	x		24	2.0	69	32	80	80	25	3100	-20 to +70	Yes	2991419	9600043
8412N		x	12	2.0	69	32	80	80	25	3100	-20 to +70		1018838	
8414N		x	24	2.0	69	32	80	80	25	3100	-20 to +70		1018894	
8412NGH	x		12	2.8	79	37	80	80	25	3600	-20 to +70		2813757	9601040
8412N/2GH	x		12	2.8	79	37	80	80	25	3600	-20 to +70	Yes		9600019
8414NGH	x		24	2.8	79	37	80	80	25	2600	-20 to +70		2819991	9601058
8414N/2GH	x		24	2.8	79	37	80	80	25	2600	-20 to +70	Yes		9600051
8412NH		x	12	2.2	79	37	80	80	25	3600	-20 to +70		4577453	
8414NH		x	24	2.4	79	37	80	80	25	3600	-20 to +70		3945394	
<b>80mm high pressure</b>														
8312L		x	12	1.0	32	24	80	80	32	2000	-20 to +75			9601333
8314L		x	24	1.0	32	24	80	80	32	2000	-20 to +75			9601341
8312		x	12	2.2	54	36	80	80	32	3300	20 to +75		504883	9599827
8314		x	24	2.5	54	36	80	80	32	3300	-20 to +75		504899	9599835
8318		x	48	2.6	54	36	80	80	32	3300	-20 to +75			9601325
8314H		x	24	6.0	80	48	80	80	32	5000	-20 to +75		4577475	
8318H		x	48	5.8	80	48	80	80	32	5000	-20 to +75		4577481	
<b>80mm Ultra high performance</b>														
8212JN		x	12	10.0	132	55	80	80	38	8400	-20 to +70		5142935	
8214JN		x	24	10.0	132	55	80	80	38	8400	-20 to +70		251003	1372290
<b>92mm standard</b>														
3412NGL	x		12	1.2	61	23	92	92	25	1950	-20 to +80		3373086	9600361

3414NGL	x		24	1.4	61	23	92	92	25	1950	-20 to +70		3373137	9600418
3412NGM	x		12	1.6	72	28	92	92	25	2300	-20 to +75		3373092	9600370
3414NGM	x		24	1.8	72	28	92	92	25	2300	-20 to +70		3373143	9600426
3412NG	x		12	2.2	84	32	92	92	25	2700	-20 to +70		3373109	9600388
3414NG	x		24	2.3	84	32	92	92	25	2700	-20 to +70		3373159	9600434
3412N		x	12	2.2	84	32	92	92	25	2700	-20 to +70		3373115	9600396
3414N		x	24	2.3	84	32	92	92	25	2700	-20 to +70		3373165	9600442
3412N/2		x	12	2.4	84	36	92	92	25	2700	-20 to +70	Yes	2994733	1441627
3414N/2		x	24	2.4	84	36	92	92	25	2700	-20 to +70	Yes	2991481	1441628
3412NGH	x		12	2.5	94	36	92	92	25	3000	-20 to +70		3373121	9600400
3414NGH	x		24	3.0	94	36	92	92	25	3000	-20 to +70		3373171	9600450
3412NHH		x	12	3.2	102	39	92	92	25	3250	-20 to +60		4577497	
3414NHH		x	24	3.2	102	39	92	92	25	3250	-20 to +70		4577504	4723326
<b>92mm high pressure</b>														
3312L		x	12	1.4	56	29	92	92	32	2150	-20 to +75			9601350
3312		x	12	2.4	80	37	92	92	32	3000	-20 to +75		504906	9599851
3314		x	24	2.6	80	37	92	92	32	3000	-20 to +75		504912	9599860
3318		x	48	2.7	80	37	92	92	32	3000	-20 to +75		4684747	
<b>92mm Ultra high performance</b>														
3212JH		x	12	9.0	146	55	92	92	38	6800	-20 to +70		251154	1293490
3214JH		x	24	9.0	146	55	92	92	38	6800	-20 to +70		251075	1293491
<b>119mm slimline</b>														
4412FGL	x		12	1.3	94	26	119	119	25	1600	-20 to +75		4684602	
4412FGM	x		12	3.2	140	38	119	119	25	2400	-20 to +75			9601066
4412FM		x	12	3.2	140	38	119	119	25	2400	-20 to +75		2637856	
4414FM		x	24	3.2	140	38	119	119	25	2400	-20 to +75		2637862	9601074
4412F		x	12	5.3	170	43	119	119	25	2900	-20 to +60		4577510	
4412F/2		x	12	5.3	170	43	119	119	25	2900	-20 to +60	Yes		9600060
4414F		x	24	5.0	170	43	119	119	25	2900	-20 to +60		2637878	9601082
4414F/2		x	24	5.0	170	43	119	119	25	2900	-20 to +60	Yes		9600078
4412FNH		x	12	12.0	225	55	119	119	25	5400	-20 to +70		251019	1293487
4414FNH		x	24	12.0	225	55	119	119	25	5400	-20 to +70		251025	1293488
<b>119mm low noise</b>														
4312NGL	x		12	1.2	93	27	119	119	32	1650	-20 to +70		3966161	
4312L		x	12	1.2	95	30	119	119	32	1550	-20 to +75		581571	9601368
4314L		x	24	1.2	95	39	119	119	32	1550	-20 to +75		581587	9601376
4312M		x	12	2.6	140	39	119	119	32	2300	-20 to +75		581593	9601384
4314M		x	24	2.6	140	39	119	119	32	2300	-20 to +75		581600	9601392

4312NGN	x		12	4.0	166	43	119	119	32	3000	-20 to +70		3966155	
4314NGN	x		24	4.3	166	43	119	119	32	3000	-20 to +70		3966183	
4312		x	12	5.0	170	45	119	119	32	2800	-20 to +75		504928	9599878
4314		x	24	5.0	170	45	119	119	32	2800	-20 to +75		504934	9599886
4312/2		x	12	5.0	170	45	119	119	32	2800	-20 to +75	Yes	2991469	
4314/2		x	24	5.0	170	45	119	119	32	2800	-20 to +75	Yes	2991425	
4318		x	48	5.0	170	45	119	119	32	2800	-20 to +75			9601406
4312NHH		x	12	6.5	198	49	119	119	32	3600	-20 to +60		4684618	
4314NHH		x	24	6.0	198	49	119	119	32	3600	-20 to +70		4684630	
<b>119mm standard</b>														
4212NGL	x		12	1.4	100	28	119	119	38	1700	-20 to +70		3373193	9600469
4214NGL	x		24	1.4	100	28	119	119	38	1700	-20 to +70		3373238	9600493
4212NGM	x		12	3.1	144	38	119	119	38	2450	-20 to +70		3373200	9600477
4214NGM	x		24	3.1	144	38	119	119	38	2450	-20 to +70		3373250	9600507
4182NGX	x		12	3.5	160	44	119	119	38	2800	-10 to +75			9600965
4184NGX	x		24	3.5	160	44	119	119	38	2800	-10 to +75			9600973
4212NGN	x		12	4.3	165	42	119	119	38	2750	-20 to +70		3373216	9600485
4214NGN	x		24	4.3	165	42	119	119	38	2750	-20 to +70		3373266	9600515
4218NGN	x		48	4.0	165	42	119	119	38	2750	-20 to +70		3373288	
4212NN		x	12	4.3	165	42	119	119	38	2750	-20 to +70		2644472	
4214NN		x	24	4.3	165	42	119	119	38	2750	-20 to +70		2637755	
4218NN		x	48	4.3	165	42	119	119	38	2750	-20 to +70		2637761	
4212NH		x	12	4.8	180	45	119	119	38	3050	-20 to +70		3373222	9600698
4214NH		x	24	4.8	180	45	119	119	38	3050	-20 to +70		3373272	9600701
<b>119mm Ultra high performance</b>														
4112NHH		x	12	15.5	260	60	119	119	38	5000	-20 to +65		251097	1293492
4114NHH		x	24	15.5	260	60	119	119	38	5000	-20 to +65		250959	1293493
4112N/2H3		x	12	19.5	310	65	119	119	38	6000	-20 to +65	Yes	251104	1293494
4114NH3		x	24	19.5	310	65	119	119	38	6000	-20 to +65		5142941	
4112N/2H4		x	12	32.0	355	67	119	119	38	6800	-20 to +65	Yes	251069	1293495
4114N/2H4		x	24	30.0	355	67	119	119	38	6800	-20 to +65	Yes	250808	1293496
4114N/2H5		x	24	45.0	390	70	119	119	38	7500	-20 to +65	Yes	250820	1293498
<b>127mm standard</b>														
5212NM		x	12	4.6	187	43	127	127	38	2750	-20 to +75		250763	1293499
5214NM		x	24	4.6	187	43	127	127	38	2750	-20 to +75		250937	1293500
5218NM		x	48	5.0	187	43	127	127	38	2750	-20 to +75		250909	1293505
W2G115-AD15-02		x	12	4.5	200	44	127	127	38	2800	-25 to +72		2339338	



W2G115-AD17-02		x	24	4.7	200	44	127	127	38	2800	-25 to +72		2339344	
W2G115-AD19-02		x	48	4.6	200	44	127	127	38	2800	-25 to +72		2339366	
5214NN		x	24	6.0	216	46	127	127	38	3150	-20 to +75			9601090
5212NH		x	12	9.8	252	51	127	127	38	3650	-20 to +70		250757	1293501
5214NH		x	24	9.8	252	51	127	127	38	3650	-20 to +70		4577526	
5218NH		x	48	10.0	252	51	127	127	38	3650	-20 to +55		4577532	
5212N/2HH		x	12	19.0	338	58	127	127	38	4900	-20 to +65	Yes	250842	1293502
5214N/2HH		x	24	17.5	338	58	127	127	38	4900	-20 to +65	Yes	250779	1293504
5218N/2HH		x	48	18.0	338	58	127	127	38	4900	-20 to +65	Yes	250791	1293506
<b>127mm Diagonal fans - high pressure / high performance</b>														
DV5212/2N		x	12	20.0	270	56	127	127	38	5000	-20 to +65	Yes	4684646	
DV5214/2N		x	24	20.0	270	56	127	127	38	5000	-20 to +65	Yes	4577576	
<b>135mm standard</b>														
5112N		x	12	9.5	250	48	135	135	38	2900	-25 to +72		2637727	9601104
5114N		x	24	9.5	250	48	135	135	38	2900	-25 to +72		2637733	9601112
5112N/2		x	12	9.5	250	48	135	135	38	2900	-25 to +72	Yes	2991475	
5114N/2		x	24	9.5	250	48	135	135	38	2900	-25 to +72	Yes	2991447	
<b>150mm diameter</b>														
W2G130-AA31-01		x	12	14.0	345	51	150	dia	55	2850	-25 to +60		2339372	
7212N		x	12	12.0	360	50	150	dia	55	3050	-25 to +72		222288	9600906
7214N		x	24	12.0	360	50	150	dia	55	3050	-25 to +72		222294	9600914
7218N		x	48	12.0	360	50	150	dia	55	3050	-25 to +72		4577548	
<b>172mm diameter</b>														
6212NM		x	12	12.0	350	50	172	dia	51	2850	-20 to +72			9600213
6224N		x	24	18.0	410	55	172	dia	51	3400	-20 to +72			9600221
<b>172mm x 150mm</b>														
6424		x	24	18.0	410	57	172	150	51	3400	-20 to +72		2637777	
6448		x	48	17.0	410	57	172	150	51	3400	-20 to +72		2637799	
6424H		x	24	26.0	480	63	172	150	51	4000	-20 to +55		4577554	
6448H		x	48	26.0	480	63	172	150	51	4000	-20 to +55		4577560	
<b>172mm Diagonal fans - high pressure / high volume</b>														
DV6224		x	24	40.0	540	63	172	dia	51	4300	-20 to +75		3325762	9600604
DV6248		x	48	40.0	540	63	172	dia	51	4300	-20 to +75		3325778	
<b>200mm standard - high pressure / high volume</b>														
W1G200-HH77-52		x	24	55.0	1090	60	225	225	80	2950	-15 to +60		3601921	
<b>Temperature controlled fans 'Variopro'</b>														

612NGMI	x		12	1.3-1.7	18-35	14-28	60	60	25	2150 to 4100	-20 to +65		250915	1372288
8412NGMLV	x		12	1.1-1.5	27-45	10-19	80	80	25	1200 to 2050	-20 to +70		251110	9600264
3412NGMV	x		12	1.5-2.0	44-72	14-28	92	92	25	1400 to 2300	-20 to +70		2637812	
3412NGV	x		12	1.6-2.5	50-84	16-32	92	92	25	1600 to 2700	-20 to +70			9600272
4312MV		x	12	1.5-3.0	68-140	22-39	119	119	32	1150 to 2300	-20 to +65		845342	9600183
6248NTDI		x	48	2.0-50.0	90-600	18-65	172	dia	51	800 to 5100	-20 to +60		250993	1372291
<b>High Humidity protected, 'R' rated</b>														
8412NGR	x		12	2.0	69	32	80	80	25	3100	-20 to +70		2991532	9600108
8414NGR	x		24	2.0	69	32	80	80	25	3100	-20 to +70		3002790	9600116
4312R		x	12	5.0	170	45	119	119	32	2800	-20 to +75		2994755	9600124
4314R		x	24	5.0	170	45	119	119	32	2800	-20 to +75		3002807	9600132
<b>Splash proof IP54</b>														
614NHU		x	24	2.1	46	37	60	60	25	5600	-20 to +70		5142957	
8312U		x	12	2.2	54	36	80	80	32	3300	-20 to +75			9600140
8314U		x	24	2.5	54	36	80	80	32	3300	-20 to +75			9600159
4312U		x	12	5.0	170	45	119	119	32	2800	-20 to +75		3373294	9600167
4314U		x	24	5.0	170	45	119	119	32	2800	-20 to +75		3373317	9600175