

# 190mm Plastic Backward

## Centrifugal Fan

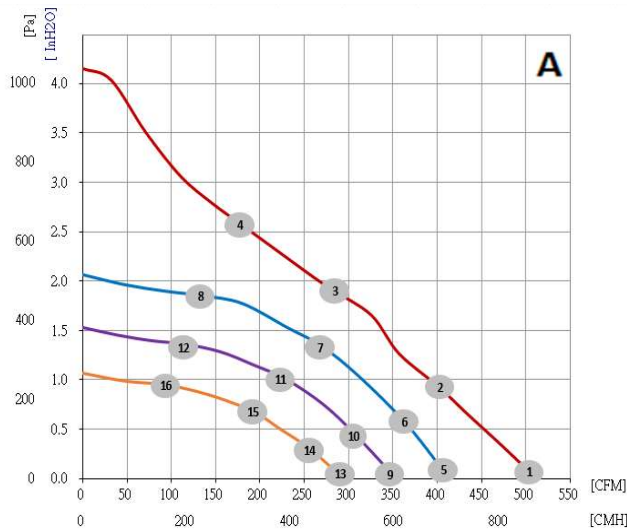
### SPECIFICATIONS

- **Material:**
  - Impeller: Plastic
  - Rotor: Zinc Plating Steel
  - Electronics housing: Die-cast aluminium
- **Number of blades:** 7
- **Direction of rotation:** Clockwise viewed toward rotor
- **Insulation class:** "B"
- **Installation position:** Any
- **Degree of protection:** IP54
- **Condensation drainage holes:** None
- **Mode:** Continuous operation (S1)
- **Mounting:** Maintenance-free ball bearings
- **Technical features:** Controller input PWM/0-10V
- **Cable exit:** Variable
- **Protection class:** I (with customer connection of protective earth)
- **Conformity with standards:** UL
- **Weight:** 1.4KG



### PERFORMANCE

Nominal data	Platform	Curve	Nominal voltage range	Frequency	Speed*	Max input power*	Max input current*	Operating ambient temp	Life time	PWM/ 0-10V
Type	Motor	A	VAC	Hz	rpm	W	A	°C	Hr	●
ECO190CB126072220	OD72	A	120	50 / 60	3660	130	1.78	-20 to +60	40,000	●



	n (rpm)	P1 (W)	I (A)	η (%)	P (Pa)	P (InH <sub>2</sub> O)	Q (CMH)	Q (CFM)
①	3960	134	1.77	—	0	0	868	511
②	3670	135	1.78	32.2	231	0.93	682	402
③	3660	135	1.78	46.7	472	1.90	481	284
④	3790	136	1.78	39.4	643	2.58	300	177
⑤	3210	75	1.06	—	0	0	702	414
⑥	3210	89	1.22	26.3	136	0.55	622	366
⑦	3210	93	1.27	45.8	334	1.34	458	270
⑧	3210	81	1.13	35.9	461	1.85	229	135
⑨	2760	50	0.74	—	0	0	601	354
⑩	2760	58	0.85	27.2	110	0.44	523	308
⑪	2760	61	0.88	43.9	249	1.00	389	229
⑫	2760	54	0.78	34.0	338	1.36	195	115
⑬	2290	32	0.49	—	0	0	497	293
⑭	2290	37	0.56	24.0	74	0.30	435	256
⑮	2290	38	0.58	40.1	165	0.66	331	195
⑯	2290	33	0.52	30.4	236	0.95	155	91

DRAWING:

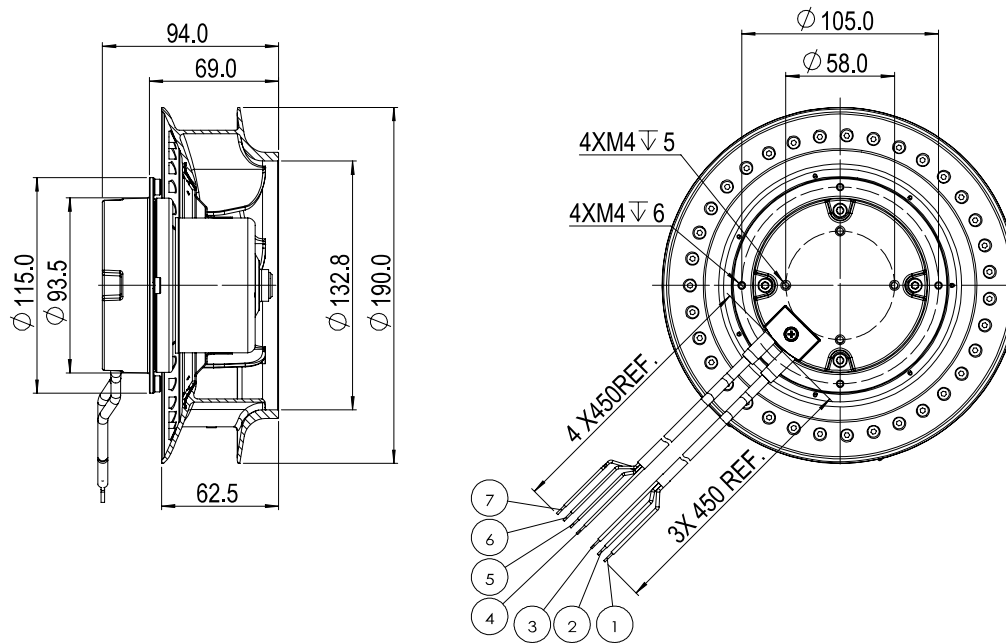
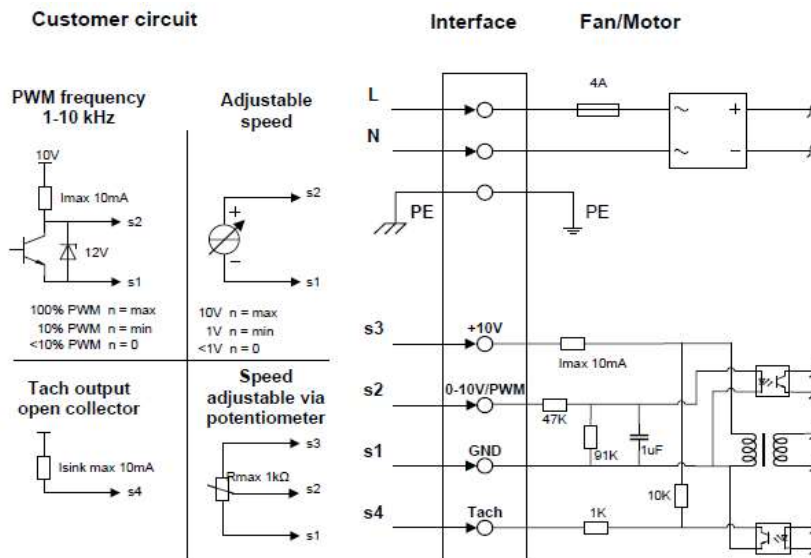


DIAGRAM:



No.	DESIGNATION	COLOR	ASSIGNMENT
1	L	BROWN	POWER SUPPLY
2	N	BULE	NEUTRAL
3	PE	GREEN/YELLOW	GROUND CONNECTION
4	GND	BLACK	GND CONNECTION FOR CONTROL INTERFACE, SELV
5	PWM/0-10V	YELLOW	CONTROL INPUT PWM/0-10V, SELV
6	TACH	WHITE	TACH OUT, SELV
7	+10V	RED	VOLTAGE OUTPUT 10 VDC, SELV

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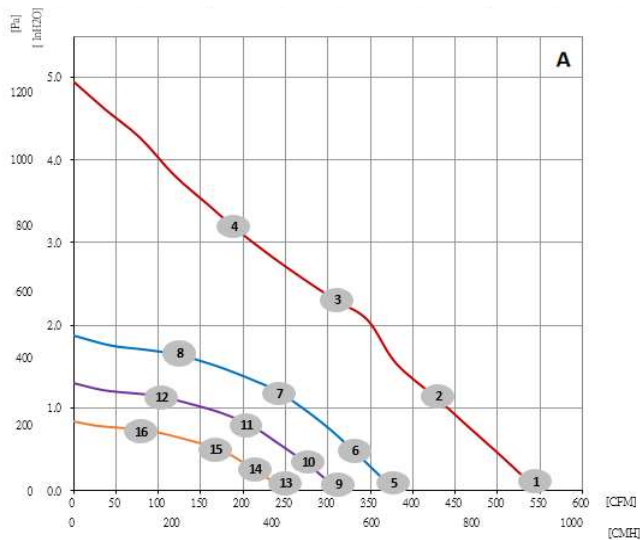
## Characteristics:

- Material: Impeller: Plastic  
Rotor: Zinc Plating Steel  
Electronics housing: Die-cast aluminium
- Number of blades: 7
- Direction of rotation: Clockwise viewed toward rotor
- Insulation class: "B"
- Installation position: Any
- Degree of protection: IP54
- Condensation drainage holes: None
- Mode: Continuous operation (S1)
- Mounting: Maintenance-free ball bearings
- Technical features: Controller input PWM/0-10V
- Cable exit: Variable
- Protection class: I (with customer connection of protective earth)
- Conformity with standards: UL
- Weight: 1.5KG



## Performance:

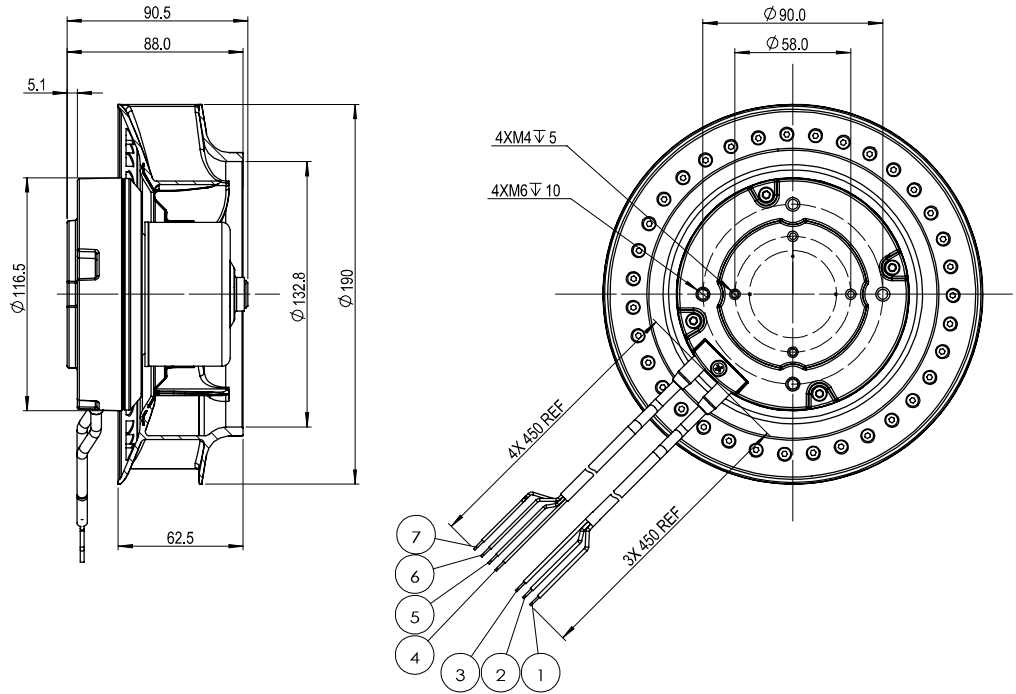
Nominal data	Platform	Curve	Nominal voltage range	Frequency	Speed*	Max input power*	Max input current*	Operating ambient temp	Life time	PWM/0-10V
Type	Motor		VAC	Hz	rpm	W	A	°C	Hr	
ECO190CB126072220	OD72	A	120	50 / 60	4060	170	2.34	-20 to +60	40,000	●



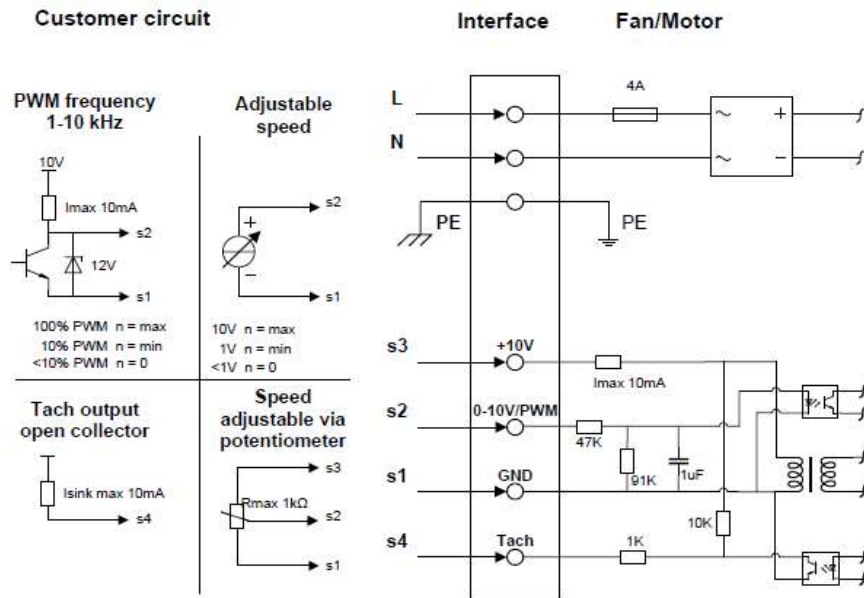
	n (rpm)	P1 (W)	I (A)	η (%)	P (Pa)	P (lnH <sub>2</sub> O)	Q (CMH)	Q (CFM)
①	4320	177	2.34	—	0	0	930	548
②	4040	178	2.34	31.4	277	1.11	729	430
③	4060	179	2.34	46.8	570	2.29	530	312
④	4210	178	2.34	40.0	786	3.15	327	193
⑤	3020	64	0.91	—	0	0	644	379
⑥	3020	73	1.02	24.7	115	0.46	563	332
⑦	3020	75	1.05	44.8	290	1.16	417	246
⑧	3020	66	0.93	35.7	408	1.64	209	123
⑨	2530	40	0.59	—	0	0	533	314
⑩	2530	45	0.65	22.6	77	0.31	472	278
⑪	2530	46	0.67	42.3	198	0.79	354	209
⑫	2530	41	0.6	33.5	284	1.14	172	101
⑬	2030	22	0.35	—	0	0	425	250
⑭	2030	25	0.39	22.5	56	0.22	367	216
⑮	2030	26	0.4	38.8	128	0.52	284	167
⑯	2030	23	0.36	31.1	181	0.73	143	84

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## Drawing:



## Diagram:



No.	DESIGNATION	COLOR	ASSIGNMENT
1	L	BROWN	POWER SUPPLY
2	N	BLUE	NEUTRAL
3	PE	GREEN/YELLOW	GROUND CONNECTION
4	GND	BLACK	GND CONNECTION FOR CONTROL INTERFACE, SELV
5	PWM/0-10V	YELLOW	CONTROL INPUT PWM/0-10V, SELV
6	TACH	WHITE	TACH OUT, SELV
7	+10V	RED	VOLTAGE OUTPUT 10 VDC, SELV

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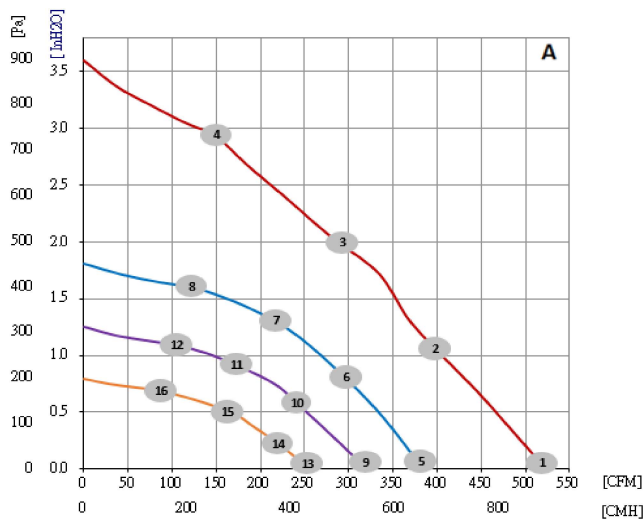
## Characteristics:

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Rotor: Zinc Plating Steel  
Electronics housing: Die-cast aluminium
- Number of blades: 7
- Direction of rotation: Clockwise viewed toward rotor
- Insulation class: "B"
- Installation position: Any
- Degree of protection: IP54
- Condensation drainage holes: None
- Mode: Continuous operation (S1)
- Mounting: Maintenance-free ball bearings
- Technical features: Controller input PWM or PWM/0-10V
- Cable exit: Variable
- Protection class: I (with customer connection of protective earth)
- Conformity with standards: EN 60335-1
- Weight: 1.4KG



## Performance:

Nominal data	Platform	Curve	Nominal voltage range	Frequency	Speed*	Max input power*	Max input current*	Operating ambient temp	Life time	PWM	PWM/0-10V
Type	Motor		VAC	Hz	rpm	W	A	°C	Hr		
ECO190CB235072112	OD72	A	230	50 / 60	3750	130	1.04	-20 to +60	40,000	●	
ECO190CB235072212											●



	n (rpm)	P1 (W)	I (A)	η (%)	P (Pa)	P (InH <sub>2</sub> O)	Q (CMH)	Q (CFM)
①	4010	135	1.03	—	0	0	889	524
②	3740	135	1.04	36.3	261	1.05	679	400
③	3750	136	1.04	49.7	493	1.98	494	291
④	3980	136	1.04	37.8	729	2.93	254	150
⑤	2980	59	0.51	—	0	0	654	385
⑥	2980	74	0.61	37.6	199	0.80	505	298
⑦	2980	71	0.59	46.7	327	1.31	365	215
⑧	2980	63	0.53	37.3	397	1.59	215	126
⑨	2490	37	0.34	—	0	0	543	320
⑩	2490	46	0.40	36.2	146	0.59	408	240
⑪	2490	43	0.38	43.2	224	0.90	301	177
⑫	2490	39	0.35	34.4	273	1.09	178	105
⑬	1990	22	0.21	—	0	0	431	254
⑭	1990	24	0.23	22.8	53	0.21	375	221
⑮	1990	25	0.24	38.4	122	0.49	287	169
⑯	1990	23	0.22	30.2	172	0.69	145	85





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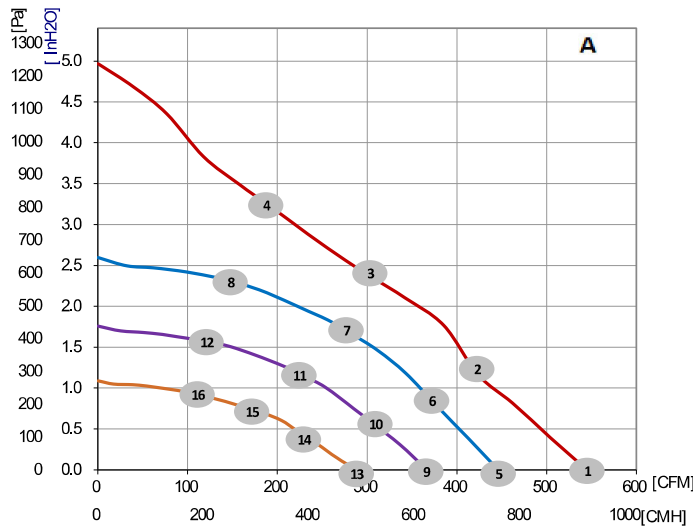
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- Direction of rotation: Clockwise viewed toward rotor
- Insulation class: "B"
- Installation position: Any
- Degree of protection: IP54
- Condensation drainage holes: None
- Mode: Continuous operation (S1)
- Mounting: Maintenance-free ball bearings
- Technical features: Controller input PWM or PWM/0-10V
- Cable exit: Variable
- Protection class: I (with customer connection of protective earth)
- Conformity with standards: EN 60335-1
- Weight: 1.5KG



## Performance:

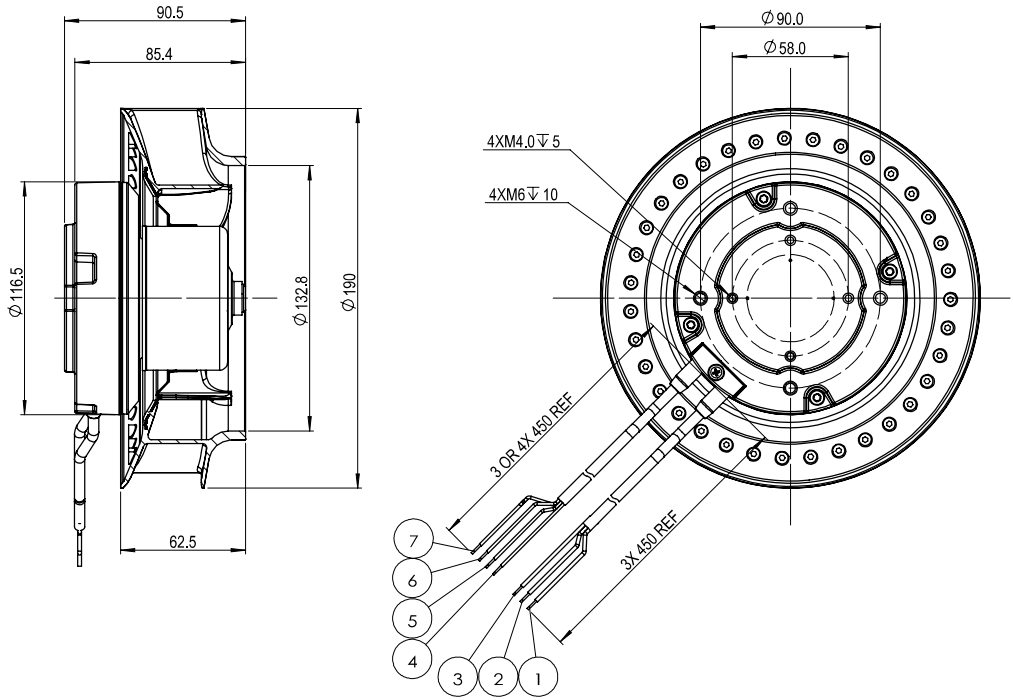
Nominal data	Platform	Curve	Nominal voltage range	Frequency	Speed*	Max input power*	Max input current*	Operating ambient temp	Life time	PWM	PWM/0-10V
Type	Motor		VAC	Hz	rpm	W	A	°C	Hr		
ECO190CB235072220	OD72	A	230	50 / 60	4100	170	1.34	-20 to +60	40,000		●



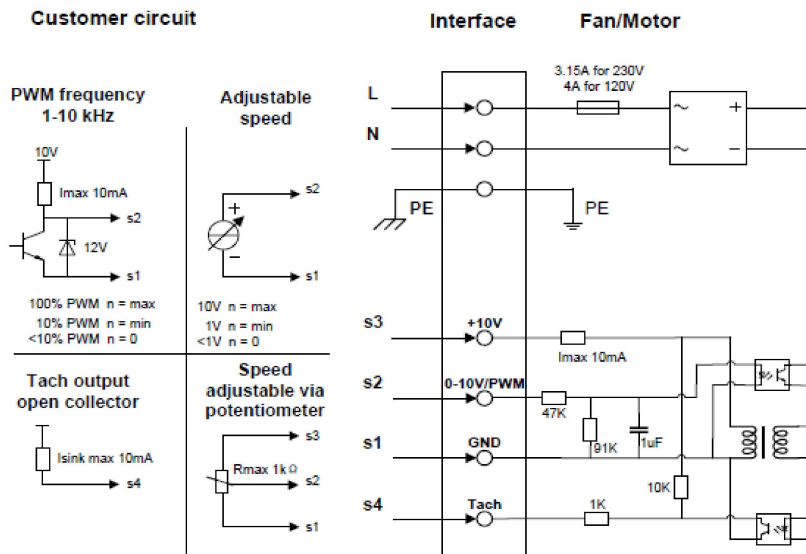
	n (rpm)	P1 (W)	I (A)	η (%)	P (Pa)	P (InH <sub>2</sub> O)	Q (CMH)	Q (CFM)
①	4340	174	1.33	—	0	0	922	543
②	4070	175	1.34	32.9	289	1.16	719	424
③	4100	175	1.34	48.0	583	2.34	521	307
④	4220	177	1.34	41.0	802	3.22	326	192
⑤	3600	104	0.84	—	0	0	756	445
⑥	3600	120	0.95	28.9	194	0.78	641	378
⑦	3600	120	0.95	45.9	417	1.67	477	281
⑧	3600	109	0.87	38.2	569	2.29	265	156
⑨	2990	64	0.53	—	0	0	622	366
⑩	2990	74	0.6	27.8	142	0.57	520	306
⑪	2990	72	0.59	42.7	284	1.14	391	230
⑫	2990	67	0.55	35.1	388	1.56	219	129
⑬	2350	36	0.32	—	0	0	490	288
⑭	2350	40	0.35	22.9	79	0.32	415	244
⑮	2350	40	0.35	37.4	172	0.69	316	186
⑯	2350	38	0.33	32.8	226	0.91	199	117

# 190mm Plastic Backward Centrifugal Fan

## Drawing:



## Diagram:



No.	DESIGNATION	COLOR	ASSIGNMENT
1	L	BROWN	POWER SUPPLY
2	N	BLUE	NEUTRAL
3	PE	GREEN/YELLOW	GROUND CONNECTION
4	GND	BLACK	GND CONNECTION FOR CONTROL INTERFACE, SELV
5	PWM/0-10V	YELLOW	CONTROL INPUT PWM/0-10V, SELV
6	TACH	WHITE	TACH OUT, SELV
7	+10V	RED	VOLTAGE OUTPUT 10 VDC, SELV

## PWM/0-10V