

Transformer and electronic controllers for HVAC

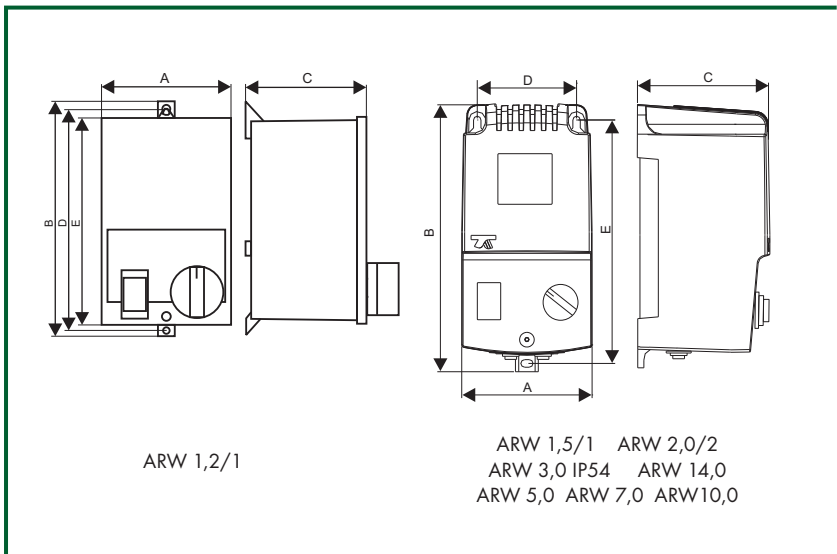
Fan speed controller

ARW

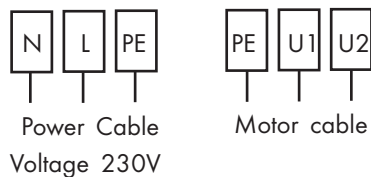
Autotransformer regulators serve the purpose of airflow control, fitted in single-phase ventilation and heating systems. The transformers are made with Class II insulation and protection grade IP30 or IP54, maximum ambient temperature 40°C, thermal class of insulation B (130°C).
Manufactured in compliance with EN 61558-2-13.



Rated current SEC :0,5 - 14A
 Rated voltage PRI :230 V 50/60 Hz
 Rated voltage SEC :5-step regulation



GRAPH OF CONNECTION



Type	Art. Nr.	U pri [V]	Current [A]	Step of regulation Ur[V] / Ir[A]					Dimensions [mm]		Weight [kg]
				1	2	3	4	5	A x B x C x D x E x Ø		
ARW 1,2/1	17886-9999	230	1,2	115/0,9	135/1,0	155/1,1	180/1,2	230/1,2	77 x 138 x 71 x 128 x 128 x M4	1,4	
ARW 1,5/1	17886-9990	230	1,5	115/1,5	135/1,5	155/1,5	180/1,5	230/1,5	90 x 175 x 95 x 71 x 157 x M4	1,5	
ARW 2,0/2 IP54	17886-9993	230	2,0	65/0,9	110/1,5	135/1,7	170/2,0	230/2,0	90 x 175 x 95 x 71 x 157 x M4	2,3	
ARW 3,0 IP54	17886-9965	230	3,0	115/2,2	135/2,5	155/2,8	180/3,0	230/3,0	90 x 175 x 95 x 71 x 157 x M4	2,5	
ARW 5,0		230	5,0	80/4,0	105/4,3	135/4,6	170/5,0	230/5,0	123 x 240 x 125 x 105 x 220 x M6	4,5	
ARW 7,0		230	7,0	80/6,0	105/6,3	135/6,6	170/7,0	230/7,0	123 x 240 x 125 x 105 x 220 x M6	5,5	
ARW 10,0		230	10,0	80/6,5	105/7,5	135/8,5	170/10,0	230/10,0	147 x 277 x 155 x 113 x 255 x M6	6,2	
ARW 14,0	17886-9981	230	14,0	80/8,0	105/9,5	135/11	170/12,5	230/14,0	147 x 277 x 155 x 113 x 255 x M6	10,5	

Because of the constant development of product construction and changes concerning technical requirements, Breve-Tufvassons Company reserves the right to change the parameters mentioned

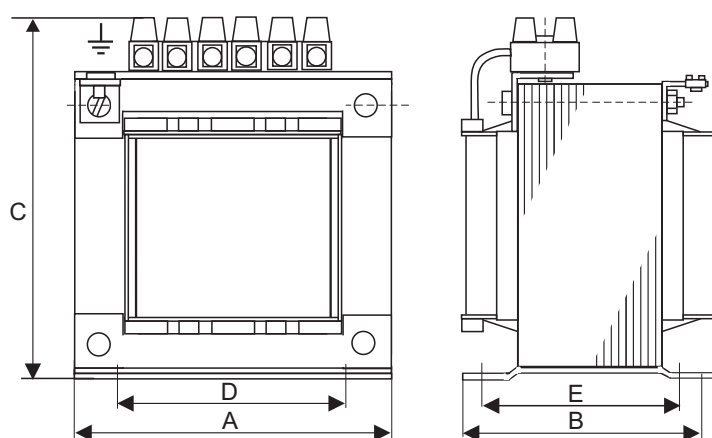
Single-phases step-transformer for fan speed controller

ARM

Autotransformer regulators serve the purpose of airflow control, fitted in ventilation and heating systems. The transformers are made with Class I insulation and protection grade IP 00. Maximum ambient temperature 40°C, thermal class of insulation B (130°C). Manufactured in compliance with EN 61558-2-13.



Rated current SEC :1,5 - 14 A
 Rated voltage PRI :230 V 50/60 Hz
 Rated voltage SEC :5-step regulation
 (230, 180, 155, 135, 115V)



Type	Art. Nr.	Current [A]	Dimensions [mm]					Mounting [Ø]	Weight [kg]
			A	B	C	D	E		
ARM 1,5	17786-9988	1,5	84	60	100	64	46	M4	1,60
ARM 2,0	17786-9998	2	84	60	100	64	46	M4	1,60
ARM 3,0	17786-9999	3	84	74	100	64	60	M4	1,90
ARM 5,0	17786-9997	5	96	86	115	84	70	M5	2,60
ARM 7,0	17786-9996	7	120	88	130	90	70	M5	3,80
ARM 10,0	17786-9995	10	120	100	130	90	82	M5	4,70
ARM 12,0		12	135	107	155	104	91	M6	7,20
ARM 14,0	17786-9987	14	150	117	175	122	87	M6	7,80

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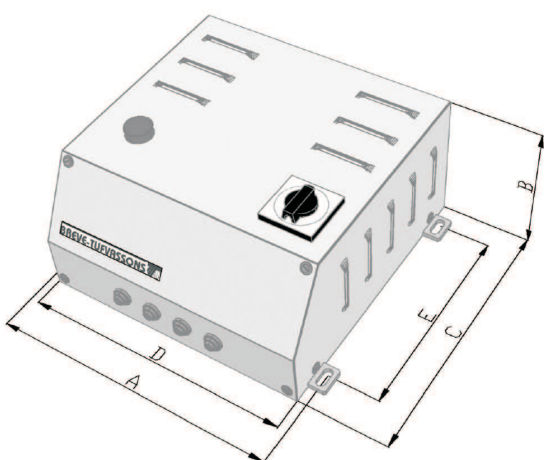
Three-phases fan speed controller

A3RW

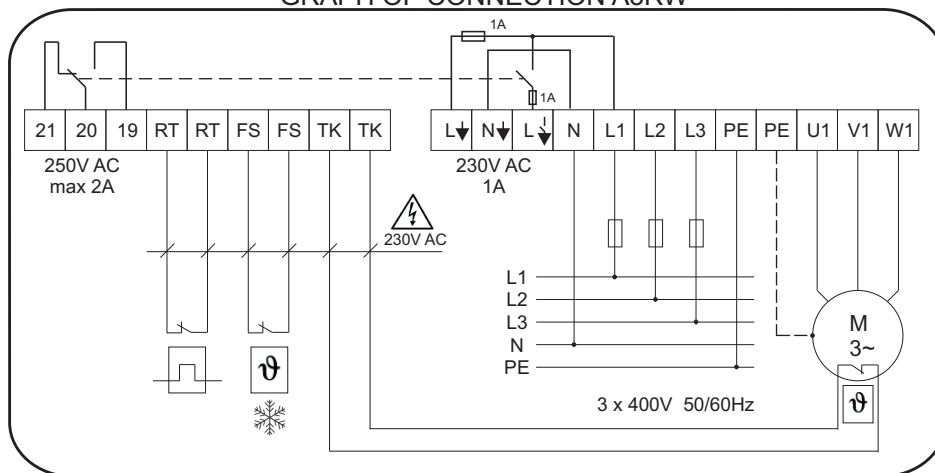
Autotransformer regulators serve the purpose of airflow control, fitted in three-phase ventilation and heating systems. The transformers are made with protection grade IP21, and equipped with indicator light. Maximum ambient temperature 25°C. Thermal class of insulation B (130°C). Manufactured in compliance with EN 61558-2-13.



Rated current SEC :1,5A - 14A
 Rated voltage PRI :3x400V, 50/60 Hz
 Rated voltage SEC :5-step regulation



GRAPH OF CONNECTION A3RW



Type	Art. Nr:	U pri [V]	Current [A]	Step of regulation					Ur[V]	Dimensions [mm]						Weight [kg]
				1	2	3	4	5		A x Bmax x C x D x E x Ø						
A3RW 1,5/IP21	17886-9980	3 x 400	1,5	95	145	190	240	400	215 x 135 x 250 x 200 x 190	10,0						
A3RW 2,0/IP21	17886-9979	3 x 400	2,0	95	145	190	240	400	215 x 135 x 250 x 200 x 190	11,7						
A3RW 4,0/IP21	17886-9989	3 x 400	4,0	95	145	190	240	400	315 x 185 x 300 x 300 x 190	15,0						
A3RW 5,0/IP21	17886-9978	3 x 400	5,0	95	145	190	240	400	315 x 185 x 300 x 300 x 190	18,0						
A3RW 7,0/IP21	17886-9988	3 x 400	7,0	95	145	190	240	400	315 x 185 x 300 x 300 x 190	21,0						
A3RW 10,0/IP21	17886-9977	3 x 400	10,0	95	145	190	240	400	415 x 215 x 300 x 400 x 190	31,0						
A3RW 14,0/IP21	17886-9976	3 x 400	14,0	95	145	190	240	400	415 x 215 x 300 x 400 x 190	38,0						

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Three-phases step-transformer for fan speed controller

A3RM

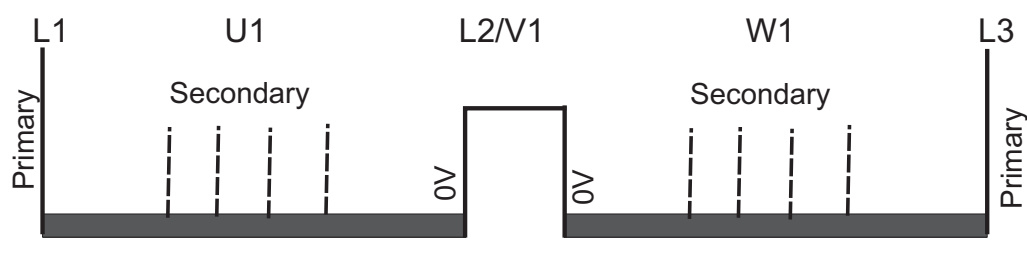
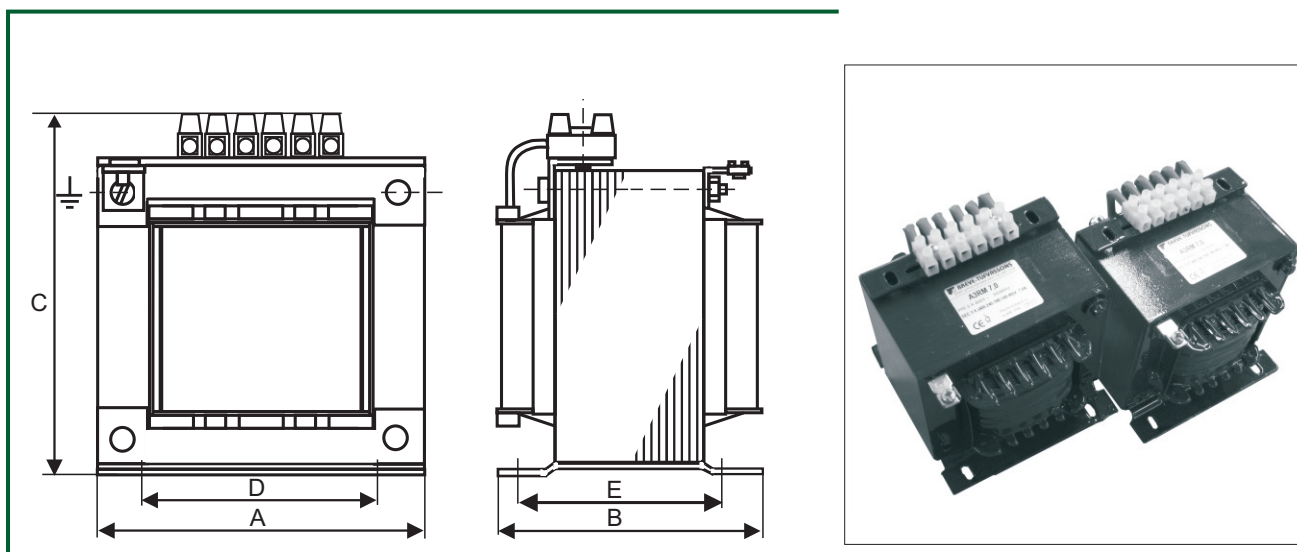
Autotransformer regulators (two transformers in V-connection) serve the purpose of airflow control, fitted in ventilation and heating systems.

The transformers are made with Class I insulation and protection grade IP00.

Maximum ambient temperature 40°C, thermal class of insulation B (130°C).

Manufactured in compliance with EN 61558-2-13.

Rated current SEC :1,5 - 14A
 Rated voltage PRI :400 V 50/60 Hz
 Rated voltage SEC :5-step regulation
 (400, 280, 230, 180, 130V)



Two transformers in V-connection are connected for three-phase

Type	Art. Nr:	Current $I_{max}[A]$	Dimensions [mm]					Mounting [Ø]	Weight [kg]
			A	B	C	D	E		
A3RM 1,5	17786-9980	1,5	84	74	100	64	60	M4	1,90
A3RM 2,0	17786-9986	2	96	86	114	84	70	M4	2,60
A3RM 3,0	17786-9985	3	120	88	130	90	70	M5	3,80
A3RM 4,0	17786-9984	4	120	100	143	90	82	M5	4,60
A3RM 7,0	17786-9983	7	120	120	143	90	102	M5	6,20
A3RM 10,0	17786-9982	10	135	142	160	104	126	M5	8,50
A3RM 14,0	17786-9981	14	174	152	164	125	128	M8	15,00

Autotransformers are designed for decreasing current along with decrease of output voltage.
 I_{max} it's current of the highest two steps of voltage.

Because of the constant development of product construction and changes concerning technical requirements, Breve-Tufvassons Company reserves the right to change the parameters mentioned

Fan speed controller with additional functions

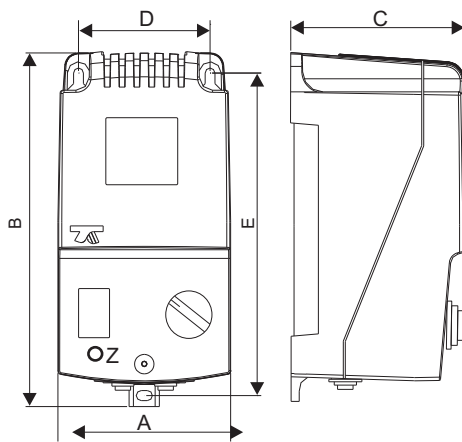
ARW/S

Autotransformer regulators serve the purpose of airflow control, fitted in single-phase ventilation and heating systems. The transformers are made with Class II insulation and protection grade IP 30 or IP 54. The maximum ambient temperature is 40°C and thermal class of insulation B. Manufactured in compliance with EN 61558-2-13.

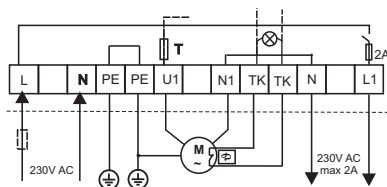
Notes:

U₁N₁ - fuse protected, regulated output for motor; NL₁ - fuse protected, 2A unregulated 230V voltage; TK - motor protection from overheating (thermal contacts on the motor).

- Rated current SEC :1,5 - 14A
- Rated voltage PRI :230 V 50/60 Hz
- Rated voltage SEC :5step regulation



GRAPH OF CONNECTION



Type	Art. Nr.	U pri [V]	Current [A]	Step of regulation U _r [V] / I _r [A]					Dimensions [mm]			Weight [kg]
				1	2	3	4	5	A x B x C x D x E x Ø			
ARW 1,5/S	17886-9974	230	1,5	115/1,5	135/1,5	155/1,5	180/1,5	230/1,5	90 x 175 x 95 x 71 x 157 x M4	1,5		
ARW 2,0/S IP54	17886-9959	230	2,0	115/1,2	135/1,4	155/1,8	180/2,0	230/2,0	90 x 175 x 95 x 71 x 157 x M4	2,1		
ARW 3,0/S IP54	17886-9958	230	3,0	115/2,2	135/2,5	155/2,8	180/3,0	230/3,0	90 x 175 x 95 x 71 x 157 x M4	2,5		
ARW 5,0/S	17886-9975	230	5,0	80/4,0	105/4,3	135/4,6	170/5,0	230/5,0	123 x 240 x 125 x 105 x 220 x M6	4,5		
ARW 7,0/S	17886-9971	230	7,0	80/6,0	105/6,3	135/6,6	170/7,0	230/7,0	123 x 240 x 125 x 105 x 220 x M6	5,5		
ARW 10,0/S	17886-9970	230	10,0	80/6,5	105/7,5	135/8,5	170/10,0	230/10,0	147 x 277 x 155 x 113 x 255 x M6	6,2		
ARW 14,0/S	17886-9969	230	14,0	80/8,0	105/9,5	135/11	170/12,5	230/14,0	147 x 277 x 155 x 113 x 255 x M6	10,5		

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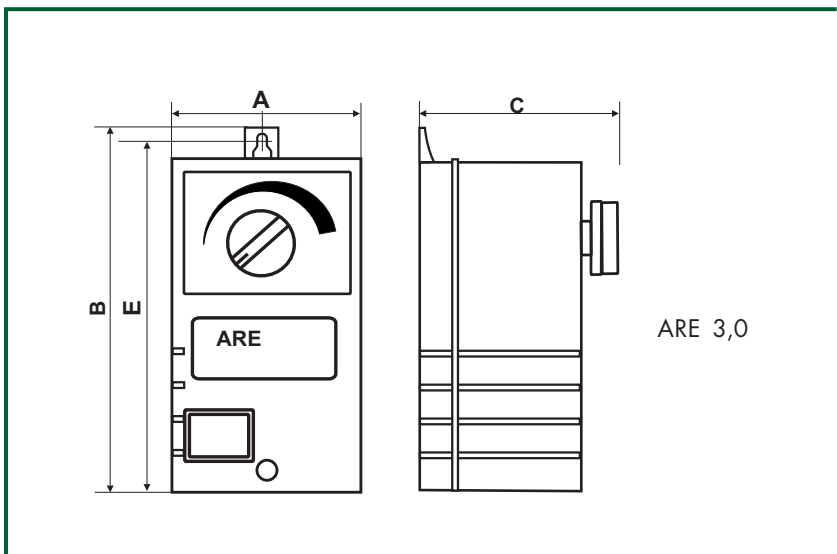
Electronic fan speed controller

ARE, ARES

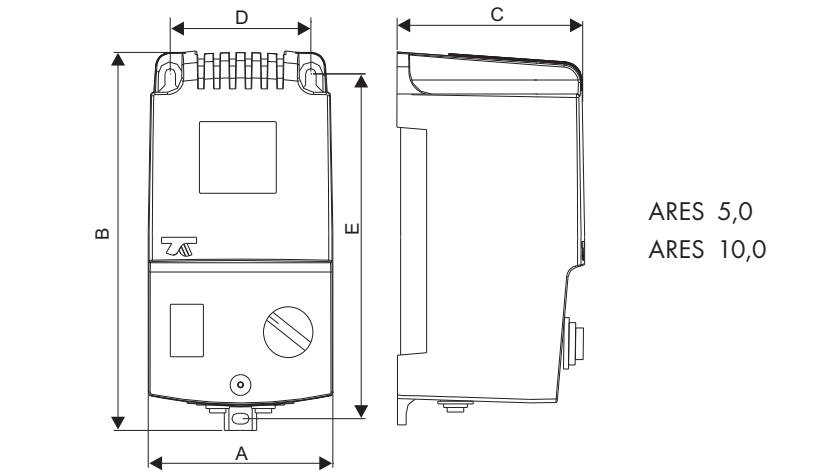
ARE and ARES electronic regulators are dedicated for fan speed control in single phase ventilation and heating instalations (potentiometer regulation). Regulators are produced with IP 54 protection grade and equipped with highlited power switch, electric motors minimum speed regulation and fuse. Max permissible ambient temperature is 35°C. Version "S" (controlled by integrated circiut) has additionally mount in starting impulse protection "SoftStart" function and a system that provides starting with slow speed more accessible. Furthermore ARES10,0 version has built in TK contacts for motor overheating protection with alarm light indicator signalization and an extra 230 VAC output for 2A. Regulators are manufactured in compliance with LVD:2006/95/EC and EMC:2004/108/EC directives.



Power supply: 230V, 50/60Hz
 Max. current SEC : 1,5 - 3,0 - 5,0 - 10,0 A
 Min. current SEC : 0,2 - 0,5 - 0,8 - 1,0 A



ARE 3,0



ARES 5,0
 ARES 10,0



Type	Art. Nr.	Current [A]	Dimensions [mm]					Mounting [Ø]	Weight [kg]
			A	B	C	D	E		
ARE 3,0	17886-9968	3,0	75	127	80		120	M4	0,22
ARES 5,0	17886-9967	5,0	90	175	95	71	157	M4	0,42
ARES 10,0	17886-9966	10,0	123	240	125	105	220	M6	0,62

Because of the constant development of product construction and changes concerning technical requirements, Breve-Tufvassons Company reserves the right to change the parameters mentioned

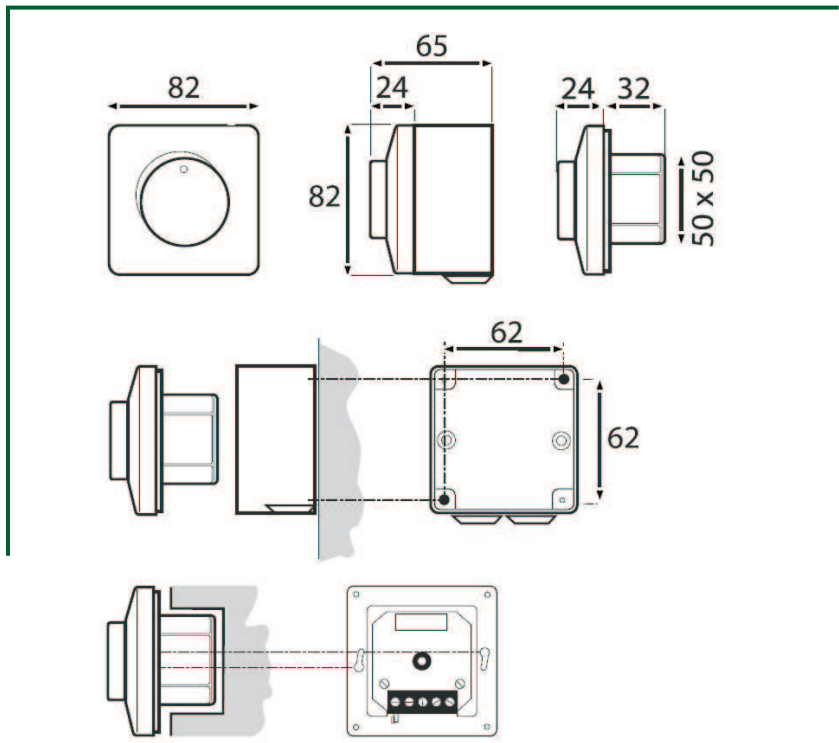
Compact, electronic fan speed controller

AREB

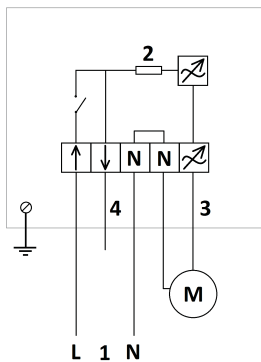


AREB are industrial regulators dedicated for fan speed control in single phase ventilation and heating instalations (potentiometer regulation). Devices are equipped with minimum speed adjust, fuse protection (with spare fuse), ON/OFF status LED indicator and regulation position memory. Ignition after pushing the potentiometer. Regulators are dedicated for both: on-wall and in-wall montage. Manufactured in compliance with: EN61000-6-1, EN61000-6-3, EN60669-1 and EN60669-2-1.

Max. Current SEC :2,5A
 Power supply :230V, 50/60Hz
 Rated power :for ventilation engines: 80 - 460 W



GRAPH OF CONNECTION



- 1 - Power supply 230 50 Hz
- 2 - fuse (fast)
- 3 - Regulated motor output
- 4 - Unregulated output 230V

Type	Art. Nr:	U pri [V]	Current [A]	Weight [kg]
AREB 2,5	17886-9957	230	2,5	0,22

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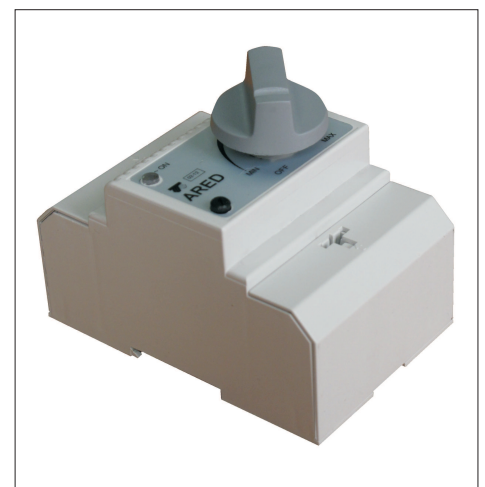
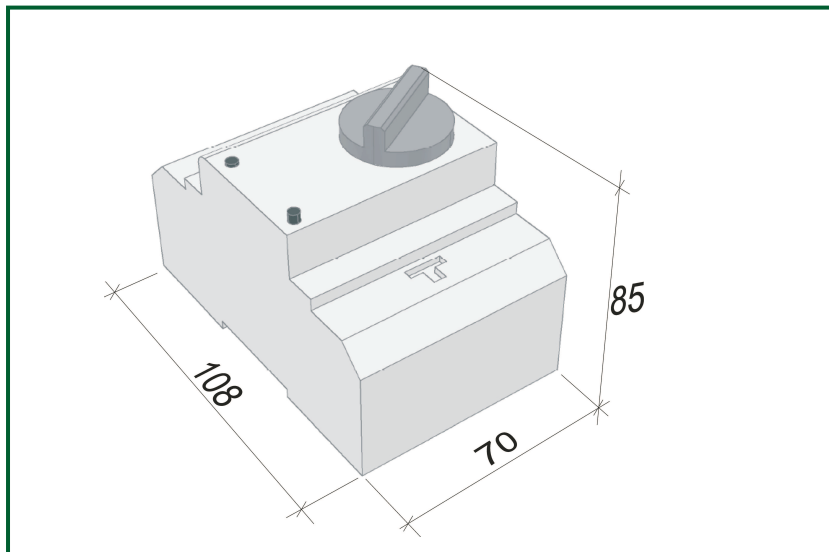
Electronic fan speed controller for DIN rail

ARED

ARED are electronic, single-phase speed controllers for ventilation and heating installations. Devices are dedicated for DIN rail montage and equipped with minimum speed adjust and power-on led indicator. Electrical terminals and fuse accessible after removing plastic cover. The controllers are made with IP33 protection grade.



Power supply: 230V, 50/60Hz
Max. current SEC : 3,0A
Min. current SEC : 0,5A



Type	Art. Nr.	U pri [V]	Current [A]	Weight [kg]
ARED 3,0		230	3,0	0,22

Because of the constant development of product construction and changes concerning technical requirements, Breve-Tufvassons Company reserves the right to change the parameters mentioned