Regulatori brzine obrtaja
Speed regulators

12

Karakteristike ventilatora je potrebno menjati zbog sledećih razloga:
Fleksibilnost:Mogućnost podešavanja performansi ventilatora u zavisnosti od različitih radnih uslova.
Manji elektromehanički tranzient: Za blagi prelaz uključivanja-islkjučivanja.
Redukcija nlvoa buke.
Ovi razlozi vode do korišćenja regulatora napona, koji se priključuju na sistem, omogućuju promenu brzine ventilatora kreirajući optimalne radne uslove saglasno radnim operativnim zahtevima ili autotransformatori, za jednofazni ili trofazni asinhroni motor sa regulacijom.
Regulatori su proizvedeni prema propisima IEC 17-13/1-EAN60439 i sigurnosnim propisima za električne uređaje i imaju CE oznaku.

The need to change the fan characteristics can be based on various motivations: Flexibility (possibility to conform the performances of the fan to different working conditions), Less electro-mechanical stress (caused by a functioning in on/ off mode), Noise reduction.
Such demands lead to the use of voltage regulators that applied to the system provide to change the speed of the fans creating optimum working conditions according to operative requirements. Our range is composed by electronic and self-transformer type speed regulators suitable for adjustable single-phase and three-phase asynchronous motors. Regulators are manufactured in conformity to 73/23/EEC - 89/336/EEC standards and CE.marked

Jednofazni elektronski regulator brzine
Single phase electronic speed regulators

Tip Type	In max (A)	Strana Page
RVN	1,5	3
RV-1	(min 1)4	
V-27	(min 4)5	

Jednofazni autotransformatorski regulator brzine
Single phase self transformer speed regulators

Tip Type	In max (A)	Strana Page
RVS	0,5	6
RVM	1,5	7
RVM-2	4	8
RVM-3	7	9
RVM-4	12	10

Trofazni elektronski regulator brzine
Three-phase electronic speed regulators

Tip Type	In max (A)	Strana Page
RVT	2	11
RVT-1	4	12
RVT-2	7	13
RVT-3	14	14

I N D E K S / I N D E X

Krovni centrifugalni ventilatori
CENTRIFUGAL ROOF FANS — SEK. 1

Krovni aksijalni ventilatori
AXIAL ROOF FANS — SEK. 2

Ventilatori sa ramom za usmeravanje vazduha
PLATE MOUNTED AND RING AXIAL FANS — SEK. 3

Cevni ventilatori
DUCTED AXIAL FANS — SEK. 4

Centrifugalni ventilatori malih dimenzija sa unapred zakrivljenim lopaticama i centrifugalni ventilatori izrađeni od livenog aluminijuma
SMALL SIZE FORWARD CURVED BLADE AND RADIAL CENTRIFUGAL FANS IN ALUMINIUM — SEK. 5

Centrifugalni ventilatori sa unazad zakrivljenim lopaticama
BACKWARD CURVED BLADE CENTRIFUGAL FANS FOR CLEAN AIR — SEK. 6

In line – redni centrifugalni ventilatori
IN LINE CENTRIFUGAL FANS — SEK. 7

Box ventilatori na direktan pogon sa dva otvora
DIRECT DRIVE DOUBLE INLET BOX FANS — SEK. 8

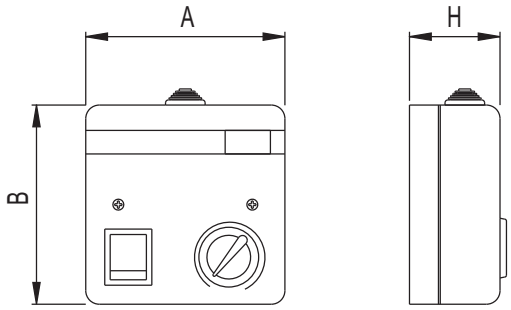
Centrifugalni box ventilatori i ventilatori sa duplim otvorom na remeni pogon
CENTRIFUGAL BOX FANS AND DOUBLE INLET BELT DRIVEN FANS — SEK. 9

Antikorozivni ventilatori
ANTICORROSIVE FANS — SEK. 10

Ventilatori za odstranjivanje dima
SMOKE EXTRACT FANS — SEK. 11

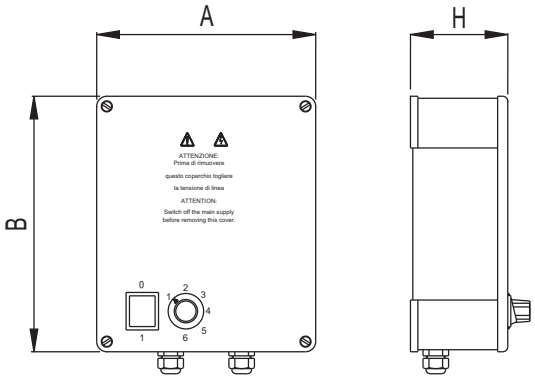
Regulatori brzine obrtaja
SPEED REGULATORS — SEK. 12

Akustično linijski centrifugalni ventilatori i Rekuperator toplote
IN LINE ACOUSTIC CENTRIFUGAL FANS AND HEAT RECUPERATOR — SEK. 13



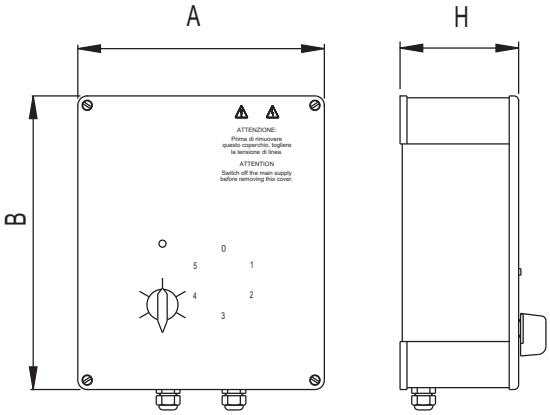
Tip/Type	AxBxH	Težina/Weight (kg)
RVN	110 x 110 x 50	0,5
RV-1	110 x 110 x 50	0,5
RV-2	118 x 118 x 72	0,6
RV-S	118 x 118 x 58	0,7

Dimenzije umm/Dimensions in mm



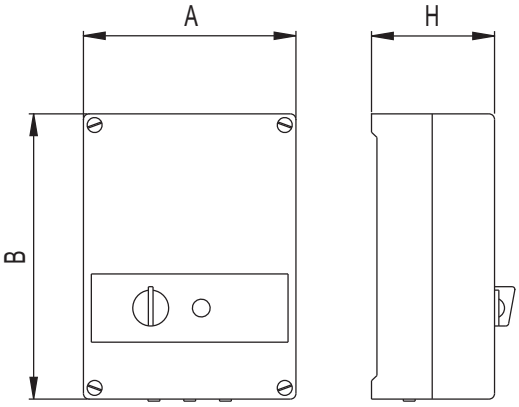
Tip/Type	AxBxH	Težina/Weight (kg)
RVM	142 x 166 x 66	2,5
RVM-2	216 x 252 x 96	5
RVM-3	262 x 312 x 126	8,3

Dimenzije u mm/Dimensions in mm



Tip/Type	AxBxH	Težina/Weight (kg)
RVT-1	262 x 312 x 126	11

Dimenzije u mm/Dimensions in mm



Tip/Type	AxBxH	Težina/Weight (kg)
RVT	190 x 255 x 110	7,5
RVT-2	253 x 316 x 143	20
RVT-3	400 x 290 x 141	24
RVM-4	244 x 309 x 135	14

Dimenzije u mm/Dimensions in mm

RVN

Jednofazni elektronski regulator brzine obrtaja 1,5 A
Single-phase electronic speed regulator 1,5 A

OSNOVNI PODACI :

Manuelni regulator napona sa potenciometrom bez mogućnosti stepenog podešavanja.Ima trijak prekidač faznog prelaza sa zatvorenom petljom.Pogodno je primeniti za jednofazne asinhrone motore sa regulacijom.
Pažnja: Za mali broj obrtaja svi naponski regulatori sa trijakom stvaraju brujanje u motoru.Beleška: Predlažemo da za smanjenje buke koristite ispod 50% od nominalne brzine obrtaja električnog motora. Brujanje električnog motora se može smanjiti korišćenjem trožičnog kondenzatora /spajanjem u zvezdu.

KONSTRUKCIJA :

- Izvor od 230V-1 faza-50/60Hz.
- Nominalna struja max 1,5A
- Topljivi osigurač 2A/250V.
- Podesiva regulacija minimalne brzine.
- EMC filter za radio smetnje.
- Upravljačka lampica.
- Kućište od technopolymer-a RAL 9016 (belo).
- Zaštita IP42

DESCRIPTION

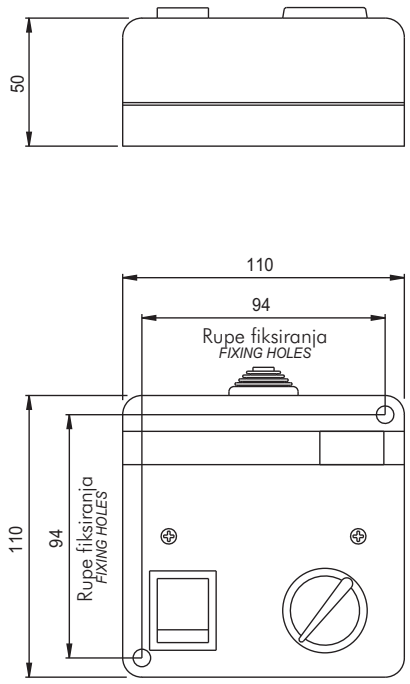
Manual voltage converter with continuous regulation by potentiometer. Electronic tuning by triac phase control closed loop type. Suitable for single-phase asynchronous adjustable motor.
Note: all regulators by triac control can cause electric hum in the motor at low speed. We advise against reducing under 50% the nominal speed of the electric motor. Motor electric hum can be minimized by using 3 wire capacitor/star winding.

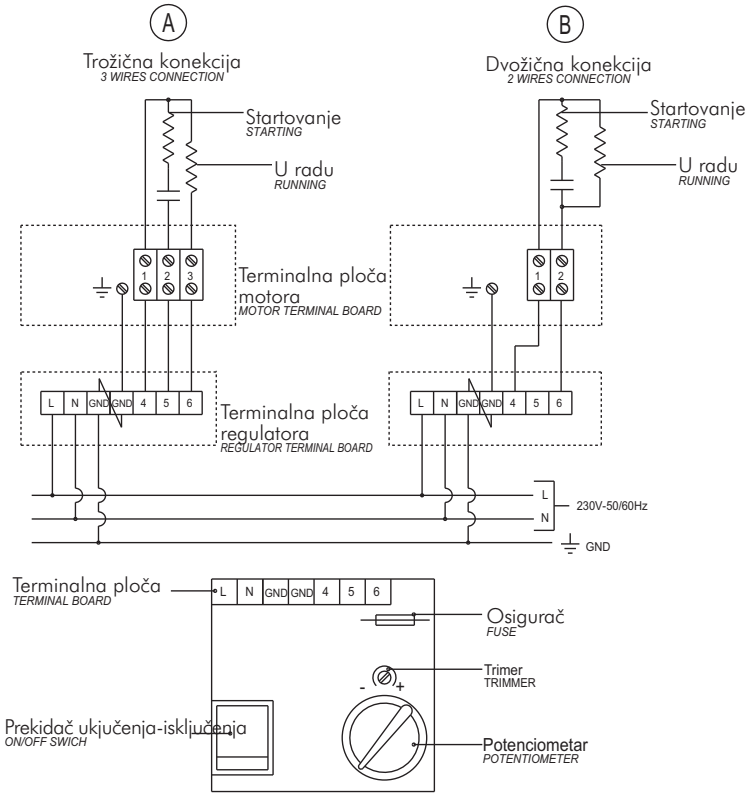
CONSTRUCTION

- Supply 230V-1Ph-50/60Hz.
- Nominal current max 1,5 A.
- Timed protection fuse 2A/250V.
- Minimum speed setting tuner.
- Radio noise filter EMC.
- Pilot light.
- Housing in techno-polymer RAL 9016 (white).
- Protection IP 42.
- Weight Kg 0,5.

DIMENZIJE I ŠEMA POVEZIVANJA / DIMENSIONS AND WIRING DIAGRAM — RVN

Dimenzije u mm/Dimensions in mm





Važno: Za postizanje optimalne regulacije, bolje upotrebite konekciju (A).

Note: to obtain an aptimal regulation it's better to utilize the connection (A)

RV/1

Jednofazni elektronski regulator brzine obrtaja 4 A
Single-phase electronic speed regulator 4 A

OSNOVNI PODACI :

Manuelni regulator napona sa potenciometrom bez mogućnosti stepenog podešavanja.Ima trijak prekidač faznog prelaza sa zatvorenom petljom.Pogodno je primeniti za jednofazne asinhrone motore sa regulacijom.
Pažnja: Za mali broj obrtaja svi naponski regulatori sa trijakom stvaraju brujanje u motoru.Beleška: Predlažemo da za smanjenje buke koristite ispod 50% od nominalne brzine obrtaja električnog motora. Brujanje električnog motora se može smanjiti korišćenjem trožičnog kondenzatora / spajanjem u zvezdu.

KONSTRUKCIJA :

- Izvor od 230V-1 faza-50/60Hz.
- Nominalna struja max 1,5A
- Topljivi osigurač 2A/250V.
- Podesiva regulacija minimalne brzine.
- EMC filter za radio smetnje.
- Upravljačka lampica.
- Kućište od technopolymer-a RAL 9016 (belo).
- Zaštita IP42
- Težina 0,5kg.

DESCRIPTION

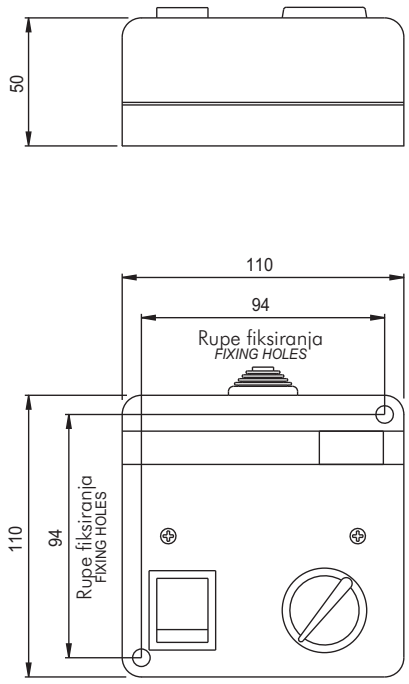
Manual voltage converter with continuous regulation by potentiometer. Electronic tuning by triac phase control closed loop type. Suitable for single-phase asynchronous adjustable motor.
Note: all regulators by triac control can cause electric hum in the motor at low speed. We advise against reducing under 50% the nominal speed of the electric motor. Motor electric hum can be minimized by using 3 wire capacitor/star winding.

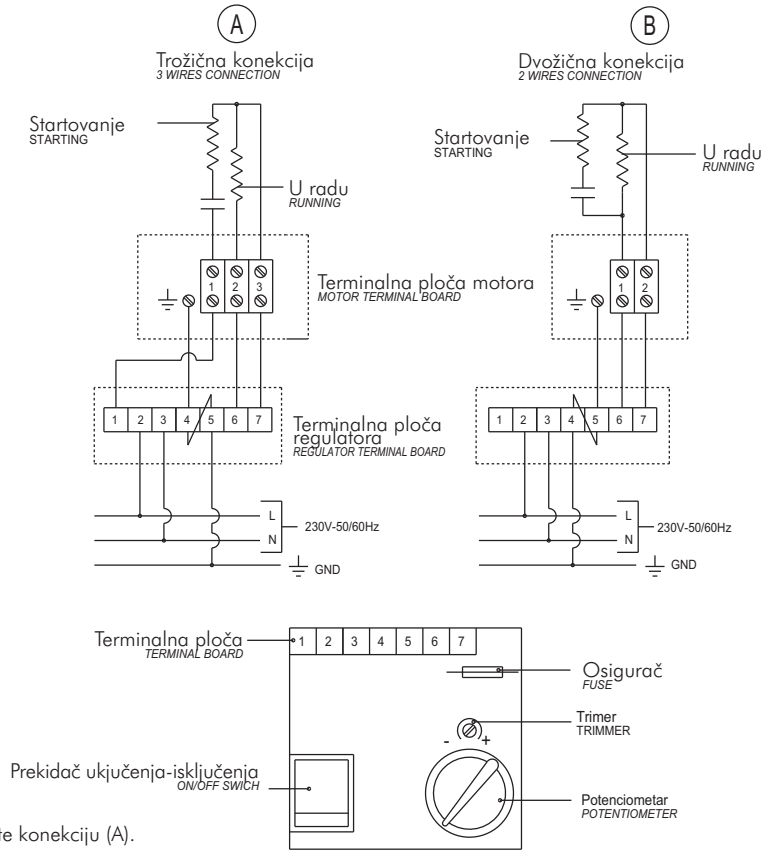
CONSTRUCTION

- Supply 230V-1Ph-50/60Hz.
- Nominal current max 1,5 A.
- Timed protection fuse 2A/250V.
- Minimum speed setting tuner.
- Radio noise filter EMC.
- Pilot light.
- Housing in techno-polymer RAL 9016 (white).
- Protection IP 42.
- Weight Kg 0,5.

DIMENZIJE I ŠEMA POVEZIVANJA / DIMENSIONS AND WIRING DIAGRAM RV/1

Dimenzije u mm/Dimensions in mm





Važno: Za postizanje optimalne regulacije, bolje upotrebite konekciju (A).
Note: to obtain an aptimal regulation it's better to utilize the connection (A)

RV/2

Jednofazni elektronski regulator brzine obrtaja 7 A
Single-phase electronic speed regulator 7 A

OSNOVNI PODACI :

Manuelni regulator napona sa potenciometrom bez mogućnosti stepenog podešavanja.Ima trijak prekidač faznog prelaza sa zatvorenom petljom.Pogodno je primeniti za jednofazne asinhrone motore sa regulacijom.
Pažnja: Za mali broj obrtaja svi naponski regulatori sa trijakom stvaraju brujanje u motoru.Beleška: Predlažemo da za smanjenje buke koristite ispod 50% od nominalne brzine obrtaja električnog motora. Brujanje električnog motora se može smanjiti korišćenjem trožičnog kondenzatora /spajanjem u zvezdu.

KONSTRUKCIJA :

- Izvor od 230V-1 faza-50/60Hz.
- Nominalna struja max 7A (min.4 A).
- Topljivi osigurač 8A/250V.
- Podesiva regulacija minimalne brzine.
- EMC filter za radio smetnje.
- Upravljačka lampica.
- Kućište od technopolymer-a RAL 9016 (belo).
- Rebro za hlađenje od vučenog aluminijuma.
- Zaštita IP42
- Težina 0,7 kg.

DESCRIPTION

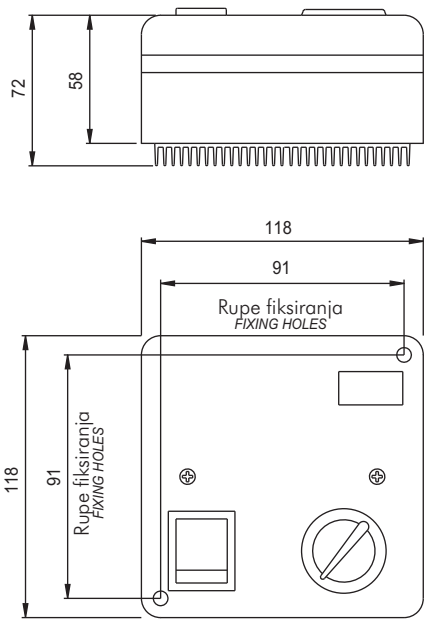
Manual voltage converter with continuous regulation by potentiometer. Electronic tuning by triac phase control closed loop type. Suitable for single-phase asynchronous adjustable motor.
Note: all regulators by triac control can cause electric hum in the motor at low speed. We advise against reducing under 50% the nominal speed of the electric motor. Motor electric hum can be minimized by using 3 wire capacitor/star winding.

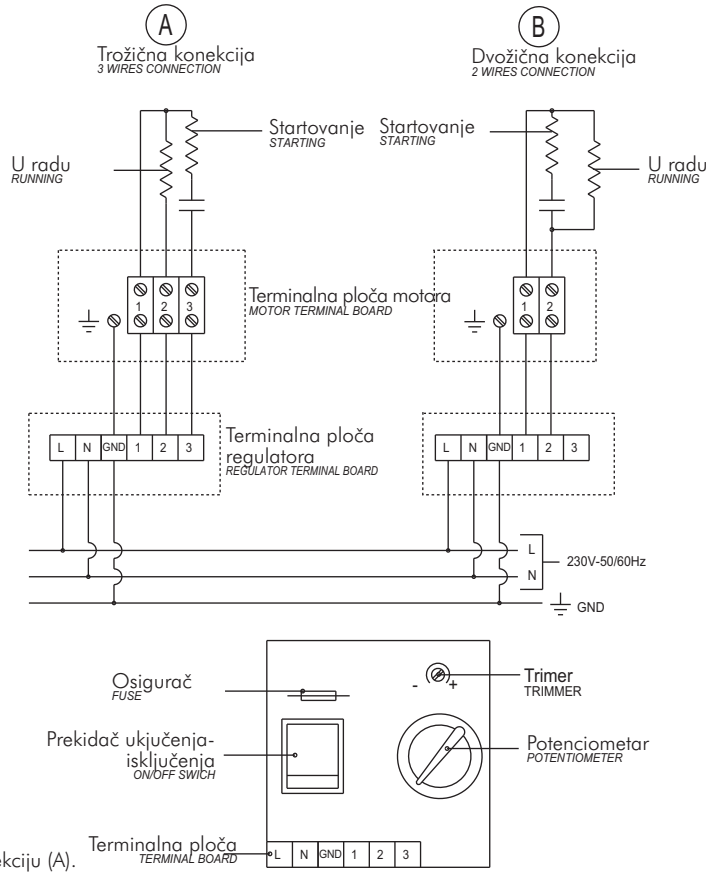
CONSTRUCTION

- Supply 230V-1Ph-50/60Hz.
- Nominal current max 7 A (min. 4 A).
- Timed protection fuse 8A/250V.
- Minimum speed setting tuner.
- Radio noise filter EMC.
- Pilot light.
- Housing in techno-polymer RAL 9016 (white).
- Cooling fin in extruded aluminium.
- Protection IP 42.
- Weight Kg 0,7.

DIMENZIJE I ŠEMA POVEZIVANJA / DIMENSIONS AND WIRING DIAGRAM RV/2

Dimenzije u mm/Dimensions in mm





Važno: Za postizanje optimalne regulacije, bolje upotrebite konekciju (A).
Note: to obtain an aptimal regulation it's better to utilize the connection (A)

RVS

Jednofazni autotransformatorski regulator brzine obrtaja 0,5 A

Single-phase self-transformer speed regulator 0,5 A

OSNOVNI PODACI :

Manuelno menjanje napona pomoću autotransformatora sa prekidačem od 5 stepeni. Minimalna magnetno-akustična buka motora.
Pogodan za jednofazne asinhrone motore sa regulacijom.

KONSTRUKCIJA :

- Izvor od 230V-1 faza-50/60Hz.
- Nominalna struja max 0,5 A.
- Izlazni napon 1(125V)-2(140V)-3(160V) 4(200V)-5(230V)
- Zaštita IP42
- Kućište od technopolymer-a RAL 9016 (belo).
- Težina 0,7 kg.

GENERAL DESCRIPTION

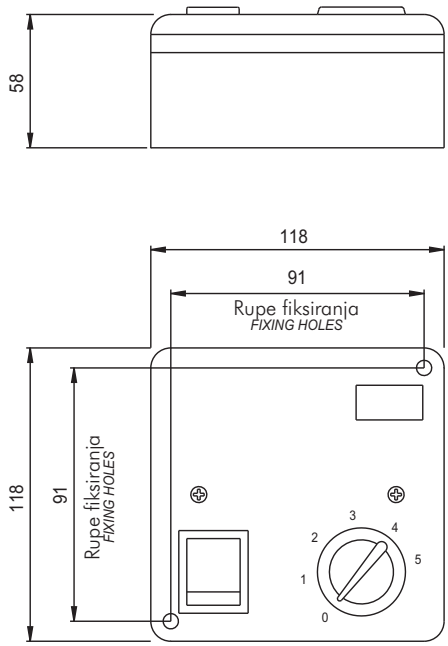
Manual voltage converter by self-transformer switchover, 5 step options. Minimum magneto-acoustic noise in the motor. Suitable for single-phase asynchronous adjustable motors.

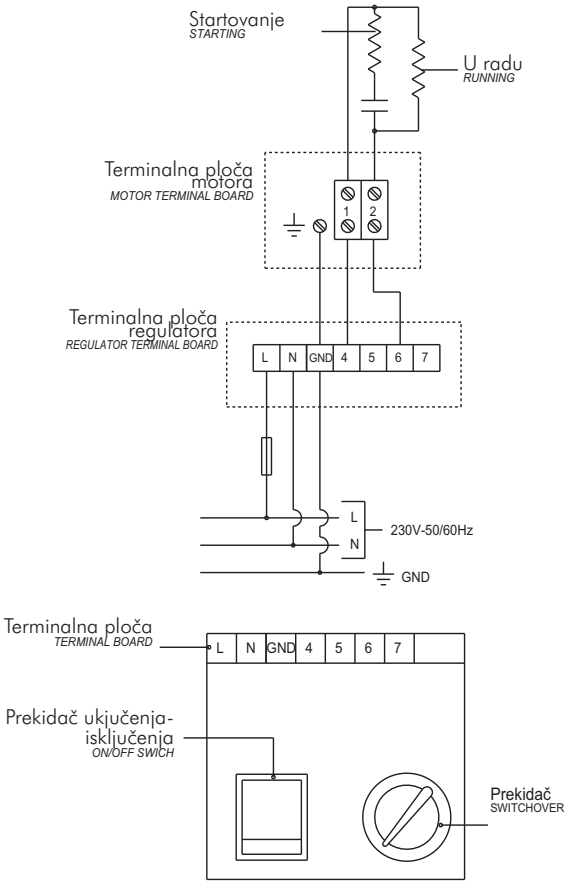
CONSTRUCTION

- Supply 230V-1Ph-50/60Hz.
- Nominal current max 0.5A .
- Output voltage 1(125V)-2(140V)-3(160V)-4(200V)-5(230V).
- Protection IP 42.
- Housing in techno-polymer RAL9016 (white).
- Weight Kg.0,7.

DIMENZIJE I ŠEMA POVEZIVANJA / DIMENSIONS AND WIRING DIAGRAM RVS

Dimenzije u mm/Dimensions in mm





RVM

Jednofazni autotransformatorski regulator brzine obrtaja 1,5 A

Single-phase self-transformer speed regulator 1,5 A

OSNOVNI PODACI :

Manuelno menjanje napona pomoću autotransformatora sa prekidačem od 6 stepeni. Minimalna magnetno-akustična buka motora.
Pogodan za jednofazne asinhrone motore sa regulacijom.

KONSTRUKCIJA :

- Izvor od 230V-1 faza-50/60Hz.
- Nominalna struja max 1,5 A.
- Izlazni napon 1(60V)-2(100V)-3(135V) 4(160V)-5(185V)-6(230V)
- Zaštita IP55.
- Upravljačka lampica.
- Kućište od livenog aluminijuma RAL 7001 (sivo).
- Težina 2,5 kg.

GENERAL DESCRIPTION

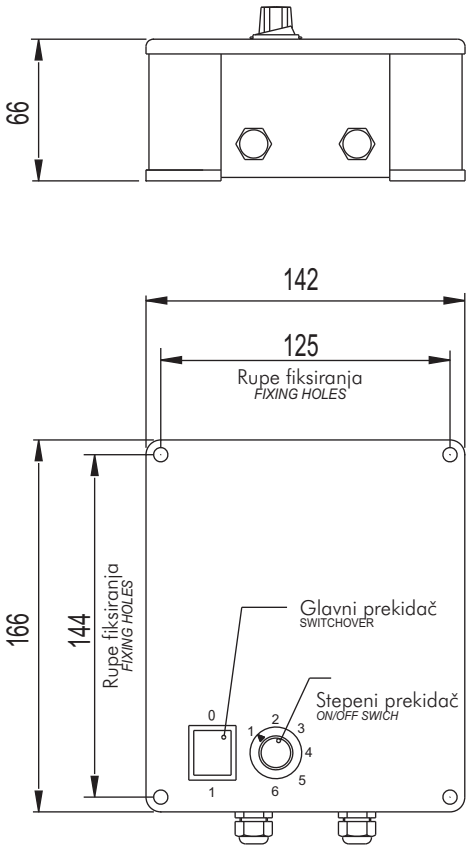
Manual voltage converter by self-transformer switchover, 5 step options. Minimum magneto-acoustic noise in the motor. Suitable for single-phase asynchronous adjustable motors.

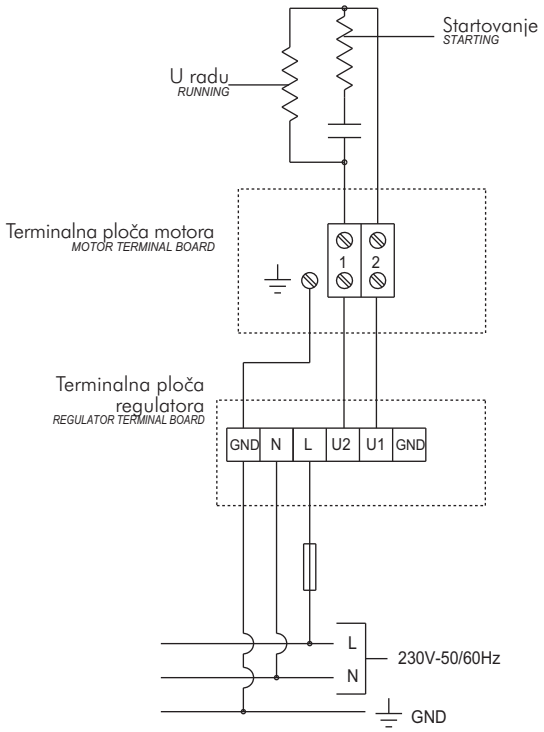
CONSTRUCTION

- Supply 230V-1Ph-50/60Hz.
- Nominal current max 1,5 A.
- Output voltage 1(60V)-2(100V)-3(135V)-4(160V)-5(185V)-6(230V).
- Protection IP 55.
- Pilot light
- Housing in die-cast aluminium RAL 7001 (grey).
- Weight Kg 2,5.

DIMENZIJE I ŠEMA POVEZIVANJA / DIMENSIONS AND WIRING DIAGRAM RVM

Dimenzije u mm/Dimensions in mm





SEK.12

RVM/2

Jednofazni autotransformatorski regulator brzine obrtaja 4 A

Single-phase self-transformer speed regulator 4A

OSNOVNI PODACI :

Manuelno menjanje napona pomoću autotransformatora sa prekidačem od 5 stepeni. Minimalna magnetno-akustična buka motora.
Pogodan za jednofazne asinhrone motore sa regulacijom.

KONSTRUKCIJA :

- Izvor od 220/240V-1 faza-50/60Hz.
- Nominalna struja max 4 A.
- Izlazni napon 1(60V)-2(105V)-3(130V) 4(160V)-5(230V)
- Zaštita IP55.
- Upravljačka lampica.
- Kućište od livenog aluminijuma RAL 7001 (sivo).
- Težina 5 kg.

GENERAL DESCRIPTION

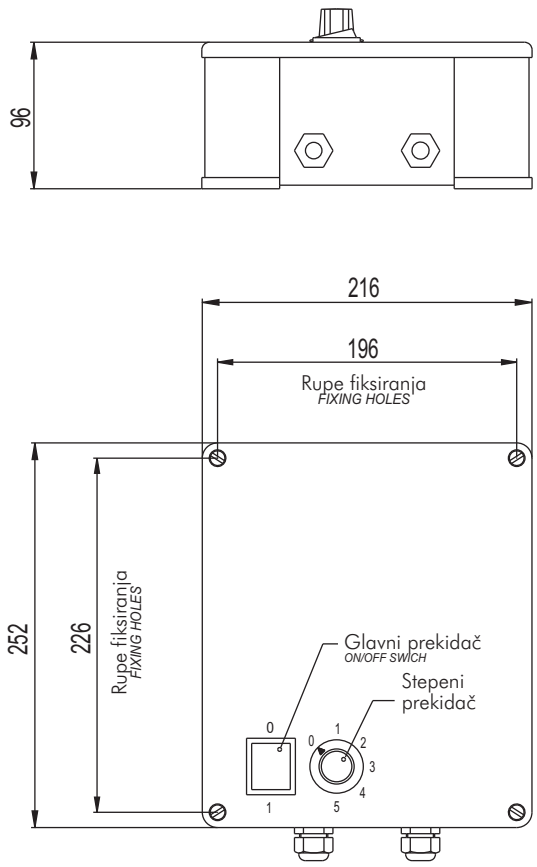
Manual voltage converter by self-transformer switchover, 5 step options. Minimum magneto-acoustic noise in the motor. Suitable for single-phase asynchronous adjustable motors.

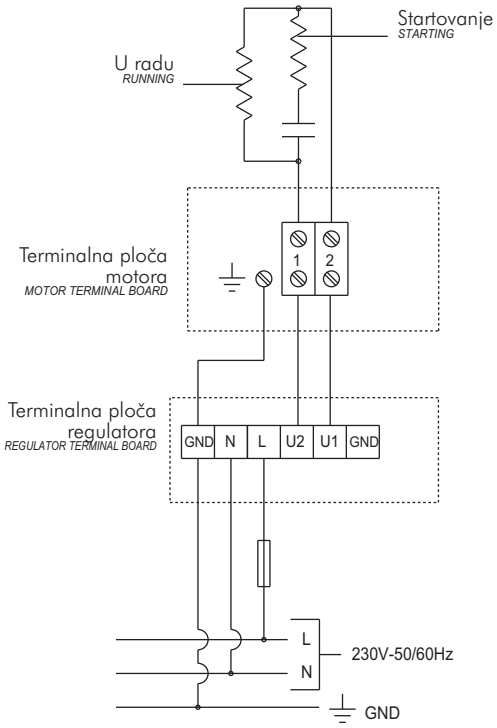
CONSTRUCTION

- Supply 220/240V-1Ph-50/60Hz.
- Nominal current max 4 A.
- Output voltage 1(60V)-2(105V)-3(130V)-4(160V)-5(230V)
- Protection IP 55.
- Pilot light
- Housing in die-cast aluminium RAL 7001 (grey).
- Weight Kg 5.

DIMENZIJE I ŠEMA POVEZIVANJA / DIMENSIONS AND WIRING DIAGRAM RVM/2

Dimenzije u mm/Dimensions in mm





SEK. 12

RVM/3

Jednofazni autotransformatorski regulator brzine obrtaja 7 A

Single-phase self-transformer speed regulator 7A

OSNOVNI PODACI :

Manuelno menjanje napona pomoću autotransformatora sa prekidačem od 5 stepeni. Minimalna magnetno-akustična buka motora.
Pogodan za jednofazne asinhrone motore sa regulacijom.

KONSTRUKCIJA :

- Izvor od 220/240V-1 faza-50/60Hz.
- Nominalna struja max 7 A.
- Izlazni napon 1(60V)-2(105V)-3(130V) 4(160V)-5(230V)
- Zaštita IP55.
- Upravljačka lampica.
- Kućište od livenog aluminijuma RAL 7001 (sivo).
- Težina 8,3 kg.

GENERAL DESCRIPTION

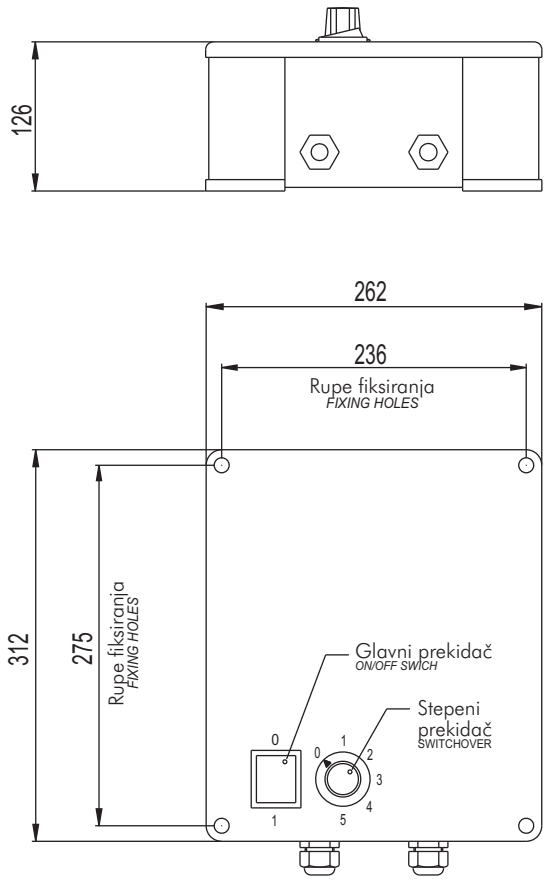
Manual voltage converter by self-transformer switchover, 5 step options. Minimum magneto-acoustic noise in the motor. Suitable for single-phase asynchronous adjustable motors.

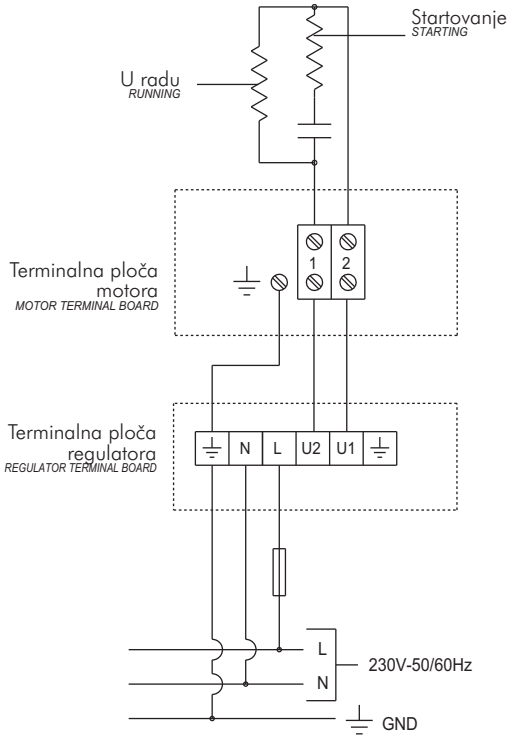
CONSTRUCTION

- Supply 220/240V-1Ph-50/60Hz.
- Nominal current max 7 A.
- Output voltage 1(60V)-2(105V)-3(130V)-4(160V)-5(230V).
- Protection IP 55.
- Pilot light
- Housing in die-cast aluminium RAL 7001 (grey).
- Weight Kg 8,3.

DIMENZIJE I ŠEMA POVEZIVANJA / DIMENSIONS AND WIRING DIAGRAM RVM/3

Dimenzije u mm/Dimensions in mm





SEK.12

RVM/4

Jednofazni autotransformatorski regulator brzine obrtaja 12 A

Single-phase self-transformer speed regulator 12A

OSNOVNI PODACI :

Manuelno menjanje napona pomoću autotransformatora sa prekidačem od 5 stepeni. Minimalna magnetno-akustična buka motora.
Pogodan za jednofazne asinhrone motore sa regulacijom.

KONSTRUKCIJA :

- Izvor od 230V-1 faza-50/60Hz.
- Nominalna struja max 12 A.
- Izlazni napon 1(60V)-2(105V)-3(130V) 4(160V)-5(230V)
- Zaštita IP21.
- Upravljačka lampica.
- Kućište od livenog aluminijuma RAL 7001 (sivo) sa zaštitom od plastificirane čelične ploče RAL 7035 (sivo).
- Težina 13,8 kg.

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GENERAL DESCRIPTION

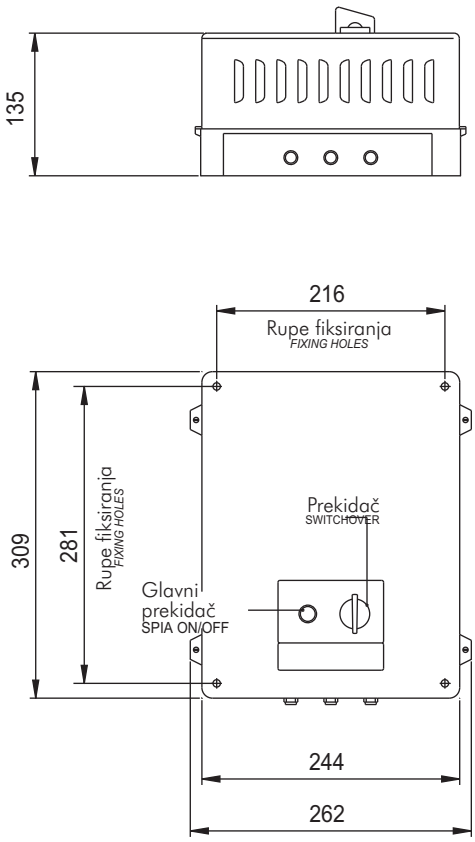
Manual voltage converter by self-transformer switchover, 5 step options. Minimum magneto-acoustic noise in the motor. Suitable for single-phase asynchronous adjustable motors.

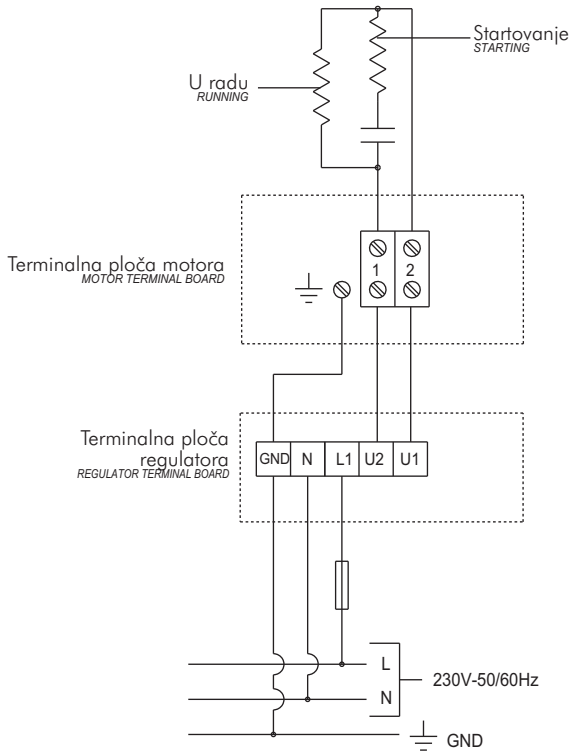
CONSTRUCTION

- Supply 230V-1Ph-50/60Hz.
- Nominal current max 12 A.
- Output voltage 1(60V)-2(105V)-3(130V)-4(160V)-5(230V).
- Protection IP 21.
- Pilot light.
- Housing in die-cast aluminium RAL 7001 (grey) with cover in plasticized steel sheet RAL 7035 (grey).
- Weight Kg 13,8.

DIMENZIJE I ŠEMA POVEZIVANJA / DIMENSIONS AND WIRING DIAGRAM — RVM/4

Dimenzije u mm/Dimensions in mm





RVT

Trofazni autotransformatorski regulator brzine obrtaja 2 A

Three-phase self-transformer speed regulator 2A

OSNOVNI PODACI :

Manuelno menjanje napona pomoću autotransformatora sa prekidačem od 5 stepeni. Minimalna magnetno-akustična buka motora.
Pogodan za trofazne asinhrone motore sa regulacijom.

KONSTRUKCIJA :

- Izvor od 400V-3 faze-50/60Hz.
- Nominalna struja max 2 A.
- Izlazni napon1(90V)-2(140V)-3(180V) 4(230V)-5(400V)
- Zaštita IP54.
- Upravljačka lampica.
- Kućište od livenog aluminijuma RAL 7001 (sivo) sa zaštitom od plastificirane čelične ploče RAL 7035 (svetlo sivo).
- Težina 7,5 kg.

GENERAL DESCRIPTION

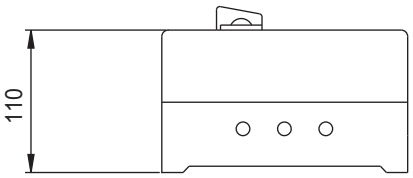
Manual voltage converter by self-transformer switchover, 5 step options. Minimum magneto-acoustic noise in the motor. Suitable for three-phase asynchronous adjustable motors.

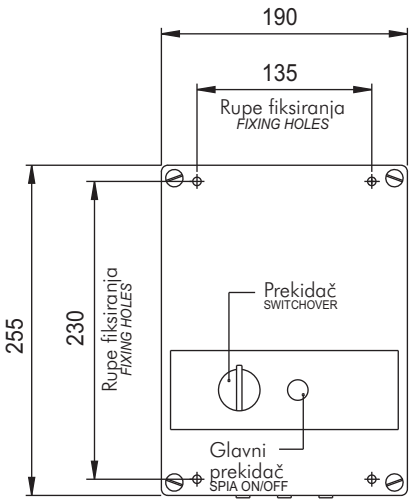
CONSTRUCTION

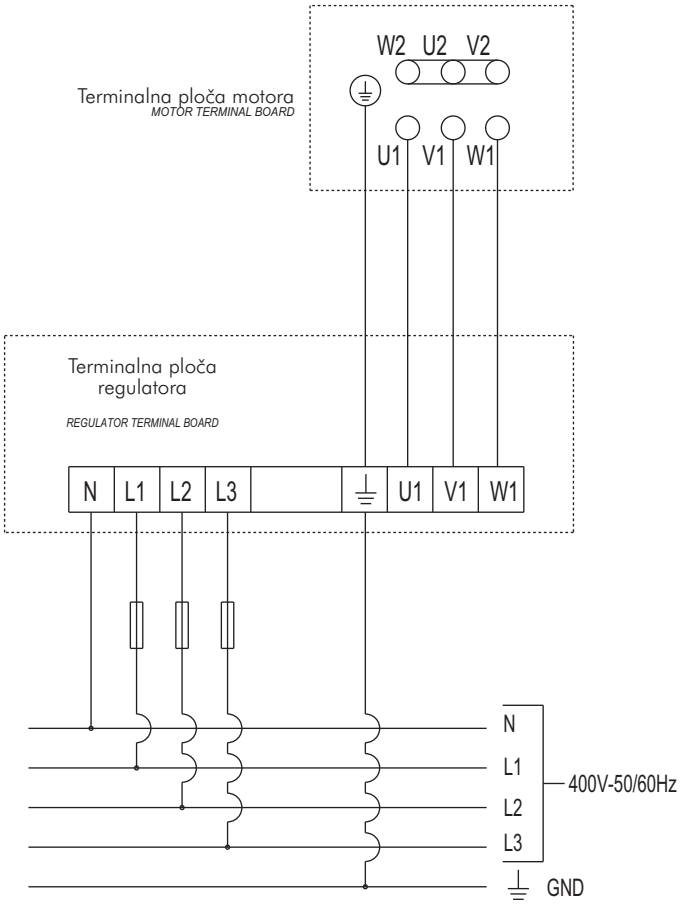
- Supply 400V-3Ph-50/60Hz.
- Nominal current max 2 A.
- Output voltage 1(90V)-2(140V)-3(180V)-4(230V)-5(400V).
- Protection IP 54.
- Pilot light
- Housing in die-cast aluminium RAL 7001 (grey) with cover in plastic material RAL7035 (light grey).
- Weight Kg 7,5.

DIMENZIJE I ŠEMA POVEZIVANJA / DIMENSIONS AND WIRING DIAGRAM RVT

Dimenzije u mm/Dimensions in mm







SEK.12

RVT/1

Trofazni autotransformatorski regulator brzine obrtaja 4 A

Three-phase self-transformer speed regulator 4A

OSNOVNI PODACI :

Manuelno menjanje napona pomoću autotransformatora sa prekidačem od 5 stepeni. Minimalna magnetno-akustična buka motora.
Pogodan za trofazne asinhrone motore sa regulacijom.

KONSTRUKCIJA :

- Izvor od 400V-3 faze-50/60Hz.
- Nominalna struja max 4 A.
- Izlazni napon 1(95V)-2(145V)-3(190V) 4(240V)-5(400V)
- Zaštita IP55.
- Upravljačka lampica.
- Kućište od livenog aluminijuma RAL 7001 (sivo).
- Težina 11 kg.

GENERAL DESCRIPTION

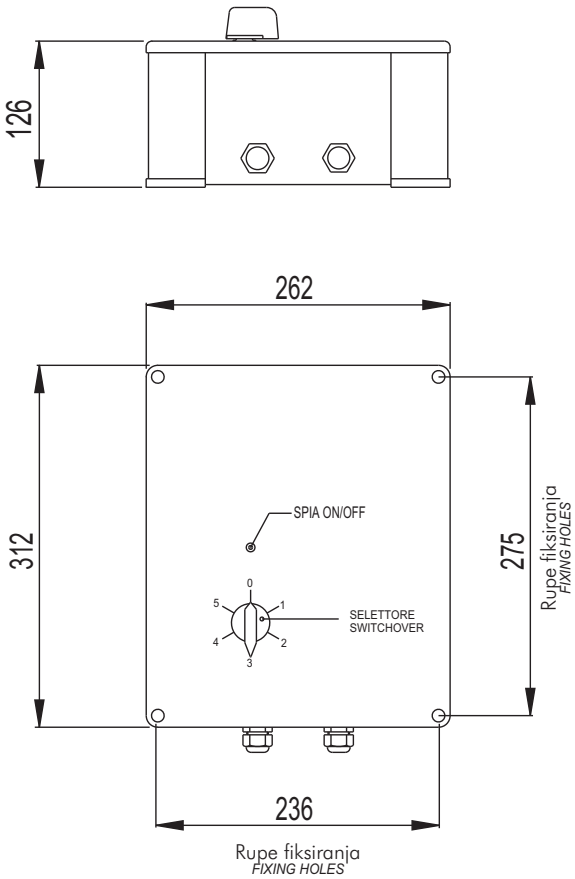
Manual voltage converter by self-transformer switchover, 5 step options. Minimum magneto-acoustic noise in the motor. Suitable for three-phase asynchronous adjustable motors.

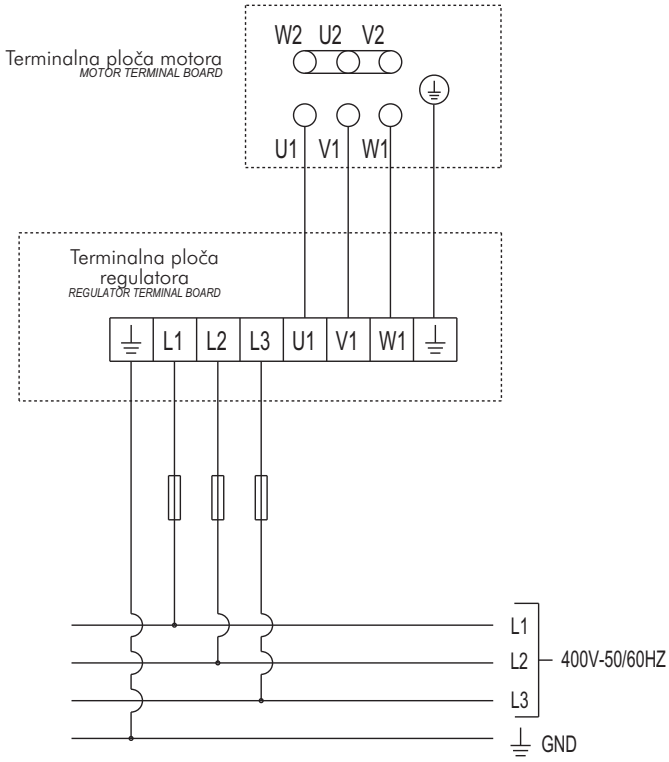
CONSTRUCTION

- Supply 400V-3Ph-50/60Hz.
- Nominal current max 4 A.
- Output voltage 1(95V)-2(145V)-3(190V)-4(240V)-5(400V).
- Protection IP 55.
- Pilot light
- Housing in die-cast aluminium RAL 7001 (grey).
- Weight Kg 11.

DIMENZIJE I ŠEMA POVEZIVANJA / DIMENSIONS AND WIRING DIAGRAM RVT/1

Dimenzije u mm/Dimensions in mm





RVT/2

Trofazni autotransformatorski regulator brzine obrtaja 7 A

Three-phase self-transformer speed regulator 7A

OSNOVNI PODACI :

Manuelno menjanje napona pomoću autotransformatora sa prekidačem od 5 stepeni. Minimalna magnetno-akustična buka motora.
Pogodan za trofazne asinhrone motore sa regulacijom.

KONSTRUKCIJA :

- Izvor od 400V-3 faze-50/60Hz.
- Nominalna struja max 7 A.
- Izlazni napon1(90V)-2(140V)-3(180V) 4(230V)-5(400V)
- Zaštita IP21.
- Upravljačka lampica.
- Kućište od livenog aluminijuma RAL 7001 (sivo) sa zaštitom od plastificirane čelične ploče RAL 7035 (svetlo sivo).
- Težina 20 kg.

GENERAL DESCRIPTION

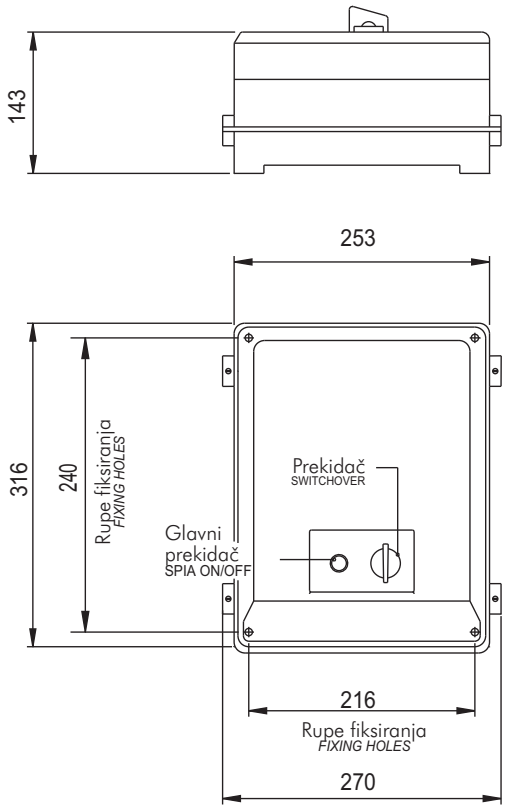
Manual voltage converter by self-transformer switchover, 5 step options. Minimum magneto-acoustic noise in the motor. Suitable for three-phase asynchronous adjustable motors.

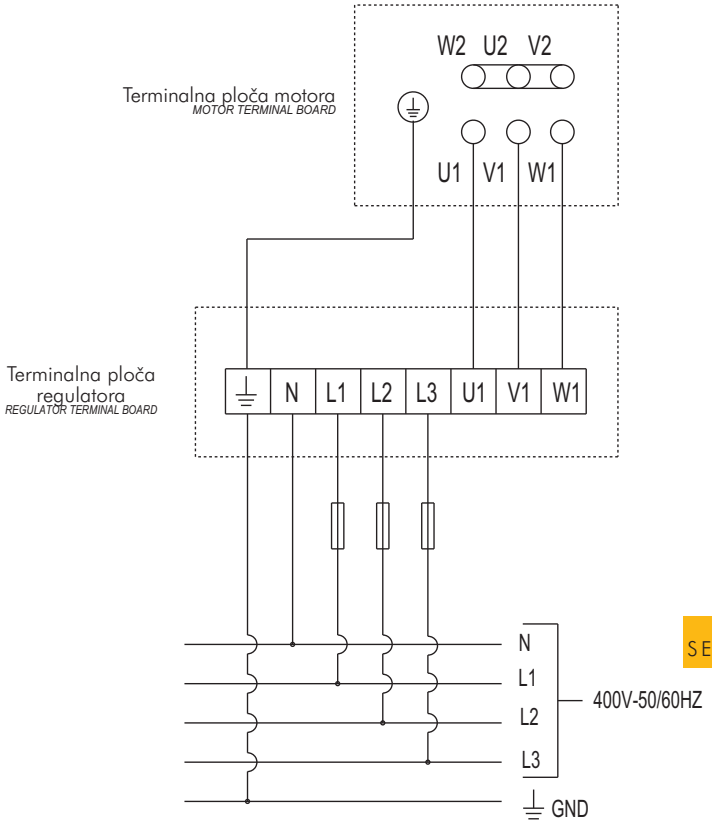
CONSTRUCTION

- Supply 400V-3Ph-50/60Hz.
- Nominal current max 7 A.
- Output voltage 1(90V)-2(140V)-3(180V)-4(230V)-5(400V).
- Protection IP 21.
- Pilot light
- Housing in die-cast aluminium RAL 7001 (grey) with cover in coated steel sheet RAL 7035 (light grey).
- Weight Kg 20.

DIMENZIJE I ŠEMA POVEZIVANJA / DIMENSIONS AND WIRING DIAGRAM RVT/2

Dimenzije u mm/Dimensions in mm





RVT/3

Trofazni autotransformatorski regulator brzine obrtaja 14 A

Three-phase self-transformer speed regulator 14 A

OSNOVNI PODACI :

Manuelno menjanje napona pomoću autotransformatora sa prekidačem od 5 stepeni. Minimalna magnetno-akustična buka motora.
Pogodan za trofazne asinhrone motore sa regulacijom.

KONSTRUKCIJA :

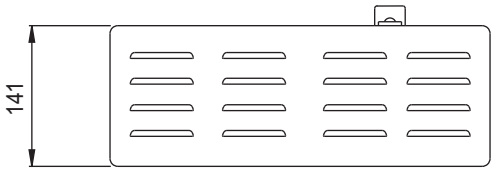
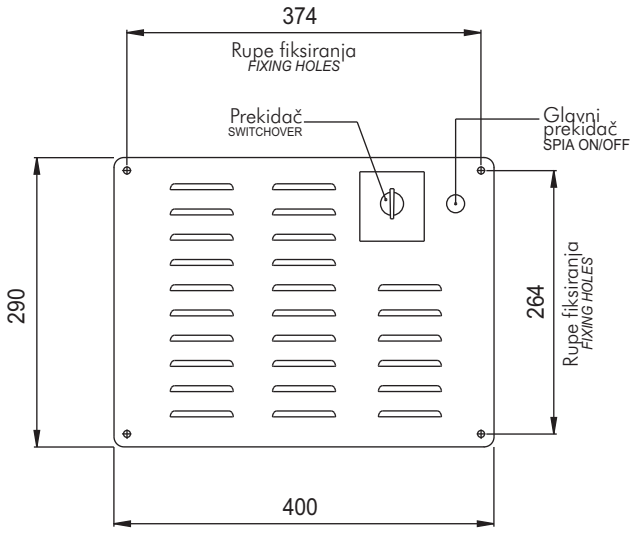
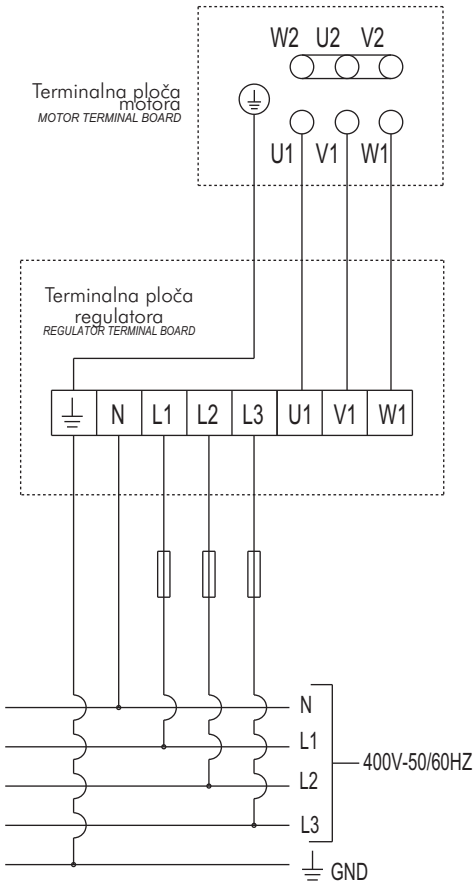
- Izvor od 400V-3 faze-50/60Hz.
- Nominalna struja max 14 A.
- Izlazni napon 1(90V)-2(140V)-3(180V) 4(230V)-5(400V)
- Zaštita IP21.
- Upravljačka lampica.
- Kućište od čelične ploče obojenog sa epoxy farbom RAL 7035 (svetlo sivo).
- Težina 24 kg.

GENERAL DESCRIPTION

Manual voltage converter by self-transformer switchover, 5 step options. Minimum magneto-acoustic noise in the motor. Suitable for three-phase asynchronous adjustable motors.

CONSTRUCTION

- Supply 400V-3Ph-50/60Hz.
- Nominal current max 14 A.
- Output voltage 1(90V)-2(140V)-3(180V)-4(230V)-5(400V).
- Protection IP 21.
- Pilot light
- Housing in epoxy painted steel sheet RAL 7035 (light grey).
- Weight Kg 24.

DIMENZIJE I ŠEMA POVEZIVANJA / DIMENSIONS AND WIRING DIAGRAM RVT/3

Dimenzije u mm/Dimensions in mm