



Alvis series

User Manual

Manual de utilizare

AVRL-10001AL-CS01B

AVRL-20002AL-CS01B

AVRL-3005TAL-CS01B

AVRL-5005TAL-CS01B



Thank you for purchasing our products!

Please read this manual before using the product.

nJoy is a brand of power and backup protection products that create solutions for multiple levels of environment complexity, residential to industrial.

The nJoy Alvis Series is the ideal protection for computers or other electronic equipment. With its AVR-protected sockets regulates the input voltage and eliminates the problems created by under-voltage or over-voltage fluctuations. Besides, it is provided with selection for delay time that eliminates transients that can affect connected equipment. This high performance AVR Series comes with the versatility to fit all kinds of equipment with its input voltage range selection.

The following models belong to the **Series**:

1000VA

Alvis 1000

2000VA

Alvis 2000

3000VA

Alvis 3000

5000VA

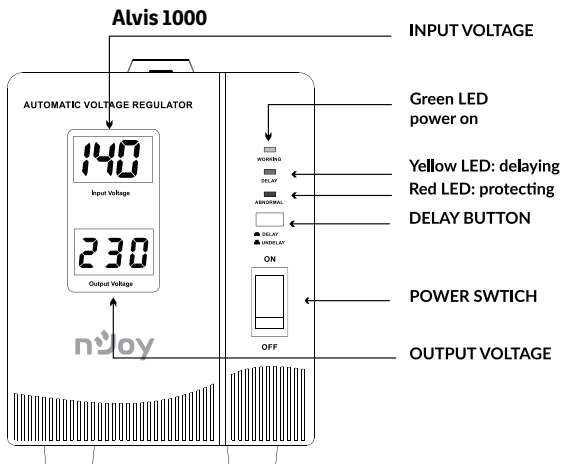
Alvis 5000

1 Package Contents

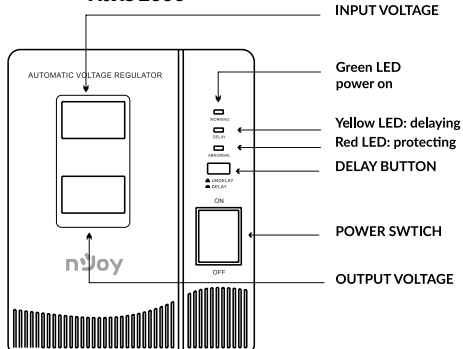
- ✓ AVR Unit.
- ✓ User Manual.
- ✓ Power Cord (attached).
- ✓ Warranty Card.

2 Product Overview

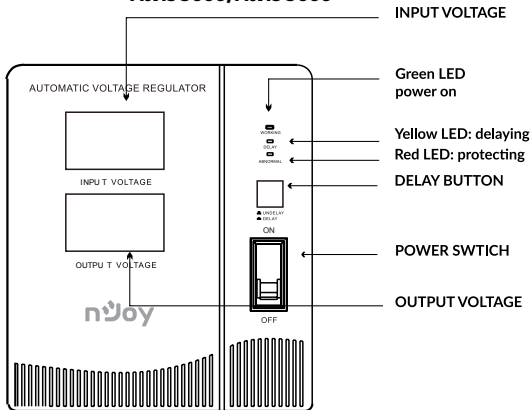
Front View



Alvis 2000

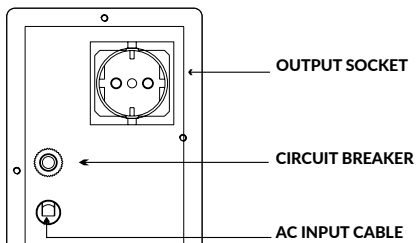


Alvis 3000/Alvis 5000

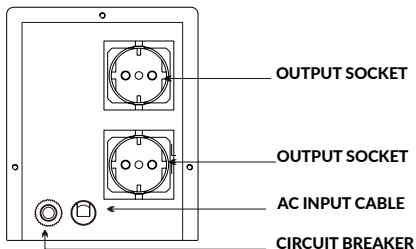


 **Back View**

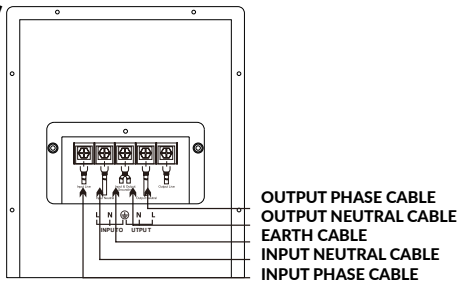
Alvis 1000



Alvis 2000



**Alvis 3000/
Alvis 5000**



3 General Specifications

- ⇒ **Microprocessor control guarantees high reliability**
- ⇒ **Time delay function eliminates transients that can affect connected equipment**
- ⇒ **Under-voltage, over-voltage, over-heat and over current protection**
- ⇒ **Provides stable output voltage**
- ⇒ **Provide surge and spike suppression**

NOTE: *For the full list of technical specifications please see the **AlvisSeries** datasheet found at www.nJoy.global*

4 Important Safety Warnings

- ⇒ The unit is designed only for use within 45Hz to 65Hz (depending on the model) input frequency and pure sine wave environment. Any other input frequency or wave form will affect the voltage range and load capability.
- ⇒ Please DO NOT connect the unit to the environment with direct current or simulated sine wave.
- ⇒ To prevent the risk of fire or electric shock, install the device in a temperature and humidity controlled indoor area free of conductive contaminants. (See the specifications in the product's datasheet for the acceptable temperature and humidity range.)
- ⇒ Don't connect any appliances to AVR, which exceeds its rated power capacity.

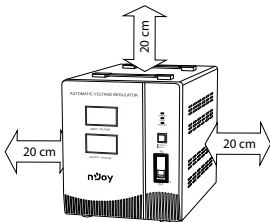
5 Instalation and Initial Startup

Step 1. Inspection

Remove the unit from the shipping package and inspect it for damage that might have occurred during transportation. Notify the carrier and place of purchase if any damage is found.

Step 2. Placement & Storage Conditions

Install the unit in a protected area that is free of excessive dust and has adequate air flow. Please place the unit away from other units at least 20cm to avoid interference. Do NOT block the top or side air vents on the unit. Do not use the unit in an environment where the ambient temperature or humidity is outside the limits listed in the specifications. Operate the unit in an environment free of excessive dust, mechanical vibration, inflammable gases and explosive or corrosive atmospheres.



Step 3. Connect the Loads

The AVR-protected receptacles will provide stable power to connected devices by boosting and bucking the input power. Therefore simply connect sensitive loads to AVR-protected receptacles in order to secure them.

3.1 Make sure all appliances are turned "OFF", and put the POWER SWITCH of AVR to "OFF" position.

3.2 For Alvis 1000 and 2000, plug the appliances into the OUTPUT SOCKET of the AVR

3.3 For Alvis 3000 and 5000 make wiring connection as shown in **Figure 1**.

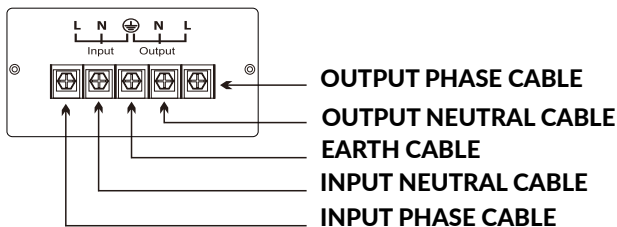


FIGURE 1

Step 4. Turn On/Off the Unit

Turn on the unit by pressing the power switch to "ON" position. Then, all connected devices will be powered on.

6 Operation

6.1 Delay Operation

The "**DELAY**" means the output of the AVR will be delayed for a specific time, after switching on the AVR or the output is restored from a protecting status.


It will prevent the appliances from being damaged due to frequent switching on and off.

 **Undelay**

 **Delay**

The default delay time is 6 seconds (UNDELAY) or 3 minutes (DELAY). Press down the **DELAY BUTTON** to select the "DELAY", or press it up to select the "UNDELAY".



For the appliances with motors and compressors, like **fans, refrigerators, cooler, freezers, air-conditioners, pumps, small motors**, please select  Delay.

6.2 Over Voltage (High Voltage) Protection

In case that input voltage is over the normal range, the output will be cut off automatically and a letter "**H**" will be shown in the display.

When input mains power returns to normal range, the AVR will restore the output automatically.

6.3 Under Voltage (Low Voltage) Protection

In case that input voltage is below the normal range, the output will be cut off automatically and a letter "L" will be shown in the display.

When input mains power returns to normal range, the AVR will restore the output automatically.

6.4 Over Temperature Protection

In case that the temperature of transformer windings is beyond the normal range, the output will be cut off automatically and letter "c" will be flashing in the display.

When temperature of transformer windings returns to normal range, the AVR will restore the output automatically.

6.5 Short Circuit Protection

In case a short circuit happens to the AVR or appliances, the AIR BREAKER or CIRCUIT BREAKER will trip off to cut off the input power supply.

Check if the appliances have been short circuited, if so, please remove them.



If the AVR is short circuited, do not use it! Please turn to the authorized dealer or service center.

6.6 Smart Overload Protection

Once it is overloaded, the AVR will give display warning to inform the user to reduce the connected appliances.

When load is $>110\% \pm 8\%$: output will be cut off within 30s if overload is not removed

When load is $>120\% \pm 8\%$: output will be cut off within 6s if overload is not removed

Once it's protected, the AVR will retry to restore output for 3 times, if overload is still not removed during this period, the AVR will stop retrying to restore output, at this time a letter "E1" or "E2" will be flashing in the display.

When letter "E1" or "E2" is flashing, even if the overload is removed, the output won't be restored. In this case, please conduct below steps:

- (a) Put the "**POWER SWITCH**" to "**OFF**" position to disconnect mains power.
- (b) Switch off all the connected appliances, and remove the exceeding load.
- (c) Switch on AVR and then switch on the appliance.

7 LED Indicators



Mode	LED Indication
Normal	Green led lighting
Time Delay	Yellow flashing & Green led lighting
Abnormal(output cutoff)	Red & Green led lighting




8 Applications

The Alvis Series is design for use with voltage sensitive equipment such as: computers, hydrophore, medical and laboratory equipment.

When using the voltage regulator with an Uninterruptible Power Supply (UPS) connect the UPS to the output receptacle of the Series unit then connect it (the AVR) to the wall outlet.

9 Troubles and solutions

Problem/ error code	Possible Cause	Solutions
Power LED is not ON.	Power switch isn't ON. AC plug connection failed. AC socket without power or power failure.	Check if the mains is normal.
		Check if the power cord is connected firmly.
		Check if the connected devices are connected to the unit firmly.
		Check if the unit is turned on. Use the below table to solve the minor problems
Circuit breaker is "tripped".	The unit is overload.	Remove some loads first. Reset the circuit breaker by pressing the button again.
The unit is turned off automatically and the Power LED is not lit.	The unit is overheated. It's internal protected function.	Remove some loads and wait until the unit cool down. Then turn on the unit again.
 Output Voltage	Overload protecting when load is >110%, but less than 120%	Remove unnecessary appliances connected; if still not solved, contact the dealer
 Output Voltage	Overload protecting when load is >120%	Remove unnecessary appliances connected; if still not solved, contact the dealer

 Output Voltage	Under voltage protection	Wait till input voltage increases to normal range
 Output Voltage	Over voltage protection	Wait till input voltage decreases to normal range
 Output Voltage	Over temperature protection for Transformer windings	Wait till the temperature of Transformer windings decreases to normal range



Disposal of Old Electrical & Electronic Equipment

(Applicable in the European Union and other European countries with separate collection systems)

This symbol on the product or on its packaging indicates that this product shall not be treated as household waste.

Instead it shall be handed over to the applicable collection point for the recycling of electrical and electronic equipment.

By ensuring this product is disposed of correctly, you will help prevent potential negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product.

The recycling of materials will help to conserve natural resources.



Memo

A series of horizontal dotted lines for writing, filling the main body of the page.

Va multumim ca ati ales produsele noastre!

Va rugam cititi manualul de utilizare inainte de a pune in functiune acest produs.

nJoy este un brand de solutii UPS dedicate protectiei si rezervei de energie din diferite medii de utilizare, de la rezidential la industrial.

***Seria nJoy Alvis** reprezinta solutia perfecta pentru utilizatorii care sunt in cautarea unui regulator automat de tensiune cu scopul de a proteja electronicele sensibile de acasa sau de la birou impotriva sub-tensiunilor si supra-tensiunilor. Seria dispune de functia de intarziere la repornire. Aceasta functie ajuta la eliminarea perioadelor tranzitorii care pot afecta echipamentele conectate. Acest AVR performant este caracterizat prin versatilitatea de a se potrivi tuturor tipurilor de echipamente datorita posibilitatii de selectie a tensiunii.*

Din serie fac parte urmatoarele modele:

1000VA ➤ **Alvis 1000**

2000VA ➤ **Alvis 2000**

3000VA ➤ **Alvis 3000**

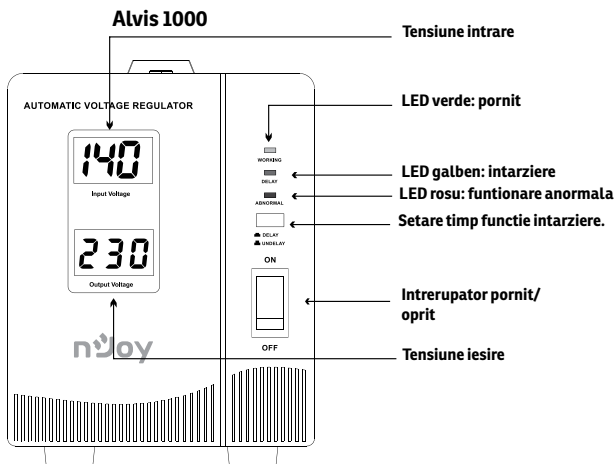
5000VA ➤ **Alvis 5000**

1 Continutul pachetului

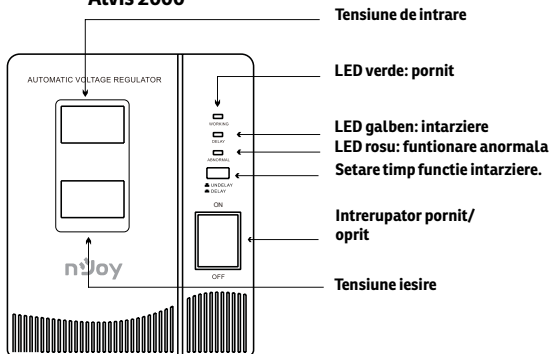
- ✓ Unitatea AVR.
- ✓ Manual de utilizare.
- ✓ Cablu de alimentare (atasat).
- ✓ Certificat de garantie.

2 Prezentarea produsului

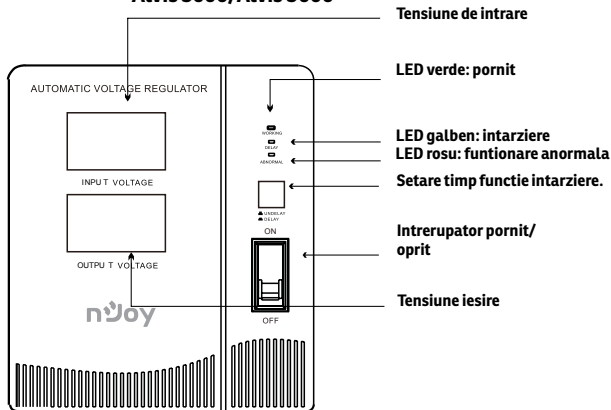
Vedere frontala



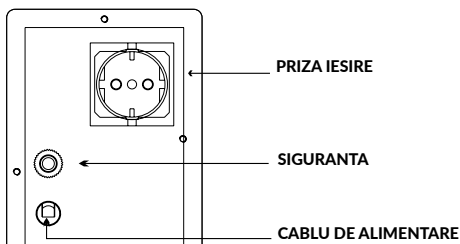
Alvis 2000



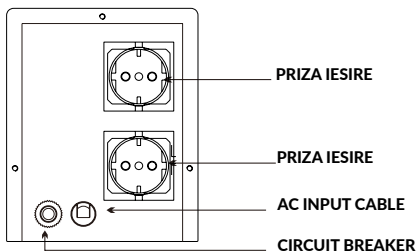
Alvis 3000/Alvis 5000



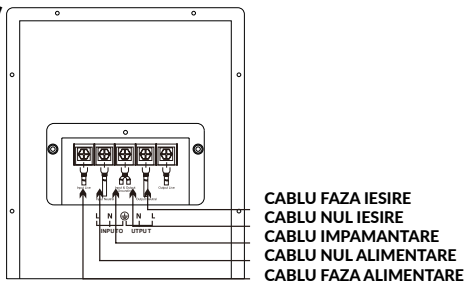
Alvis 1000



Alvis 2000



**Alvis 3000/
Alvis 5000**



3 Specificatii generale

- ⇒ **Reglarea prin microprocesor garanteaza o alimentare cu fiabilitate ridicata**
- ⇒ **Functia de intarziere la pornire ajuta la eliminarea perioadelor tranzitorii care pot afecta echipamentele conectate**
- ⇒ **Protectie la subtensiune și supratensiune, supra-incalzire si supra-incarcare**
- ⇒ **Ofera tensiune de iesire stabila**
- ⇒ **Ofera protectie impotriva varfurilor de inalta si joasa tensiune**

NOTA: Pentru a vizualiza intreaga lista de specificatii ale **Seriei Alvis** descarcati datasheet-ul produsului de pe www.nJoy.global

4 Instructiuni de siguranta

- ↗ Unitatea este destinata pentru utilizare la o frecventa de intrare de 45Hz sau 65Hz (in functie de model) si unda sinusoidala pura. Orice alta frecventa de intrare sau orice alt tip de unda va afecta plaja tensiunii de iesire si nivelul de incarcare.
- ↗ Va rugam sa NU conectati aparatul la curent continuu sau unda sinusoidala simulata.
- ↗ Pentru a preveni riscul de soc electric sau de incendiu instalati unitatea intr-o incapere controlata din punct de vedere al temperaturii si al umiditatii. (Consultati specificatiile din datasheet-ul produsului pentru a observa nivelul de umiditate si intervalul de temperaturi acceptate).
- ↗ Nu conectati niciun aparat la AVR, care depaseste capacitatea sa de putere nominala.

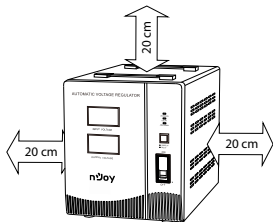
5 Conectarea echipamentelor si prima utilizare

Pasul 1. Inspectare

Inainte de instalare va rugam sa verificati unitatea. Asigurati-va ca nimic din interiorul pachetului nu este deteriorat! In situatia in care sunt observate defectiuni va rugam anuntati transportatorul si compania de unde a fost achizitionat AVR-ul.

Pasul 2. Conditii de depozitare si de amplasare

Instalati unitatea intr-o zona protejata, fara exces de praf si in care exista un flux de aer adecvat. Va rugam sa asezati unitatea la o distanta de minim 20 cm fata de alte dispozitive electronice pentru a evita interferentele. Nu blocati orificiile de aerisire de sus sau din partea laterala a unitatii. Nu folositi aparatul intr-un mediu in care temperatura ambientala sau umiditatea este in afara limitelor prevazute in datasheet-ul produsului. Utilizati aparatul intr-un mediu lipsit de praf excesiv, vibratii mecanice, gaze inflamabile si atmosfere explozive sau corozive.



Pasul 3. Conectarea sarcinilor

Prizele protejate ale AVR-ului vor furniza energie stabila dispozitivelor conectate prin amplificarea si reducerea intrarii putere. Prin urmare, doar conectati aparatele electrice la prizele protejate ale AVR-ului pentru a fi protejate.

3.1 Asigurati-va ca toate aparatele sunt oprite si puneti **INTRERUPATORUL DE ALIMENTARE** al AVR-ului in pozitia „OPRIT”.

3.2 Pentru modelele Alvis 1000 si 2000, conectati aparatele la priza shuko AVR-ului, pe care o gasiti in partea din spate.

3.3 Pentru modelele Alvis 3000 si 5000, faceti conexiunea cablajului conform figurii 1.

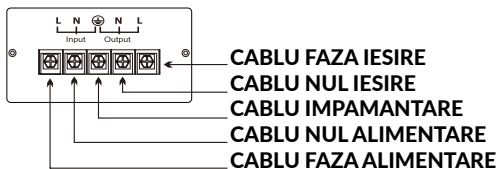


figura 1

Pasul 4. Pornirea/Oprirea AVR-ului

Porniti unitatea, comutand intrerupatorul de alimentare in pozitia „ON”. Apoi, toate dispozitivele conectate vor fi alimentate.

6 Operatii

6.1 Setarea functiei de intarziere la pornire

Setarea functiei de intarziere la pornire cand butonul „intarziere” este apasat inseamna ca tensiunea de iesire a AVR-ului va fi intarziata timp de 180s, dupa repornirea AVR-ului.

Acesta functie va evita aparitia defectelor la dispozitivele cu motor de curent alternativ din cauza pornirilor consecutive.

Fara Intarziere

Intarziere

Timpul de intarziere prestabilit este de 6 secunde (FARA INTARZIERE) sau 180 secunde (INTARZIERE).

Apasati BUTONUL DE INTARZIERE pentru a selecta „INTARZIERE” sau apasati-l pentru a selecta „FARA INTARZIERE”.

Pentru aparatele cu motoare si compresoare, precum ventilatoare, frigidere, frigidere, congelatoare, aparate de aer conditionat, pompe, motoare mici, va recomandam sa folositi AVR-ul cu functia “INTARZIERE” selectata.

6.2 Protectie la supratensiune (inalta tensiune)

In cazul in care tensiunea de intrare este peste valoarea acceptata, iesirea va fi intrerupta automat iar pe ecran va fi afisat litera „H”.

In momentul in care alimentarea de la retea va reveni la valoarea acceptata, AVR-ul va restabili automat iesirea.

6.3 Protectie la subtensiune (tensiune joasa)

In cazul in care tensiunea de intrare va fi sub valoarea acceptata, iesirea va fi intrerupta automat iar pe ecran va fi afisat litera „L”.

In momentul in care alimentarea de la retea va reveni la valoarea acceptata, AVR-ul va restabili automat iesirea.

6.4 Protectie la temperatura ridicata

In cazul in care transformatorul intern se supraincalzeste, iesirea va fi intrerupta automat iar pe ecran va fi afisat litera „C”.

In momentul in care temperatura transformatorului intern va reveni la valoarea acceptata, AVR-ul va restabili automat iesirea.

6.5 Protectie la scurt circuit

In cazul in care apare un scurtcircuit la AVR sau la aparatele conecate, siguranta se va declansa si va taia alimentarea AVR-ului.

In acest caz verificati daca aparatele sunt in scurt, daca da, acestea trebuie deconectate de la AVR.



Daca AVR-ul este in scurt, nu-l mai utilizati si adresati-va centrului de service autorizat nJoy.

6.6 Protecție inteligentă la suprasarcină

Odata ce AVR-ul este supraincarcat, va afisa un avertisment pe ecran pentru a informa utilizatorul sa reduca aparatele conectate.

Cand sarcina este $>110\% \pm 8\%$: iesirea va fi intrerupta in 30s, in cazul in care suprasarcina nu este eliminata in acest interval de timp.

Cand sarcina este $>120\% \pm 8\%$: iesirea va fi intrerupta in 6s, in cazul in care suprasarcina nu este eliminata in acest interval de timp.

Odata ce va intrat in aceasta protectie, AVR-ul va incerca de 3 ori sa restabileasca iesirea, iar in cazul in care suprasarcina inca nu a fost redusa, AVR-ul va ramane in modul protejat, iar ecranul va afisa litera „E1” sau „E2”.

Odata ce litera „E1” sau „E2” este efisata, chiar daca suprasarcina este eliminata, iesirea nu va fi restabilita. In acest caz, va rog efectuati pasii de mai jos:

(a) Puneti „INTRERUPATORUL DE ALIMENTARE” in pozitia „OPRIT” si deconectati alimentarea de la retea.

a(b) Opriti toate aparatele conectate si indepartati sarcina excesiva.

(c) Conectati AVR-ul la retea, puneti „INTRERUPATORUL DE ALIMENTARE” in pozitia „OPRIT”, apoi conectati aparatele rand pe rand.

7 Indicatoarele luminoase LED

Mod	Indicatii LED
Normal	lumina verde aprins
Funcția întârziere activă	Yellow flashing & Green led lighting
Anormal	lumina roșie + verde aprins






8 Aplicații

Seria Alvis a fost special concepută pentru utilizarea cu echipamentele sensibile la fluctuațiile de tensiune precum: computere, centrale pe lemne, hidrofoare, aparatură medicală și de laborator. Această serie este proiectată și pentru utilizarea cu echipamentele casnice precum: televizoare, combine frigorifice, echipamentele de telefonie, DVD playere, modemuri și echipamente de prelucrare a datelor.

Când utilizați AVR-ul împreună cu o sursă de alimentare neîntreruptibilă (UPS), conectați UPS-ul la priză de ieșire a seriei Alvis și nu invers.

9 Probleme si solutii

Problema	Cauza posibila	Solutii
LED-ul de pornire nu este aprins	Butonul de pornire nu este aprins. Cablul de alimentare este defect. Priza de alimentare nu are curent.	Verifica daca exista sursa de curent.
		Verifica daca cablul de alimentare este conectat ferm.
		Verifica daca aparatele conectate la unitate sunt conectate ferm.
		Verifica daca unitatea este pornita.
Intrerupatorul este sarit/ declansat	Unitatea este supraincarcata	Reduceti numarul de consumatori. Resetati intrerupatorul prin apasarea butonului de pornire.
Unitatea se inchide automat si LED-ul de alimentare nu este aprins.	Unitatea este supra-incalzita. Oprea este datorata unei protectii interne.	Reduceti o parte din consumatori si asteptati pana cand unitatea se raceste. Apoi reporniti unitatea.

Problema	Cauza posibila	Solutii
 Output Voltage	Overload protecting when load is >110%, but less than 120%	Remove unnecessary appliances connected; if still not solved, contact the dealer.
 Output Voltage	Overload protecting when load is >120%	Remove unnecessary appliances connected; if still not solved, contact the dealer.
 Tensiune iesire	Protecție sub tensiune	Așteptați până când tensiunea de intrare crește la intervalul normal
 Tensiune iesire	Protecție supra tensiune	Tensiune iesire
 Tensiune iesire	Protecție temperatura ridicata la nivelul invelisului	Protecție temperatura ridicata la nivelul invelisului



Dezafectarea echipamentelor electrice si electronice vechi

(Se aplica pentru țările membre ale Uniunii Europene si pentru alte țări europene cu sisteme de colectare separata)

Acest simbol aplicat pe produs sau pe ambalajul acestuia indica faptul ca acest produs nu trebuie tratat ca un deșeu menajer.

El trebuie predat punctelor de reciclare a echipamentelor electrice si electronice.

Asigurandu-va ca acest produs este dezafectat in mod corect veți ajuta la prevenirea posibilelor consecinte negative asupra mediului si a sanatatii umane.

Reciclarea materialelor va ajuta la conservarea resurselor naturale.

