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INVERTER 70•24HF



EN TABLE OF CONTENTS

GENERAL DESCRIPTION	11
START UP	11
CHARGE MODE	12
POWER SUPPLY MODE/DIAGNOSIS	14
SETTINGS MENU	16
PROTECTION	17
TROUBLESHOOTING	17
WARNINGS	19
DECLARATION OF COMPLIANCE	19
BATTERY COMBINATIONS	46
SYMBOLS	46
TECHNICAL FEATURES	47
CONTROL PANEL	47

This manual contains safety and operating instructions. Read it carefully before using the charger for the first time and keep it in a safe place for any future reference.

GENERAL DESCRIPTION

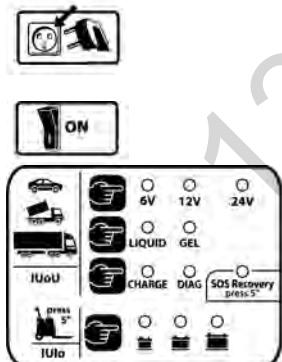
The Inverter 70-24 HF is a high powered stabilised power supply incorporating SMPS (Switch Mode Power Supply) technology.

Designed to sustain 6V, 12V & 24 V batteries (liquid or gel) for vehicles during diagnostic work, and will ensure an ideal charging cycle for battery maintenance for the most modern vehicles.

Inverter 70.24 HF has 2 modes :

- **Charge Mode:** to charge liquid or gel electrolyte (lead, lead Calcium, lead Calcium-Silver, AGM)
 - Starter batteries :
 - from 10Ah to 850Ah in 6/12V (3/ 6 elements of 2V).
 - from 10Ah to 425Ah in 24V (12 elements of 2V).
 - Lead traction batteries :
 - From 45Ah to 450Ah suitable for 6 or 12V batteries (6 elements of 2V)
 - From 45 to 225Ah suitable for 24V batteries (12 elements of 2V)
- **« Diagnostic » Mode:** on a stationary vehicle, the INVERTER 70 HF supplies up to 70A in 12V and up to 35A in 24V to ensure compensation for the current used by high-energy consumers (engine fan, window regulator, electronic suspension, etc) during testing.
This mode is recommended for use during battery replacement. The machine ensures a stabilised power supply to the vehicle during battery replacement to preserve memory settings.

START UP



Automatic diagnostics of cables (if worn out or modified)

After 360 charge cycles, the Inverter 70-24 HF offers to check and calibrate the cables if needed: « CAL ». This message is displayed for 10 seconds and every 30 starts until the user launches the checking operation (start button). For more information on this mode, please refer to the sub menu « check cables » page 16.

CHARGE MODE**Starter batteries**

Ensure that the correct sequence is followed:

Precaution: Check the electrolyte level for open batteries. Fill if necessary.



1. Select « CHARGE » mode



2. Select the voltage of the battery (6 / 12 / 24V)



3. Select the type of battery (liquid or gel):

Liquid: Lead, lead calcium, lead calcium silver,

Gel: Gel batteries, AGM, maintenance free batteries



4. Connect the clamps: Red clamp on the "+" battery terminal, and black clamp on the "-" terminal



5. Press « Start/Stop »

6. Before beginning the charge, the Inverter 70HF analyses the battery voltage/condition and will indicate its status (See the TROUBLESHOOTING section). The charger detects a battery with a voltage above 1,3 V.

7. If the machine detects that the voltage is different from the one selected, it offers to modify it. Press OK to confirm the new settings (flashing LED) or push the "Start" button for 3 seconds if you prefer to keep the current settings.

The 70-24 will automatically detect if the battery is sulphated, and the SOS Recovery LED will flash, and a warning buzzer will sound. More information is available in the de-sulfation chapter. For other anomalies, please consult the TROUBLESHOOTING section.

8. During the charge, the Inverter 70HF display alternates between the current ("I" LED illuminated: Ampere) and the charge voltage ("U" LED illuminated: Volts)

9. At the end of the charge :

a. If the « Floating » option "FLt" is not activated (see page 16), the Inverter 70 HF displays « END » and will discontinue charging.

b. If the « Floating » option is activated (see page 16), the Inverter 70 HF will display « END » whilst maintaining the charge.

NB : When the charge ends, if the battery remains connected, the Inverter 70HF starts again, providing, if necessary, a charge cycle to compensate for the automatic discharge of the battery.



10. Press « Start/Stop »



11. Switch « OFF ».



12. Unplug the power supply cable first, then disconnect the clamps



Traction batteries

- Choose the charging speed according to the capacity (Ah) indicated on your battery.
(Press and hold for 5 seconds)

press 5s

	12V	8h ▼	45Ah ▼	110Ah ▼	
		14h	110Ah ▼	225Ah ▼	
	24V	8h ▼	45Ah ▼	80Ah ▼	
		14h	90Ah ▼	140Ah ▼	



- Select the voltage of the battery (6 / 12 / 24V)



- Select the type of battery (liquid or gel):

Liquid: Lead, lead calcium, lead calcium silver,

Gel: Gel batteries, AGM, maintenance free batteries



- Connect the clamps: Red clamp on the "+" battery terminal, black clamp on the "-" battery terminal



- Press « Start/Stop »

- Before beginning the charge, the Inverter 70.24 HF analyses the battery voltage/condition and will indicate its status (see the TROUBLESHOOTING section):

If the machine detects that the voltage is different from the one selected, it offers to modify it. Press OK to confirm the new settings (flashing LED) or push the "Start" button for 3 seconds if you prefer to keep the current settings (non-flashing LED).

- During the charge, the Inverter 70HF display alternates between the current ("I" LED illuminated: Ampere) and the charge voltage ("U" LED illuminated: Volts).

- Once the battery has been charged, if the battery remains connected for more than 48 hours, the Inverter 70HF will automatically restart a charge cycle to compensate for the automatic discharge of the battery.

- Press « Start/Stop » button



- Switch « OFF ».



- Unplug the power supply cable first and then disconnect the clamps.



SOS Recovery

This feature is designed for starter batteries.

Once a battery is connected, the Inverter 70HF will analyse the battery status. If after a few seconds the machine detects a sulphated battery, the "SOS Recovery" LED will flash, and a warning buzzer will sound - this means that your battery has been deeply discharged for a long time and has started a sulfation process. The Inverter 70HF will offer to start the SOS Recovery function to desulphate the battery.

To activate this function, follow the correct sequence below:



1. **The vehicle battery MUST be disconnected (*DANGER - HIGH VOLTAGE RISK*)**



2. Push the SOS Recovery button for 5 seconds to initiate the desulphation process. The machine will then display "SOS".
3. During the SOS Recovery procedure (desulphation + full charging), the Inverter 70HF display alternates between the current ("I" LED illuminated: Ampere) and the charge voltage ("U" LED illuminated: Volts).
4. At the end of SOS Recovery (16H max):
 - a. If the « Floating » option is not activated (refer to page 14) the Inverter 70 HF displays « END ».
 - b. If the « Floating » option is activated (refer to page 14) the Inverter 70 HF displays « END » whilst maintaining the charge.

POWER SUPPLY MODE/DIAGNOSIS

On a stationary vehicle, the INVERTER 70 HF supplies up to 70A in 12V and up to 35A in 24V to ensure compensation for the current used by high-energy consumers (engine fan, window regulator, electronic suspension, etc.).

Changing batteries:

DIAGNOSIS mode also enables the Inverter 70HF to ensure a stabilised power supply while changing the battery, in order to prevent the loss of electronic data and memory settings.

"Diag +" feature (12V Batteries only)

The « Diag + » feature allows the user to specify the voltage delivered to the battery where a value other than 13.5V is required (according to the manufacturers specifications).

NB1: before using the diag + mode: If the screen displays a current higher than 10A, it indicates the battery is discharged. In this case your 70HF will start charging it automatically. Check all electrical consumers are switched off on your vehicle. Wait until the current falls below 10A and then re-launch Diag+

NB2: When the user exits Diag+ mode, the selected voltage setting will not be saved and will revert back to 13.5V (default).

Using Diagnostic Mode:

Ensure the correct sequence is followed:



1. Select « DIAG » mode

DIAG + only : Press and hold again the MODE button for 5 seconds. Inverter will display the voltage previously defined in the settings menu.



2. Connect the red clamp to the lugs connected to the "+" terminal of the battery and the black clamp to the lugs connected to the "-" terminal of the battery.



3. Press « START »

4. During the process, the instantaneous current consumption is displayed.



5. Press "START/STOP"



6. When the process has finished, turn the machine OFF,



7. Unplug the power supply cable, and disconnect the battery clamps.



Use during battery replacement

Ensure the correct sequence is followed



1. Select « DIAG » mode

2. Connect as follows:

a. The black "-" clamp to the vehicle chassis.
The Red "+" clamp to the end of the lug connected to the "+" battery terminal, in such a way that the battery can be changed without disconnecting the clamp.

3. Press « START » to activate the mode



4. During the process, the instantaneous currentconsumption is displayed.

5. Change the battery, ensuring that the polarity is correct

CAUTION: while exchanging the batteries, be careful not to disconnect the charging clamps as this can cause loss of electronic data.

6. After changing, press « Start/Stop »



7. Unplug the power cable.



8. Unplug the clamps or the connector from the battery.

SETTINGS MENU**1. To access the Settings Menu**

Press and hold « START » for 5 seconds.

2. Navigation :

To scroll through the sub menus, and confirm the sub menu settings.

The sub menus appear in the following order:

Timer "00H" ♦ Cables Testing "CAL" ♦ Charge End "FLt" ♦
Restart "LP" ♦ DIAG + "13.5"



To select or modify the values in each sub menu.

NB. For the Timer sub menu: To modify the settings quickly, press and hold.



Press Start to confirm and exit the « settings » menu, in « Cable Test "CAL" » Start will launch the function.

Sub menus : **Timer "00H":**

- Maximum value : 24 hours (displays eg : 24H)
- Minimum value : 00H = no delay set
- To set the timer, scroll through using the Voltage Selection button. After setting the timer, press Start to start to confirm.
- Follow the instructions for the « charge » mode.

The LED's will deactivate until the beginning of the charging cycle. The display will show a count-down to the start of the charge

If a battery is not connected, the count-down will continue without being displayed. If the charger does not detect a battery when the count-down has finished, then no charging current will be supplied to the clamps until a battery has been connected.

In case of polarity reversal, the Inverter 70-24HF will continue the count-down, but will not supply a charging current when the count-down has finished.

 DIAG + "13.5"

The « Diag + » feature allows the user to specify the voltage delivered to the battery.

Voltage selection will need to be made each time prior to running the DIAG+ procedure

- In the settings menu, this option is displayed as the default voltage value "13.5"
- To scroll up through the voltages available, between 12 and 15V, use the Voltage Select button. Hold the button to scroll faster.
- Once you reach 15V, it reverts back to 12V
- Press "Start/Stop" to confirm selection.

To start using DIAG+ mode, follow the steps of the Diagnostic mode listed on page 14.

 Check cables "CAL":

This mode must be used each time the output cables are changed. The Inverter 70-24 HF is compatible with cables up to 2x5m in 16mm² or 2x12m in 50mm².

1. To launch the cables check, select in Settings Menu, and press Start.
2. The message « SCc » will be displayed.
3. Put the clamps in short circuit for more than 10 seconds.

When the clamps are in short circuit, the message, « Scc » disappears.

4. The result « End »: Indicates the cables are in good working condition, and will be displayed for 10 seconds - after which the Inverter will revert back to the main menu.
5. If no message is displayed during this time, this indicates there may be an error with the cables. After switching off the charger, clean the contacts then check the charge cables and change them if necessary. After this is done, restart the « check cables » cycle.

Charge End / Floating mode "FLT"

After the battery has been charged, 'Floating' mode continues to deliver a current to the battery to maintain a maximum charge.

This function is initially active => display « FLT ».

To disable this function, select « OFF ».

Restart "LP":

The automatic restart function only works in charge mode - it enables an automatic restart for the charger in the event of unexpected power loss.

By default, the function is inactive : displays « off ».

To activate this function, select « LP » for LOOP.

PROTECTION

The Inverter is protected against short-circuits, polarity inversions and engine starts. It has an anti-spark feature which prevents sparks whilst connecting the inverter to the battery. The inverter will not deliver current if there is no battery detected (no voltage in the clamps). The charger is protected by 1 x 80A (Ref: 054651) internal fuse.

TROUBLESHOOTING

	PROBLEMS	CAUSES	SOLUTIONS
CHARGER MODE	① A warning beep sounds + the warning LED illuminates + the display shows : 	Inverter 70HF detects a polarity reversal in the clamps.	Connect the red clamp to the "+" terminal, and the black clamp to the "-" terminal
	② The display shows : « Bat » + the warning LED flashes	The charger cannot detect a battery	Ensure the battery terminals are clean, and the clamps are securely connected
	③ The display shows : « HI » + the warning LED flashes	A consumer has been left on (eg : Headlights)	Turn off any active consumers, disconnect the clamps and re-connect to re-start the charge Alternatively: disconnect the battery from the vehicle before charging.
	④ The display shows: « OUT » + The warning LED illuminates	The battery is in short circuit or damaged.	Replace the battery

	5	Voltage LED is flashing	Inverter 70-24 has detected a different voltage than the one selected	Press STOP to change the voltage. Press START for 3 seconds to confirm the voltage initially selected.
	6	The display shows: « FUS » + a warning beep sounds + the warning LED illuminates	The fuses have blown	Change the internal fuse (qualified staff only) (ref.054651)
	7	The charger displays nothing + the warning LED illuminates	Electrical network fault	Check the voltage of the electrical network is between 100 and 240V
	8	The display shows: « tHI »	Ventilation holes blocked. Faulty fan.	Check and clear ventilation holes Contact your retailer
DIAGNOSIS MODE	1	A warning beep sounds + The warning LED illuminates + the display shows : 	Inverter 70HF detects a polarity reversal in the clamps.	Connect the red clamp to the "+" terminal, and the black clamp to the "-" terminal
	2	The display shows: « dIA » and flashes	The charger cannot detect a battery	Ensure the battery terminals are clean, and the clamps are securely connected
	4	The display shows : « HI » + beep	Excessive consumption compared to the charger capacity	Switch off some electrical consumers to lower the consumption.
	5	The display shows : « FUS » + a warning beep sounds + the warning LED illuminates	The fuses have blown	Change the internal fuse (qualified staff only) (ref.054554: 40A) (ref :054651:80A)
	6	The charger does not display anything + the warning LED is illuminated + warning beep sounds twice	Electrical network fault	Check the voltage of the electrical network is between 100 and 240V
	7	The display shows: « tHI »	Ventilation holes blocked Faulty fan	Check and clear ventilation holes Contact your retailer
	8	The 70HF delivers a high current (between 10A<70A) when not in diagnostic mode.	A lot of electrical consumers in your vehicle are active.	Normal use of the 70HF. Switch off all electrical consumers in your vehicle to check if your battery is not deeply discharged.
			Battery discharged	Your battery is deeply discharged; the 70HF will start charging automatically. Wait until the current is below 10A before launching Diag+ and starting diagnostics on your vehicle.

WARNINGS

- Explosive gas, avoid flame and sparks. During the charge, the battery must be placed in a well ventilated area.
- Protect against rain and moisture.
- The charger must be connected to an EARTHEDE power supply.
- If the electricity supply cable is damaged, or if the internal fuse has blown (ref 054651), it must be replaced by the manufacturer, its after sales service, or a person with the same qualifications to avoid danger.
- Do not use to charge small batteries (i.e those with a capacity less than the minimum stated on the Inverter), or non rechargeable batteries.
- Always ensure the Red clamp is connected to the "+" battery terminal first.
- If it is necessary to connect the black clamp to the vehicle chassis, make sure it is a safe distance from the battery and the fuel/exhaust pipe.
- After charging, disconnect the charger from the outlet, then disconnect the clamp from the frame and the battery in the indicated order.
- The charger must be placed so that the socket is always accessible.
- This charger is not a toy.
- This product should be disposed of at an appropriate recycling facility - do not dispose of in domestic waste.
- Do not short-circuit the clamps during use.

DECLARATION OF COMPLIANCE

The GYS Company testifies that the charger described in this manual:

Inverter 70-24 HF

Is manufactured in compliance with the requirements of the following European directives:

- Low Voltage Directive : 2006/95/CE du 12/12/06
- EMC Directive : 2004/108/CE du 15/12/2004- 03/05/1989.

It therefore complies with the following harmonized standards:

- EN60335-1 - EN60335-2-29 - EN55014-1 - EN55014-2 - EN61000-3-2 - EN61000-3-3 - EN62233

Marking dates CE/GS : october 2009.

01/10/09
Société GYS
134 BD des Loges
53941 Saint Berthevin

Nicolas BOUYGUES
Président Directeur Général/ CEO
Nicolas Bouygues.

ТЕХНИКА БЕЗОПАСНОСТИ

- Взрывчатый газ, избегайте пламени и искр. Во время зарядки аккумулятор должен быть помещен в хорошо проветриваемое место.
- Защищайте аппарат от дождя и влаги.
- Зарядное устройство должно быть подсоединенено к штепселью с заземлением.
- Если шнур питания поврежден или если внутренний предохранитель расплавился (054651), то он должен быть заменен производителем, его сервисной службой или квалифицированным специалистом во избежании опасности.
- Ни в коем случае не использовать, чтобы зарядить батарейки и неперезаряжаемые аккумуляторы.
- Клемма аккумулятора, не соединенная с шасси, должна быть подсоединенена в первую очередь. Затем нужно подсоединить аппарат к шасси, как можно дальше от аккумулятора и от трубопроводов горючего.
- После завершения зарядки отключите зарядное устройство от сети, затем отсоедините его от шасси и, наконец, от аккумулятора. Именно в этом порядке.
- Аппарат должен быть расположен так, чтобы штепсельная вилка была доступна.
- Аппарат не должен быть использован как игрушка для маленьких детей или использован маленькими детьми и инвалидами без присмотра.
- Товар подлежит специальной переработке – не выбрасывать в общий мусоросборник.
- На закорачивать зажимы во время зарядки.

ДЕКЛАРАЦИЯ СООТВЕТСТВИЯ

Компания GYS подтверждает что зарядное устройство, описанные в данной инструкции:

Inverter 70-24 HF

произведено в соответствии с требованиями следующих европейских директив:

- Директива о Низком Напряжении: 2006/95/CE от 12/12/06.
- Директива CEM : 2004/108/CE от 15/12/2004- 03/05/1989.

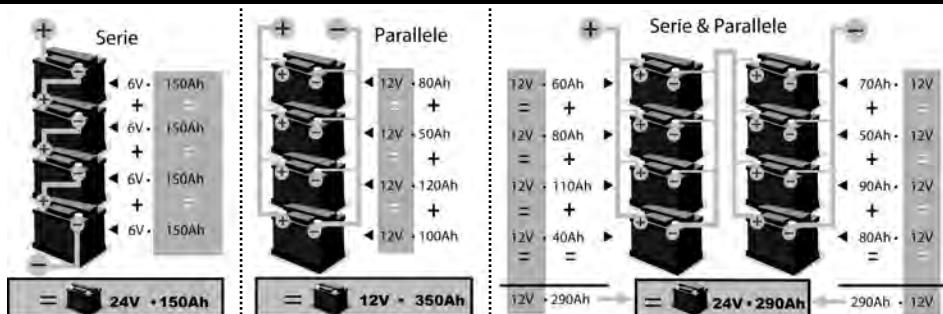
Для этого они соответствуют гармонизированным нормам :

- EN60335-1 - EN60335-2-29 - EN55014-1 - EN55014-2 - EN61000-3-2 - EN61000-3-3 - EN62233

Дата нанесения маркировки CE : май 2009.

01/10/09
Société GYS
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Nicolas BOUYGUES
Président Directeur Général/ CEO

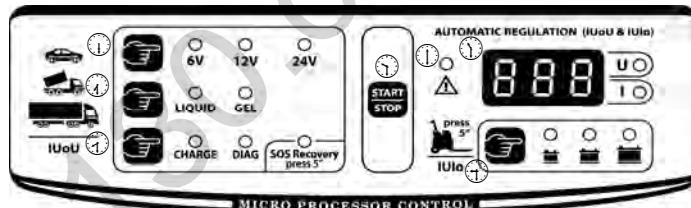
COMBINAISON BATTERIES / BATTERIES COMBINATION / BATTERIEKOMBINATION / COMBINACION DE BATERIAS / КОМБИНАЦИЯ АККУМУЛЯТОРОВ

PICTOGRAMMES / SYMBOLS / ZEICHENERKLÄRUNG / ICONOS / СИМВОЛЫ

	<ul style="list-style-type: none"> Appareil conforme aux directives européennes The device complies with European Directive Gerät entspricht europäischen Richtlinien Aparato conforma a las directivas europeas Аппарат соответствует европейским директивам 		<ul style="list-style-type: none"> Pour usage intérieur, ne pas exposer à la pluie For interior use, do not expose to the rain Nur für den Gebrauch in geschlossnen Räumen geeignet. Gegen Nässe schützen Para uso interior, no poner bajo la lluvia Для использования в помещении, не ставить под дождь
	<ul style="list-style-type: none"> Conforme aux normes GOST (Russie) Conform to standards GOST / PCT (Russia) In Übereinstimmung mit der Norm GOST/PCT COInforme a las normas GOST (Rusia) Соответствует нормам ГОСТ (Россия) 		<ul style="list-style-type: none"> Attention gaz explosifs, éviter la formation de flammes et d'étincelles. Warning contains explosive gas, keep away from flames or source of sparks Nicht in der Nähe von Flammen oder Funkenquellen arbeiten! Atención : gases explosivos, evitar la formación de llamas y chispas Внимание: взрывчатые газы, избегайте образования пламени и искр!
	<ul style="list-style-type: none"> Attention ! Lire le manuel d'instruction avant utilisation Caution ! Read the user manual Achtung! Lesen Sie die Betriebsanleitung Atención : leer el manual de uso antes del uso. Внимание ! Прочтите инструкцию перед использованием. 		<ul style="list-style-type: none"> Choisir un local abrité et suffisamment aéré ou spécialement aménagé. Choose a sheltered room with appropriate airing. Nur in geschützten und gut belüfteten Räumen benutzen Elegir un local abrigado y suficientemente aireado. Использовать в крытом и хорошо проветриваемом помещении или специально оборудованном помещении
	<ul style="list-style-type: none"> Produit faisant l'objet d'une collecte sélective- Ne pas jeter dans une poubelle domestique. Separate collection required – Do not throw in a domestic dustbin. Produkt für selektives Einsammeln. Werfen Sie dieses Gerät nicht in die häusliche Mülltonne. Este producto es objeto de una recogida selectiva. Товар подлежит специальной переработке – не выбрасывать в общий мусоросборник 		<ul style="list-style-type: none"> Protégé contre l'accès aux parties dangereuses avec un doigt, et contre les chutes verticales de gouttes d'eau Protected against rain and against fingers access to dangerous parts Gegen Berührung mit gefährlichen Teilen und gegen Sprühwasser geschützt. Protegido contra el acceso a partes peligrosas con un dedo, y contra las caídas verticales de agua. Защищен против доступа пальцев в опасные места и против прямого попадания капель воды
	<ul style="list-style-type: none"> Fusible temporisé 16A Temporized Fuse 16A Träge Sicherung 16A Fusible de retardo 16A. Предохранитель с замедлителем 16A 		<ul style="list-style-type: none"> Fusibles automobiles 40A x 3 ou 80Ax1 Automobile Fuse 40A x 3 and 80A x 1 Sicherungsautomat 40A x 3 oder 80A x 1 Fusibles automóviles 40A x 3 y 80A x 1 Автомобильные предохранители 40A x 3 или 80Ax1

**SPÉCIFICATIONS TECHNIQUES / TECHNICAL FEATURES/ TECHNISCHE EIGENSCHAFTEN /
ESPECIFICACIONES TECNICAS / ТЕХНИЧЕСКАЯ СПЕЦИФИКАЦИЯ**

Tension d'alimentation / Power supply/ Netzanschluss / Tensión de alimentación / Напряжение питания	100V -240V 50/60Hz
Puissance nominale max / Max nominal power / Max. Leistung / Potencia nominal máx. / Макс. номинальная мощность	1150 W
Tension de charge / Charge voltage / Ladestrom / Tensión de carga / Напряжение зарядки	6V-12V-24V
Courant de charge / Current charge / Ladespannung / Ток зарядки	12V : 1-70 A 24V : 1-35 A
Capacité nominale de charge / Nominal charge capacity / Batteriekapazität / Capacidad nominal de carga. / Номинальная емкость зарядки	Auto. Batt : 6/12V :10►850 Ah 24V :10►425 Ah Traction Btt: 6/12V:45►450Ah 24V :10►225 Ah
Nombre de cellules / Number of cells / Anzahl der Zellen / Cantidad de celdas./ Кол-во ячеек	6
Courbe de charge / Charge curve / Ladekennlinie / Curva de carga / График зарядки	IUoU/IUa/IU/IUo
Température de fonctionnement / Operating temperature / Betriebstemperatur / Temperatura de funcionamiento.* / Рабочая температура*	De 0°C - 60°C
Température de stockage / Stocking temperature / Lagertemperatur / Temperatura de almacenaje / Температура хранения	De -20°C + 80°C
Classe de protection / Protection index / Schutzklasse / Clase de protección / Степень защиты	IP21
Poids, câbles secteur compris et de charge compris / Weight, input cables and charge cables included / Gewicht, inkl. Netz-/ und Ladekabel / Peso, cables sector y de carga incluidos./ Вес с учетом сетевого шнура и кабелей зарядки	7,8 Kg
Dimension (L x H x P) / Abmessungen (B x H x T) / Dimensión / Размеры (Д x В x Ш)	365 x 160 x 255

* Le courant de sortie secondaire se réduit (réduction de puissance) en cas de température ambiante élevée, à partir de 40°C environ (ex 55A-12V-40°C-100%). / The secondary output current decreases (power decrease) in case of high surrounding temperature, from about 40°C (ex.55A -12V- 40°C - 100%). / Nimmt die Umgebungstemperatur zu (>40°C), verringert sich der sekundäre Ausgangsstrom: Stromabnahme (z.B. 55A -12V- 40°C - 100%) / La corriente de salida secundaria baja (reducción de potencia) en caso de temperatura ambiente elevada, a partir de unos 40°C (ex 55A-12V-40°C-100%). / Вторичный ток выхода снижается (снижение мощности) при высокой температуре окружающей среды, начиная с примерно 40°C (например, 55A-40°C-100%).

FACE AVANT/FRONTAL SIDE/ FRONTSEITE / CARA FRONTAL


- | | |
|---|---|
| ① FR Sélecteur tension batterie | ① FR Start/Stop |
| EN Tension Battery type selector | EN Start/Stop |
| DE Taste Batteriespannung | DE Start/ Stopp |
| ES Selección tensión de batería | ES Start / Stop |
| RU Кнопка выбора напряжения аккумулятора | RU Старт / Стоп |
| ② FR Sélecteur type de batterie | ① FR Afficheur |
| EN Battery type selector | EN Display |
| DE Taste Batterietyp | DE Display |
| ES Selección tipo de batería | ES Pantalla |
| RU Кнопка выбора типа аккумулятора | RU Экран |
| ③ FR Sélecteur mode | ① FR Voyant erreur / alerte |
| EN Mode selector | EN Alert/error indicator |
| DE Modus- Schalter | DE Warnanzeige |
| ES Selección del modo | ES Indicador error / alarma |
| RU Кнопка выбора режима | RU Индикатор ошибки / аварийный сигнал |
| ④ FR Sélecteur batteries de traction | |
| EN Traction battery selector | |
| DE Traktionsbatterie- Schalter | |
| ES Selección baterías de tracción | |
| RU Выбор тягового аккумулятора | |

