

# RECTIFIER POWER SUPPLY RANGE



**CIFR** Module AD-CH CDE-CIFR MC

12W to 80W

Rectifiers with linear technology and switch mode power supply  
230V single-phase main power input

*(110 / 230 V for the 24V 3A and the 48V 1,5A modules)*

Protection of goods (Intruder alarm systems, Access control)

Protection of people (Fire prevention, Hospitals)

Automation



Switch mode CIFR modules  
Size : W 100 x H 170 x D 80 mm

## WITHOUT BATTERY COMPARTMENT

Batteries are separated from rectifier

CIFR modules for integration

Switch mode CIFR modules	Linear CIFR modules
<ul style="list-style-type: none"> <li>• 12V : 5 A</li> <li>• 24V : 3 A</li> <li>• 48V : 1,5 A</li> </ul>	<ul style="list-style-type: none"> <li>• 12V : 2 - 3 A</li> <li>• 24V : 1 - 2 A</li> </ul>

Factory designed for battery charging



Linear CIFR modules  
Size : W 100 x H 170 x D 85 mm

AD-CH



IP 20

Size : W 125 x H 240 x D 112 mm

Wall-mounted ABS box (UL 94 : 5V)

AD-CH range
<ul style="list-style-type: none"> <li>• 12V : 2 - 3 - 5 A</li> <li>• 24V : 2 - 3 A</li> <li>• 48V : 1,5 A</li> </ul>

Factory designed for direct supply

INTEGRATES ALL THE MODULES AND ALL THE OPTIONS OF THE CIFR RANGE

## WITH BATTERY COMPARTMENT

Wall-mounted cabinet ABS (UL 94 : 5V)

Authorized battery capacities

CHS & CHS-B
<ul style="list-style-type: none"> <li>• 12V : 2 / 7 / 10 / 12 / 17 / 20* / 24* Ah</li> <li>• 24V : 2 / 7 / 10 / 12 Ah</li> </ul>

\* 2 batteries associated in parallel  
Delivered non-assembled in the case

CHS & CHS-B range
<ul style="list-style-type: none"> <li>• 12V : 2 - 3 - 5 A</li> <li>• 24V : 1 - 2 - 3 A</li> </ul>

CHS & CHS-B

IP 20

Size : W 230 x H 280 x D 115 mm



CDE-CIFR MC  
Medium size box

IP 31

Size W 290 x H 350 x D 185 mm

Wall-mounted and floor-mounted metal cabinets

Removed cover detection on 12V model

CDE-CIFR MC range
<ul style="list-style-type: none"> <li>• 12V : 3 - 5 A*</li> <li>• 24V : 1 - 2 - 3 A</li> <li>• 48V : 1,5 A</li> </ul>

Authorized battery capacities

CDE-CIFR MC
<ul style="list-style-type: none"> <li>• 12V : 7 / 10 / 12 / 17 / 24 / 38 Ah</li> <li>• 24V : 7 / 10 / 12 / 17 / 24 Ah</li> <li>• 48V : 2 / 7 / 12 Ah</li> </ul>

delivered non-assembled in the case

# RECTIFIER POWER SUPPLY RANGE



**CIFR** Module AD-CH CDE-CIFR MC

12W to 80W

## MECHANICAL SPECIFICATIONS



- Size : W 100 x H 170 x D 85 mm (linear) and 80 mm (switch mode)
- Weight : from 1,7 to 2 Kg

### CIFR modules (to be integrated)

- Fixed with 2 screws Ø 4 mm (all modules)  
Horizontal spacing of 92 mm
- Fixed with 6 screws Ø 4 mm (switch mode modules)  
Horizontal spacing of 88,5 mm  
Vertical spacing of 154 mm

### AD-CH plastic box (UL 94 : 5V)

- Wall-mounted box in ivory coloured ABS with wiring on the top
- wall fixed with 4 screws Ø 4,5 mm  
Horizontal spacing of 100 mm and vertical spacing of 210 mm



- Size : W 125 x H 240 x D 112 mm
- Weight : from 1,9 to 2,4 Kg
- IP 20



### CHS & CHS-B plastic box (UL 94 : 5V)

- Ivory coloured ABS cover with top and bottom wiring and galvanized metal base
- Wall-mounting with 2 slots Ø 4 mm and 2 holes Ø 4 mm  
Horizontal spacing of 200 mm and vertical spacing of 245 mm
- Max. battery compartment : W 150 x H 200 x D 95 mm

- Size : W 230 x H 280 x D 115 mm
- Weight : from 3,8 to 3,9 Kg (without battery)
- IP 20

### CDE-CIFR MC metallic box (medium size)

- Light grey RAL 7035 cover attached with screws
- Light grey RAL 7035 base
- Wiring on rear (10 mm authorized)
- Wall attachment with two slots and two holes :  
Horizontal spacing of 280 mm and vertical spacing of 232 mm
- Open cover contact (on 12V model)  
obligatory for Intruder Alarm applications
- Battery separation tray
- Max. battery compartment : W 270 x H 195 x D 170 mm



- Size : W 290 x H 350 x D 185 mm
- Weight : from 5,8 to 6 Kg (without battery)
- IP 31

# RECTIFIER POWER SUPPLY RANGE



## CIFR Module AD-CH CDE-CIFR MC

12W to 80W

### OUTPUT VOLTAGE SELECTION JUMPER

- ADCH range is factory designed for Direct Supply  
*(can be easily adapted to battery charging by the contractor for external associated batteries)*
- All other ranges are factory designed for battery charging (CH)

### SIGNALS : ALARM REPORTS on dry contacts (fail-safe monitoring)

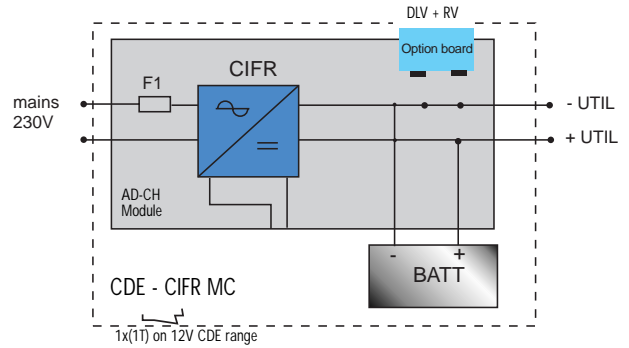
- The low voltage default relay and its connector indicate an output voltage < to (11,3V / 22,6V / 44,3V $\pm$  2%) and > to (12V / 24V / 48V $\pm$  2%) (CTB + RV Option board)
- Cover removed detection (only on 12V CDE range)

### PROTECTION (DLV + RV Option board)

- The batteries are protected against deep discharges by disconnect device (LVD protection) with remote alarm transfer (RV)  
Can be plugged into all types of modules and boxes

### MECHANICAL OPTION (only with linear modules 12V : 2 - 3A and 24V : 1 - 2A)

- The OMEGA rail mounting kit allows CIFR linear modules to be installed onto this types of rail, used in electric distribution boards.



### COMPLIANCE WITH REGULATION

Compliance with CE labelling legislation

- EMC : radiation and conduction :  
Emission : NF EN 50 081 - 1 (Résidentiel) - 2 (Industrial)  
NF EN 61 000-3-2  
Immunity : NF EN 50 082 - 1 (Résidentiel) and  
NF EN 61 000-6-2 (Industrial)
- LVD : Safety : NF EN 60 950, class I (TT, TN and IT)

### ENVIRONMENTAL CONDITIONS

- Ambient operating temperature 0°C to +40°C
- Storage temperature : -20°C to +85°C
- Cooling system : by natural convection

## ELECTRICAL SPECIFICATIONS

### Input :

- Class of Protection : I
- Overvoltage category : II
- Mains 230V single-phase +6% -10%, 50/60Hz (linear)
- Mains 230V single-phase +10% -15%, 50/60Hz (switch mode)
- Efficiency > to 60% (linear) and > to 78% (switch mode) at nominal load
- Primary current  $I_p$  rms max. on nominal load : 0,5A max (x2 at 110V)
- Mains 110V single-phase +6% -10%, 50/60Hz  
(only on 24V and 48V switch mode models)

### Output (nominal voltage $U_N = 12V, 24V$ and $48V$ ) :

- Output voltage  $U_S$  at mid-load and 25°C : 13,6V / 27,2V / 54,4V  
*(Sealed lead-acid battery 2,26V/elt  $\pm$  1%)*
- Static and dynamic regulation < to 5% for cumulated variations of input voltage and load of (10 to 90%).
- Rms LF Residual ripple < to 10mV rms (linear) and < to 70mV rms (switch mode)
- Nominal output current  $I_N$  (A) :  
12V : 2 / 3 / 5A    24V : 1 / 2 / 3A    48V : 1,5A
- Short circuit current limitation : from  $I_N$  to  $I_N + 10%$

### PROTECTION against

- Input short circuits by fuse
- Output short circuits by current limitation and fuses (rectifier / battery / output)
- Battery polarity inversion
- Insulated heatsink (linear models)
- Batteries deep low voltage (DLV + RV option board)

### CONNECTION

Directly to the screw terminal boards :

- Mains inputs and outputs (max. cross-section 2.5mm<sup>2</sup>)
- Battery connection with Faston lugs (delivered for all models with battery compartment)
- DLV + RV option board alarm return (max. cross-section 1.5 mm<sup>2</sup>)

# RECTIFIER POWER SUPPLY RANGE



**CIFR** 12V CDA & 24V CDI-CIFR MC with tamper detection  
24W to 80W

External Power supply of 230V single-phase main power input


*(110 / 230 V for the 24V 3A and the 48V 1,5A modules)*

Low voltage Electrical Output : 12V or 24V

Protection of goods (Intruder alarm systems, Access control, light hazards and common hazards)

Protection of people (Fire prevention, Hospitals)

**CDA & CDI - CIFR MC**  
Medium size box



**IP31**

Size : W 290 x H 350 x D 185 mm

**WITH TAMPER DETECTION**

**Metal floor-mounted and wall-mounted housing**

Wall removed detection and cover removed detection

CIFR module and monitoring board

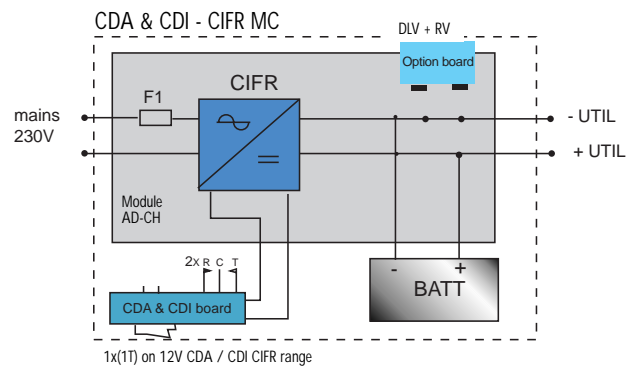
**WITH BATTERY COMPARTMENT**

CDA & CDI - CIFR MC range	
• 12V :	2 - 3 - 5 A
• 24V :	2 - 3 A

Authorized battery capacities

	CDA & CDI - CIFR MC
• 12V	7 / 10 / 12 / 15 / 24 / 38 Ah
• 24V	7 / 10 / 12 / 24 Ah



## SIGNALS : LIGHTS AND ALARM REPORTS (fail-safe monitoring)

**Two indicator lights indicate the status of the Self-protected mains :**

- The MAINS green light indicates that mains voltage input is on
  - The LOW VOLTAGE DEFAULT yellow light (or BATTERY DEFAULT) indicates an output voltage < to 11,3V and 22,6V  $\pm$  2%
- The indicator light switches off when the LVD battery protection is on

**Three alarm reports on dry contacts (fail-safe monitoring)**

- Two relays and their connectors are associated with these two lights (MAINS, BATTERY DEFAULT)
- The Two TAMPER contacts associated with a connector are used for remote information on box status (Wall removed detection and cover removed detection)



# RECTIFIER POWER SUPPLY RANGE

## CIFR 12V CDA & 24V CDI-CIFR MC with tamper detection

### 24W to 80W

#### MECHANICAL SPECIFICATIONS



- Size : W 290 x H 350 x D 185 mm
- Weight : 5,8 Kg (without battery)
- IP 31

#### CDA & CDI-CIFR MC metallic box (medium size)

- Light grey RAL 7035 cover attached by screws
- Light grey RAL 7035 base
- Wall attachment with two slots and two holes :  
Horizontal spacing of 170 mm and vertical spacing of 232 mm
- Wall-removed detection screw (supplied)  
obligatory for Intruder Alarm applications
- Wiring on rear (10 mm authorized)
- Battery separation tray
- Max. battery compartment : W 270 x H 195 x D 170 mm

#### COMPLIANCE WITH REGULATION

Compliance with EC labelling european regulation

- EMC : radiation and conduction :  
Emission : NF EN 50 081 - 1 (Résidential) - 2 (Industrial)  
NF EN 61 000 3 - 2  
Immunity : NF EN 50 082 - 1 (Résidential)  
NF EN 61 000 6-2 (Industrial)

- LVD : Safety : NF EN 60 950, class I (TT, TN and IT)

Compliance with alarm systems standards :

French : NFC 48 211 : 1989 (Level 1 and level 2)

With batteries deep low voltage (DLV) and alarm report  
*(to be installed by the customer)*

#### ENVIRONMENTAL CONDITIONS

- Ambient operating temperature 0°C to +40°C
- Storage temperature : -20°C to +85°C

- Cooling system : by natural convection

#### ELECTRICAL SPECIFICATIONS

##### Input :

- Class of Protection : I
- Overvoltage category : II
- Mains 230V single-phase +6% -10%, 50/60Hz (linear)
- Mains 230V single-phase +10% -15%, 50/60Hz (switch mode)
- Efficiency > to 60% (linear) and > to 78% (switch mode) at nominal load
- Primary current  $I_p$  rms max. on nominal load : 0,5A max (x2 at 110V)
- Mains 110V single-phase +6% -10%, 50/60Hz  
(only on 24V 3A switch mode model)

##### Output (nominal voltage $U_N = 12V$ and $24V$ ) :

- Output voltage  $U_S$  for at mid-load and 25°C : 13,6V / 27,2V  
*(Sealed lead-acid battery 2,26V/elt  $\pm$  1%)*
- Static and dynamic regulation < to 5% for cumulated variations of input voltage and load of (10 to 90%).
- Rms LF Residual ripple < to 10mV rms (linear) and < to 70mV rms (switch mode)
- Nominal output current  $I_N$  (A) :  
12V : 2 / 3 / 5A    24V : 2 / 3A
- Short circuit current limitation : from  $I_N$  to  $I_N + 10\%$

#### PROTECTION against

- Input short circuits by fuse
- Output short circuits by current limitation and fuses  
(rectifier / battery / output)

- Battery polarity inversion
- Insulated heatsink (linear models)
- Batteries deep low voltage (DLV + RV option board)

#### CONNECTION

Directly to the screw terminal boards :

CIFR modules :

- Mains inputs and outputs (max. cross-section 2.5mm<sup>2</sup>)
- Battery connection with Faston lugs  
(delivered for all models with battery compartment)

Monitoring board :

Alarm reports (max. cross-section 1.5 mm<sup>2</sup>) :

- 12V (CDA) or 24V (CDI)
- DLV + RV option board

# SELF-PROTECTED JUNCTION BOXES



## **BRA-BRAM** Screw - Screw - Solder (VVS)

3 to 42 pairs



**A ranges of ivory wall-mounted connection SELF-PROTECTED boxes with 3 to 42 pairs for distribution of cables of break-in intruder alarm or access control systems.**

A knurled nut is used to quickly close the covers without tools. A contact (1T) equipped with a loop of a few centimetres remotely informs of box OPENING.

To simplify wiring, the covers are equipped with a marking and top and bottom pre-cut drawing.

The  $\varnothing 3$ mm polyamide studs are mounted on hinged strips (except for the 3-pair models).