

## ***MPS700C - 2.1KW***

### **TECHNICAL DESCRIPTION**

#### **1 GENERAL DESCRIPTION**

The MPS700C - 2.1 KW system is designed to convert AC mains voltage into 48 VDC and to supply telecom equipments with back up time.

The MPS700C - 2.1 KW can house up to three SM700 rectifier modules and can be associated with up to two 48 V valve regulated lead-acid (VRLA) battery strings.



*MPS700C (3AW01147DAAB) equipped with 3 rectifiers and the ACM1000*

The MPS700C - 2.1KW is fitted with:

- Wiring and locations for up to three SM700 rectifier modules,
- One ACM1000 alarm and control module,
- A low voltage disconnect contactor (LVD : 80 A rated),
- A temperature probe,
- Battery and rectifier shunts.
- Two battery protection fuses or MCBs (see table § 5.3),
- Six load protection single pole fuses or MCBs (see table § 5.3).

The maximum DC current available the power depends on the number of SM700 rectifiers installed: refer to the SM700 technical description.

The MPS700C – 2.1 KW can be installed in 19 inches indoor or outdoor cabinet. The system allows an easy extension on site by additional battery string(s) and rectifier module(s).

## 2 STANDARDS

- **Safety:**
  - EN 60950-1
  
- **EMC:**
  - Emission:
    - EN 55022 level B
    - . complies with EN 61000.6-3 (generic residential)
    - . complies with EN 61000.6-4 (generic industrial)
    - . complies with EN 61000.3-2 (harmonics)
    - . complies with EN 61000.3-3 (flicker)
  - Immunity:
    - . complies with EN 61000.6-1 (generic residential)
    - . complies with EN 61000.6-2 (generic industrial)
    - . standards from EN 61000.4-2 to EN 61000.4-6
  - Telecom standard
    - . EN 300 386 – 2
  
- **Environmental conditions:**
  - . Complies with EN 300 019
  - . Transport EN 300 019-1-2 class 2.2
  - . Storage EN 300 019-1-1 class 1.2
  - . Operation EN 300 019-1-3 class 3.1
  
- **Operating conditions:**
  - . Complies with EN 300 132-2 (Telecom standard).

## 3 CHARACTERISTICS

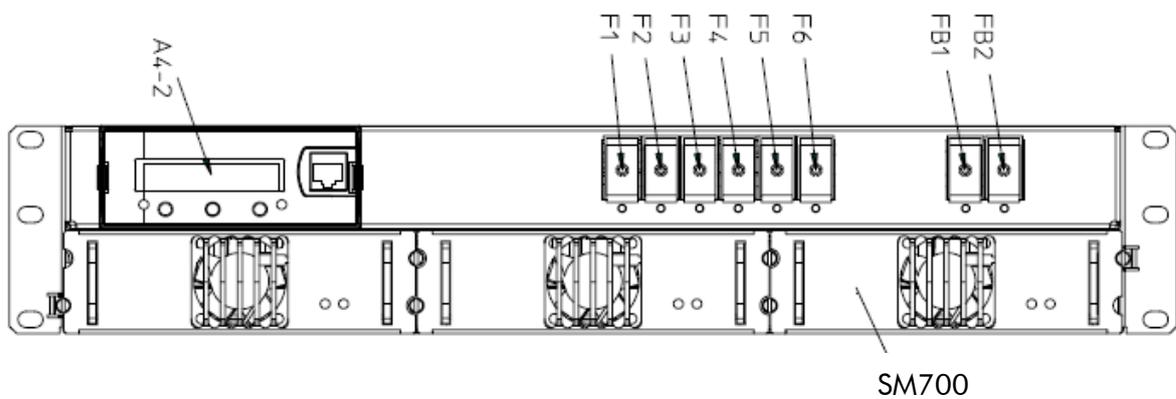
### 3.1 ENVIRONMENTAL CHARACTERISTICS

- **Temperature**
  - Shipping and storage : - 40°C to + 85°C.
  - Operating : - 25°C to +70°C.
  
- **Humidity**
  - Shipping and storage : 10 to 95% without condensation
  - Operating humidity : 20 to 90% without condensation
  
- **Altitude**
  - Operating: 1000 m (above, power derating of 1% each 100 m, up to 3000 m).
  
- **Cooling**
  - Forced-air cooling of each module with electronic speed control.

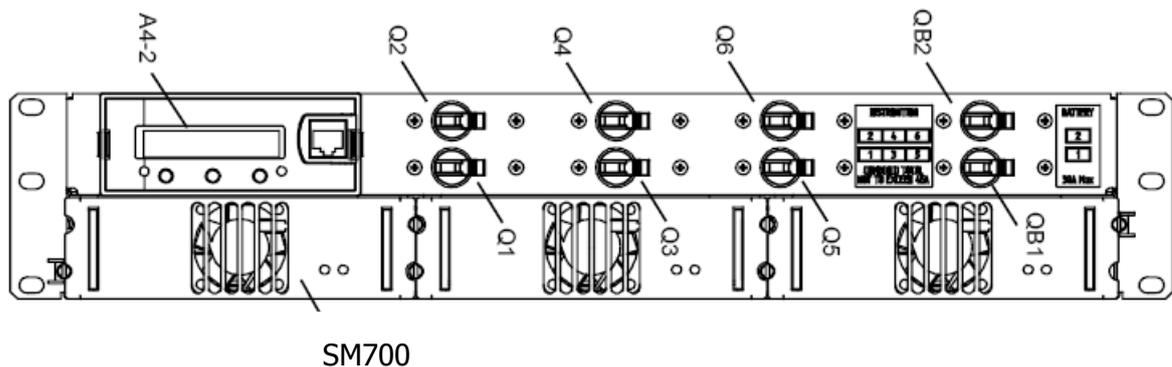
### 3.2 MECHANICAL CHARACTERISTICS

- Height : 88 mm (complies with 2U standard).
- Width : 482.6 mm (complies with 19" standard).
- Depth : 305mm (overall)
- Weight : 5.3kg (Without module).
- Colour : RAL 7043
- Degree of protection : IP 20.
- Cable entry : by the rear.

Front view of the MPS700C – 2.1 KW with fuses



Front view of the MPS700C – 2.1 KW with breakers



*MPS700C - 2.1KW* TECHNICAL DESCRIPTION

## 3.3 ELECTRICAL CHARACTERISTICS

<b>DIELECTRIC STRENGTH</b>	
AC line to output	4200 VDC (3000 Vrms)
AC line to chassis	2100 VDC (1500 Vrms)
Output to chassis	700 VDC (500 Vrms)
<b>INPUT</b>	
Nominal voltage	<b>Single-phase mains :</b> 208 / 220 / 230 / 240 V rms.
Normal variations	185 V rms to 280 V rms between phase and neutral
Exceptional variations	80 V to 295 V rms between phase and neutral with <ul style="list-style-type: none"> <li>. output power derating below 208 Vrms</li> <li>. automatic disconnect below 80 V rms above 280 V rms with automatic re-start.</li> </ul>
Frequency	44 to 66 Hz
Nominal current	3.6 A rms per rectifier for 700 W at 230 Vrms
Inrush current	< 15 A per installed rectifier module
Power factor	0.99
<b>OUTPUT</b>	
Nominal voltage	48 VDC Remotely by 2 – 8 V voltage loop Adjustment range : 42 V to 58 V
Floating voltage	Adjustable between 52 VDC and 58VDC
Maximum power	2100 W with mains 1400 W with mains and redundancy
Current sharing	< ±5% at P > Pn/2
<b>EFFICIENCY</b>	
88%	

## 4 INDICATORS AND ALARMS

### 4.1 INDICATORS ON ACM1000 AND SM700

Refer to the corresponding technical descriptions.

### 4.2 ALARM LOOPS

The following alarms, delivered by the ACM1000, are available across volts-free contacts on rear connector:

- Spare
- Urgent alarm
- Non-urgent alarm.

## 5 PACKAGING AND PRODUCT REFERENCE

### 5.1 PACKAGING

In carton.

### 5.2 PACKING TABLE

<b>MPS700C – 2.1 KW packed dimensions and weight</b>		
W x D x H	mm	550 x 350 x 150
Gross Weight	kg	6,6
Volume	m <sup>3</sup>	0.029

### 5.3 PRODUCT REFERENCE

AEG PS Code	Battery Protections		Load Protections						
	1	2	1	2	3	4	5	6	
3AW01147AAAB	30 A	30 A	15 A	15 A	15 A	15 A	30 A	30 A	Fuses
3AW01147ABAB	25 A	25 A	15 A	15 A	15 A	15 A	15 A	15 A	Fuses
3AW01147DAAB	30 A	30 A	16 A	16 A	16 A	16 A	30 A	30 A	Breakers
3AW01147DBAB	30 A	30 A	10 A	10 A	10 A	10 A	2.5 A	2.5 A	Breakers
3AW01147DCAB	30 A	30 A	6 A	6 A	6 A	6 A	6 A	6 A	Breakers
3AW01147DDAB	30 A	30 A	16 A	16 A	6 A	6 A	6 A	6 A	Breakers

## 6 ASSOCIATED PRODUCTS

Designation	AEG PS Code
SM700 / RAL7035	3AW00990AAABxx
ACM1000 control module	B05363000000
Blank panel / RAL7035	3TN20478AAAA

## 7 SUPPLIER

Find the contact details of your nearest AEG Power Solutions location on our Website:

[www.aegps.com](http://www.aegps.com)

AEG Power Solutions offers installation, customization and technical support services. Contact your local re-seller.