# PROTECTIONS

- Input or secondary fuses of the transformer depending on whether the power is single-phase or three-phase.
- Purifying bridge output protection fuses.
- Service output fuses.
- Control circuit fuses.

#### MEASUREMENT AND SIGNALLING

- Charger output ammeter.
- Charger output voltmeter.
- State of charge signalling (Float, fast charge exceptional charge.)
- Lamp local signalling of individualized alarms.
- Alarm remote signalling by potential-free contacts.
- Optionally, other measuring devices con be included

### **STANDARD RANGE**

SINGLE-PHASE: Voltage: 12, 24, 48, 110, 220 V. Intensity: 3, 5, 10, 15, 25, 35, 50, 75, 100 A.

THREE-PHASE: Voltage: 12, 24, 48, 110, 220 V. Intensity: 35, 50, 75, 100, 150, 200, 300, 400, 500 A.

TWUELVE-PHASE: Voltage: 12, 24, 48, 110, 220, 380 V. Intensity: 200, 300, 400, 500, 600, 800, 1000 A.

# NOMENCLATURE

# CHARGER

Equipo monofásico = Single-phase equipment Equipo trifásico = Three-phase equipment Equipo dodecafásico = Twelve-phase equipment Tensión e intensidad = Voltage and intensity Alarmas = Alarms Filtro = Filter Unidad reductora = Reduction unit

# BATTERY

Batería = Batery Número de elementos = Number of elements Tipo de batería = Type of battery

#### EXAMPLE: LM - 48 / 25 A F R, where

LM = Single phase supply
48 = Rated voltage
25 = Rated intensity
A = Alarm
F = Filter
R = Reduction unit

#### EXAMPLE: LB 37 HKP-22, where

LB = Battery indicative37 = Number of elementsLKP-22 = HKP-22 type battery

# **CABINET SIZES**

ISO 9001 Standard Standard Manufacturing Range Single-phase, Three-phase and Twelve-phase.

CHESTS						CABINETS			
TYPE	C543	C753	C863	C1073	C1083	C1086	C1586	C2086	2C2085
HEIGH	<b>T</b> 500	700	800	1000	1000	1000	1500	2000	2000
LENGT	<b>H</b> 400	500	600	700	800	800	800	800	1600
DEPTH	<b>i</b> 300	300	) 300	300	300	600	600	600	600

Coffers can be hung or fixed on the wall.

Sizes in mm.

If the cabinet designation ends in F, it indicates a depth of 750 mm.

Standard Colour RAL 7.032

2 Component epoxy paint quality.

#### OTHER PRODUCTS

- On-line and Off-line Uninterrupted supply systems
- Inverters
- Power supplies
- CA Motor Static starters
- Speed variators
- Frequency converters
- Full energy plants
- Turnkey installations

#### SUPSONIK, S.L.

P.A.E. Asuarán, Edificio Ertxanda, Pab. 24 / 48950. Erandio (Bizkaia) SPAIN. Tfnos: 94 453 21 71 / Fax: 94 453 21 92 Email: <u>spsonk@supsonik.com</u> / Website: <u>www.supsonic.com</u>

# DIRECT CURRENT EQUIPMENT

LM, LT, LD Series Uninterrupted DC sources.

# **BATTERY-CHARGER EQUIPMENT**

LM, LT, LD Series

LM, LT and LD series battery-charger equipment are planned and designed to supply safe and stabilized direct current to services that - due to their characteristics, require reliable and uninterrupted power supply in the event of a possible power outage.

Basically, the equipment consists of a stabilized charger that supplies the consumption demanded by the services and - at the same time, charges and monitors the battery, which is always kept in optimal service condition.

The charger-battery pack is installed in a cabinet, which houses the charger and the battery, or the charger in the cabinet and the battery in a rack. The system accepts Ni-Cd or Pb batteries in their two variants, that is, hermetic or open. This configuration makes easier maintenance and handling of the different assembly components.

# **OPERATING PRINCIPLE**

The charger is usually powering the services while keeping the battery charged.

In the event of a power failure in the network, the charger stops working and the battery is responsible for powering the services.

Once the mains voltage is restored, the charger will supply back the services while charging the battery. The duration of this charge will depend on the depth of the discharge.

The charge applied will be exactly proportional to the discharge produced, since the monitoring system of the equipment control accurately detects the capacity consumed during the discharge. Once the battery is charged it automatically goes to flotation, state in which it will remain until a new emergency takes place.

# THE DIFERENT LOAD VOLTAGES ARE THE FOLLOWING:

	Open Ni-Cd	Hermetic Ni-Cd	Hermetic Pb
FLOTATION	1.4 V		2.27
FAST CHARGE	1.5 V	1.5	2.35
EXCEPTIONAL CHARGE	1.65 V		

#### **APPLICATION FIELDS:**

- Naval
- Petrochemical
- Telecommunications
- Hydroelectric
- Railways

# **TECHNICAL DATA**

INPUT Single-phase equipment: 220 V ± 10% Three-phase equipment 380 / 220 V ± 10% Frequency: 50 / 60 Hz

## **CHARGER OUTPUT**

See standard range for charger voltages and intensities

## OUTPUT VOLTAGE STABILITY

Output voltage is stabilized in  $\pm$  1% for supply voltage variations of  $\pm$  10% in frequency and  $\pm$  5 in intensity from 0 to In.

### TEMPERATURE LOAD VOLTAGE COMPENSATION

Battery load voltage is compensated by temperature in -2mV / °C for each battery element.

### **ELECTROMAGNETIC COMPATIBILITY**

With filter (optional)

## LOAD CHARACTERISTIC

IU Characteristic according to CEI – 478 - 1

# **ADDITIONAL UNITS**

Optionally, the equipment can have the following units:

### ALARMS

- Supply failure
- Charger failure
- Battery maximum voltage (with automatic service switch-off in Pb batteries)
- + and ground isolation defect
- Fuse melting detection

- Low level of battery electrolyte (in open Bi-Cd batteries)

Signalling takes place on the front panel of the cabinet and remotely by potential free contacts if desired

#### **REDUCTION UNIT**

This unit allows to adapt output voltage to the voltage required by the services when the margin is very narrow.

It automatically goes from one voltage to another through diode cascade.

#### **FILTRE UNIT**

It allows to attenuate the AC component, reaching values lower than 0.1% RMS.

#### SYNOPTIC OPERATIVE

It has the functions of monitoring and diagnosis, where all alarms are collected and also allows to visualize and modify the different parameters of the equipment.

#### DISTRIBUTION

The equipment can have different outputs protected by automatic switches.