

EFFICIENT

DATA
MEMORY
BATTERY CHARGER

01-2013



EFFICIENT DATA MEMORY BATTERY CHARGER



Taper industrial battery chargers, with high efficiency degree

EFFICIENT DATA MEMORY is the name of our series of taper battery chargers, fully developed and manufactured in our Italian factory. They are suitable to recharge flooded lead acid batteries for industrial usages, mainly electric fork lift trucks and battery powered floor machines.

Inside EDM series there are four key points:

- **EFFICIENCY:** energy saving is today a priority. With our EDM series we have reached important results in this direction, not far from what you can obtain by using HF chargers (commonly regarded the best solution today available to save energy in this field), thanks long studies in these areas:

 - Transformers calibration in order to always recharge with proper charge cycles.
 - Transformers production, by always using the best raw material and components (H class copper, double insulation, and low losses core electrical sheet).
 - EFFICIENCY FACTOR programmability, in order to properly modulate the charge in relation with the battery type and battery brand.
 - New construction conceptions of diodes bridges.
- **QUALITY:** EDM chargers are MADE IN ITALY and offer 36 months* of warranty time.

 - All components and SW fully developed by our Technical Office
 - All transformers manufactured in house
 - All electrical wiring and assemblies are made in our factory
 - We are ISO certified since 1996
- **FLEXIBILITY:** several parameters of EDM chargers are programmable through MP TOP II programmer:

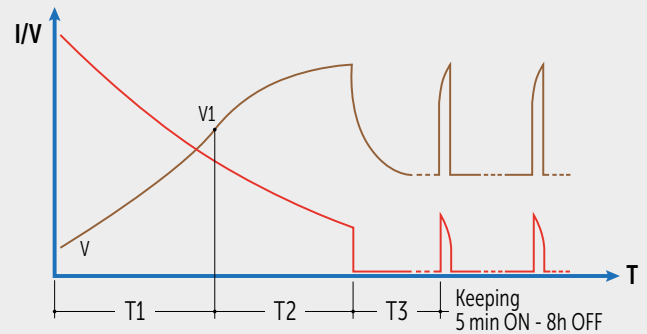
 - EFFICIENCY FACTOR
 - Equalization cycles
 - Pump management (only in case the pump is installed in the charger)
 - Delayed starting
 - Gassing point (2.35/2.45 V/cell)
 - Manual charge
- **DATA MEMORY:** all EDM chargers are equipped with Data Memory. The Data Memory report can be displayed on MP TOP II screen of transferred to a PC. The recorded information easily allow to settle the following issues:

 - If the charger has been properly installed.
 - If the energy package (battery and charger) has been properly used.
 - If the charger has a problem.

OTHER MODELS AVAILABLE ON DEMAND

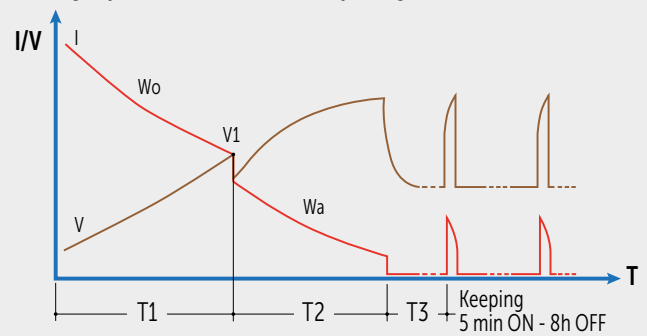
- "Wa" single-phase with 240V nominal input
- "Wa" three-phase with 415V nominal input
- "WoWa" three-phase with air circulation
- "Wa" single-phase with 110/120V nominal input
- "Wa" and "WoWa" three-phase with 220V nominal input
- "Wa" three-phase with 230/400V nominal input

Charge cycle Wa for EDM battery charger



- V1 : Programmable
- T1 : 12 h max.
- T2 : Without Pump = 0.8 T1 (min. 30min – max 4h) * Fatt. Eff.
With Pump = 0.4 T1 (min. 30min. – max. 2h) * Fatt. Eff.
- T3 : 8 h

Charge cycle WoWa for EDM battery charger



- V1 : Programmable
- T1 : 8 h max.
- T2 : Without Pump = 1.3 T1 (min. 30min – max 3,5h) * Fatt. Eff.
With Pump = 0.65 T1 (min. 30min – max 1h 45') * Fatt. Eff.
- T3 : 8 h



Single-Phase battery charger

Three-Phase battery charger

Accessories

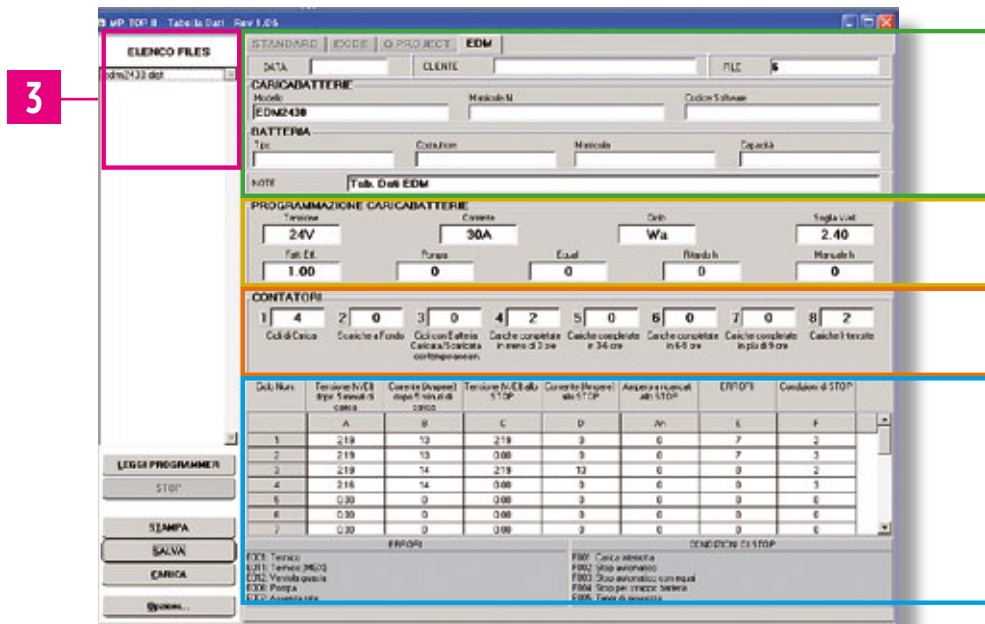
Battery charger programmer MP TOP II

This high-tech device, recommended to distributors and after sales service centers, is necessary to set up and to download the data memory of POWER-SWITCH chargers. The KIT includes the programmer, cables to connect it to the charger and to the PC. The SW to be installed on your PC is also supplied.

The normal operation is guaranteed by the internal lithium battery, thus no other power source is necessary. The battery is completely recharged by leaving the programmer connected to the USB port of your PC.

The equipped SW can be up-dated through internet and it can be set in different languages: I, D, E, F, UK, NL

Code: **MPTOPII**



Male connector to program and download the data

1 General information connected to the collected data (date, customer name, battery-type, capacity and so on).

2 Information about the charger setting

3 Chargers serial numbers, where information were downloaded from

Counters referred to the whole battery life:

- 4**
 - Counter 1: total number of charge cycles (included those ones interrupted by the operator)
 - Counters 4, 5, 6, 7: all the charge cycles automatically completed split into 4 groups in relation to their duration.
 - We clearly understand the average depth of discharge (i.e.: long recharge means deep discharge)
 - Counter 8: how many times the user interrupted the charge cycle before the automatic stop

Detailed information over the last month of charge cycles

- 5**
 - Battery voltage and output current of the charger at the beginning of the charge
 - Battery voltage and output current of the charger at the end of the charge
 - Ah supplied to the battery during the charging process
 - Errors happened during the charging process
 - Stop conditions
 - All these information are useful to detect user behaviour, but also battery and charger operating.



MORI

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**BATTERY CHARGER
INDUSTRY**

Via Pietro Nenni, 17/19
Colombare di Sirmione - Brescia - ITALY
Tel. +39 030 9906010
mori@moriraddrizzatori.it
www.moriraddrizzatori.it