TRC Series Battery&Charger Set

Technical Catalogue

Definition

The LOGICON TRC series battery&charger sets are designed to meet the DC auxiliary supply needs continuously. It is a compact power supply unit consisting of voltage and current adjustable rectifier and rechargeable battery.

Application areas

Application areas any installationsare such as medium voltage substations, telephone exchanges where auxiliary supply are needed.

Specifications

- DSP controlled

-System status monitoring such as digital inputs,outputs, charge current and voltage via LCD display.

- Constant current, constant voltage charging.
- Adjustable charge voltage, charge current, output current limiting.
- Soft start.
- User friendly interface.
- Alarm contact outputs, audible warning(buzzer)
- 24V/110V Output voltage options
- Drawer system for easy battery replacement.
- 18/26/80/100Ah Battery options

Specifications	TRC-24-18	TRC-24-26	TRC-24-80	TRC-24-100	TRC-110-18	TRC-110-26	TRC-110-80	TRC-110-100
Topology	Thyristor controlled full wave AC/DC rectifier							
Control	DSP control							
Charging Method	Constant current-constant voltage							
Input Specifications								
Phase	Monophase							
Input Voltage	220/230VAC							
Voltage Tolerance	± %20							
Frequency	50/60Hz							
Çıkış Özellikleri								
Nominal Gerilim	24VDC				110VDC			
Gerilim Ayarı	22-29VDC (0.1V steps)				100-130VDC (0.1V steps)			
Ripple	<%1 full load							
Maximum Output Current	20A							
Output Current Limit Range	0.1-20A (0.1A steps)							
Battery Capacity	18Ah	26Ah	80Ah	100Ah	18Ah	26Ah	80Ah	100Ah
Charge Current Range	0.1-1.8A (0.1A steps)	0.1-2.6A (0.1A steps)	0.1-8.0A (0.1A steps)	0.1-10.0A (0.1A steps)	0.1-1.8A (0.1A steps)	0.1-2.6A (0.1A steps)	0.1-8.0A (0.1A steps)	0.1-10.0A (0.1A steps)
General								
Display / Warning	128x64 Graphic LCD , audible warning(buzzer)							
Measurement	Mains Voltage, Output Current, Output Voltage, Battery Current, Battery Voltage, Temperature							
Protection	Overcurrent, AC High Voltage, AC Low Voltage, Short Circuit, Overload, DC High Voltage, DC Low Voltage, (+) DC Leakage, (-) DC Leakage, Temperature (Digital)							
Output Contacts	DC Low (NO), DC High (NO), AC Low (NO), AC High (NO), Overload (NO), Short Circuit (NO), (+)DC Leakage (NO), (-)DC Leakage (NO), Battery Disabled (NO)							
Communication	Modbus RTU (Optional)							
Operating temp.	-10/+50C							
Cooling	Internal Fan, Operating tempereture adjustable							
Batteries	2x12V-18-26Ah	2x12V-40-55Ah	2x12V-65-80Ah	2x12V-100-150Ah	9x12V-18Ah	9x12V-126Ah	9x12V-80Ah	9x12V-100Ah
Dimensions(wxhxd)	275x852x300	275x1000x300	300x1000x450	300x1100x584	700x1500x400	700x1500x400	700x1500x400	700x1500x600
Protection Class	IP2X							
Standarts	TS EN 60146-1-1(Semiconductor converters), TS EN 601000 - 6 -2/4(Electromagnetic Compatibility), TS EN 60529(Degree of Protection Equipment), TS EN 55011(Propagation Distortion), In accordance with TEDAŞ MYD/2000-036.C specification							

Structure and Operating Principles

The LOGICON TRC series battery charger sets consists of DSP-controlled, full-wave AC / DC rectifier and dry-type batteries.

The principle scheme is shown in figure 1.

TRC series battery& charger sets, drawer and plug-in design allows easy replacement of the batteries.

With 128x64 Graphic LCD Display, user can monitor the mains voltage, battery voltage, charge and load current, temperature, charging current limit, charging voltage, load current limit, voltage, temperature protection settings, fan setting via user friendly interface.

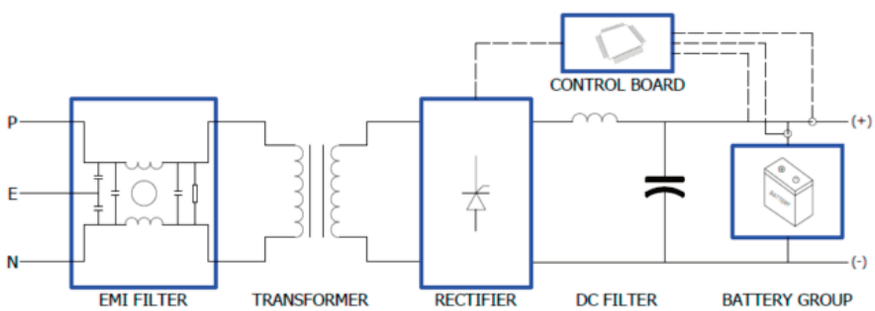
The charge rectifier has a soft start capability. Restarting after the initial power or fault condition, the soft start feature activates on.

The batteries are charged by constant current-constant voltage method. Accordingly, the battery is charged at the set voltage level, but the charge current can not exceed the set charge current limit. If the battery voltage is low, the battery is charged with constant current until the set voltage level is reached, then constant voltage is applied to continue charging.

Batteries protected against deep discharge. When the battery voltage falls below the set voltage level,to prevent the battery is automatically isolated from load, preventing the battery voltage falling below the specified voltage level.

There are 9 independent normally open contacts on the device for the faults. These are: DC High/Low, AC High/Low, Overload, Short Circuit, (+)/(-) DC Leakage,Battery Disabled.

TRC series battery chargers can be manifactured with optional Modbus RTU communication.



Installation and Commissioning

This section contains only basic information, for detailed information on safety precautions, device maintenance and usage, refer to the TRC Series Battery&Charger Set user manual.

1. Make sure that all the circuit breakers are switched off before connecting the device.

2. Use plug, cable and input circuit breaker appropriate for the current of the device. Do not work with live conductors.

3. The supply voltage of the rectifier is 220VAC 50Hz. The load output is separated to four circuit breaker and connected to the power terminals.

4.Connection terminals are on the bottom of the device. First of all, make sure that the device is grounded. Then make the input and load connections according to the terminal diagram.

5. After powering the device, power the control circuit by turning on the VAC circuit breaker. Since the battery is not connected to the system yet, an audible warning will be activated. Press any key to mute.

6. Set the device parameters.

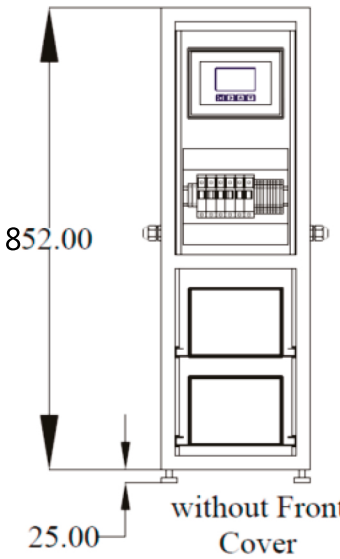
7. Turn on the battery circuit breaker to initiate charging.

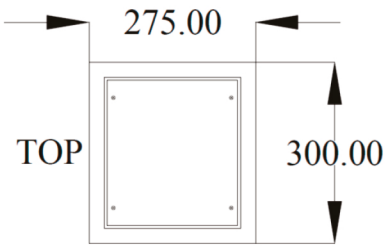
8. Power the loads turning on the DC output circuit breakers.

POWER TERMINALS	
Terminal	**Description**
E	Earth
N	Neutral
P	Phase
+	DC Output 25A
+	DC Output 20A
+	DC Output 10A
+	DC Output 6A
-	DC Output (-)
-	DC Output (-)
-	DC Output (-)
-	DC Output (-)

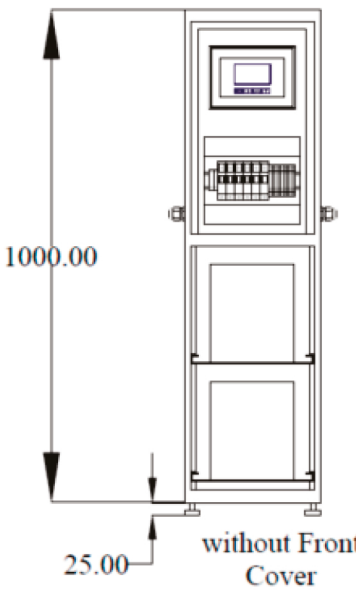
SIGNAL TERMINALS		
Terminal	**Description**	**Terminal**
1	DC Low	2
3	DC High	4
5	AC Low	6
7	AC High	8
9	+ DC Leakage	10
11	- DC Leakage	12
13	Overload	14
15	Short Circuit	16
17	Battery Disabled	18
19	A RS485 B	20

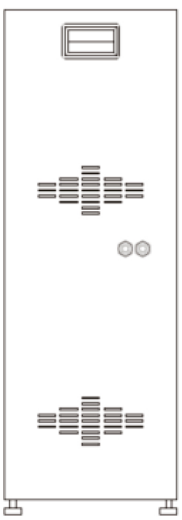
18-26Ah

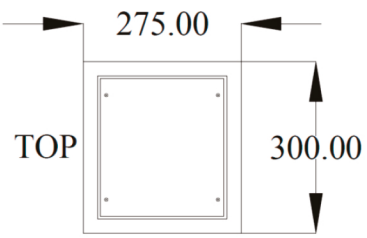




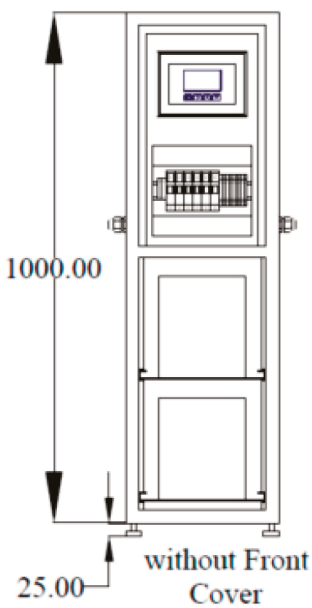
40-55Ah

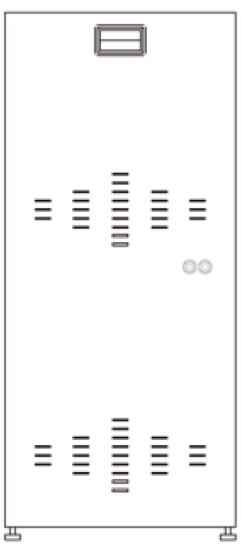


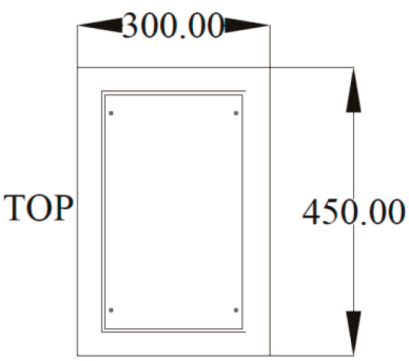




65-80Ah

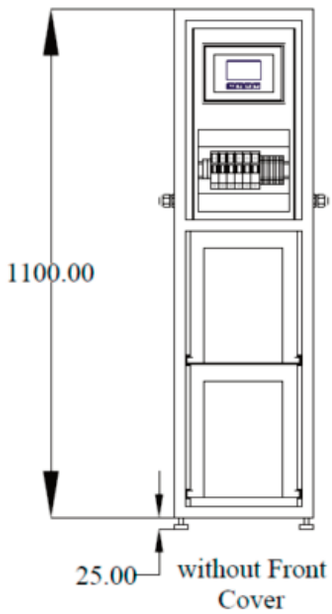


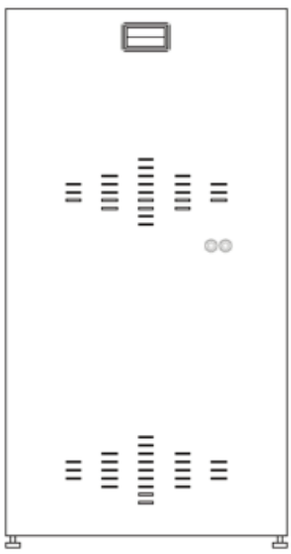


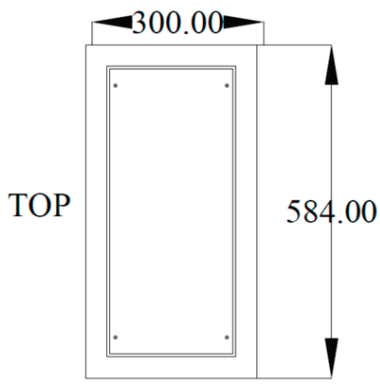


Dimensions

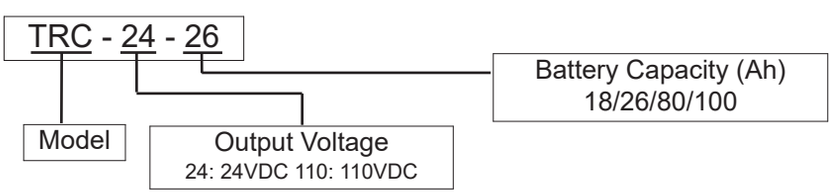
100-150Ah







Order Information



Warranty Time and Conditions

If the TCR Series Battery&Charger Sets are provided with the following conditions, it is for 24 months from the date of purchase that the Elektrolojik Energy Technologies's warranty covers:

1. Correctness of connections and ensuring proper working conditions
2. The stability of quality control seal.
3.The device is not broken, opening sign, crack etc. Not to be.

Malfunctions and damages caused by user errors such as accidents, incorrect connection, etc. are not covered by the warranty.

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