



# La MARCHÉ

ISO 9001:2015 CERTIFIED

## ESCR

### Engine Starting Battery Charger



Unit Shown: ESCR-20/10-12/24V-AV1



The ESCR engine starting battery charger product line utilizes microprocessor controlled SCR Charging Technology. The PWM control provides the highest reliability that is required for maintaining and recharging engine start batteries for generator sets. This charger is suitable for various types of batteries such as flooded lead acid, VRLA and NiCad.

Automatic Input sensing for 120/208-240 VAC 50/60Hz does not require any tap changes. The (12V/24V/32V) multi-output configuration capability makes this product line flexible and convenient for multiple jobs. The 0.5% regulation, temperature compensation, battery check, equalize timer along with adjustable output voltage and current limiting assures longevity and performance for your batteries. This economical solution equipped with advanced features incorporates La Marche quality and reliability.

Form "C" contacts are available for remote annunciation. Push button controls are used for Float/Equalize mode, Reset, Lamp Test and Configure. This multi-input/output all-in-one unit meets NFPA 110, C62.41A and UL safety requirements. It is also certified for seismic applications in accordance with International Building Code (IBC) & OSHPD / California Building Code.

### Standard Features

- Microprocessor Controlled SCR Technology
- Auto Select Input 120/208-240 VAC, 50/60Hz
- DC Output 12, 24, 12/24, 32 VDC
- Available Output Ranges 10-40 Amps
- LCD Display
- Alarm LED's and Form "C" Contacts
- Adjustable Float and Equalize Voltages
- Automatic AC Input Voltage Compensation
- AC to DC Isolation
- Filtering Suitable for VRLA Batteries
- Battery Fault Detection
- Internal Temperature Compensation
- Multimode Equalize Timer
- Soft Start
- Adjustable Current Limiting
- Battery Test
- High Voltage Shutdown

- Meets NFPA 110 and C62.41A
- Conformal Coated Circuit Boards
- UL 1236 Listed
- CUL Listing
- CE Certified
- IBC Certified for Seismic Applications
- OSHPD Certified
- ABS Approved
- 3 Year Warranty

### Optional Accessories

- 11W** External Temperature Compensation Probe
- 38H** ABS Certified Report
- 537** OSHPD Certification Label
- 538** IBC Certification Label

Specifications subject to change without notice

**La Marche Mfg. (A U.S. Company)**

106 Bradrock Drive, Des Plaines, IL 60018

Tel: 847.299.1188 Fax: 847.299.3061

sales@lamarchemfg.com

www.lamarchemfg.com

Model Number	DC Output		AC Input		Overall Dimensions W x D x H	Case No.	Shipping Weight	
	Volts (Nominal)	Amps	Volts (Nominal)	Amps			lbs	kgs
ESCR-10-24V-AV1	24	10	120/208-240	6.0/3.0	7.75" x 7" x 11.25" 197 x 179 x 285mm	98	25	11
ESCR-20/10-12/24V-AV1	12 12 24	10 20 10	120/208-240	3.2/1.6 5.4/3.0 6.0/3.0	7.75" x 7" x 11.25" 197 x 179 x 285mm	98	25	11
ESCR-20-24V-AV1	24	20	120/208-240	12.1/6.1	11.38" x 9" x 15" 289 x 229 x 381mm	99	42	19
ESCR-40/20-12/24V-AV1	12 24	40 20	120/208-240	10.9/5.9 12.1/6.1	11.38" x 9" x 15" 289 x 229 x 381mm	99	42	19
ESCR-10-32V-AV1*	32	10	120/208-240	7.0/3.5	7.75" x 7" x 11.25" 197 x 179 x 285mm	98	25	11
ESCR-20-32V-AV1*	32	20	120/208-240	14.0/7.0	11.38" x 9" x 15" 289 x 229 x 381mm	99	42	19

\* UL Pending

### AC INPUT

- 120/208 - 240 VAC  $\pm$ 10%, 50/60HZ, Single Phase

### DC OUTPUT

- 10A @ 12V or 20A @ 12V or 10A @ 24V
- 40A @ 12V or 20A @ 24V
- 10A @ 32V
- 20A @ 32V

### REGULATION

- Line:  $\leq \pm 0.5\%$
- Load:  $\leq \pm 0.5\%$

### OUTPUT FILTERING

(W/ Battery Connected)

- < 500 mV RMS

### PROTECTION

- Input  
Fuse with Surge Protection
- Output  
Fuse with Surge Protection  
Reverse Polarity Protection

### BATTERY CELL SELECTION

- |            |            |
|------------|------------|
| • 12 Volts | • 32 Volts |
| 6L         | 16L        |
| 9NC        | 15L        |
| 10NC       | 25NC       |
| • 24 Volts | 26NC       |
| 12L        |            |
| 18NC       |            |
| 19NC       |            |
| 20NC       |            |

### OUTPUT CURRENT LIMIT

- Factory set at 105%  
Adjustable from 50 - 105%

### METERING

- LCD DC Output Digital Voltmeter and Ammeter (1%)

### ADJUSTABLE VOLTAGE RANGE

- Float Voltage  
2.12 - 2.3 volts/cell (Lead)  
1.39 - 1.45 volts/cell (NiCad)
- Equalize Voltage  
2.25 - 2.40 volts/cell (Lead)  
1.45 - 1.6 volts/cell (NiCad)

### CONTROLS

- Float and Equalize Button  
Switch from Float to Equalize
- Configure Button  
Output Settings  
Voltage and Cells  
Adjust Voltage for Float & Equalize  
Adjust Alarm Settings and Delay  
Enable/Disable Temperature Compensation  
Equalize Timer  
~ Multi-Mode Equalize Timer and Light;  
adjustable from 1 - 144 hrs  
~ Five selectable modes: Manual, 7-day, 14-day,  
30-day and Equalize after Low DC Voltage  
and/or AC Failure
- Reset Button  
Restarts the Unit
- Lamp Test Button  
Tests LCD Display & LED's

### ALARM CONTACTS

- AC Failure
  - Low DC Voltage
  - High DC Voltage
  - Charger Failure
- Form "C" contact rated 2A @ 30VDC/0.5A @ 125VAC

### MONITORING

- LCD Display  
Volts  
Amps  
Status
- LED Indications  
Float (Green)  
Equalize (Yellow)  
AC ON (Green)  
Charger Failure (Red)  
Battery Fault (Red)  
Current Limit (Red)  
High DC Voltage (Red)  
Low DC Voltage (Red)

### ENVIRONMENTAL

- Operating  
-20° to 50° C
- Storage  
-40° to 85° C
- Relative Humidity  
5% to 95% non-condensing

### ENCLOSURE

- Structural Design  
Wall Mount NEMA 1 powder coated
- Cable Entry  
Left Side  
6A model - Knockouts: left (2),  
right (1) and back (3)

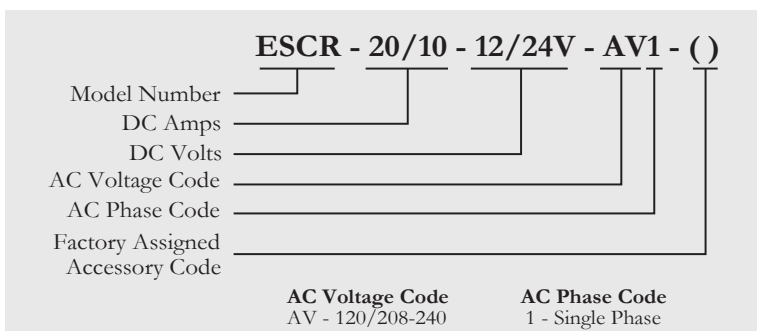
### STANDARDS

- |                |            |
|----------------|------------|
| • UL1236       | • OSHPD**  |
| • CE           | • ABS***   |
| • Optional CUL | • NFPA 110 |
| • IBC**        | • C62.41A  |

\*\* Refer to the manual for mounting information

\*\*\* May require Drip Shield based on site requirements

## Model Number Nomenclature



## Front Panel Display

