



Engine Starting Battery Charger



Unit Shown: ESCR-50-24V-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.

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.

The front panel is equipped with LCD display, alarm status LED's and controls. The two-line LCD displays output voltage and current along with alarm status text description. Individual LED indicators provide local supervision.

Form "C" contacts are available for remote annunciation. Push button controls are used for Float/Equalize mode, Reset, Lamp Test and Configure. This all-in-one unit meets NFPA 110, C62.41A and UL safety requirements. The ESCR II units are certified for seismic applications in accordance with the International Building Code (IBC).

Standard Features

- Microprocessor Controlled SCR Technology
- Available input 120/208/220/240/480VAC, 60Hz
- LCD Display
- Alarm LED's and Form "C" Contacts
- Adjustable Float and Equalize Voltages
- AC to DC Isolation
- Filtering suitable for VRLA Batteries
- Multimode Equalize Timer
- AC and DC Breakers
- Soft Start
- Battery Continuity Test
- LCD AC Voltage Meter
- Adjustable Current Limiting
- Internal Temperature Compensation
- Meet NFPA 110 and C62.41A
- UL/CUL 1236 Listed
- CE Certified
- ABS Approved
- 2 Years Warranty

Optional Accessories

- 080** Drip Shield
- 09P** Conformal Coated Circuit Boards
- 11W** External Temperature Compensation Probe
- 38H** ABS Certified Report
- 538** IBC Certification Label (consult factory for Anchor Kits)
- 434** Reverse Polarity Protection
- 57L** MODBUS RTU (RS-485)
- 57Y** Modbus Ethernet (TCP/IP)
- ABD1 Multi-Tap Input



Specifications

AC INPUT

- **Single Phase**, +10%/ -10%, 120, 208 or 240VAC
- 480VAC - Consult Factory
- **Frequency** 60Hz

DC OUTPUT

- 24VDC

REGULATION

- **Line/Load:** <+/-0.5%

OUTPUT FILTERING

(W/ Battery Connected)

- <500mVrms

PROTECTION

- **Input and Output**
Breaker with Surge Protection

BATTERY CELL SELECTION

- 24VDC: 12L; 18NC-20NC

OUTPUT CURRENT LIMIT

- Adjustable from 50% - 110%
(Factory set to 105%)

ENVIRONMENTAL

- **Operating:**
-20° to 50° C
(Derated above 50° C)
- <=65dBA of 4-sides @5ft
- **Storage:** -40° to 85° C
- **Relative Humidity:**
5% to 95% non-condensing

METERING

- LCD DC Output Digital Voltmeter and Ammeter (1%)
- LCD AC Voltage Meter
- Status

ADJUSTABLE VOLTAGE RANGE

- **Float Voltage**
2.12 - 2.35 volts/cell (Lead)
1.35 - 1.45 volts/cell (NiCad)
- **Equalize Voltage**
2.25 - 2.45 volts/cell (Lead)
1.45 - 1.9 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
High Voltage Shutdown
Enable/Disable Temperature Compensation
- **Equalize Timer**
~ Multi-Mode Equalize Timer and Light;
adjustable from 1 - 145 hrs
~ Five selectable modes: Manual, 7-day, 14-day, 30-day and Equalize after Low DC Voltage and/or AC Failure
(Default Factory Setting)
- **Reset Button**
Restarts the Unit
- **Lamp Test Button**
Tests LCD Display & LED's
- **Battery Continuity Test**
Manual and Periodic Battery Test

MONITORING

- **LED Indications**
Float (Green)
Equalize (Yellow)
AC ON (Green)
Charger Failure (Red)
Battery Fault (Red)
Current Limit (Yellow)
Low DC Current (Yellow)
High DC Voltage (Red)
Low DC Voltage (Red)

ENCLOSURE

- **Structural Design**
Wall/Floor Mount NEMA 1 powder coated
- **Cable Entry**
Both sides, Top

TEMPERATURE COMPENSATION

- Adjustable (1-5mV/cell/c)

ALARM CONTACTS

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

STANDARDS

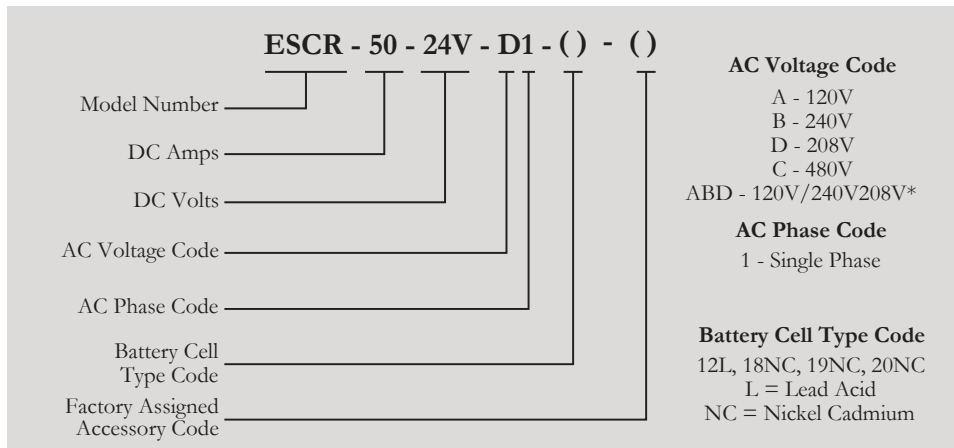
- UL 1236
- C62.41A
- C37.90.1
- IBC (Consult w/Factory)

Refer to the manual for mounting information
May require Drip Shield based on site requirements

Model Number	DC Amps	DC Volts	DC Protection/DC Breaker Rating	Single Phase AC Input Current Draw Amps @100% Load* (Recommended Feeder AC Supply Breaker)					Case No.	Overall Dimension W x D x H	Shipping Weight	
				120V	208V	240V	480V	Rating			lbs	kg
ESCR-30-24V	30	24V	40/10KAIC	14 (20)	9 (20)	8 (10)	CF	10 KAIC	7	15.4 x 11.0 x 23.8"	130	59
ESCR-40-24V	40	24V	50/10KAIC	20 (30)	11 (20)	10 (20)	CF	10 KAIC	7	15.4 x 11.0 x 23.8"	135	61
ESCR-50-24V	50	24V	70/10KAIC	24 (40)	14 (20)	12 (20)	CF	10 KAIC	7	15.4 x 11.0 x 23.8"	140	63.5

* Optional ABD1 Multi-Tap Input

Model Number Nomenclature



* Optional ABD1 Multi-Tap Input

Front Panel Display

