

Power Section Design

Innovative multi-tap design feature allows three application specific, field configurable output modes: 24–36 volts; 24–48 volts and 24 – 80 volts. Allows charger configuration for lower input circuit ratings with 36V and 24V or future operation with 80V lift trucks. Reliable industry proven, maintenance free, super enhanced SCR power section. Certified to UL 1564, Industrial Battery Charger standard.

Power Distribution Design

Available in single and multi-station versions. Patented automatic priority charging distributes power to stations through a variety of charging strategies. Charger automatically adjusts to battery capacity and voltage within preset configuration range—no operator adjustments required. Automatically charges through entire charge cycle and equalization. Uses standard fast charge modified batteries—no need to use costly special-order air-gapped batteries or lift truck battery fans. Available with several cable management options.

BICC Module

Patented charge control profile and proprietary architecture uses BICC module on board the battery to communicate charge control and store Fast-Charger fleet performance analysis data. Senses multiple groups of cells to perform battery health status check prior to charging. Ensures maximum safe charge as battery conditions change with age and use.

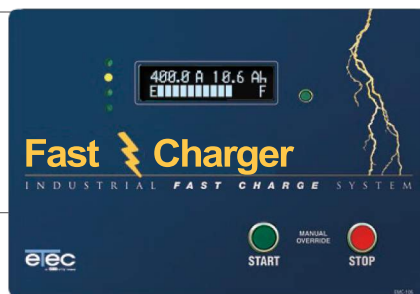


Model 448e Single Station

Charge Station Control

Modular/flexible Digital Controller mounted at forklift charging station. Automatic Start and Stop with automatic charge complete termination. Manual Override Start & Stop Push button. Bright fluorescent display indicates:

- Charge Rate in Amps • Total Amp-hrs charged in session • Fuel gauge
- Plain language status display • Easy to use & easy to manage



Model 448e Digital Controller Display

Battery Water Level Alert

Center cell electrolyte sensor alerts operator or maintenance staff to check or water battery. Protects your battery from inattention.

Output Power

	Setting A	Setting B	Setting C
Battery Voltage	24, 36	24, 36, 48	24, 36, 48, 72, 80
Output Current	0–400 amps DC	0–400 amps DC	0–275 amps DC

Input Power

	Setting A	Setting B	Setting C
Voltage*	480 volts, 3 phase	480 volts, 3 phase	480 volts, 3 phase
Current	32 amps	40 amps	40 amps
Current, Circuit Rating	40 amps	50 amps	50 amps

*600V also available

Charge Efficiency (max)

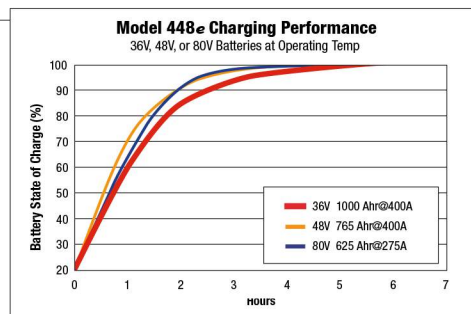
97%	97%	97%
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Battery Interface Charge Controller (BICC)

Characteristics

Weight, Power Section	974 lbs; 442 kgs
Dimensions: Power Section	38 W x 28 D x 44 H (inches) 96 W x 71 D x 112 H (centimeters)
Operating Temperature Range	32° to 122°F; 0° to 50°C
Enclosure, Standard	NEMA 1



Since the first commercial installations in 1998, Fast-Charger has a proven record with multiple, repeat Fortune 500 and Global 1000 customers...

Fast-Charger's workhorse Model 448e delivers! It's ready to handle the "heavy lift."

- Full 400 amp available charge rate for 24 to 48 volt standard batteries

Power section and dual connector design allows maximum charge return over wide range of battery amp-hr capacities—patented technology delivers highest charge rate over longer periods at operating temperatures.

- Patented highest safe charge rate profile—over 50 US & international charge system patents

Maximum safe battery charging compared to old style voltage-regulated chargers or temperature compensated fast chargers. Eliminates need for air-gapped batteries or lift truck cooling fans required by other fast chargers; only fast charger algorithm that automatically adapts charge as battery ages—extends useful battery life

- Patented *advanced* priority charging

Allows you to charge multiple trucks with one charger using either sequential or stagger modes. Reduces circuit costs, maximizes charge return and increases operational flexibility.

- Modular, configurable, multi-station charging

Reduces circuit count and lowers circuit costs. Add or delete one connect station at a time—compare with limitations found in parallel chargers. Increased station flexibility—connect stations can be placed up to 100 feet from charger.

- Fully automatic operation including auto start and stop

Connect and go! No operator inputs required; charger auto configures for all battery voltages and sizes. Eliminate chance of operational errors. Automatically charges through "full charge" and equalization.

- Proven real-world battery life

Three to four years life in multi-shift use is typical; has exceeded 4 years in multi-shift commercial service (equivalent to eight years conventional service life!). Battery warranties available from all major battery manufacturers.

- Safe and reliable

UL 1564 certified Industrial Battery Charger; UL listed charge station and on board battery module (BICC); anti-arcing system. Complies with OSHA, NFPA requirements for charging without need for extra ventilation.

- Battery low water level alert; no scheduled charger maintenance

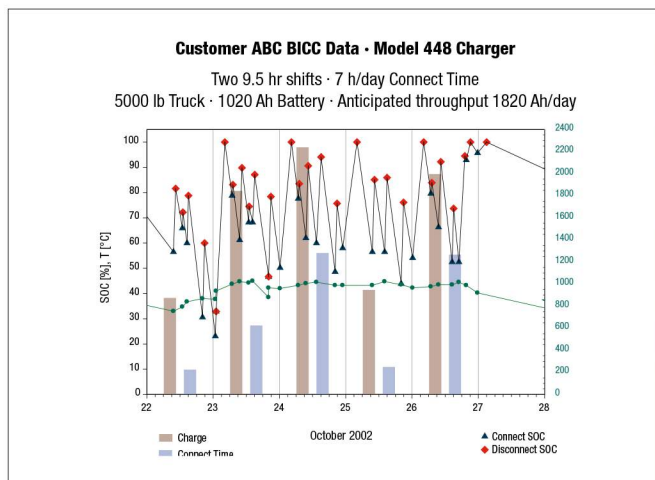
Station display warns of low battery water level—helps you take care of your battery; charger requires no routine maintenance!

- Cost-effective and easy installation

Fast-Charger provides all components necessary—compared to extra materials such as stands, posts, interconnecting conduit, etc., required but not provided by other fast chargers. Installation available from Fast-Charger's nationwide authorized representatives' network.

- eTec Fast-Trak™

Fleet performance tracking capability through data download from BICC module to laptop—allows individual truck usage evaluation, truck PM management, fleet right-sizing, battery/charge system analysis and warranty verification without the need for expensive computer networks.



Example Information from Fast-Trak



3 station version of the Model 448e