



# STATRON

Statron's BDT range of three phase thyristor controlled industrial rectifiers is designed for the harshest operating environment – meeting the most stringent requirements in industrial applications, such as in oil and gas, petrochemical, power generation, power distribution and transmission plants. The flexible system concept and a full range of options enables a fully customized solution meeting any specific requirement.

The BDT range uses the latest digital  $\mu$ P technology and offers user friendly operation and a comprehensive monitoring concept.

## Battery Charger

### BDT Series 50–2000 A

#### Standard features

- Input isolation transformer
- 6-pulse thyristor bridge
- 3-level charge
- Automatic and manual high charge rate (I/U)
- Full digital  $\mu$ P control
- Natural cooling up to 400 A
- LCD display and keyboard
- Event history with time stamp up to 500 entries
- Electronic battery current limit
- Automatic and manual battery test
- Life expectancy up to 30 years
- CE mark

#### Options

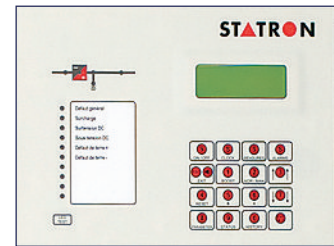
- 12-pulse thyristor bridge and THD filters
- Electronic parallel load sharing (6 units)
- Additional reduction of output ripple or 2mV telecom filters
- Diode voltage regulators with  $\mu$ P control and alarm
- High rate charge interlock
- Input/output circuit breaker, DC distributions
- RS232-interface, SNMP LAN-interface, MODBUS
- Remote control software
- Earth fault and additional alarms, meters and potential-free contacts
- Special color and higher protection degree
- Top cable entry
- Polarization rectifiers up to 750 VDC
- Other options on request

## Human Machine Interface

The front panel allows the complete monitoring and control of the charger with multi-method visualization.

The main features are:

- microprocessor controlled system logic
- 4-line LCD for AC/DC measurements and alarms
- intelligent real-time fault analysis and recording for 500 events
- LED mimic flow diagram
- 10 programmable color-coded alarm/status LED indications
- automatic battery test and failure alarm



## Technical Specification – BDT 50–2000 A

Nominal voltage	VDC	24	48	110	125	220
Input AC voltage	VAC	3 × 400 VAC ±10%, 50 or 60 Hz ±5% (other on request)				
DC output current		Electronic current limitation (I/U)				
DC voltage accuracy		±1% under all operating conditions				
Output ripple		≤1% RMS for 110 and 220 VDC models, without battery (lower on request) ≤2% RMS for 24 and 48 VDC models, without battery (lower on request)				
Audible noise	dB(A)	60 to 65 dB(A), depending on model (70 dB(A) with redundant fans)				
Efficiency	%	93% at full load for 110 to 220 VDC models 82% at full load for 24 to 60 VDC models				
Operating conditions	°C RH m	−10 to +40 °C (up to 55 °C on request) ≤95% humidity (non-condensing) ≤1000 m a.s.l. (up to 4000 m a.s.l. with derating)				
Ventilation		Natural convection up to 500 A, ≥600 A fan cooling (redundant fans and monitoring optional)				
Cabinet protection		IP20 (up to IP54 optional)				
Color		RAL 7035 (other colors available on request)				
Standard instruments (on 4-line LCD display)		Output: DC voltmeter, DC ammeter Battery: DC voltmeter, DC ammeter, temperature (option) Input: AC voltmeter, AC ammeter, frequency, power, power factor Cabinet: Optional temperature and environmental probes				
Standard protection		Thyristor protection fuse, DC overvoltage shut-down, electronic current limitation, phase sequence and phase failure monitor				
Standard alarms and status indication (languages)		English, German, French, Italian, Dutch (other on request)				
Alarms and status indication (on 4-line LCD display)		Mains fault, rectifier OK, overtemperature, overload, overvoltage, undervoltage, charging fault, battery discharged (level 1–3), float charge, high-rate charge, equalizing charge, battery OK, 10 programmable multicolor LED's for alarms				
Charging characteristics		IU/IUoU acc. DIN41773				
Main applicable standards		IEC/EN 60146 Semiconductor converters EN 50091-2, IEC/EN 62040-2 EMC IEC/EN 62040-1 Safety				
Conformity		CE				
Quality/Environment		ISO 9001:2008 / ISO 14001				

Further data available on request

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