

Chloride® T&Dys Rectifier-Charger

DC Back-up Power System



Features

- Reliability – provided by the thyristors-based 6-pulse rectifier, designed to operate at 50°C
- Maintainability – The embedded DC output isolator switch and the front-access to internal components allow most frequent maintenance in safe conditions.
- Serviceability – By choosing the front panel LED indicators option which provides a detailed view of the charger status and alarms, the user can quickly and efficiently identify the fault status and take appropriate actions to fix it.
- Flexibility – A wide choice of output voltages and three pack of options make the T&Dys compliant with most utilities' technical specifications
- Parallel-ability–T&Dys is parallel-ready and can operate in dual configurations with common or separated batteries.
- Input transformer to ensure isolation between the Mains and the connected load.
- IP41 Ingress protection as standard
- Multilingual digital graphic display with embedded event log
- Remote monitoring capabilities via Modbus protocol and 3 volt-free contacts
- Full compatibility with lead-acid and nickel-cadmium batteries, sealed or vented

The Chloride® T&Dys range of rectifiers-chargers is dedicated to HV/MV primary distribution substations. Its design is the result of Chloride's long experience in protecting T&D substations combined with the latest available digital technology. This range has been specifically developed to meet various Utilities technical specifications.

The Chloride® T&Dys range of rectifiers-chargers is available from 25A to 100A in three-phase input configuration.

The T&Dys rectifier-charger features a microprocessor control which offers exceptional stability and allows adaptability for different utilities requirements

In order to improve load availability and process reliability, the T&Dys rectifier- charger is able to operate in dual configuration.



Chloride® T&Dys Rectifier-Charger

Benefits

- Compact design to save space within technical room.
- Digital Control of power converter for lifelong system settings
- Safety thanks to the embedded input circuit breaker and battery fuse protection.



Technical Specifications

Input

Nominal AC voltage	3 × 400 V (380, 415)
Input voltage tolerance	+/- 15% (for 400V)
Input frequency	50Hz (60Hz)
Input frequency tolerance	+/- 5%

Output Capacity

Nominal DC voltage	24 / 36 / 48 / 60 / 110 / 125 / 127 V
Available ratings	see table above
Voltage stability	+/- 1% in float mode, input within tolerance +/-1.5% for parallel rectifiers
Voltage ripple	1% RMS, in float, battery connected
Current Limitation	I nominal
Characteristic	UI according to DIN 41773

Battery

Type	Lead Acid or Nickel Cadmium vented or recombination
Battery current limitation (typical, float & charge modes)	0.1 C (Lead Acid battery) 0.2 C (Nickel Cadmium battery)
Battery current limitation (typical, boost mode)	0.2C (Nickel Cadmium battery) 0.05C (Lead acid battery)

Protections

Rectifier input	Circuit breaker
Power electronics	Fast-acting fuse
Control electronics	Fuse
Battery	Battery fuse (2 poles)
DC output	Isolator switch

General Data

Operating temperature	0 to 50°C
Storage temperature (°C)	-20 to +70°C
Relative humidity (%)	<90% non-condensing
Operating altitude (m)	1000m max without derating
Cooling	Natural or forced according to rating
Efficiency	Up to 86% according to rating
External protection	IP 41 according to IEC 60529
Noise (dB)	<65 dB depending on rating and options
Frame colour	Grey RAL 7032
Dimensions (H × W × D)	1532mm × 600mm × 608mm

Ratings: Output Power (kVA) vs DC Output Voltage (VDC)

24Vdc	36Vdc	48Vdc	60Vdc	127Vdc
–	–	–	–	–
25	25	25	25	25
–	–	40	–	–
–	–	–	–	–
–	–	100	–	100

Standards

Compliance	IEC 60146 – IEC 60439 – IEC 60726 – IEC 61000-6-2 IEC 61000-6-4 – IEC 62040 (-1, -2, -3)
Conformity	Low voltage directive: 2006/95/EC EMC directive: 2004/108/EC CE Mark

Options

Pack 1	1× analogue ammeter 1× analogue voltmeter
Pack 2	Front panel indicator (12 LEDs) Serial Modbus connection
Pack 3	Internal lighting Anti-condensation heater
Other Options	IP 20 internal DC earth fault monitoring