

CHLORIDE INDUSTRIAL SYSTEMS

Secure Power Always

T&Dys from 25 to 100 A



Rectifier / Battery charger

T&Dys from 25 to 100 A

T&Dys, Chloride's range of battery chargers dedicated to HV/MV primary distribution substations, is available from 25 to 100 A. 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.

Features and performances

Aspects of the T&Dys premium class performance are:

- Thyristors-based 6-pulse rectifier to provide excellent reliability
- Input transformer to ensure isolation between the Mains and the connected load
- Ingress protection IP41 as standard
- Digital control of power converter for lifelong system settings
- Embedded input circuit breaker and battery fuse protection to enhance safety
- Embedded DC output isolator switch to safely maintain the equipment
- Compact design to save space within technical room.



Flexibility for customised solutions

T&Dys has the capability to meet diverse Utilities technical specifications by offering the following options:

- Wide choice of DC voltage: 24, 36, 48, 60, 110 V, 125 V, 127 V
- 3 pack of options, from the basic front-panel meter up to DC earth fault monitoring and anti-condensation heater
- Dual parallel configuration with common or separated batteries.

Batteries

T&Dys is fully compatible with lead-acid and nickel-cadmium batteries, recombination or vented types.

T&Dys has been designed to cope with high capacity batteries, meaning that 10 hours autonomy batteries can be recharged up to 90% in less than 10 hours.

Using Advanced Battery Care (ABC), T&Dys serie increases battery life by including the following features:

- Ambient temperature compensated battery charger
- Automatic battery discharge test.

Designed for industrial applications

T&Dys provides lasting secure power architecture for your distribution substation as a result of:

- Continuous operation at full load in a permanent 50°C ambient temperature,
- System design life of at least 20 years in continuous operation conditions,
- Robust mechanical design (vertical and horizontal acceleration stress up to 0,5g).

Communication

T&Dys uses intuitive multilingual digital graphic control, meaning system status, measurements and alarms are accessible from the front panel of the charger.

The embedded 'Event Log' function allows the user to trace the last 100 events. 2 operation modes are made available: the 'Saturable mode', which records a maximum of 100 events, and the 'FIFO mode' which permanently records events and delete the eldest ones.

3 Volt-free contacts are also available to monitor the charger from a SCADA system.

Further communication and monitoring solutions are also available as options:

- RS 232/ RS 485 serial Modbus communication
- 1 set of 12 door-mounted LEDs to locally check the equipment status.

Serviceability

T&Dys product design affords easy front access to all vital modules of the system in order to significantly reduce maintenance times.

By choosing the front panel LED indicators option which gives detailed view of the charger status and alarms, T&Dys allows you to quickly and efficiently identify the fault status and take appropriate actions to fix it.

The reliability of your system can be further supported by a network of local Chloride companies and approved partners who can deliver a full package of maintenance services.

T&Dys Technical data	24V-25A	36V-20A	48V-25A	48V-40A	48V-100A	60V-20A	127V-25A	127V-60A	127V-100A
Output voltage (V) - rating (A)									
INPUT									
Nominal voltage	3 x 400 V (3 x 380 V, 3 x 415 V)								
Voltage tolerance	± 15% (for 400 V)								
Nominal frequency	50 Hz (60 Hz)								
Frequency tolerance	± 5%								
Input power factor	≥ 0.85								
Rectifier type	6 pulses thyristors								
Isolation transformer	included								
BATTERY CIRCUIT									
Nominal DC voltage	see above ratings								
Battery voltage ripple	< 1% RMS in floating								
Battery types	recombination lead acid, vented lead acid, nickel cadmium								
OUTPUT									
Nominal DC voltage	24, 36, 48, 60, 110, 125, 127 V								
DC output voltage regulation	± 1%								
Nominal DC current	Refer to above ratings								
PROTECTIONS									
Charger input	Circuit breaker								
Power electronics	Fast-acting fuse								
Control electronics	Fuse								
Battery	Battery fuse (2 poles)								
DC output	Isolator switch								
GENERAL DATA									
AC/DC efficiency	up to 86%								
Operating temperature (°C)	0 – 50 °C								
Relative humidity (%)	< 95% (non condensing)								
Storage temperature (°C)	-20 to +70°C								
Operating altitude (m)	1000m (without derating)								
Cooling	natural or forced cooling according to ratings								
External protection	IP 41 (IEC 60529)								
Internal protection	IP 20 optional								
Lock	steel locked door with 2 key locks								
Frame colour	grey RAL7032 textured semi-gloss								
Noise	< 65 dBA depending on rating and selected options								
Cable entry	From bottom								
DIMENSIONS									
Height x Width x Depth	1532 mm x 600 mm x 608 mm								
STANDARDS									
Compliance	IEC 60950, 60439, 60146, 60529, 60726, EMC 62040-2, safety 62040-1-2								
CE directives	73/23/EEC-LVD, 89/336/EEC EMC								
Design and manufacture	ISO 9001:2000, ISO 14001:2004, IEC 60146								
OPTION PACKS									
Pack 1	analogue ammeter (1 only), analogue voltmeter (1 only)								
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								

This publication is issued to provide outline information only and is not deemed to form any part of any offer and/or contract. The company has a policy of continuous product development and improvement, and we therefore reserve the right to vary any information without prior notice. MKA4L0UKTINDYS REV1 - 02/2010

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Chicago, USA

Dubai, UAE

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Lisbon, Portugal

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