



آرا تجهیز سیستم



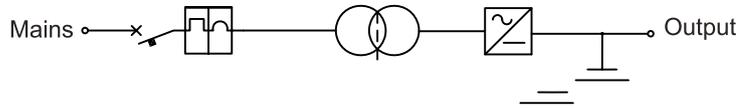
CH-TEC (A series)

Digital rectifiers and battery charger



DC power supply and battery charger in all areas of industry, telecommunication, power generation and power distribution. suitable for charging nickel-cadmium or lead acid batteries while supplying DC loads

Digital rectifiers and battery charger



Main features:

- Clean and stable output DC current with ripple voltage peak-peak value $<1\%$
- 3 adjustable voltage levels (the rectifier can operate as a power supply at the rated voltage or as a battery charger).
- Adjustable times and alarm thresholds.
- Digital microprocessor control (DSP).
- Full optical isolation on all the logic and interface cards.
- Low input harmonic distortion with the twelve-phase bridge and the optional input filter.
- Certified to withstand the harshest environment conditions.
- Efficiency exceeding 90% (low-frequency transformer included).
- Modbus communication interface through Rs232 or Rs485 port.
- Ethernet connectivity.
- H class input isolation transformer.

The graphical display allows to choose between 4 different charging modes:

- Rectifier only
 - Equalised charging with
 - Quick charging activation.
 - Manual and battery forming charging
- The voltage curves are compliant with the DIN 41773 standard, for an optimum charge allowing to extend the battery life.



Power supply systems for industrial applications:

CHTEC-A series, the ATSYS battery charging rectifier, is an energy converter for industrial use designed to ensure a constant power supply in association with the batteries.

The series of rectifiers and battery chargers for industrial use is based on total control 6- or 12-pulse thyristor bridges. We can supply a wide range of systems with voltage output from 24V DC to 220 V DC and current output up to 200A.

The equipment is installed inside stand-alone, self-supporting cabinets.

The frame and the panels are made of steel. The protection degree is IP 20 (up to Ip42 upon request) and IP 20 when the panels are open; access to the equipment is from the front.

The equipment is designed, manufactured and tested in compliance with the applicable IEC regulations.

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Parallel solution to increase efficiency and yield

ATSYS has designed a wide range of parallel solutions to increase the general system MTBF until making it virtually infinite.

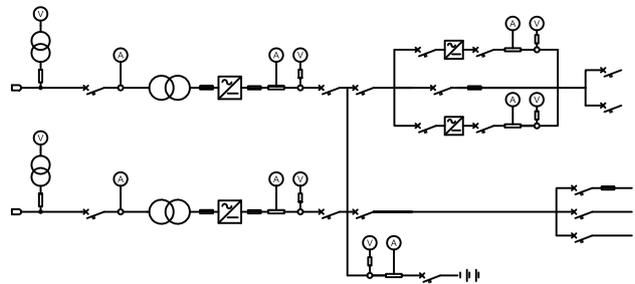
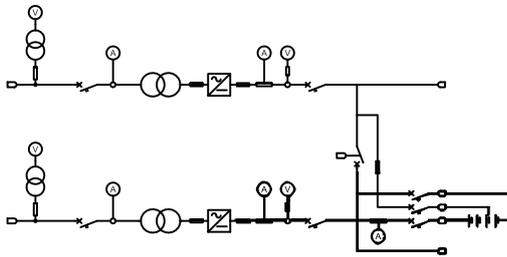
Thanks to a Mod BUS communication, in fact, the different rectifiers divide the load into equal shares, and manage a complex function exchange system.

Redundant single-branch rectifier with redundant DC/DC converters

The single - branch redundancy allows to keep the load and the battery powered by two parallel digital rectifiers, that by dividing the currents reduce the strain of each rectifier.

The load, requiring a voltage level lower than that of the batteries, is powered through a redundant DC/DC converter. In case of failure, the other rectifier will take on the whole load.

Sample customised solution based on technical specifications.



PCB Coating Protection

As the electronic component gets smaller, the copper wires of the PCB are getting thinner. The thin copper wires result in corrosion of PCB easily, especially in harsh environments. PCB coating can enhance the strength of the damp-proof, dust-proof and corrosion resistance in any harsh environments.



Built-in isolated RS-485

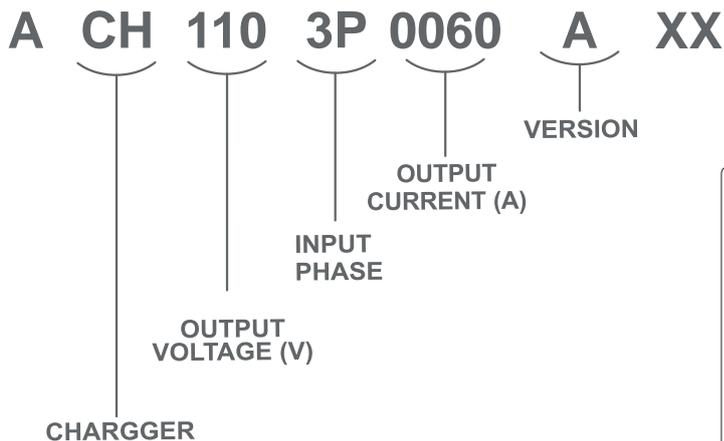
In industrial control environments, ground Voltage of each device may be different. When connecting multiple devices such as a PLC, servo and Inverter to the RS-485 port of the HMI, the ground voltage difference of these devices may damage the interface problem and ensure your HMI durable in any complicated grounding environment.

CH - TEC (A series)

TECHNICAL CHARACTERISTICS

20 A~200 A	
ELECTRIC PARAMETERS	
Input frequency	50/60 HZ
Frequency range	±10%
Input Voltage	400 Vac 3PH
Input Voltage range	±10%
input THD	≥30%
Output Voltage	4 levels (power supply only, charge level 1,2,3)
Soft start	included
Ripple	>1%
COMMUNICATIONS	
Remote signaling	SPDT Contacts
Communication	RS485
ENVIRONMENT	
Cabinet Cooling	Natural
Operating conditions	-5+50C, 93% Humidity (without condensation)
Noise	53 to 68 dB depending on size
MECHANICAL	
Metal frame thickness	2.5mm
Metal door thickness	2mm
Frame surface	galvanised steel
Protection degree with closed panels	Ip42
Protection degree with open panels	Ip20
External colour	RAL 7035
Cable entry	from the base

Digital rectifiers and battery charger



Main optional components

- Additional THD filters
- 12-pulse bridge
- Battery monitoring unit
- DC/DC stabiliser/dropper diode
- Special colours
- Special protection degree
- Output distribution board

شرکت مهندسين مشاور آرا تجهيز سيستم

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