

UNI-INSTA

BATTERY CHARGER

FOR POWER PLANTS & SUBSTATIONS



110V/60 AMPS CHARGER INSTALLED
IN HYDRO POWER PLANT



"ONE STOP SOLUTION FOR DC SYSTEMS"

UNIVERSAL INSTRUMENTS MFG. CO. PVT. LTD.
BANGALORE - 560 058 - INDIA

Universal Instruments Manufacturing Company Private Limited, is a Bangalore, India based small scale industry. Company was incorporated in 1971 as a partnership concern by Shri J.M.Toshniwal and was converted into private limited company in 1975. Since then the product range has been expanded

OTHER PRODUCTS

- ❖ Battery chargers upto 220 V & upto 500 A
- ❖ DC / LT AC distribution board
- ❖ High current Rectifiers upto 3000 A
- ❖ Solar power controller
- ❖ DC/DC converter
- ❖ DC Regulated power supply
- ❖ Cell booster
- ❖ Alarm Annunciator
- ❖ Ampere hour meter
- ❖ Dry type LT transformer

We are ISO 9001-2000 Certified by TUV Nord and have installations of Battery chargers with battery & distribution board in India in

- Hydro power, Wind Power, Solar power & Steam turbine power plants.
- Offshore Oil Platforms and other solar power plants.
- Oil & Gas pipelines.
- Industrial & commercial buildings.
- Steel & Cement factories.
- Petroleum refineries.
- Substations & switchyards.
- Transmission & distribution network.

Outside India, we have installations in

- Hydro power projects & transmission grid in Bhutan
- Hydro power projects in Vietnam & Tanzania,
- Substations in Myanmar, Sri Lanka, Nepal, Indonesia, Malaysia & South Africa,
- Steam turbine based power projects in Indonesia, Bangladesh, Malaysia, Zambia, Vietnam, South Africa & Kenya.

We are approved by leading Engineering consultants like Tata Consulting engineers, MECON, M.N.Dastur, Avant Garde, Engineers India Ltd., Fichtner Consulting, Jacobs, Kvaerner process etc.

Our customer list includes Tata BP Solar, Suntechnics, Suzlon, Triveni Engineering, TD Power systems, Andritz Hydro, Flovel Mecamidi, Boom Systems, HPP Energy, ABB, Siemens, Larsen & Toubro, Bateman Engineering, Bharat Petroleum, Hindustan Petroleum, Gas authority of India, ONGC, Indian Railways besides host of other local contracting and project executing companies.

SALIENT FEATURES OF BATTERY CHARGER

- Thyristor (SCR) Controlled 6 pulse rectification for low harmonics.
- Electronically protected against overload and short circuit.
- Low ripple content upto 0.5% r.m.s. by dual line choke & filter capacitor.
- Excellent line & load regulation.
- High efficiency.
- Low noise, reliable and trouble free operation.
- Compact design with/without integral DCDB.
- Suitable for Sealed maintenance free/tubular lead acid/NiCd battery.
- Custom built to specifications.

TYPES AVAILABLE

Float cum Boost

- Single rectifier circuit.
- Operation in either Float mode to feed load & trickle charge battery or In Boost mode to charge battery.

Float & Float cum boost charger

- Two independent rectifier circuits.
- Float charger feeds load & Float cum Boost charger charges battery.
- Float cum boost charger can function as Float charger also.

Dual Float cum Boost charger with one battery bank.

- Two independent rectifier circuits.
- Each capable of operating in either mode. Hence redundancy available.
- Simultaneous operation of both chargers in boost mode is not possible.

Dual Float cum Boost charger with two battery banks.

- Two independent rectifier circuits.
- Each capable of operating in either mode.
- Each with separate set of battery, with necessary interlocks. Hence battery redundancy available.
- Simultaneous operation of both chargers in boost mode is not possible.
- Suitable for mission critical installations.

STANDARD SPECIFICATIONS OF BATTERY CHARGER

OPERATING VOLTAGE	:	AC 415 V +/-10% 50 Hz., 3 Ph., 4 Wire.
OUTPUT	:	Suitable for 24/48/110/220 V SMF/Lead Acid/NiCd battery, upto 500 A
RIPPLE	:	< 2.0% r.m.s. of max. rated voltage.
REGULATION	:	Better than +/-1% of max. rated voltage.
PROTECTION	:	HRC Fuses & MCB/MCCB in A.C. Input. Semiconductor fuses & RC Snubber for SCR. D.C. MCB/MCCB in D.C. Output & battery circuit. Against overload and short circuit. Blocking diode in D.C. output.
METERING	:	Analog meters for output/battery voltage, output current and battery charging/discharging current.
INDICATIONS	:	Mains ON R, Y, B., Charger ON, Float mode & Boost mode.
ALARMS	:	Load under voltage, Load over voltage, Charger fail, Battery earth leakage and Mains fail.
Operating ambient temp.	:	0 to 50 Deg.
Cabinet	:	Free standing panel in IP 42 construction, 1.6/2.0 mm sheet steel, powder/epoxy painted, bottom cable entry.

Auto changeover from float mode to boost mode & vice versa. Manual selector switch.

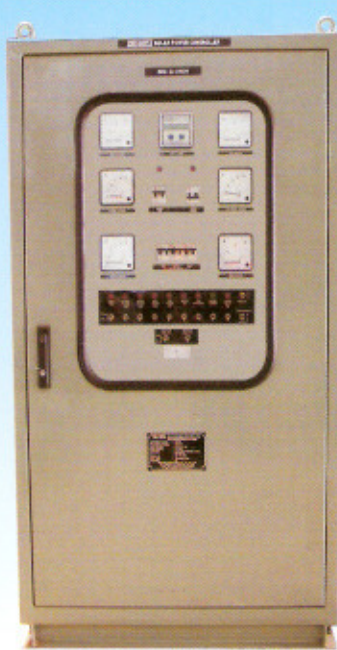
OPTIONS

OPERATING VOLTAGE	:	AC 380/400/440 V +/-10% or 15%, 50 Hz., 3 Ph., 3/4 Wire. AC 220/230/240 V, 1 Ph., 50 Hz.
METERING	:	AC meters/Battery trickle charging current, Digital.
ALARMS	:	Fuse fail/Load on battery/AC under & over voltage/any other.
COMMUNICATIONS	:	Isolated 4-20 mA transducers for output/battery voltage & current. Potential free contact for alarms for remote or SCADA connection. RS485 port.
CABINET	:	IP55.
DISTRIBUTION BOARD	:	Integral with MCB/MCCB or separate compartmentalized panel.

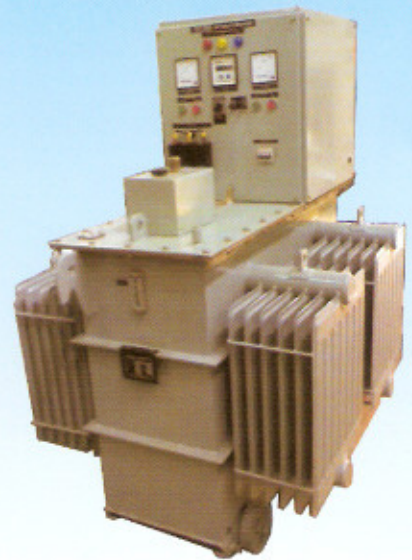
OTHER PRODUCTS



24 VOLT SWITCH
TRIPPING UNIT



SOLAR CONTROLLER FOR
OFFSHORE OIL PLATFORM



ELECTROPLATING
RECTIFIER 18V, 1000A



110 V, 300 AH Dual FCB
Charger with DCDB

For Requirements of DC Systems, Your one Stop Solution

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