Impressed Current Cathodic Protection
Power Supplies / Hazardous Area (ATEX Certified) Transformer Rectifiers
PS 01.003

Hazardous Area (ATEX Certified) Transformer Rectifiers

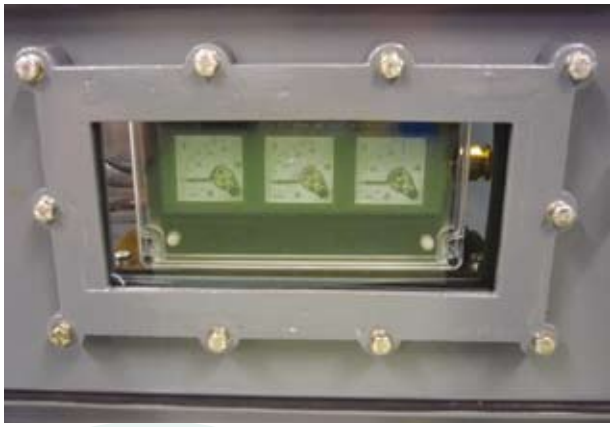
Our range of ATEX Certified Oil Cooled Hazardous Area Transformer Rectifiers are designed, manufactured and fully certified under our ATEX license for use in Zone 2 hazardous areas with:

- Gas group IIB (Baseefa 07 ATEX 0155)
- Gas group IIC (Baseefa 07 ATEX 0261).

For your complete safety Hockway build integrated certified units, rather than rely on boxes and enclosures with individual certification.

These are specifically for the Cathodic Protection of Steel Structures including jetties, pipelines, tank farms and offshore structures and vessels. They have been designed to comply with the most stringent industry specifications and perform in arduous environmental conditions where continual Operational Safety and Reliability is paramount. The ATEX certified transformer rectifiers are in the ONAN (Oil Natural Air Natural) cooling category and thus have a greater inherent reliability than oil circulated and forced air designs.

All units are manufactured to stringent safety and rigorous quality assurance procedures under our ISO 9001 certification, fully in accordance with all applicable British and European standards.



Applications

Our ATEX Certified Oil Cooled Hazardous Area Transformer Rectifiers are designed for use in Zone 2 hazardous areas temperature class T3, where the highest standards of equipment safety are required. Typical applications include oil refineries, LNG plants, chemical plants and offshore installations. Units are available for ambient temperatures up to 55°C, current ratings of up to 600A. Multiple output channels can be built into a single rectifier enclosure where required.

They are designed and manufactured with a wide variety of innovative features, and every aspect of their design can be customised to suit the application or client specification. This includes local and remote monitoring of output voltage, current, reference electrode potentials, and remote control of output voltage and current.

Features

Enclosures – Sealed to a protective category of IP66, ATEX Fully Certified for Hazardous Area Zone 2, Gas Group IIB or IIC

- Mild Steel Heavy duty welded with Flame Zinc Spray and 2 Part Epoxy / Polyurethane Coating
- Painted Stainless Steel Heavy duty welded grades 304 or 316.

Control

- Continuously variable transformer (Variac)
- Discrete Step Switching in 16, 20, 25 or 63 Steps (Step Control)
- Constant Current / Constant Voltage
- Automatic Potential Control.

Input Supply

- 115V to 240V single phase
- Up to 480V three phase.

Additional Features

- GPS Synchronous Current Interruption
- Data Logging of Output Voltage, Current and Reference Electrode Potential
- Remote Monitoring and Control over the Internet, Satellite, GSM Cellular, or RS232/RS485 network
- Trip Alarms for Output Voltage, Current, Reference Electrode Potential, AC Input Voltage, Phase Failure.

TYPICAL SIZES & WEIGHTS

Max Power Output (power = DC Voltage x DC Current) CC/CV Auto	Three-Phase 415V Manual	Single-Phase 230V Manual	Type	Dimensions (Excl. Sunshade) H x W x D mm	Nominal Weight (Kgs)	Oil Required (L)
2,700	3,700	1,600	VS	1200 x 1050 x 900	500	190
3,500	5,800	2,900	S	1400 x 1050 x 900	600	250
5,900	8,400	4,200	M	1400 x 1550 x 900	850	440
7,300	11,600	5,200	L	1600 x 1550 x 900	1000	540
17,100	27,000	12,000	L + 4R	1600 x 1550 x 950	1100	570
26,800	42,500	18,800	L + 8R	1600 x 1550 x 1100	1200	600

Sizes based on 55°C Ambient temperature, in cooler climates sizes may be reduced.
Units based on standard specification with no optional extras. With optional extras depth and weight may increase.

TANK FITTINGS

Oil Level Gauge	✓
Oil Filling Pipe	✓
Oil Drain Valve	✓
Breather – Silica Gel	✓
Skid Under Base	✓
External Earth Bolt	✓
Sunshade	○
ID Label	○
Rating Plate	✓
Dial Type Thermometer	✓
Operation & Maintenance Manual	✓
First filling of Oil to BS148/IEC296	✓
Laminated Circuit Diagram	○
Anchor Bolts	○
Lifting Lugs	✓
Meter Viewing Window	✓
Padlock Facility	✓
Hinged Lid	✓
Lid Toggle Latches	○
Cable Entry	○ Glands (Armoured)

METERING

Output Voltmeter & Ammeter	● Analogue 90° Scale † ○ Analogue 240° Scale † ○ Digital 3.5 Digit ○ Digital 4.5 Digit
Reference Potential Meter	● Analogue 90° Scale † ○ Analogue 240° Scale † ○ Digital 3.5 Digit ○ Digital 4.5 Digit
Input Voltmeter	○
Input Ammeter	○
Hours Run Counter	○
Kilowatt Hour Meter	○
Meter Monitor Sockets (4mm)	○

† Also available as hermetically sealed and tropicalised if required.

ELECTRICAL

Input MCB	✓
External Isolator	✓
Surge/Lightning Arrester DC	✓
Surge/Lightning Arrester AC	○
AC Healthy Neon	○
Input RCB / ELCB	○
Over Temperature Trip	✓
Anti-condensation Heater & Switch	○
Rectifier Fuses	○*
Smoothing / Efficiency Filter	○*
RFI Suppression Filter	○
Auxillary AC Socket (to suit client requirement)	○
Output termination	● Studs ○ Terminals
Output Protection	● Fuse ○ MCB

MONITORING

Transducer for Output Current	○
Transducer for Output Voltage	○
Transducer for Reference Potential	○
DC Low Output / Failure Alarm	○
Failure Alarm	○ AC ○ DC
AC Phase Monitor (3 Phase only)	○
Current Interruption	○ Non synchronous ○ Synchronous ○ GPS Synchronous
Timer Link (For Portable Timer)	○
Remote Monitoring and Control Unit (Watchdog CP)	○
Data Logger Unit with GPS Synchroniser (CARMS)	○

* Included as standard in CC–CV and Fully Automatic Units.

KEY

✓ = Included as standard.
● = Included as standard but other options available.
○ = Optional Extra (Where there is more than one type available, only one type may be selected).

Diagram 1: Typical ATEX (Hazardous) TR Circuit Diagram

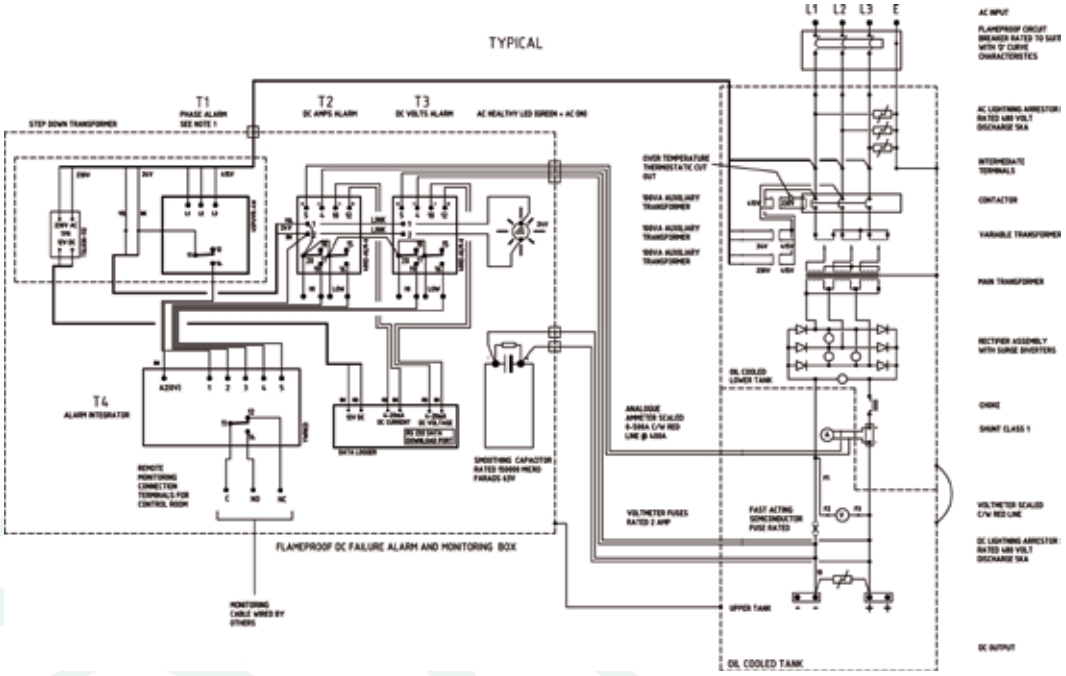
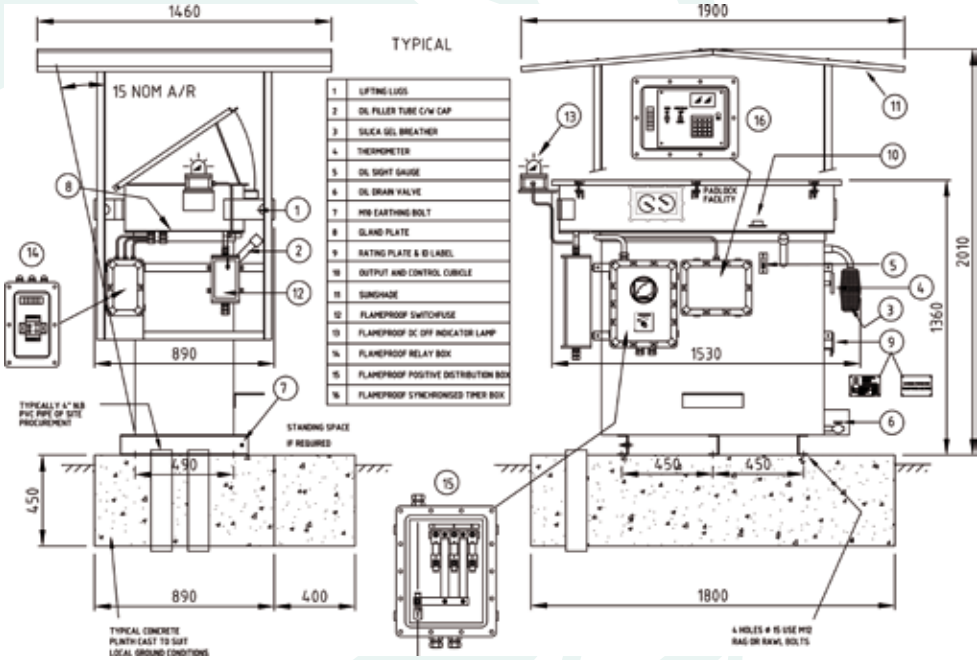


Diagram 2: Typical ATEX (Hazardous) TR Outline Diagram



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