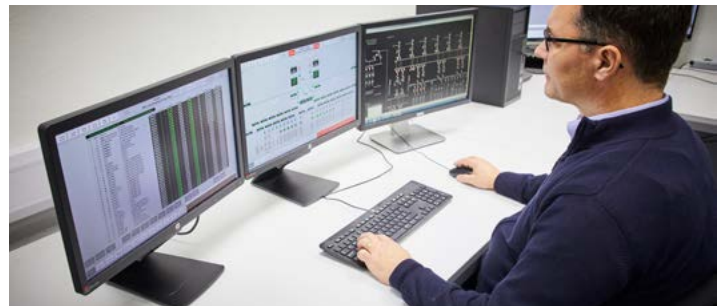




TRUST. WELL EARNED.

# Control and Monitoring

## Power without compromise



# BRUSH PRISMIC® Electrical Power Control, Automation & Monitoring.

BRUSH understands that availability of safe and reliable electrical power is fundamental.

BRUSH is the world's leading independent turbogenerator OEM.

The BRUSH range of control and monitoring products and solutions extends from standardised automatic voltage regulators (AVRs), through specially engineered high current static excitation systems, to customised on-line monitoring and control systems.

The range includes power management systems (PMS) which vary in complexity from simple single generator to very large multi-generator power systems with over 20,000 data points.

Every PMS is engineered to client and project specific requirements enabling maximum availability of electrical power for critical applications. BRUSH has successfully delivered over 200 PMS projects worldwide,

BRUSH products and systems are supported by an exceptional team of highly trained and experienced, application and field service engineers.

**BRUSH provides installation, commissioning, maintenance and support services for all our products.**

## Excitation Systems (Automatic Voltage Regulators – AVRs)

BRUSH has always been at the forefront of excitation control with products optimised for BRUSH built machines, as well as those made by other OEMs.

BRUSH provides excitation systems for brushless and specialised static excitation applications, including client specific customisations.

BRUSH excitation systems offer:

- Dual Channels
- Power System Stabiliser
- Synchroniser
- Rotor Ground Fault Detection
- Excitation Limiters
- SCADA/ DCS Communications

BRUSH brushless excitation systems include options for plate or rack mounting.



## Power Management Systems (PMS)

BRUSH PRISMIC® PMS provides real time intelligent automation of mission critical electrical power systems.

BRUSH PRISMIC® PMS systems are used worldwide for applications within ONGC, Power Utilities, Infrastructure, Defense, Data Centers etc.

BRUSH PRISMIC® PMSs offer:

- Load Shedding Systems
- Remedial Action Schemes
- Smart Grid Solutions
- Governor and AVR adjustment
- Generator Dispatch
- Load Feeder Inhibition
- Load Reconnection
- Controlled Load Reduction
- Operator Control via HMI
- Data transfer to DCS/SCADA Systems
- On Line Support
- Site Support Services



### Generator Control & Protection (GCP)

BRUSH GCPs are equipped with the necessary excitation control and protection equipment required to enable optimal performance of generators and motors.

BRUSH GCPs offer:

- AVR (Automatic Voltage Regulator / Excitation Control System)
- Synchronizing Systems
- Generator Protection Functions
- Step Up Transformer Protection Functions
- Condition Monitoring
- Tariff Metering
- Human Machine Interface (HMI)
- Time Synchronisation

### Generator Line & Neutral Cubicles (GTC)

BRUSH provides generator terminal cubicles (GTCs) for lineside and neutral side stator connection up to 10,000A, for both new build and retrofit generators.

BRUSH GTCs can be mounted directly to a machine thereby allowing availability of space within switch-rooms.

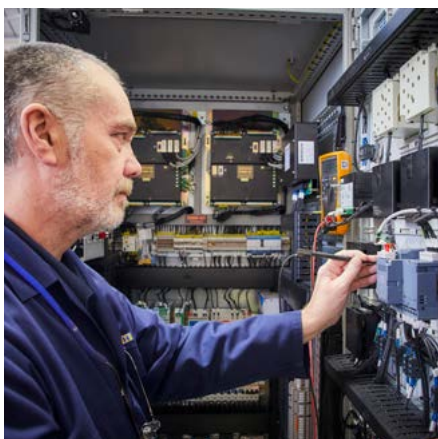
BRUSH GTCs offer:

- Voltage Transformers and Current Transformers
- Partial Discharge Monitoring
- Customisation for Special Project Requirements
- Neutral Earthing (grounding) Equipment (either in neutral cubicle or in separate cubicle)

### Auxiliary Control & Monitoring

BRUSH continues to develop electronic control and monitoring products to provide specific functionality including:

- The PRISMIC® R10 rotor earth fault monitor (REFM) detects a single earth fault and dispenses with the need for brushes and sliprings, resulting in enhanced reliability and reduced maintenance costs.
- The PRISMIC® C20 auxiliary controller is a dedicated unit which allows remote monitoring and control of point of connection power, power factor, voltage and frequency and integration with other BRUSH systems.
- The BRUSH brushgear current sensor monitors current carried by individual brushes enabling timely replacement of individual brushes in advance of scheduled maintenance thereby reducing outage costs.





**TRUST. WELL EARNED.**

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