

**NEW  
GENERATION**

# CORONA

## Generator "solid-state"

**Model MR\B 35K-IGBT-CU**

**Model MR\B 40K-IGBT-CU**

**Model MR\B 45K-IGBT-CU**

**Model MR\B 50K-IGBT-CU**

**Model MR\B 55K-IGBT-CU**

**Model MR\B 60K/IGBT-CU**



The new generation corona discharge generators represent the new industrial standard for this type of device.

The intelligent -IGBT- modules (IPM) installed in them, featuring high switching speed with low losses, combined with the configuration of the power circuits, ensure high performance and complete self-protection in the event of accidental overloads.

The GATEs drive circuit is integrated into the module itself and controls the working parameters, interdicting the module when it exceeds the maximum permitted working conditions.

These features ensure better performances and reliability than with conventional IGBTs.

The presence of a door cooling system allows to use the generator in the hardest environments.

Unquestionably, these generators, together with the new discharge stations represent the most up-to-date state of the art for corona treatment equipment.



**ELECTRONIC INDUSTRIAL EQUIPMENT**

## Technical characteristics:

- ▶ High efficiency thanks to the configuration of the power circuits and the use of -IGBT- modules.
- ▶ Electronic protection in the short-circuit proof inverter power modules.
- ▶ Electronic protection against any short circuits at the high voltage output.
- ▶ Door cooling system to maintain internally the generator free from dust.
- ▶ Automatic matching to various load conditions.
- ▶ Connection between generator and discharge station with high-voltage screened cable.
- ▶ Universal supply voltage 3x380-400-415-440-460V (without need for a network transformer).
- ▶ Construction according to norm EN-60204-1.
- ▶ Electromagnetic compatibility (EMC) in accordance with norms EN-5511 and EN-50082-2.
- ▶ Monitoring, display of work magnitudes and alarm signalling with SIEMENS ET200 decentralized peripheral system or by special operator terminal (TO-MOD).

The basic functions of the operator terminal include:

- Display of operation magnitudes.
  - A. Inverter working current.
  - V. Inverter working voltage.
  - KV. Effective voltage on electrodes.
  - VELOC. Production speed.
  - W. Power delivered.
  - ACTUAL. Specific power delivered.
- Service signal.  
Information on the working status of the plant and predisposition of parameters.
- Alarm signal.  
Display of the cause of the alarm with activation of a flashing light signal, an auxiliary relay and a printer. The print-out indicates the generator working magnitudes, the cause of the alarm, the metres of the film wound, the date and the time. These data can also be request during normal operation by activating the printer.
- Information texts.  
These help identify and eliminate any plant anomalies.
- Operating modes.
  - ▶ Manual:  
the generator output power level is set by increasing or decreasing the magnitude PL (Power level).
  - ▶ Automatic:  
PL represent the specific power  $W_{min}/m^2$  to be delivered; by means of a regulation loop the latter is kept strictly constant even in possible different working conditions.
  - ▶ Intermittent:  
periodic interruptions of treatment are possible.
- the operator terminal is provided with inputs for remote commands of:  
start-stop-reset and auxiliary safety settings.

## Electrical characteristics:

**Line voltage:** 3x380-400-415-440-460V.  
(without network transformer)

Special line voltage on request.  
(with network transformer).

Line frequency: 50-60Hz.

Generator type power	Maximum power absorbed	Maximum output
MR\B 35K-IGBT-CU	39kVA	35kW
MR\B 40K-IGBT-CU	45kVA	40kW
MR\B 45K-IGBT-CU	50kVA	45kW
MR\B 50K-IGBT-CU	56kVA	50kW
MR\B 55K-IGBT-CU	61kVA	55kW
MR\B 60K-IGBT-CU	67kVA	60kW

Working frequency: 20-25kHz.

Protection level: IP54.

Generator size: L x H x D 800x1900x800  
MR\B 35K-IGBT L x H x D 800x1900x610

Generator weight: 510Kg.  
MR\B 35K-IGBT-CU weight: 470Kg.

