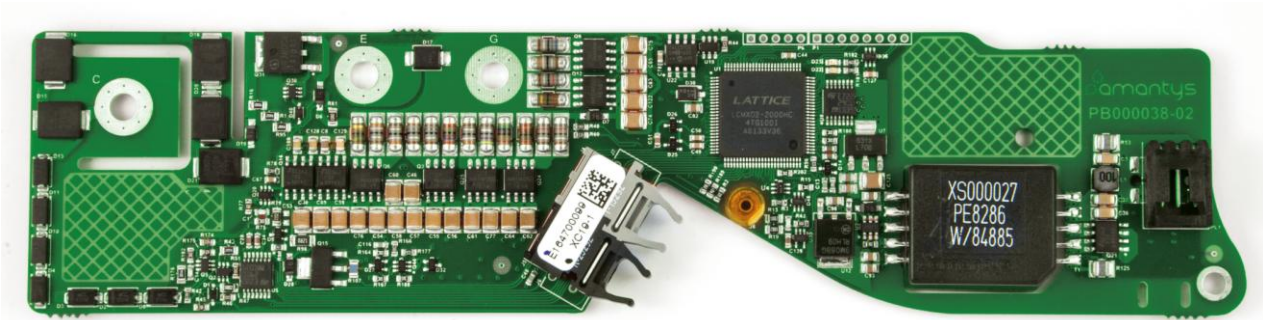


The 3300V Gate Drive incorporates Amantys Power Insight technology to allow remote configuration and data download from the gate drives in a power converter. Capable of driving a range of IGBT modules from different manufacturers, this gate drive reduces inventory for users who want flexibility in design and sourcing through configuration of the gate drive. The gate drive is suitable for 2-level and multi-level converters in a wide variety of applications.



## Key Benefits

- Software configurable
  - Reduced inventory as one gate drive can support IGBT modules from multiple vendors
  - Simplified design and commissioning
- Improved converter management
  - Multiple fault codes for error detection
- Fault code tracking
  - Monitor key parameters remotely and safely
  - Download fault codes from the gate drive
- Compatible with commercial alternatives
  - Drop in replacement with same fibre optic and power interfaces
  - Feedback protocol configurable to legacy gate drives
- High reliability design and testing
  - Manufactured to ISO9001
  - Designed and tested to international standards for rail and motor drives
  - Conformal coating available on request

## Outline Specification

- Single channel Plug & Play solution for 190x140mm and 130mmx140mm packages
- Available with 15V or 24V input
- Software configurable parameters
  - Turn on and turn off resistors ( $R_{gon}$ ,  $R_{goff}$ )
  - Soft turn off resistor ( $R_{goffsoft}$ )
  - Gate – Emitter Capacitor ( $C_{ge}$ )
  - Fault lock out time ( $t_{lock}$ )
  - Two level or three level mode
  - Optical transceiver drive current for extended lifetime
- High resolution  $V_{ce(on)}$  measurement
- High DC link turn off resistor option
- On board isolated DC-DC power supply
- Protection features
  - IGBT short circuit protection through desaturation protection
  - Desaturation detection at multiple points during turn on
  - Under voltage lockout
  - Monitors all power rails for safe start-up with IGBT held off
  - Active clamping mechanism (two zone)
- LED status indication
- Insulation designed for rail traction and variable speed drive applications



Medium voltage motor drives



Locomotive traction & marine drives



Wind turbine & solar inverters



High voltage DC infrastructure

## Standards Compliance

The 3300V gate drive is designed and tested to meet the following standards:

- Designed to EN 50155 for railway applications
- Designed to IEC 61800-5-1 for variable speed drives
- Mechanical shock and vibration tested to IEC 61373
- EMC tested to EN 50121-3-2, EN 50121-5, IEC 61800-3
- Flammability rating to UL94V-0

## Amantys Power Insight

Amantys Power Insight technology provides two way communications from the central controller or Power Insight Adapter to the gate drive. The converter designer can perform the following functions:

- Remote software configuration of the gate drive
- Examine a wide range of fault code outputs
- Monitor faults codes during the lifetime of the converter

## Applications

Amantys gate drivers are suitable for all high power converter applications. Typical uses include:

- Railway traction applications
  - Traction motor drives
  - Trackside converters
- HVDC infrastructure
- Low and medium voltage converters
- Low and medium voltage motor drives
- Wind turbine converters
- Solar inverters

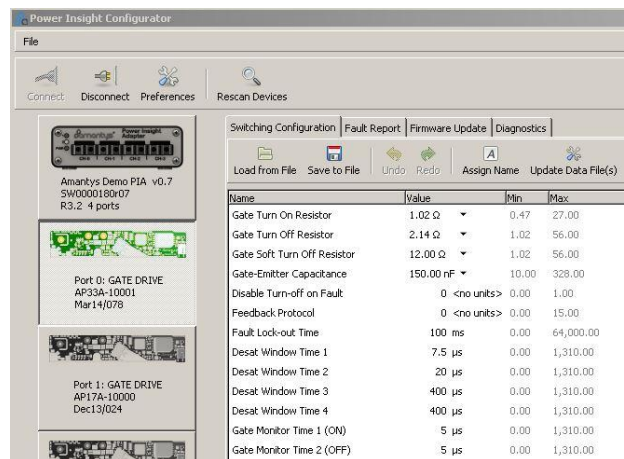
## Supporting Products

### Power Insight Adapter



The Power Insight Adapter allows a Windows based PC to interface to up to four Power Insight enabled gate drives.

### Power Insight Configurator



The Power Insight Configurator is a Windows PC based software tool that can be used to configure a Power Insight enabled gate drive and monitor the fault reports generated by the gate drive.

