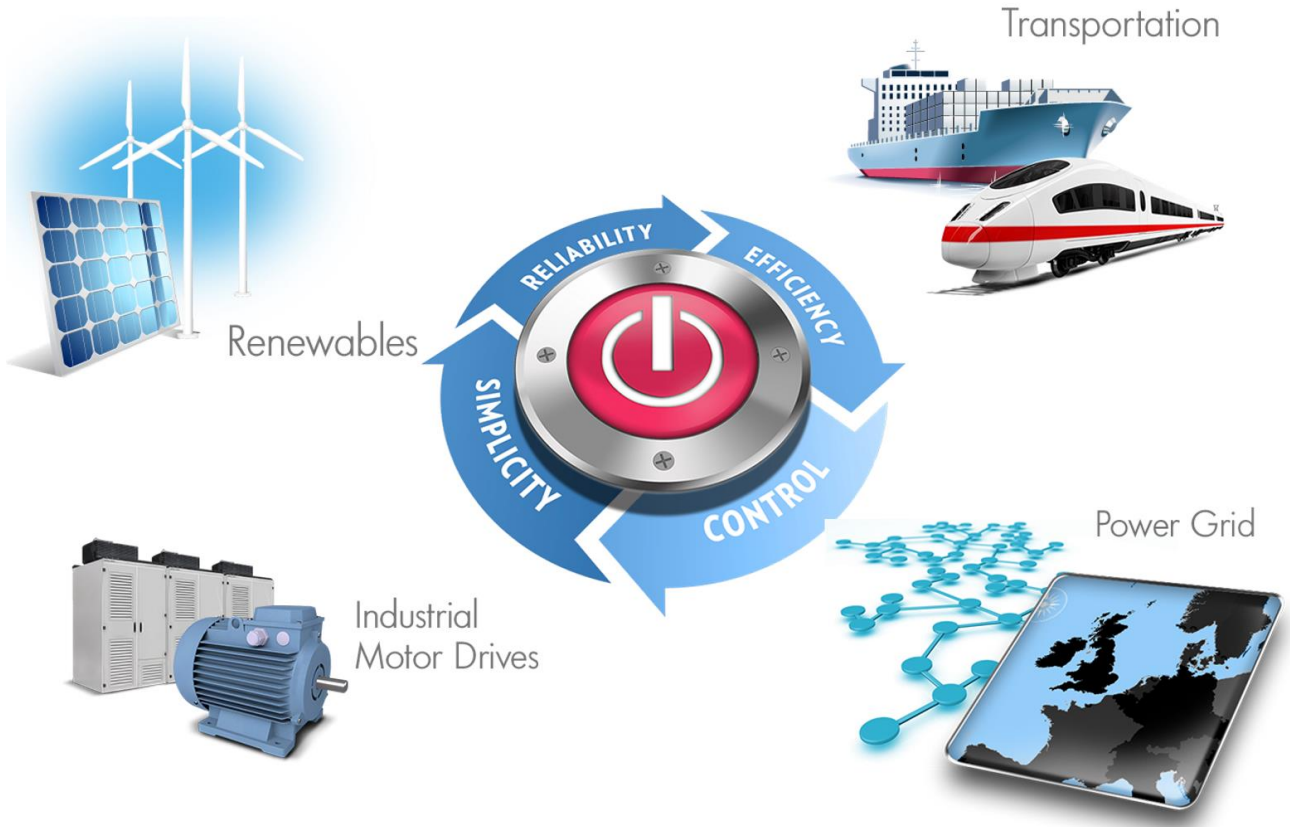


amantys



Gate Drive Selector

Amantys Digital Gate Drives

Amantys gate drives are designed to support standard available IGBT and SiC modules from all main suppliers.

Please visit <http://www.amantys.com/products> to see the full range.

Key Benefits

- High reliability design and testing
- Manufactured to ISO9001
- EMC EN61000-6-4:2007, EN61000-6-2:2005
- Monitors all rails for safe start-up with IGBT held off
- Integrated isolated on board DC/DC power supply for all gate drives up to 3300V
- External isolated DC/DC power supply for 4500V and 6500V gate drives
- Creepage & clearance to IEC 60077-1

Compatible with commercial alternatives

- Drop in replacement with same fibre-optic and power interfaces
- Improved start-up and programmable recovery times
- One gate drive per operating voltage for multiple vendor modules reduces inventory
- Simplified design and commissioning
- Lower no-load power dissipation
- Reduced self-heating for longer lifetime

Outline Specification

- Fibre optic interface
- IGBT short-circuit protection
- Two and three-level converter desaturation protection
- Active clamping
- Under-voltage lockout
- Extensive range of fault codes

Supported Module Outlines





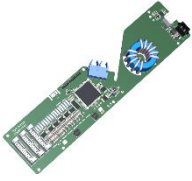



- Single Channel
 - 140x130 mm HPM
 - 190x140 mm HPM
- Dual channel (Next Generation)
 - nHPD²/LinPak
 - LV100/XHP2
 - XHP3

High Energy Test Facilities

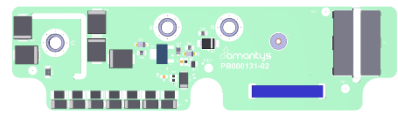
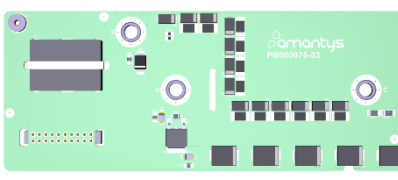
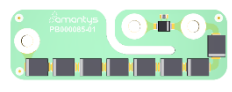
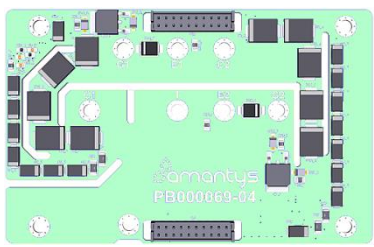
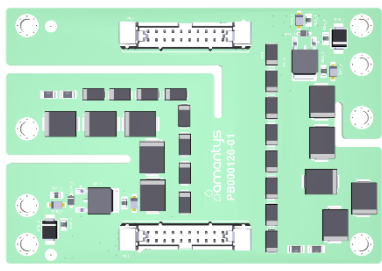
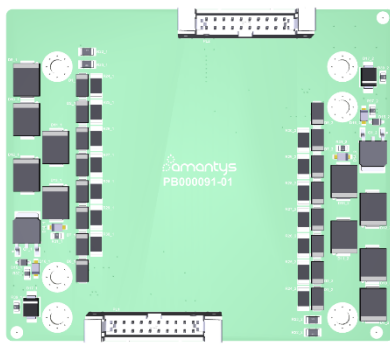
- Single and parallel modules
- Up to 6500V and 3600A

Features	1700V/3300V Next Gen	1200V/1700V HPM	1700V/3300V HPM	4500V HPM	6500V HPM
Active Clamp	No	Yes	Yes	Yes	Yes
Type I/II desaturation protection	Yes	Yes	Yes	Yes	Yes
Multiple programmable desaturation levels	No	Yes	No	Yes	Yes
Programmable thresholds	No	No	Yes	Yes	Yes
Under-voltage protection	Yes	Yes	Yes	External	External
Isolated DC/DC converter	On board	On board	On board	Off board	Off board
Configurable gate resistors	No	Yes	Yes	Yes	Yes
Interface type	Fibre	Fibre	Fibre	Fibre	Fibre
Amantys Power Insight	Yes (compat mode)	Yes	Yes	Yes	Yes

Amantys Gate Drive Selector

Product	Typical design	Description	Power Module Voltage and Type	Features
On-module AP33A AP17G AP12G		Single channel	1200V 1700V 3300V 140x130mm HPM 140x190mm HPM	Configurable 15V or 24V input
Off-module AD00XA8 "D series"		Single channel	1200V 1700V 3300V 140x130mm HPM 140x190mm HPM	Configurable 14-30V input Requires simple module interface card (MIC)
Off-module AP03L "Dovetail"		Dual channel	1700 V 3300 V 140x130mm HPM 140x190mm HPM HPM 140x190 nHPD2/LinPak LV100/XHP2 XHP3	Configurable 15V or 24V input Up to 3 modules in parallel Requires module interface card (MIC) IGBT or SiC MOSFET
Off-module AP05J		Single channel	4500V 6500V 140x130mm HPM 140x190mm HPM	Configurable Requires external DC-DC Up to 3 modules in parallel Requires module interface card (MIC)
Off-module In development		Single channel	Up to 4500V 140x130mm HPM 140x190mm HPM 4500V press-pack	Configurable 14-30V input Up to 3 modules in parallel Requires module interface card (MIC)
On-module AV17 AV33 "V series"		Dual channel	1700V 3300V nHPD2/LinPak LV100/XHP2	Configurable 15V or 24V input 2-6 modules in parallel Requires custom distribution board for module spacing IGBT or SiC MOSFET
On-module AE17NB/MB AE33NB/MB "E series"		Dual channel	1700V 3300V nHPD2/LinPak LV100/XHP2	Not configurable No TVS 15V or 24V input IGBT or SiC MOSFET Cost optimised
DC-DC Converter ASD6 ASD7		Drives single Gate drive	Use with AP05J	12 kV Isolation input-output Fault Tolerant >90% efficient 18 kVrms dielectric test

Amantys Module Interface Card (MIC) Selector

Product	Typical design	Description	Power Module Voltage and Type	Features
LV-HPM		Single channel	1200V 1700V 3300V 140x130mm HPM 140x190mm HPM	6kV isolation module
HV-HPM		Single channel	4500V 6500V 140x130mm HPM 140x190mm HPM	10kV isolation module
LV-HPM for use with AD00XA8		Single channel	1200V 1700V 3300V 140x130mm HPM 140x190mm HPM	6kV isolation module
nHPD2/LinPak		Dual channel	Next generation	6kV isolation module
LV100/XHP2		Dual channel	Next generation	6kV isolation module
XHP3		Dual channel	Next generation	10kV isolation module