Small wind inverters

ABB generator interfaces
15/25kW-WIND-INTERFACE
15 to 25 kW

The 15kW/25kW-WIND-INTERFACE is a smart passive rectifier, designed with ABB's proven high performance technology, for small wind applications up to 25 kW.

The high speed and precise power curve tracking algorithm allows to best match the power curve of each turbine.

Analogical output signals are available for driving ABB's small wind turbine inverters, including three-phase inverters.

The 15kW/25kW-WIND-INTERFACE has the possibility to drive an external diversion load resistor (opt.) that can help the turbine in case of high wind.

Power curve owner

Multiple inverters managing capability allows scalability for the installation.

It is a sealed unit to withstand harsh environmental conditions.

Overvoltage protection for inverters thanks to semi-controlled bridge rectifier.

Highlights

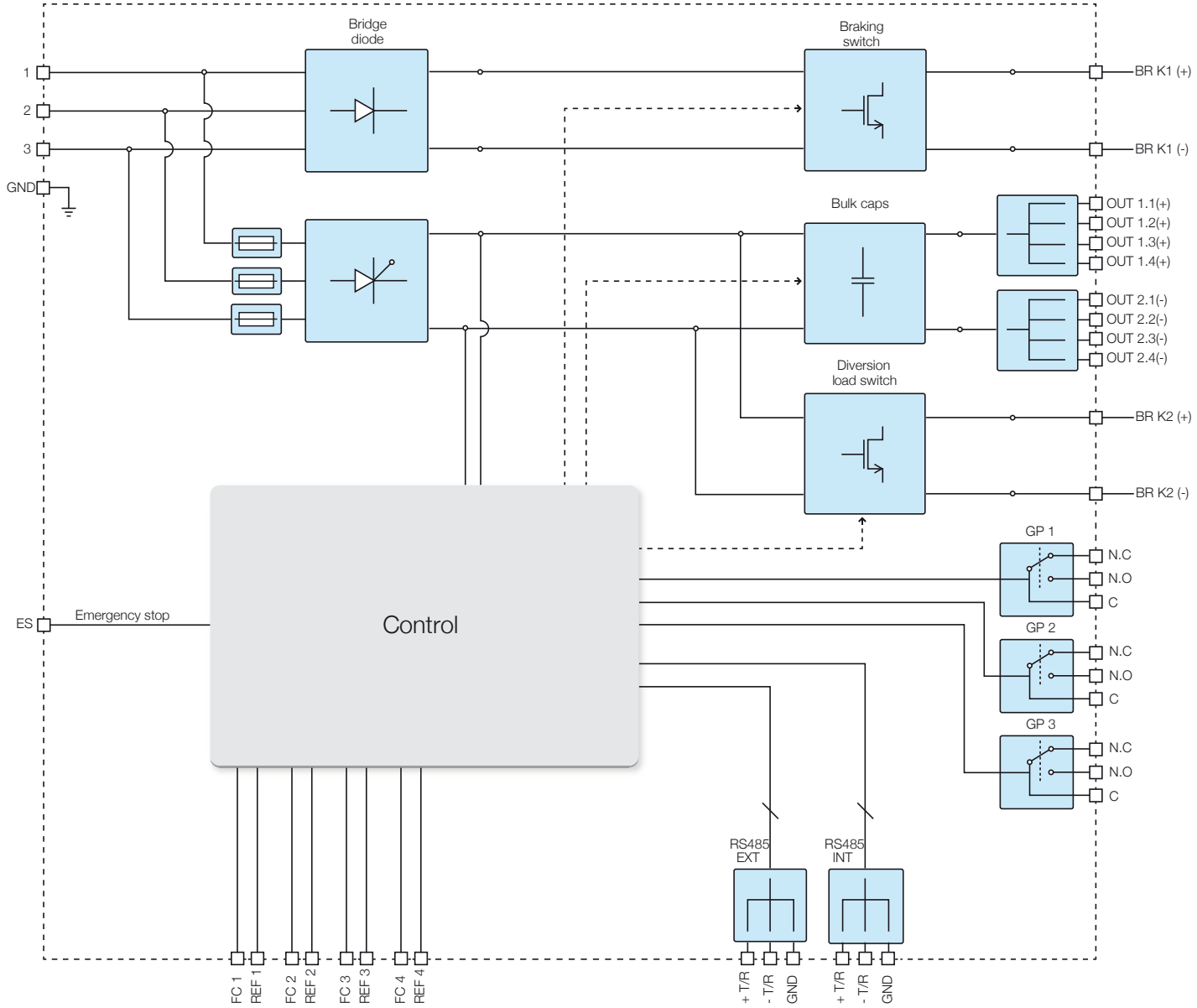
- Three-phase passive rectification
- Power curve owner
- Adjustable automatic diversion load activation threshold
- Unfused path to brake load resistor (opt.)
- Adjustable automatic brake load activation threshold

15/25kW-WIND-INTERFACE

Technical data and types

Type code	15kW-WIND-INTERFACE	25kW-WIND-INTERFACE
Input Side		
AC input voltage range (no damage) ($V_{acd,min}$...$V_{acd,max}$)	0...600 V	
Operating AC input voltage range (V_{acmin}...V_{acmax})	35...600 V	
Operating frequency range (f_{min}...f_{max})	0...600 Hz	
Maximum AC input current (I_{acmax})	55 A	85 A
Maximum current in main brake resistor ($I_{MBR,max}$)	30 A	50 A
Voltage range in main brake resistor (V_{MBRmin}...V_{MBRmax})	0...1000 V	
Maximum current in auxiliary brake (diversion load) resistor ($I_{ABR,max}$)	15 A	30 A
DC voltage range in auxiliary brake (diversion load) resistor (V_{ABRmin}...V_{ABRmax})	0...850 V	
Wiring termination	Screw terminal block	
Input protection devices		
Overvoltage protection type	Varistors, 4	
Input fuse size	3 x 100 A	
Output side		
Maximum output power (P_{dcmax})	15 kW	25 kW
Output voltage range ($V_{dc,min}$...$V_{dc,max}$)	50...850 V	
Maximum output current ($I_{dc,max}$)	50 A	80 A
Wiring termination	Screw terminal block	
Output protection devices		
Inverter overvoltage protection type	Yes via half controlled bridge	
Operating performance		
Peak efficiency (η_{peak})	99.6 %	
Stand-by consumption	< 14 W	
Communication		
Wired local monitoring	PVI-USB-RS232_485 (opt.)	
User-interface	16 characters x 2 line LCD display	

Block diagram of 15/25-kW-WIND-INTERFACE

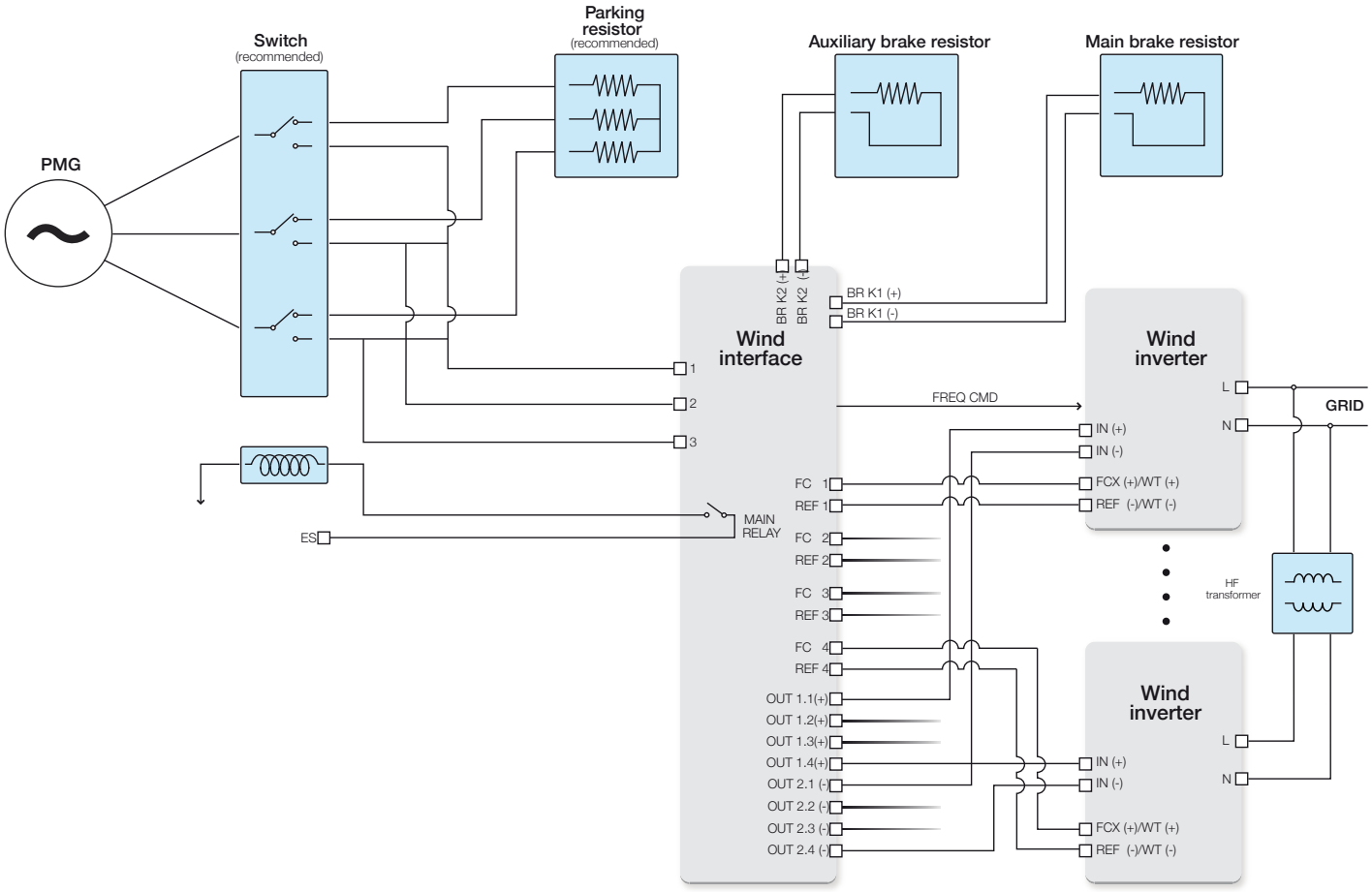


Technical data and types

Type code	15kW-WIND-INTERFACE	25kW-WIND-INTERFACE
Environmental		
Ambient air operating temperature range	-25...+50°C (-13...122°F)	
Relative humidity	0...100 % condensing	
Acoustic noise emission level	<50 db(A)@1m	
Maximum altitude without derating	2000 m (6560 ft)	
Physical		
Enclosure rating	IP 65	
Cooling	Natural	
Dimension (H x W x D)	650mm x 350mm x 265mm (25 in x 12.8 in x 9 in)	
Weight	22 kg (48.5 lb)	
Mounting system	Wall bracket	
Safety		
Safety approval	CE	
Safety and EMC standard	EN 50178, EN 61000-6-2, EN 61000-6-3	

Remark. Features not specifically listed in the present data sheet are not included in the product

Block diagram of 15/25-kW-WIND-INTERFACE



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Support and service

ABB supports its customers with a dedicated, global service organization in more than 60 countries and strong regional and national technical partner networks providing the complete range of life cycle services.

For more information please contact your local ABB representative or visit:

www.abb.com/converters-inverters

www.abb.com/windpower

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