

15 kW WIND INTERFACE 25 kW WIND INTERFACE

GENERAL SPECIFICATIONS

This new product added to Power-One's Aurora wind accessories offers more flexibility for small wind applications.

The 25 kW Wind Interface is designed to be a 'smart' rectifier which once programmed with the turbine's power curve it can control the output of single or multiple inverters allowing scalability for installation.

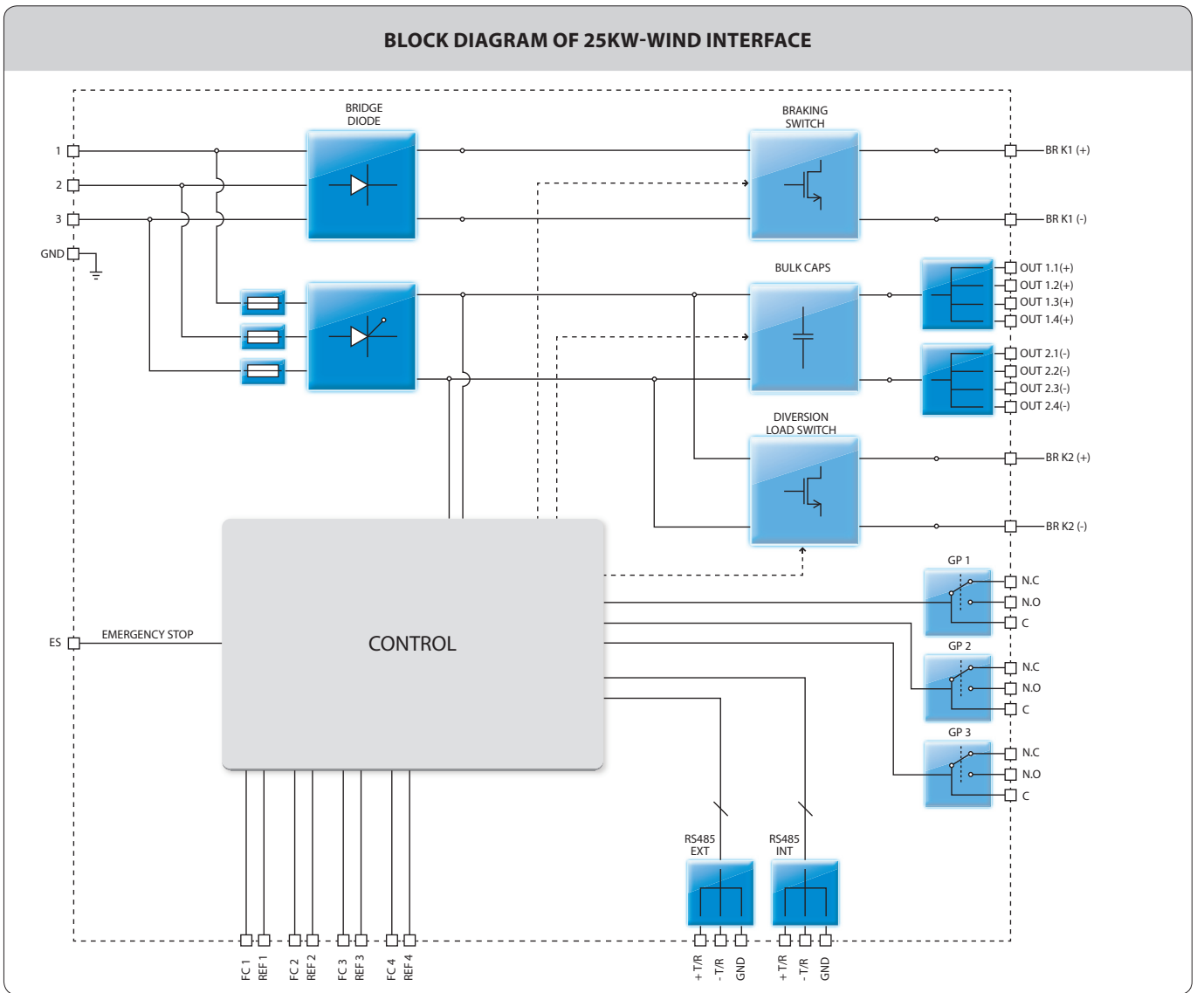
Additionally it provides over-voltage protection and drives both a diversion load and a dumpload braking system.



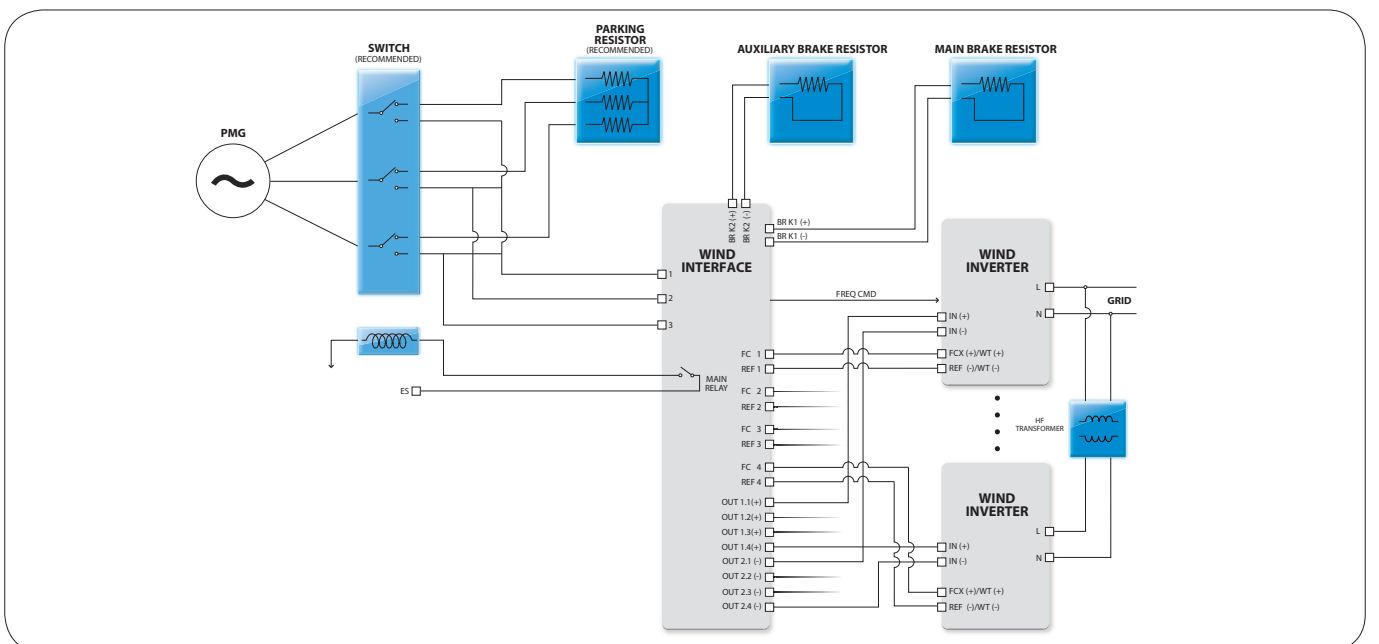
Features

- Conversion efficiency at rating: 99.6%
- Three-Phase input from PMG
- Unfused path to brake load
- Automatic diversion load function proportionally introduced on an external dedicated output
- Adjustable brake and diversion load intervention thresholds
- Fused wind input to inverter (EU version only)
- Automatic brake function above adjustable threshold
- Activation function of external brake resistor
- Power curve owner

BLOCK DIAGRAM OF 25KW-WIND INTERFACE



Block Diagram



PARAMETER	15kW-WIND-INTERFACE	25kW-WIND-INTERFACE	15kW-WIND-INTERFACE-US	25kW-WIND-INTERFACE-US
Input Side				
AC Input Voltage Range (No damage) ($V_{acd,min} \dots V_{acd,max}$)	0...600 V	0...600 V	0...400 V	0...400 V
Operating AC Input Voltage Range ($V_{acmin} \dots V_{acmax}$)	35...600 V	35...600 V	35...400 V	35...400 V
Operating Frequency Range ($f_{min} \dots f_{max}$)	0...600 Hz	0...600 Hz	0...600 Hz	0...600 Hz
Maximum AC Input Current (I_{acmax})	55 A	85 A	55 A	85 A
Maximum Current in Main Brake Resistor ($I_{MBR,max}$)	30 A	50 A	30 A	40 A
Voltage Range in Main Brake Resistor ($V_{MBRmin} \dots V_{MBRmax}$)	0...1000 V	0...1000 V	0...600 V	0...600 V
Maximum Current in Auxiliary Brake Resistor ($I_{ABR,max}$)	15 A	30 A	15 A	20 A
DC Voltage Range in Auxiliary Brake Resistor ($V_{ABRmin} \dots V_{ABRmax}$)	0...850 V	0...850 V	0...600 V	0...600 V
Type of Inputs Connection	Screw terminal block Cable Gland	Screw terminal block Cable Gland	Screw terminal block Cable Gland	Screw terminal block Cable Gland
Input protection				
Input Over Voltage Protection - Varistor	4	4	4	4
Input Fuse Size	3 x 100 A	3 x 100 A	-	-
Output Side				
Maximum Output Power (P_{dcmax})	15 kW	25 kW	15 kW	25 kW
Output Voltage Range ($V_{dc,min} \dots V_{dc,max}$)	50...850 V	50...850 V	50...600 V	50...600 V
Maximum Output Current ($I_{dc,max}$)	50 A	80 A	50 A	80 A
Type of Output Connection	Screw terminal block Cable Gland	Screw terminal block Cable Gland	Screw terminal block Cable Gland	Screw terminal block Cable Gland
Output Protection				
Output Over Voltage	Yes	Yes	Yes	Yes
Operating Performance				
Peak Efficiency (η_{peak})	99.6 %	99.6 %	99.6 %	99.6 %
Stand-by Consumption	< 14 W	< 14 W	< 14 W	< 14 W
Communication				
Local Monitoring System	RS 485	RS 485	RS 485	RS 485
Remote Control	-	-	-	-
User Interface	16 characters x 2 line LCD display	16 characters x 2 line LCD display	16 characters x 2 line LCD display	16 characters x 2 line LCD display
Environmental				
Ambient Temperature Range	-25...+50°C / -13...122°F	-25...+50°C / -13...122°F	-25...+50°C / -13...122°F	-25...+50°C / -13...122°F
Relative Humidity	0...98% non condensing	0...98% non condensing	0...98% non condensing	0...98% non condensing
Noise Emission	< 50 dB(A)	< 50 dB(A)	< 50 dB(A)	< 50 dB(A)
Maximum Operating Altitude without Derating	2000 m / 6560 ft	2000 m / 6560 ft	2000 m / 6560 ft	2000 m / 6560 ft
Physical				
Environmental Protection Rating	IP 65	IP 65	NEMA 4X	NEMA 4X
Cooling	Natural	Natural	Natural	Natural
Dimension (H x W x D)	650mm x 350mm x 265mm / 25" x 12.8" x 9"	650mm x 350mm x 265mm / 25" x 12.8" x 9"	650mm x 350mm x 265mm / 25" x 12.8" x 9"	650mm x 350mm x 265mm / 25" x 12.8" x 9"
Weight	22 kg / 48.5 lb	25 kg / 55.1 lb	22 kg / 48.5 lb	25 kg / 55.1 lb
Mounting System	Wall Bracket	Wall Bracket	Wall Bracket	Wall Bracket
Safety				
Marking	CE	CE	cCSAus	cCSAus
Safety and EMC standard	EN 50178, EN 61000-6-2, EN 61000-6-4	EN 50178, EN 61000-6-2, EN 61000-6-4	UL 1741, CSA - C22.2 N. 107.1-01	UL 1741, CSA - C22.2 N. 107.1-01

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



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