

# Wind Power Converter ZCS880 Series

690V132kw-6400kw grid-side LCL filter unit

690V132kw-6400kw grid-side converter

690V132kw-6400kw machine side converter



## Wind Power Converter ZCS880 Series Introduction

The ZCS880 series wind power converters are composed of three components: grid-side LCL filter units, grid-side converters, and generator-side converters. These components form the wind power converter system and have uniform dimensions, with the same width and depth. The grid-side and generator-side converters use the same hardware for the power units and achieve their respective functions through different software. Each power module ranges from 132 kW to 800 kW. By paralleling modules, the maximum power for a 380V system is 3600 kW and for a 690V system is 6400 kW.



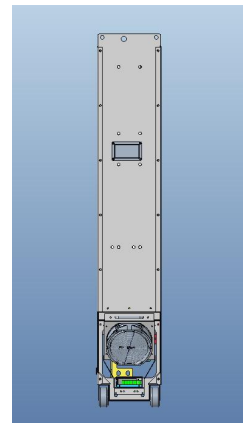
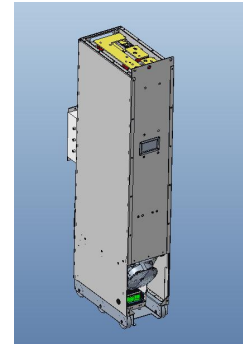
Electrical data	
Type of converter	Full-power converters for permanent magnet and asynchronous generators
Generator power range	0.8-6.4 MW
Cooling	Air-cooled
Control Principle	Open-loop/closed-loop vector
Gate rated voltage	525-690 V AC, three phase, $\pm 10\%$
Generator rated voltage	0-750 V AC
Nominal frequency	50 Hz / 60 Hz
Efficiency at rated power of the converter	$\geq 96.5\%$
Voltage variation rate on the generator side	1.0-1.4 kV/ $\mu$ s
Total harmonic current distortion rate of the grid harmonics	Max 4%
Bus interface	Modbus
Control tool connection	Standard computer connection

## INVOTRIC

### Introduction to Grid-Side LCL Filter Unit:

A single LCL filter unit (A8i dimensions: 240\*500\*1385mm) has a maximum current of 1320A and can be paralleled with multiple units.

Type	Nominal ratings			Frame Size
	$I_N$ Output Current (A)	$I_{max}$ Max Current (A)	$P_N$ Motor power (kW)	
Voltage level: three-phase AC525V-690V				
ZCS880-304-132KW-7	162	187	132	A8I
ZCS880-404-160KW-7	210	250	160	A8I
ZCS880-404-200KW-7	226	282	200	A8I
ZCS880-404-250KW-7	283	351	250	A8I
ZCS880-404-315KW-7	335	502.5	315	A8I
ZCS880-404-375KW-7	412	618	375	A8I
ZCS880-404-400KW-7	425	637.5	400	A8I
ZCS880-404-500KW-7	542	813	500	A8I
ZCS880-404-550KW-7	596	894	550	A8I
ZCS880-404-630KW-7	616	924	630	A8I
ZCS880-404-800KW-7	810	1215	800	A8I
ZCS880-404-800KW-7	930	1395	900	A8I
ZCS880-404-800KW-7	1000	1500	1000	A8I



## INVOTRIC

### Introduction to grid-side converters:

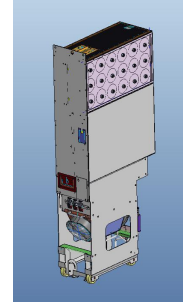
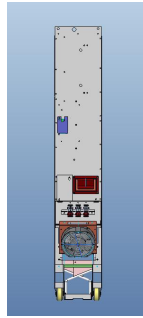
Single grid-side converter

( A8iDimensions:240\*500\*1385mm )

Maximum current 900A for 380v system.

Multiple parallel power up to 3600kw is possible.

690v system maximum current 800A, can be multiple parallel power up to 6400kw.



Type 产品型号	Nominal ratings			Frame Size
	$I_N$ Output Current (A)	$I_{max}$ Max Current (A)	$P_N$ Motor Power (kW)	
Voltage level: three-phase AC380V-415V				
ZCS880-204-250KW-3	450	590	250	A8I
ZCS880-204-315KW-3	470	620	315	A8I
ZCS880-204-355KW-3	620	815	355	A8I
ZCS880-204-375KW-3	640	840	375	A8I
ZCS880-204-400KW-3	760	1000	400	A8I
ZCS880-204-480KW-3	870	1140	480	A8I
ZCS880-204-500KW-3	900	1180	500	A8I
Voltage level: three-phase AC380V-500V				
ZCS880-204-0420A-5	420	550	250	A8I
ZCS880-204-0440A-5	440	575	215	A8I
ZCS880-204-0570A-5	570	740	375	A8I
ZCS880-204-0590A-5	590	770	400	A8I
ZCS880-204-0740A-5	740	970	500	A8I
ZCS880-204-0780A-5	780	1020	530	A8I
ZCS880-204-0810A-5	810	1060	550	A8I
Voltage level: three-phase AC525V-690V				
ZCS880-204-132KW-7	144	187	132	A8I
ZCS880-204-160KW-7	192	250	160	A8I
ZCS880-204-200KW-7	217	282	200	A8I
ZCS880-204-250KW-7	270	351	250	A8I
ZCS880-204-315KW-7	320	480	315	A8I
ZCS880-204-375KW-7	390	585	375	A8I
ZCS880-204-400KW-7	410	615	400	A8I
ZCS880-204-500KW-7	530	795	500	A8I
ZCS880-204-550KW-7	580	870	550	A8I
ZCS880-204-630KW-7	600	900	630	A8I
ZCS880-204-800KW-7	800	1200	800	A8I

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### Introduction to the machine-side converter:

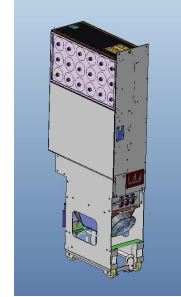
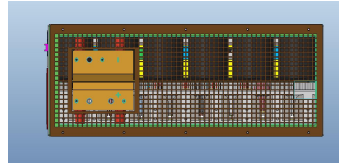
The machine-side converter can be adapted to various wind turbines using different applications. Single machine-side converter (A8i size: 240\*500\*1385mm)

Maximum current 900A for 380v system

Multiple paralleling power up to 3600KW

Maximum current 800A for 690v system

Multiple paralleling power up to 6400KW



Type	Nominal ratings			Frame Size
	$I_N$ Output Current (A)	$I_{max}$ Max Current (A)	$P_N$ Motor Power (kW)	
Voltage level: three-phase AC380V-415V				
ZCS880-104-250KW-3	450	590	250	A8I
ZCS880-104-315KW-3	470	620	315	A8I
ZCS880-104-355KW-3	620	815	355	A8I
ZCS880-104-375KW-3	640	840	375	A8I
ZCS880-104-400KW-3	760	1000	400	A8I
ZCS880-104-480KW-3	870	1140	480	A8I
ZCS880-104-500KW-3	900	1180	500	A8I
Voltage level: three-phase AC380V-500V				
ZCS880-104-0420A-5	420	550	250	A8I
ZCS880-104-0440A-5	440	575	215	A8I
ZCS880-104-0570A-5	570	740	375	A8I
ZCS880-104-0590A-5	590	770	400	A8I
ZCS880-104-0740A-5	740	970	500	A8I
ZCS880-104-0780A-5	780	1020	530	A8I
ZCS880-104-0810A-5	810	1060	550	A8I
Voltage level: three-phase AC525V-690V				
ZCS880-104-132KW-7	144	187	132	A8I
ZCS880-104-160KW-7	192	250	160	A8I
ZCS880-104-200KW-7	217	282	200	A8I
ZCS880-104-250KW-7	270	351	250	A8I
ZCS880-104-315KW-7	320	480	315	A8I
ZCS880-104-375KW-7	390	585	375	A8I
ZCS880-104-400KW-7	410	615	400	A8I
ZCS880-104-500KW-7	530	795	500	A8I

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ZCS880-104-550KW-7	580	870	550	A8I
ZCS880-104-630KW-7	600	900	630	A8I
ZCS880-104-800KW-7	800	1200	800	A8I