

# BEG500KTL-A

## Non-isolated Bi-directional Converter



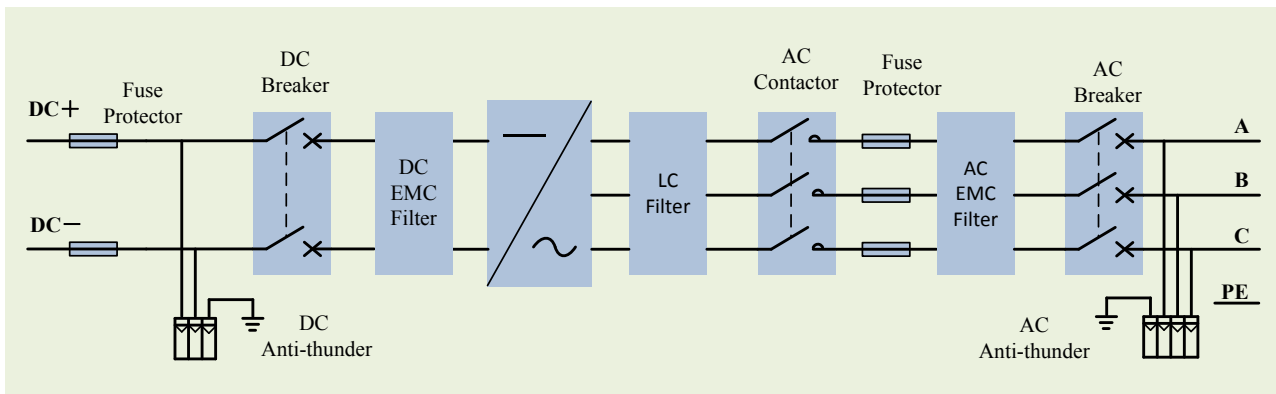
### Performance Features

- Wide DC voltage input range
- Output harmonic wave is small, max. efficiency is up to 98.5%
- Sustainable operation under the environment temperature of 40°C operate with the power of 110%
- Very short switch time of charging and discharging at full power
- IP 54 protection grade, installation both indoors and outdoors
- Adjustable reactive power, the output capability of reactive power is up to 500kVar
- Active power derating
- Thin-film capacitor design improve the system service life

### Brief Introduction

The conversion efficiency of BEG500KTL-A Non-isolated Bi-directional Converter is up to 98.5%, applicable to large-medium energy storage station system, having the functions of peak shaving, flexible acceptance of grid dispatch and modulation output, reactive power adjustment and etc, with high conversion efficiency, reliable operation and strong stability.

### System Topological Graph



### Technical Parameters

<b>Parameters at DC Side</b>	Max. DC Voltage	1000Vdc
	DC Voltage Range	450-820Vdc
	Nominal Power (Charging)	500kVA
	Nominal Power (Discharging)	520kVA

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## Non-isolated Bi-directional Converter

	Max. DC Current	1200A
<b>Parameters at AC Side</b>	Nominal AC Power (Discharging)	500kVA
	Nominal AC Power (Charging)	520kVA
	Nominal Output Current	1069A
	Reactive Output Capacity	500kVar
	Nominal Grid Voltage	270Vac
	Grid Voltage Range	230~297Vac
	Nominal Grid Frequency	50Hz
	Grid Frequency Range	48~50.5Hz
	Power Factor	-1~1 Adjustable
	THD	<3% (Nominal Power)
<b>System Parameter</b>	Isolation Method	Isolation without Transformer
	Max. Efficiency	98.5%
	Switch Time of Charging-discharging at Full Power	<100ms
	Enclosure Protection Grade	IP54 (Indoors or Outdoors)
	Allowable Environment Temperature	-25 ~+55℃
	Allowable Relative Humidity	5~95% (No Condensation)
	Allowable Max. Altitude	6000m (3000m+ Derating)
	Noise	<70dB
	Cooling Method	Intelligent Forced Air Cooling
	Fresh Air Consumption	10000m <sup>3</sup> /h
<b>Display</b>		Touch Screen
<b>Communication Interface</b>		RS485
<b>Protection Function</b>	Short-circuit Protection	√
	Over-load Protection	√
	DC Over-voltage and Under-voltage Protection	√
	Grid Monitoring	√
	Insulation Monitoring	√
	Over-temperature Protection	√
	DC Reverse Polarity Protection	√
	Islanding Protection	Active and Passive Detection
<b>Mechanical Parameter</b>	Dimension (W/L/D) (mm)	2200/800/2200
	Weight (kg)	1850
<b>Reference Standard</b>	EMC	EN 61000-6-2、EN 61000-6-4
	Safety	IEC 62109-1、UL 1741
	On-grid	GB/T 19939-2005