

BEG500K-A

Isolated Bi-directional Converter



Performance Features

- Wide DC voltage input range
- Output harmonic wave is small, max. efficiency is up to 97.5%
- 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
- 500kVar Adjustable reactive power, the output capability of reactive power is up to 500kVar

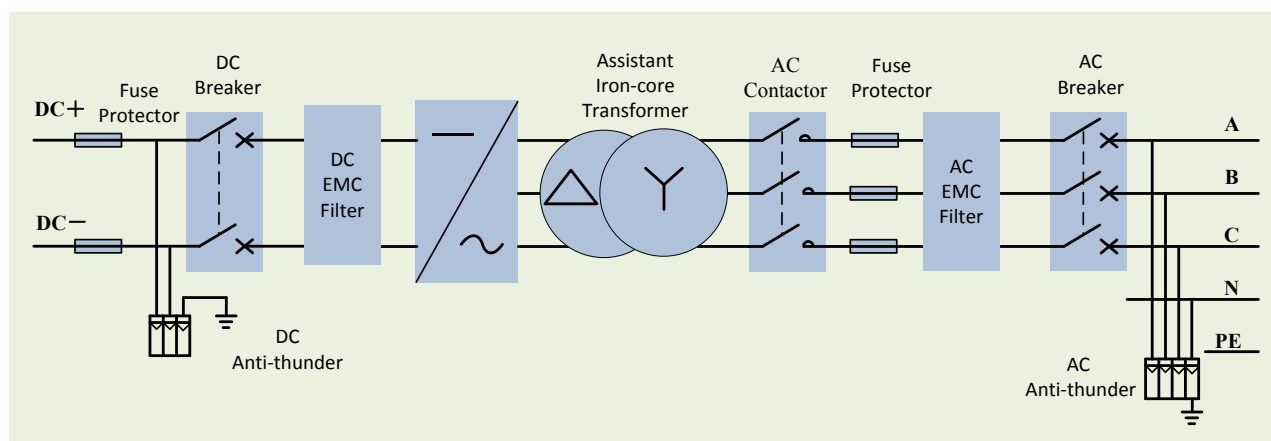
capability of reactive power is up to 500kVar

- Active power derating
- Thin-film capacitor design improve the system service life

Brief Introduction

The conversion efficiency of BEG500K-A Isolated Bi-directional Converter is up to 97.5%, 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

Parameters at DC Side	Max. DC Voltage	1000Vdc
	DC Voltage Range	450-820Vdc
	Nominal Power (Charging)	500kVA
	Nominal Power (Discharging)	520kVA
	Max. DC Current	1200A

BEG500K-A

Isolated Bi-directional Converter

Parameters at AC Side	Nominal AC Power (Discharging)	500kVA
	Nominal AC Power (Charging)	520kVA
	Nominal Output Current	760A
	Reactive Output Capacity	500kVar
	Nominal Grid Voltage	380Vac
	Grid Voltage Range	323~418Vac
	Nominal Grid Frequency	50Hz
	Grid Frequency Range	48~50.5Hz
	Power Factor	-1~1 Adjustable
	THD	<3% (Nominal Power)
System Parameter	Isolation Method	Industrial Frequency Transformer
	Max. Efficiency	97.5%
	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	10000m3/h
Display		Touch Screen
Communication Interface		RS485
Protection Function	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
Mechanical Parameter	Dimension (W/L/D) (mm)	3500/800/2200
	Weight (kg)	4000
Reference Standard	EMC	EN 61000-6-2、EN 61000-6-4
	Safety	IEC 62109-1、UL 1741
	On-grid	GB/T 19939-2005