

1.0 Reference and Address			
Report Number	170104052GZU-001	Original Issued: 5-Apr-2017	Revised: None
Standard(s)	UL SUBJECT 9540 Issued: 2014/06/30 Ed: 1 Outline Of Investigation Energy Storage Systems And Equipment UL 1741:2010 Ed.2 +R:07 Sep 2016 Inverters, Converters, Controllers And Interconnection System Equipment For Use With Distributed Energy Resources CSA C22.2#107.1:2016 Ed.4 Power Conversion Equipment		
Applicant	<u>Shenzhen Sinexcel Electric Co., Ltd</u>	Manufacturer	<u>Shenzhen Sinexcel Electric Co., Ltd</u>
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2.0 Product Description	
Product	BI-directional Storage Inverter
Brand name	Sinexcel
Description	<p>The unit under test is an non-isolated bi-directional Storage Inverter. It can invert the power from energy storing device such as batteries to grid, also can changing energy storing device from grid.</p> <p>There are three operation modes: grid-tied discharging, charging and off-grid discharging. When the battery voltage connected to BI-directional Storage Inverter is within the preset normal voltage range, the inverter can operate under grid-tied discharging, charging and off-grid discharging. If the inverter is in a discharging state, the DC power supply of the battery can be inverted into 3-phase AC power supply. If the inverter is in a charging state, the 3-phase AC power energy of the power grid can be stored into battery (pack).</p> <p>The installation should be in pollution II environment and accordance with the National Electrical Code, NFPA 70 and and the Canadian Electrical Code (CEC).</p>
Models	PWS2-30K-NA, PWS2-29K-NA
Model Similarity	Two models are all the same, include the structure , circuit diagram and hardware, except that the output power would be limited by software.

2.0 Product Description			
Ratings	Model	PWS2-30K-NA	PWS2-29K-NA
	Operating temp.	-20°C to+60°C (>45°C power derating)	
	Protective Class	Class I	
	Type of enclosure	Type 1	
	Charger Mode		
	AC input voltage	480Vac(423Vac- 528Vac)	
	AC input current	0-36A(36A max)	0-35A(35A max)
	AC input power	30KW(30KW max)	29KW(29KW max)
	AC frequency	60Hz(59.5Hz-60.5Hz)	
	Battery charge voltage	600Vdc(200Vdc-750Vdc)	
	Battery charge current	0-90A(90A max)	
	AC PF	0.8 leading - 0.8 lagging (Controllable)	
	Utility Interactive Mode		
	Battery discharge voltage	600Vdc(200Vdc-750Vdc)	
	Battery discharge current	0-90A(90A max)	
	AC output voltage	480Vac(423Vac- 528Vac)	
	AC output current	0-36A(36A max)	0-35A(35A max)
	AC output power	30KW(30KW max)	29KW(29KW max)
	AC frequency	60Hz(59.5Hz-60.5Hz)	
	AC output PF	0.8leading to 0.8lagging	
	Stand-alone Mode		
	Battery discharge voltage	600Vdc(200Vdc-750Vdc)	
	Battery discharge current	0-90A(90A max)	
	AC output voltage	480Vac	
	AC output current	0-36A(36A max)	0-35A(36A max)
	AC output power	30KW(30KW max)	29KW(29KW max)
	AC frequency	60Hz	
	AC output PF	0.8leading to 0.8lagging(Load Dependent)	
Software Version	V122		