

Certificate of Conformity

No. ESY 076777 0119 Rev. 00

Holder of Certificate: **Shenzhen Sinexcel Electric Co., Ltd.**

Building 6, BaiWangXin
High-tech Industrial Park, Nanshan District
518055 Shenzhen City
PEOPLE'S REPUBLIC OF CHINA

Product:

Converter
(Energy Storage Inverter)

Model(s):

PWS1-1725KTL-H-EX-8M1, PWS1-1725KTL-H-EX-8M1-O,
PWS1-1725KTL-H-EX-8M2, PWS1-1725KTL-H-EX-8M2-O,
PWS1-1725KTL-H-EX-8M4, PWS1-1725KTL-H-EX-8M4-O,
PWS1-1725KTL-H-EX-8M8, PWS1-1725KTL-H-EX-8M8-O,
PWS1-1725KTL-H-EX-7M1, PWS1-1725KTL-H-EX-7M1-O,
PWS1-1725KTL-H-EX-7M8, PWS1-1725KTL-H-EX-7M8-O,
PWS1-1725KTL-H-EX-6M1, PWS1-1725KTL-H-EX-6M1-O,
PWS1-1725KTL-H-EX-6M2, PWS1-1725KTL-H-EX-6M2-O,
PWS1-1725KTL-H-EX-6M4, PWS1-1725KTL-H-EX-6M4-O,
PWS1-1725KTL-H-EX-6M8, PWS1-1725KTL-H-EX-6M8-O,
PWS1-1725KTL-H-EX-5M1, PWS1-1725KTL-H-EX-5M1-O,
PWS1-1725KTL-H-EX-5M8, PWS1-1725KTL-H-EX-5M8-O,
PWS1-1725KTL-H-EX-4M1, PWS1-1725KTL-H-EX-4M1-O,
PWS1-1725KTL-H-EX-4M2, PWS1-1725KTL-H-EX-4M2-O,
PWS1-1725KTL-H-EX-4M4, PWS1-1725KTL-H-EX-4M4-O,
PWS1-1725KTL-H-EX-4M8, PWS1-1725KTL-H-EX-4M8-O,
PWS1-1725KTL-H-EX-3M1, PWS1-1725KTL-H-EX-3M1-O,
PWS1-1725KTL-H-EX-3M8, PWS1-1725KTL-H-EX-3M8-O,
PWS1-1725KTL-H-EX-2M1, PWS1-1725KTL-H-EX-2M1-O,
PWS1-1725KTL-H-EX-2M2, PWS1-1725KTL-H-EX-2M2-O,
PWS1-1725KTL-H-EX-2M4, PWS1-1725KTL-H-EX-2M4-O,
PWS1-1725KTL-H-EX-2M8, PWS1-1725KTL-H-EX-2M8-O,
PWS1-1725KTL-H-EX-1M1, PWS1-1725KTL-H-EX-1M1-O,
PWS1-1725KTL-H-EX-1M8, PWS1-1725KTL-H-EX-1M8-O

Parameters:

See page 2 to 25

**Applicable
standards:**

VDE-AR-N 4110:2023
VDE-AR-N 4120:2018
FGW TR3:2022
FGW TR4:2022
FGW TR8:2019

This Certificate of Conformity confirms the compliance with the above listed standards on a voluntary basis. It refers only to the sample submitted to TÜV SÜD Product Service GmbH and does not certify the quality or safety of the serial products. It was issued according to TÜV SÜD Product Service certification program Photovoltaics and Grid Integration. For details see: www.tuvsud.com/ps-cert

Test report no.:

64290233058302

Date,

2025-02-14



(Billy Qiu)

Certificate of Conformity

No. ESY 076777 0119 Rev. 00

Parameters:

General and Output values	
Manufacturer	Shenzhen Sinexcel Electric Co., Ltd.
Type name	PWS1-1725KTL-H-EX-8M1, PWS1-1725KTL-H-EX-8M1-O
No. of phases	3 phases
Rated apparent power	1725000 VA
Rated active power	1725000 W
Rated AC-voltage	690 V _{AC} , 3~PE
Rated frequency	50 Hz
Contribution to short circuit current (RMS)	1686.388 A _{AC}
Battery input/output	
Min. Battery voltage	1070 V _{DC}
Max. Battery voltage	1500 V _{DC}
Max. Battery current	1612 A _{DC}
Max. Charge/Discharge power	1725000 W
Number of branch	1
Converter-Power section	
Manufacturer	Shenzhen Sinexcel Electric Co., Ltd.
Type name	PWS1-1725KTL-H-EX-8M1, PWS1-1725KTL-H-EX-8M1-O
Rated apparent power	1725000 VA
Generic type	MV/LV or HV/LV transformer is not included in the inverter
Pulse rated of inverter	12 kHz
Generic type of power control	PQ control
Software version	DSP U1: V1.0 DSP U2: V1.0

Certificate of Conformity

No. ESY 076777 0119 Rev. 00

General and Output values	
Manufacturer	Shenzhen Sinexcel Electric Co., Ltd.
Type name	PWS1-1725KTL-H-EX-7M1, PWS1-1725KTL-H-EX-7M1-O
No. of phases	3 phases
Rated apparent power	1509000 VA
Rated active power	1509000 W
Rated AC-voltage	690 V _{AC} , 3~PE
Rated frequency	50 Hz
Contribution to short circuit current (RMS)	1475.590 A _{AC}
Battery input/output	
Min. Battery voltage	1070 V _{DC}
Max. Battery voltage	1500 V _{DC}
Max. Battery current	1411 A _{DC}
Max. Charge/Discharge power	1509000 W
Number of branch	1
Converter-Power section	
Manufacturer	Shenzhen Sinexcel Electric Co., Ltd.
Type name	PWS1-1725KTL-H-EX-7M1, PWS1-1725KTL-H-EX-7M1-O
Rated apparent power	1509000 VA
Generic type	MV/LV or HV/LV transformer is not included in the inverter
Pulse rated of inverter	12 kHz
Generic type of power control	PQ control
Software version	DSP U1: V1.0 DSP U2: V1.0

Certificate of Conformity

No. ESY 076777 0119 Rev. 00

General and Output values	
Manufacturer	Shenzhen Sinexcel Electric Co., Ltd.
Type name	PWS1-1725KTL-H-EX-6M1, PWS1-1725KTL-H-EX-6M1-O
No. of phases	3 phases
Rated apparent power	1293000 VA
Rated active power	1293000 W
Rated AC-voltage	690 V _{AC} , 3~PE
Rated frequency	50 Hz
Contribution to short circuit current (RMS)	1264.791 A _{AC}
Battery input/output	
Min. Battery voltage	1070 V _{DC}
Max. Battery voltage	1500 V _{DC}
Max. Battery current	1209 A _{DC}
Max. Charge/Discharge power	1293000 W
Number of branch	1
Converter-Power section	
Manufacturer	Shenzhen Sinexcel Electric Co., Ltd.
Type name	PWS1-1725KTL-H-EX-6M1, PWS1-1725KTL-H-EX-6M1-O
Rated apparent power	1293000 VA
Generic type	MV/LV or HV/LV transformer is not included in the inverter
Pulse rated of inverter	12 kHz
Generic type of power control	PQ control
Software version	DSP U1: V1.0 DSP U2: V1.0

Certificate of Conformity

No. ESY 076777 0119 Rev. 00

General and Output values	
Manufacturer	Shenzhen Sinexcel Electric Co., Ltd.
Type name	PWS1-1725KTL-H-EX-5M1, PWS1-1725KTL-H-EX-5M1-O
No. of phases	3 phases
Rated apparent power	1078000 VA
Rated active power	1078000 W
Rated AC-voltage	690 V _{AC} , 3~PE
Rated frequency	50 Hz
Contribution to short circuit current (RMS)	1053.993 A _{AC}
Battery input/output	
Min. Battery voltage	1070 V _{DC}
Max. Battery voltage	1500 V _{DC}
Max. Battery current	1008 A _{DC}
Max. Charge/Discharge power	1078000 W
Number of branch	1
Converter-Power section	
Manufacturer	Shenzhen Sinexcel Electric Co., Ltd.
Type name	PWS1-1725KTL-H-EX-5M1, PWS1-1725KTL-H-EX-5M1-O
Rated apparent power	1078000 VA
Generic type	MV/LV or HV/LV transformer is not included in the inverter
Pulse rated of inverter	12 kHz
Generic type of power control	PQ control
Software version	DSP U1: V1.0 DSP U2: V1.0

Certificate of Conformity

No. ESY 076777 0119 Rev. 00

General and Output values	
Manufacturer	Shenzhen Sinexcel Electric Co., Ltd.
Type name	PWS1-1725KTL-H-EX-4M1, PWS1-1725KTL-H-EX-4M1-O
No. of phases	3 phases
Rated apparent power	862000 VA
Rated active power	862000 W
Rated AC-voltage	690 V _{AC} , 3~PE
Rated frequency	50 Hz
Contribution to short circuit current (RMS)	843.194 A _{AC}
Battery input/output	
Min. Battery voltage	1070 V _{DC}
Max. Battery voltage	1500 V _{DC}
Max. Battery current	806 A _{DC}
Max. Charge/Discharge power	862000 W
Number of branch	1
Converter-Power section	
Manufacturer	Shenzhen Sinexcel Electric Co., Ltd.
Type name	PWS1-1725KTL-H-EX-4M1, PWS1-1725KTL-H-EX-4M1-O
Rated apparent power	862000 VA
Generic type	MV/LV or HV/LV transformer is not included in the inverter
Pulse rated of inverter	12 kHz
Generic type of power control	PQ control
Software version	DSP U1: V1.0 DSP U2: V1.0

Certificate of Conformity

No. ESY 076777 0119 Rev. 00

General and Output values	
Manufacturer	Shenzhen Sinexcel Electric Co., Ltd.
Type name	PWS1-1725KTL-H-EX-3M1, PWS1-1725KTL-H-EX-3M1-O
No. of phases	3 phases
Rated apparent power	646000 VA
Rated active power	646000 W
Rated AC-voltage	690 V _{AC} , 3~PE
Rated frequency	50 Hz
Contribution to short circuit current (RMS)	632.396 A _{AC}
Battery input/output	
Min. Battery voltage	1070 V _{DC}
Max. Battery voltage	1500 V _{DC}
Max. Battery current	605 A _{DC}
Max. Charge/Discharge power	646000 W
Number of branch	1
Converter-Power section	
Manufacturer	Shenzhen Sinexcel Electric Co., Ltd.
Type name	PWS1-1725KTL-H-EX-3M1, PWS1-1725KTL-H-EX-3M1-O
Rated apparent power	646000 VA
Generic type	MV/LV or HV/LV transformer is not included in the inverter
Pulse rated of inverter	12 kHz
Generic type of power control	PQ control
Software version	DSP U1: V1.0 DSP U2: V1.0

Certificate of Conformity

No. ESY 076777 0119 Rev. 00

General and Output values	
Manufacturer	Shenzhen Sinexcel Electric Co., Ltd.
Type name	PWS1-1725KTL-H-EX-2M1, PWS1-1725KTL-H-EX-2M1-O
No. of phases	3 phases
Rated apparent power	431000 VA
Rated active power	431000 W
Rated AC-voltage	690 V _{AC} , 3~PE
Rated frequency	50 Hz
Contribution to short circuit current (RMS)	421.597 A _{AC}
Battery input/output	
Min. Battery voltage	1070 V _{DC}
Max. Battery voltage	1500 V _{DC}
Max. Battery current	403 A _{DC}
Max. Charge/Discharge power	431000 W
Number of branch	1
Converter-Power section	
Manufacturer	Shenzhen Sinexcel Electric Co., Ltd.
Type name	PWS1-1725KTL-H-EX-2M1, PWS1-1725KTL-H-EX-2M1-O
Rated apparent power	431000 VA
Generic type	MV/LV or HV/LV transformer is not included in the inverter
Pulse rated of inverter	12 kHz
Generic type of power control	PQ control
Software version	DSP U1: V1.0 DSP U2: V1.0

Certificate of Conformity

No. ESY 076777 0119 Rev. 00

General and Output values	
Manufacturer	Shenzhen Sinexcel Electric Co., Ltd.
Type name	PWS1-1725KTL-H-EX-1M1, PWS1-1725KTL-H-EX-1M1-O
No. of phases	3 phases
Rated apparent power	215000 VA
Rated active power	215000 W
Rated AC-voltage	690 V _{AC} , 3~PE
Rated frequency	50 Hz
Contribution to short circuit current (RMS)	210.799 A _{AC}
Battery input/output	
Min. Battery voltage	1070 V _{DC}
Max. Battery voltage	1500 V _{DC}
Max. Battery current	201 A _{DC}
Max. Charge/Discharge power	215000 W
Number of branch	1
Converter-Power section	
Manufacturer	Shenzhen Sinexcel Electric Co., Ltd.
Type name	PWS1-1725KTL-H-EX-1M1, PWS1-1725KTL-H-EX-1M1-O
Rated apparent power	215000 VA
Generic type	MV/LV or HV/LV transformer is not included in the inverter
Pulse rated of inverter	12 kHz
Generic type of power control	PQ control
Software version	DSP U1: V1.0 DSP U2: V1.0

Certificate of Conformity

No. ESY 076777 0119 Rev. 00

General and Output values	
Manufacturer	Shenzhen Sinexcel Electric Co., Ltd.
Type name	PWS1-1725KTL-H-EX-8M8, PWS1-1725KTL-H-EX-8M8-O
No. of phases	3 phases
Rated apparent power	1725000 VA
Rated active power	1725000 W
Rated AC-voltage	690 V _{AC} , 3~PE
Rated frequency	50 Hz
Contribution to short circuit current (RMS)	1686.388 A _{AC}
Battery input/output	
Min. Battery voltage	1070 V _{DC}
Max. Battery voltage	1500 V _{DC}
Max. Battery current	1612 A _{DC}
Max. Charge/Discharge power	1725000 W
Number of branch	8
Converter-Power section	
Manufacturer	Shenzhen Sinexcel Electric Co., Ltd.
Type name	PWS1-1725KTL-H-EX-8M8, PWS1-1725KTL-H-EX-8M8-O
Rated apparent power	1725000 VA
Generic type	MV/LV or HV/LV transformer is not included in the inverter
Pulse rated of inverter	12 kHz
Generic type of power control	PQ control
Software version	DSP U1: V1.0 DSP U2: V1.0

Certificate of Conformity

No. ESY 076777 0119 Rev. 00

General and Output values	
Manufacturer	Shenzhen Sinexcel Electric Co., Ltd.
Type name	PWS1-1725KTL-H-EX-7M8, PWS1-1725KTL-H-EX-7M8-O
No. of phases	3 phases
Rated apparent power	1509000 VA
Rated active power	1509000 W
Rated AC-voltage	690 V _{AC} , 3~PE
Rated frequency	50 Hz
Contribution to short circuit current (RMS)	1475.590 A _{AC}
Battery input/output	
Min. Battery voltage	1070 V _{DC}
Max. Battery voltage	1500 V _{DC}
Max. Battery current	1411 A _{DC}
Max. Charge/Discharge power	1509000 W
Number of branch	8
Converter-Power section	
Manufacturer	Shenzhen Sinexcel Electric Co., Ltd.
Type name	PWS1-1725KTL-H-EX-7M8, PWS1-1725KTL-H-EX-7M8-O
Rated apparent power	1509000 VA
Generic type	MV/LV or HV/LV transformer is not included in the inverter
Pulse rated of inverter	12 kHz
Generic type of power control	PQ control
Software version	DSP U1: V1.0 DSP U2: V1.0

Certificate of Conformity

No. ESY 076777 0119 Rev. 00

General and Output values	
Manufacturer	Shenzhen Sinexcel Electric Co., Ltd.
Type name	PWS1-1725KTL-H-EX-6M8, PWS1-1725KTL-H-EX-6M8-O
No. of phases	3 phases
Rated apparent power	1293000 VA
Rated active power	1293000 W
Rated AC-voltage	690 V _{AC} , 3~PE
Rated frequency	50 Hz
Contribution to short circuit current (RMS)	1264.791 A _{AC}
Battery input/output	
Min. Battery voltage	1070 V _{DC}
Max. Battery voltage	1500 V _{DC}
Max. Battery current	1209 A _{DC}
Max. Charge/Discharge power	1293000 W
Number of branch	8
Converter-Power section	
Manufacturer	Shenzhen Sinexcel Electric Co., Ltd.
Type name	PWS1-1725KTL-H-EX-6M8, PWS1-1725KTL-H-EX-6M8-O
Rated apparent power	1293000 VA
Generic type	MV/LV or HV/LV transformer is not included in the inverter
Pulse rated of inverter	12 kHz
Generic type of power control	PQ control
Software version	DSP U1: V1.0 DSP U2: V1.0

Certificate of Conformity

No. ESY 076777 0119 Rev. 00

General and Output values	
Manufacturer	Shenzhen Sinexcel Electric Co., Ltd.
Type name	PWS1-1725KTL-H-EX-5M8, PWS1-1725KTL-H-EX-5M8-O
No. of phases	3 phases
Rated apparent power	1078000 VA
Rated active power	1078000 W
Rated AC-voltage	690 V _{AC} , 3~PE
Rated frequency	50 Hz
Contribution to short circuit current (RMS)	1053.993 A _{AC}
Battery input/output	
Min. Battery voltage	1070 V _{DC}
Max. Battery voltage	1500 V _{DC}
Max. Battery current	1008 A _{DC}
Max. Charge/Discharge power	1078000 W
Number of branch	8
Converter-Power section	
Manufacturer	Shenzhen Sinexcel Electric Co., Ltd.
Type name	PWS1-1725KTL-H-EX-5M8, PWS1-1725KTL-H-EX-5M8-O
Rated apparent power	1078000 VA
Generic type	MV/LV or HV/LV transformer is not included in the inverter
Pulse rated of inverter	12 kHz
Generic type of power control	PQ control
Software version	DSP U1: V1.0 DSP U2: V1.0

Certificate of Conformity

No. ESY 076777 0119 Rev. 00

General and Output values	
Manufacturer	Shenzhen Sinexcel Electric Co., Ltd.
Type name	PWS1-1725KTL-H-EX-4M8, PWS1-1725KTL-H-EX-4M8-O
No. of phases	3 phases
Rated apparent power	862000 VA
Rated active power	862000 W
Rated AC-voltage	690 V _{AC} , 3~PE
Rated frequency	50 Hz
Contribution to short circuit current (RMS)	843.194 A _{AC}
Battery input/output	
Min. Battery voltage	1070 V _{DC}
Max. Battery voltage	1500 V _{DC}
Max. Battery current	806 A _{DC}
Max. Charge/Discharge power	862000 W
Number of branch	8
Converter-Power section	
Manufacturer	Shenzhen Sinexcel Electric Co., Ltd.
Type name	PWS1-1725KTL-H-EX-4M8, PWS1-1725KTL-H-EX-4M8-O
Rated apparent power	862000 VA
Generic type	MV/LV or HV/LV transformer is not included in the inverter
Pulse rated of inverter	12 kHz
Generic type of power control	PQ control
Software version	DSP U1: V1.0 DSP U2: V1.0

Certificate of Conformity

No. ESY 076777 0119 Rev. 00

General and Output values	
Manufacturer	Shenzhen Sinexcel Electric Co., Ltd.
Type name	PWS1-1725KTL-H-EX-3M8, PWS1-1725KTL-H-EX-3M8-O
No. of phases	3 phases
Rated apparent power	646000 VA
Rated active power	646000 W
Rated AC-voltage	690 V _{AC} , 3~PE
Rated frequency	50 Hz
Contribution to short circuit current (RMS)	632.396 A _{AC}
Battery input/output	
Min. Battery voltage	1070 V _{DC}
Max. Battery voltage	1500 V _{DC}
Max. Battery current	605 A _{DC}
Max. Charge/Discharge power	646000 W
Number of branch	8
Converter-Power section	
Manufacturer	Shenzhen Sinexcel Electric Co., Ltd.
Type name	PWS1-1725KTL-H-EX-3M8, PWS1-1725KTL-H-EX-3M8-O
Rated apparent power	646000 VA
Generic type	MV/LV or HV/LV transformer is not included in the inverter
Pulse rated of inverter	12 kHz
Generic type of power control	PQ control
Software version	DSP U1: V1.0 DSP U2: V1.0

Certificate of Conformity

No. ESY 076777 0119 Rev. 00

General and Output values	
Manufacturer	Shenzhen Sinexcel Electric Co., Ltd.
Type name	PWS1-1725KTL-H-EX-2M8, PWS1-1725KTL-H-EX-2M8-O
No. of phases	3 phases
Rated apparent power	431000 VA
Rated active power	431000 W
Rated AC-voltage	690 V _{AC} , 3~PE
Rated frequency	50 Hz
Contribution to short circuit current (RMS)	421.597 A _{AC}
Battery input/output	
Min. Battery voltage	1070 V _{DC}
Max. Battery voltage	1500 V _{DC}
Max. Battery current	403 A _{DC}
Max. Charge/Discharge power	431000 W
Number of branch	8
Converter-Power section	
Manufacturer	Shenzhen Sinexcel Electric Co., Ltd.
Type name	PWS1-1725KTL-H-EX-2M8, PWS1-1725KTL-H-EX-2M8-O
Rated apparent power	431000 VA
Generic type	MV/LV or HV/LV transformer is not included in the inverter
Pulse rated of inverter	12 kHz
Generic type of power control	PQ control
Software version	DSP U1: V1.0 DSP U2: V1.0

Certificate of Conformity

No. ESY 076777 0119 Rev. 00

General and Output values	
Manufacturer	Shenzhen Sinexcel Electric Co., Ltd.
Type name	PWS1-1725KTL-H-EX-1M8, PWS1-1725KTL-H-EX-1M8-O
No. of phases	3 phases
Rated apparent power	215000 VA
Rated active power	215000 W
Rated AC-voltage	690 V _{AC} , 3~PE
Rated frequency	50 Hz
Contribution to short circuit current (RMS)	210.799 A _{AC}
Battery input/output	
Min. Battery voltage	1070 V _{DC}
Max. Battery voltage	1500 V _{DC}
Max. Battery current	201 A _{DC}
Max. Charge/Discharge power	215000 W
Number of branch	8
Converter-Power section	
Manufacturer	Shenzhen Sinexcel Electric Co., Ltd.
Type name	PWS1-1725KTL-H-EX-1M8, PWS1-1725KTL-H-EX-1M8-O
Rated apparent power	215000 VA
Generic type	MV/LV or HV/LV transformer is not included in the inverter
Pulse rated of inverter	12 kHz
Generic type of power control	PQ control
Software version	DSP U1: V1.0 DSP U2: V1.0

Certificate of Conformity

No. ESY 076777 0119 Rev. 00

General and Output values	
Manufacturer	Shenzhen Sinexcel Electric Co., Ltd.
Type name	PWS1-1725KTL-H-EX-8M2, PWS1-1725KTL-H-EX-8M2-O
No. of phases	3 phases
Rated apparent power	1725000 VA
Rated active power	1725000 W
Rated AC-voltage	690 V _{AC} , 3~PE
Rated frequency	50 Hz
Contribution to short circuit current (RMS)	1686.388 A _{AC}
Battery input/output	
Min. Battery voltage	1070 V _{DC}
Max. Battery voltage	1500 V _{DC}
Max. Battery current	1612 A _{DC}
Max. Charge/Discharge power	1725000 W
Number of branch	2
Converter-Power section	
Manufacturer	Shenzhen Sinexcel Electric Co., Ltd.
Type name	PWS1-1725KTL-H-EX-8M2, PWS1-1725KTL-H-EX-8M2-O
Rated apparent power	1725000 VA
Generic type	MV/LV or HV/LV transformer is not included in the inverter
Pulse rated of inverter	12 kHz
Generic type of power control	PQ control
Software version	DSP U1: V1.0 DSP U2: V1.0

Certificate of Conformity

No. ESY 076777 0119 Rev. 00

General and Output values	
Manufacturer	Shenzhen Sinexcel Electric Co., Ltd.
Type name	PWS1-1725KTL-H-EX-6M2, PWS1-1725KTL-H-EX-6M2-O
No. of phases	3 phases
Rated apparent power	1293000 VA
Rated active power	1293000 W
Rated AC-voltage	690 V _{AC} , 3~PE
Rated frequency	50 Hz
Contribution to short circuit current (RMS)	1264.791 A _{AC}
Battery input/output	
Min. Battery voltage	1070 V _{DC}
Max. Battery voltage	1500 V _{DC}
Max. Battery current	1209 A _{DC}
Max. Charge/Discharge power	1293000 W
Number of branch	2
Converter-Power section	
Manufacturer	Shenzhen Sinexcel Electric Co., Ltd.
Type name	PWS1-1725KTL-H-EX-6M2, PWS1-1725KTL-H-EX-6M2-O
Rated apparent power	1293000 VA
Generic type	MV/LV or HV/LV transformer is not included in the inverter
Pulse rated of inverter	12 kHz
Generic type of power control	PQ control
Software version	DSP U1: V1.0 DSP U2: V1.0

Certificate of Conformity

No. ESY 076777 0119 Rev. 00

General and Output values	
Manufacturer	Shenzhen Sinexcel Electric Co., Ltd.
Type name	PWS1-1725KTL-H-EX-4M2, PWS1-1725KTL-H-EX-4M2-O
No. of phases	3 phases
Rated apparent power	862000 VA
Rated active power	862000 W
Rated AC-voltage	690 V _{AC} , 3~PE
Rated frequency	50 Hz
Contribution to short circuit current (RMS)	843.194 A _{AC}
Battery input/output	
Min. Battery voltage	1070 V _{DC}
Max. Battery voltage	1500 V _{DC}
Max. Battery current	806 A _{DC}
Max. Charge/Discharge power	862000 W
Number of branch	2
Converter-Power section	
Manufacturer	Shenzhen Sinexcel Electric Co., Ltd.
Type name	PWS1-1725KTL-H-EX-4M2, PWS1-1725KTL-H-EX-4M2-O
Rated apparent power	862000 VA
Generic type	MV/LV or HV/LV transformer is not included in the inverter
Pulse rated of inverter	12 kHz
Generic type of power control	PQ control
Software version	DSP U1: V1.0 DSP U2: V1.0

Certificate of Conformity

No. ESY 076777 0119 Rev. 00

General and Output values	
Manufacturer	Shenzhen Sinexcel Electric Co., Ltd.
Type name	PWS1-1725KTL-H-EX-2M2, PWS1-1725KTL-H-EX-2M2-O
No. of phases	3 phases
Rated apparent power	431000 VA
Rated active power	431000 W
Rated AC-voltage	690 V _{AC} , 3~PE
Rated frequency	50 Hz
Contribution to short circuit current (RMS)	421.597 A _{AC}
Battery input/output	
Min. Battery voltage	1070 V _{DC}
Max. Battery voltage	1500 V _{DC}
Max. Battery current	403 A _{DC}
Max. Charge/Discharge power	431000 W
Number of branch	2
Converter-Power section	
Manufacturer	Shenzhen Sinexcel Electric Co., Ltd.
Type name	PWS1-1725KTL-H-EX-2M2, PWS1-1725KTL-H-EX-2M2-O
Rated apparent power	431000 VA
Generic type	MV/LV or HV/LV transformer is not included in the inverter
Pulse rated of inverter	12 kHz
Generic type of power control	PQ control
Software version	DSP U1: V1.0 DSP U2: V1.0

Certificate of Conformity

No. ESY 076777 0119 Rev. 00

General and Output values	
Manufacturer	Shenzhen Sinexcel Electric Co., Ltd.
Type name	PWS1-1725KTL-H-EX-8M4, PWS1-1725KTL-H-EX-8M4-O
No. of phases	3 phases
Rated apparent power	1725000 VA
Rated active power	1725000 W
Rated AC-voltage	690 V _{AC} , 3~PE
Rated frequency	50 Hz
Contribution to short circuit current (RMS)	1686.388 A _{AC}
Battery input/output	
Min. Battery voltage	1070 V _{DC}
Max. Battery voltage	1500 V _{DC}
Max. Battery current	1612 A _{DC}
Max. Charge/Discharge power	1725000 W
Number of branch	4
Converter-Power section	
Manufacturer	Shenzhen Sinexcel Electric Co., Ltd.
Type name	PWS1-1725KTL-H-EX-8M4, PWS1-1725KTL-H-EX-8M4-O
Rated apparent power	1725000 VA
Generic type	MV/LV or HV/LV transformer is not included in the inverter
Pulse rated of inverter	12 kHz
Generic type of power control	PQ control
Software version	DSP U1: V1.0 DSP U2: V1.0

Certificate of Conformity

No. ESY 076777 0119 Rev. 00

General and Output values	
Manufacturer	Shenzhen Sinexcel Electric Co., Ltd.
Type name	PWS1-1725KTL-H-EX-6M4, PWS1-1725KTL-H-EX-6M4-O
No. of phases	3 phases
Rated apparent power	1293000 VA
Rated active power	1293000 W
Rated AC-voltage	690 V _{AC} , 3~PE
Rated frequency	50 Hz
Contribution to short circuit current (RMS)	1264.791 A _{AC}
Battery input/output	
Min. Battery voltage	1070 V _{DC}
Max. Battery voltage	1500 V _{DC}
Max. Battery current	1209 A _{DC}
Max. Charge/Discharge power	1293000 W
Number of branch	4
Converter-Power section	
Manufacturer	Shenzhen Sinexcel Electric Co., Ltd.
Type name	PWS1-1725KTL-H-EX-6M4, PWS1-1725KTL-H-EX-6M4-O
Rated apparent power	1293000 VA
Generic type	MV/LV or HV/LV transformer is not included in the inverter
Pulse rated of inverter	12 kHz
Generic type of power control	PQ control
Software version	DSP U1: V1.0 DSP U2: V1.0

Certificate of Conformity

No. ESY 076777 0119 Rev. 00

General and Output values	
Manufacturer	Shenzhen Sinexcel Electric Co., Ltd.
Type name	PWS1-1725KTL-H-EX-4M4, PWS1-1725KTL-H-EX-4M4-O
No. of phases	3 phases
Rated apparent power	862000 VA
Rated active power	862000 W
Rated AC-voltage	690 V _{AC} , 3~PE
Rated frequency	50 Hz
Contribution to short circuit current (RMS)	843.194 A _{AC}
Battery input/output	
Min. Battery voltage	1070 V _{DC}
Max. Battery voltage	1500 V _{DC}
Max. Battery current	806 A _{DC}
Max. Charge/Discharge power	862000 W
Number of branch	4
Converter-Power section	
Manufacturer	Shenzhen Sinexcel Electric Co., Ltd.
Type name	PWS1-1725KTL-H-EX-4M4, PWS1-1725KTL-H-EX-4M4-O
Rated apparent power	862000 VA
Generic type	MV/LV or HV/LV transformer is not included in the inverter
Pulse rated of inverter	12 kHz
Generic type of power control	PQ control
Software version	DSP U1: V1.0 DSP U2: V1.0

Certificate of Conformity

No. ESY 076777 0119 Rev. 00

General and Output values	
Manufacturer	Shenzhen Sinexcel Electric Co., Ltd.
Type name	PWS1-1725KTL-H-EX-2M4, PWS1-1725KTL-H-EX-2M4-O
No. of phases	3 phases
Rated apparent power	431000 VA
Rated active power	431000 W
Rated AC-voltage	690 V _{AC} , 3~PE
Rated frequency	50 Hz
Contribution to short circuit current (RMS)	421.597 A _{AC}
Battery input/output	
Min. Battery voltage	1070 V _{DC}
Max. Battery voltage	1500 V _{DC}
Max. Battery current	403 A _{DC}
Max. Charge/Discharge power	431000 W
Number of branch	4
Converter-Power section	
Manufacturer	Shenzhen Sinexcel Electric Co., Ltd.
Type name	PWS1-1725KTL-H-EX-2M4, PWS1-1725KTL-H-EX-2M4-O
Rated apparent power	431000 VA
Generic type	MV/LV or HV/LV transformer is not included in the inverter
Pulse rated of inverter	12 kHz
Generic type of power control	PQ control
Software version	DSP U1: V1.0 DSP U2: V1.0

Certificate of Conformity

No. ESY 076777 0119 Rev. 00

Unit Certificate			
Manufacturer	Shenzhen Sinexcel Electric Co., Ltd.		
Power generation unit type	Energy Storage Inverter, type 2		
Technical data	Rated active power:	PWS1-1725KTL-H-EX-8M1, PWS1-1725KTL-H-EX-8M1-O, PWS1-1725KTL-H-EX-8M2, PWS1-1725KTL-H-EX-8M2-O, PWS1-1725KTL-H-EX-8M4, PWS1-1725KTL-H-EX-8M4-O, PWS1-1725KTL-H-EX-8M8, PWS1-1725KTL-H-EX-8M8-O,	1725 kW
		PWS1-1725KTL-H-EX-7M1, PWS1-1725KTL-H-EX-7M1-O, PWS1-1725KTL-H-EX-7M8, PWS1-1725KTL-H-EX-7M8-O	1509 kW
		PWS1-1725KTL-H-EX-6M1, PWS1-1725KTL-H-EX-6M1-O, PWS1-1725KTL-H-EX-6M2, PWS1-1725KTL-H-EX-6M2-O, PWS1-1725KTL-H-EX-6M4, PWS1-1725KTL-H-EX-6M4-O, PWS1-1725KTL-H-EX-6M8, PWS1-1725KTL-H-EX-6M8-O,	1293 kW
		PWS1-1725KTL-H-EX-5M1, PWS1-1725KTL-H-EX-5M1-O, PWS1-1725KTL-H-EX-5M8, PWS1-1725KTL-H-EX-5M8-O	1078 kW
		PWS1-1725KTL-H-EX-4M1, PWS1-1725KTL-H-EX-4M1-O, PWS1-1725KTL-H-EX-4M2, PWS1-1725KTL-H-EX-4M2-O, PWS1-1725KTL-H-EX-4M4, PWS1-1725KTL-H-EX-4M4-O, PWS1-1725KTL-H-EX-4M8, PWS1-1725KTL-H-EX-4M8-O,	862 kW
		PWS1-1725KTL-H-EX-3M1, PWS1-1725KTL-H-EX-3M1-O, PWS1-1725KTL-H-EX-3M8, PWS1-1725KTL-H-EX-3M8-O	646 kW
		PWS1-1725KTL-H-EX-2M1, PWS1-1725KTL-H-EX-2M1-O, PWS1-1725KTL-H-EX-2M2, PWS1-1725KTL-H-EX-2M2-O, PWS1-1725KTL-H-EX-2M4, PWS1-1725KTL-H-EX-2M4-O, PWS1-1725KTL-H-EX-2M8, PWS1-1725KTL-H-EX-2M8-O,	431 kW
		PWS1-1725KTL-H-EX-1M1, PWS1-1725KTL-H-EX-1M1-O, PWS1-1725KTL-H-EX-1M8,	215 kW

Certificate of Conformity

No. ESY 076777 0119 Rev. 00

		PWS1-1725KTL-H-EX-1M8-O	
	Rated voltage:	690 V _{AC} , 3~PE	
	Nominal frequency:	50 Hz	
Network connection rule	VDE-AR-N 4110:2023-09 “TCR Medium-voltage” Technical requirements for the connection and operation of customer installations to the medium voltage network VDE-AR-N 4120:2018-11 “TCR High-voltage” Technical requirements for the connection and operation of customer installations to the high voltage network		
Certification program	FGW Technical guideline No 8 (Revision 9)		
Standards/guidelines which are also applicable	FGW Technical guideline No 3 (Revision 26) FGW Technical guideline No 4 (Revision 10)		

The power generating unit designated above meets the requirements of the VDE application guide listed above.

The following restriction(s) and deviation(s) apply:

The computer simulation model is validated with the built environment DigSilent Powerfactory 2022 SP9 (x64) and with the identity number:

1) For the model PWS1-1725KTL-H-EX-8M1, PWS1-1725KTL-H-EX-8M1-O, PWS1-1725KTL-H-EX-8M2, PWS1-1725KTL-H-EX-8M2-O, PWS1-1725KTL-H-EX-8M4, PWS1-1725KTL-H-EX-8M4-O, PWS1-1725KTL-H-EX-8M8, PWS1-1725KTL-H-EX-8M8-O:

MD5 code: CC83FA1BC561B14F8F6647DD8DF6D1D2

2) For the model PWS1-1725KTL-H-EX-7M1, PWS1-1725KTL-H-EX-7M1-O, PWS1-1725KTL-H-EX-7M8, PWS1-1725KTL-H-EX-7M8-O:

MD5 code: A1EA5049E5FBAE5C5506079932DDFE20

3) For the model PWS1-1725KTL-H-EX-6M1, PWS1-1725KTL-H-EX-6M1-O, PWS1-1725KTL-H-EX-6M2, PWS1-1725KTL-H-EX-6M2-O, PWS1-1725KTL-H-EX-6M4, PWS1-1725KTL-H-EX-6M4-O, PWS1-1725KTL-H-EX-6M8, PWS1-1725KTL-H-EX-6M8-O:

MD5 code: 1300E6C138A795851009EF0D627D27B4

4) For the model PWS1-1725KTL-H-EX-5M1, PWS1-1725KTL-H-EX-5M1-O, PWS1-1725KTL-H-EX-5M8, PWS1-1725KTL-H-EX-5M8-O:

MD5 code: A954DFACDE585370DEC3186433590A9B

5) For the model PWS1-1725KTL-H-EX-4M1, PWS1-1725KTL-H-EX-4M1-O, PWS1-1725KTL-H-EX-4M2, PWS1-1725KTL-H-EX-4M2-O, PWS1-1725KTL-H-EX-4M4, PWS1-1725KTL-H-EX-4M4-O, PWS1-1725KTL-H-EX-4M8, PWS1-1725KTL-H-EX-4M8-O:

MD5 code: 914A3907AD9CA7634737EA87600C8538

6) For the model PWS1-1725KTL-H-EX-3M1, PWS1-1725KTL-H-EX-3M1-O, PWS1-1725KTL-H-EX-3M8, PWS1-1725KTL-H-EX-3M8-O:

MD5 code: 799D2FE16699FDA07CE9E6B9F850E398

7) For the model PWS1-1725KTL-H-EX-2M1, PWS1-1725KTL-H-EX-2M1-O, PWS1-1725KTL-H-EX-2M2, PWS1-1725KTL-H-EX-2M2-O, PWS1-1725KTL-H-EX-2M4, PWS1-1725KTL-H-EX-2M4-O, PWS1-1725KTL-H-EX-2M8, PWS1-1725KTL-H-EX-2M8-O:

MD5 code: F409599F52D598CD9AB77913DA1C662A

8) For the model PWS1-1725KTL-H-EX-1M1, PWS1-1725KTL-H-EX-1M1-O, PWS1-1725KTL-H-EX-1M8, PWS1-1725KTL-H-EX-1M8-O:

MD5 code: 5503B8935590A500C0DBF43738429170

Certificate of Conformity

No. ESY 076777 0119 Rev. 00

The integrated voltage/frequency protection is provided but without test terminal strips for function tests on-site for power generation system according to Clause 6.3.4.5 of VDE-AR-N 4110:2023 and Clause 6.3.3.5 of VDE-AR-N 4120:2018. It should be considered during the planning of power generation system.

The manufacturer has provided proof of certification of the quality management system of his production facility in accordance with ISO 9001.

The certificate includes the following:

- technical data of the power generating unit, the auxiliary equipment used and the software version used (See Page 2 to 25);
- schematic set-up of the power generation unit (See Page 29 to 33);
- summarized information on the properties of the power generating unit (Technical report 64.290.23.30583.02 for the full evaluation according to FGW TR8 guideline).

Certificate expiry date	2030-02-13
--------------------------------	------------

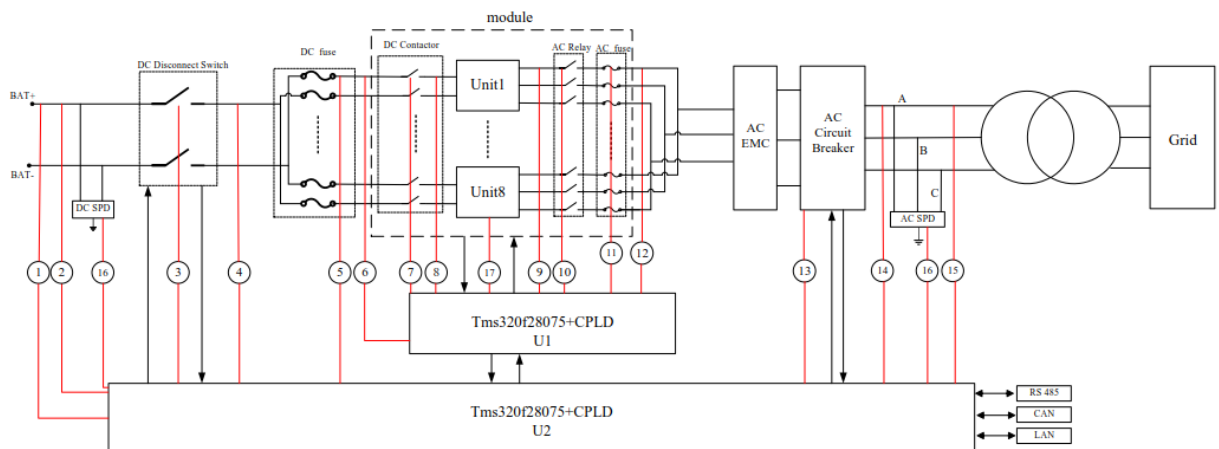
Certificate of Conformity

No. ESY 076777 0119 Rev. 00

Schematic design of the power generation unit

Schematic overview circuit diagram of models: PWS1-1725KTL-H-EX-8M1, PWS1-1725KTL-H-EX-8M1-O, PWS1-1725KTL-H-EX-7M1, PWS1-1725KTL-H-EX-7M1-O, PWS1-1725KTL-H-EX-6M1, PWS1-1725KTL-H-EX-6M1-O, PWS1-1725KTL-H-EX-5M1, PWS1-1725KTL-H-EX-5M1-O, PWS1-1725KTL-H-EX-4M1, PWS1-1725KTL-H-EX-4M1-O, PWS1-1725KTL-H-EX-3M1, PWS1-1725KTL-H-EX-3M1-O, PWS1-1725KTL-H-EX-2M1, PWS1-1725KTL-H-EX-2M1-O, PWS1-1725KTL-H-EX-1M1, PWS1-1725KTL-H-EX-1M1-O

(Note: In the same schematic overview circuit diagram, the “module” side can contain 1~8 PCS-AC module(s), each module correspond to a group of DC fuse, DC contactor, AC Relay and AC fuse)



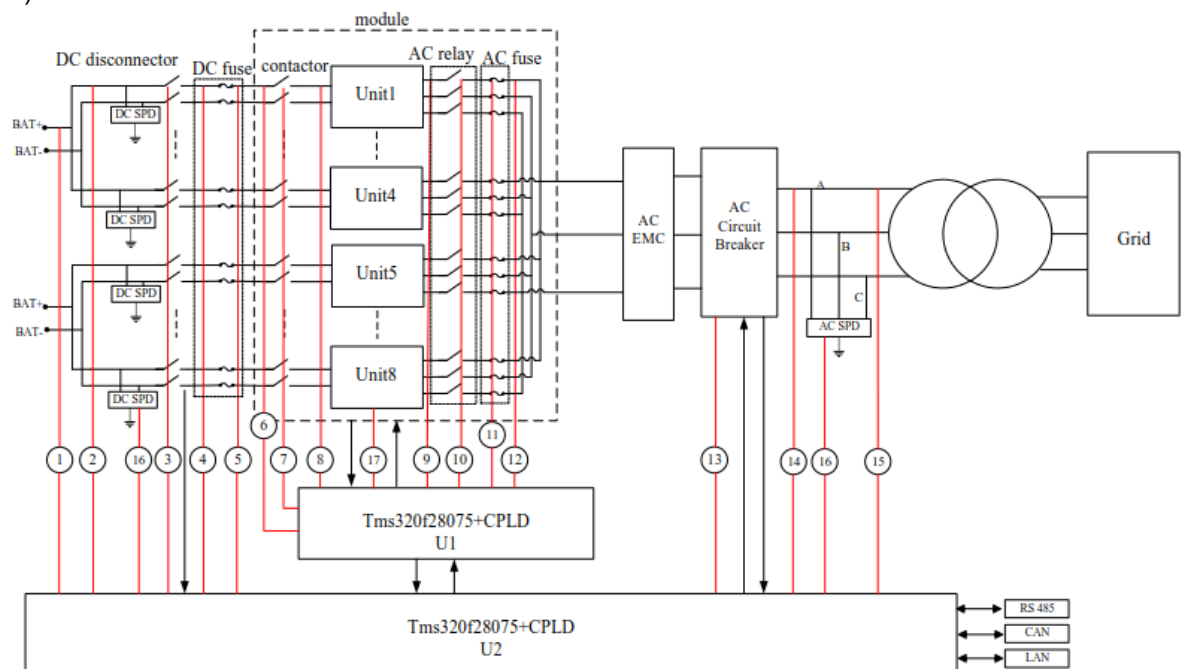
- 1、 Battery voltage sensor
- 2、 Dry contact fault detection (BMS Trip fault/DC Open circuit fault)
- 3、 DC disconnect feedback (rack)
- 4、 Battery current sensor
- 5、 Battery voltage sampling
- 6、 Battery current sampling
- 7、 DC contactor control (module)
- 8、 Bus voltage sampling
- 9、 AC inverter current sensor
- 10、 AC relay control (module)
- 11、 AC Inverter voltage sensor
- 12、 Grid voltage sampling
- 13、 AC circuit breaker control (rack)
- 14、 Output current sensor
- 15、 Grid voltage sensor
- 16、 Lightning arrester fault detection
- 17、 fault signal detection

Certificate of Conformity

No. ESY 076777 0119 Rev. 00

Schematic overview circuit diagram of models: PWS1-1725KTL-H-EX-8M2, PWS1-1725KTL-H-EX-8M2-O, PWS1-1725KTL-H-EX-6M2, PWS1-1725KTL-H-EX-6M2-O, PWS1-1725KTL-H-EX-4M2, PWS1-1725KTL-H-EX-4M2-O, PWS1-1725KTL-H-EX-2M2, PWS1-1725KTL-H-EX-2M2-O

(Note: In the same schematic overview circuit diagram, the “module” side can contain 2, 4, 6 or 8 PCS-AC module(s), each module correspond to a group of DC fuse, DC contactor, AC Relay and AC fuse)



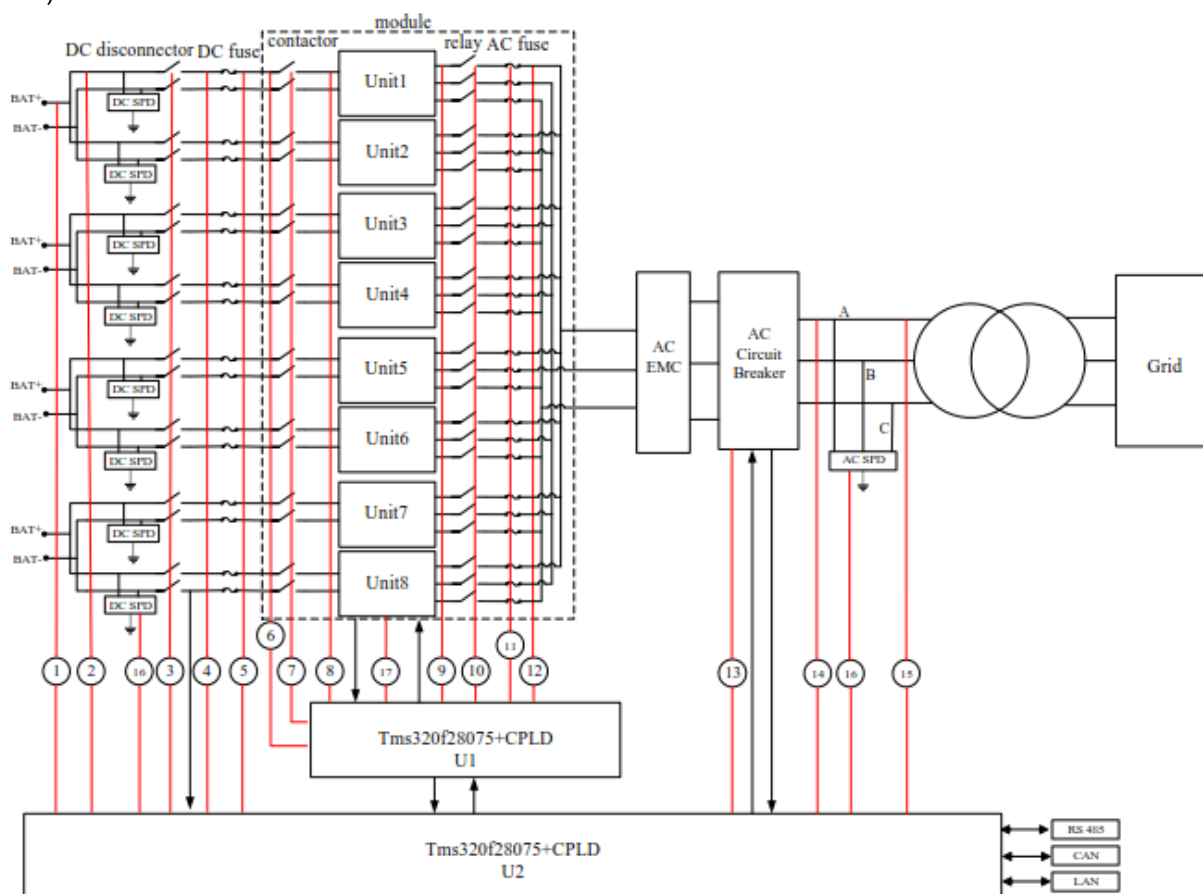
- 1、 Battery voltage sensor (Sampling branches 1)
- 2、 Dry contact fault detection (BMS Trip fault/DC Open circuit fault)
- 3、 DC disconnector feedback (rack)
- 4、 Battery current sensor
- 5、 Battery voltage sampling
- 6、 Battery current sampling
- 7、 DC contactor control (module)
- 8、 Bus voltage sampling
- 9、 AC inverter current sensor
- 10、 AC relay control (module)
- 11、 AC Inverter voltage sensor
- 12、 Grid voltage sampling
- 13、 AC circuit breaker control (rack)
- 14、 Output current sensor
- 15、 Grid voltage sensor
- 16、 Lightning arrester fault detection
- 17、 fault signal detection

Certificate of Conformity

No. ESY 076777 0119 Rev. 00

Schematic overview circuit diagram of models: PWS1-1725KTL-H-EX-8M4, PWS1-1725KTL-H-EX-8M4-O, PWS1-1725KTL-H-EX-6M4, PWS1-1725KTL-H-EX-6M4-O, PWS1-1725KTL-H-EX-4M4, PWS1-1725KTL-H-EX-4M4-O, PWS1-1725KTL-H-EX-2M4, PWS1-1725KTL-H-EX-2M4-O

(Note: In the same schematic overview circuit diagram, the "module" side can contain 2, 4, 6 or 8 PCS-AC module(s), each module correspond to a group of DC fuse, DC contactor, AC Relay and AC fuse)



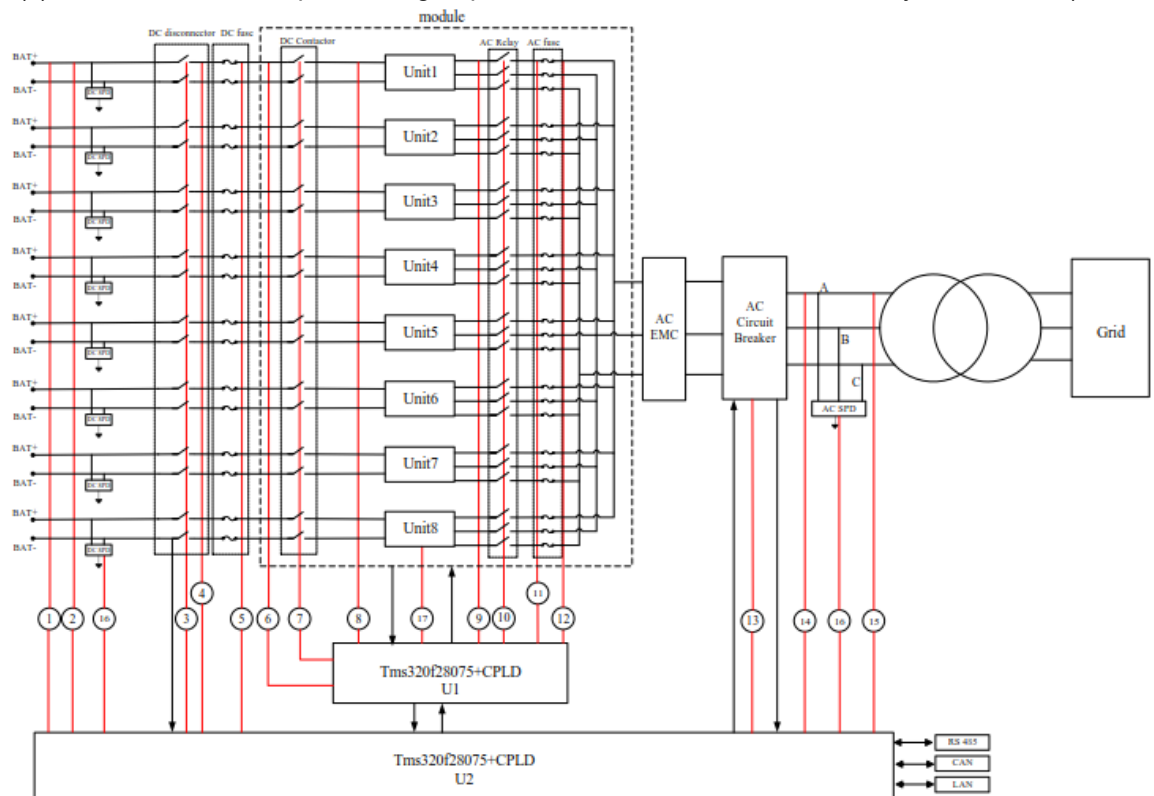
- 1、 Battery voltage sensor (Sampling branches 1)
- 2、 Dry contact fault detection (BMS Trip fault/DC Open circuit fault)
- 3、 DC disconnecter feedback (rack)
- 4、 Battery current sensor
- 5、 Battery voltage sampling
- 6、 Battery current sampling
- 7、 DC contactor control (module)
- 8、 Bus voltage sampling
- 9、 AC inverter current sensor
- 10、 AC relay control (module)
- 11、 AC Inverter voltage sensor
- 12、 Grid voltage sampling
- 13、 AC circuit breaker control (rack)
- 14、 Output current sensor
- 15、 Grid voltage sensor
- 16、 Lightning arrester fault detection
- 17、 fault signal detection

Certificate of Conformity

No. ESY 076777 0119 Rev. 00

Schematic overview circuit diagram of models: PWS1-1725KTL-H-EX-8M8, PWS1-1725KTL-H-EX-8M8-O, PWS1-1725KTL-H-EX-7M8, PWS1-1725KTL-H-EX-7M8-O, PWS1-1725KTL-H-EX-6M8, PWS1-1725KTL-H-EX-6M8-O, PWS1-1725KTL-H-EX-5M8, PWS1-1725KTL-H-EX-5M8-O, PWS1-1725KTL-H-EX-4M8, PWS1-1725KTL-H-EX-4M8-O, PWS1-1725KTL-H-EX-3M8, PWS1-1725KTL-H-EX-3M8-O, PWS1-1725KTL-H-EX-2M8, PWS1-1725KTL-H-EX-2M8-O, PWS1-1725KTL-H-EX-1M8, PWS1-1725KTL-H-EX-1M8-O

(Note: In the same schematic overview circuit diagram, the “module” side can contain 1~8 PCS-AC module(s), each module correspond to a group of DC fuse, DC contactor, AC Relay and AC fuse)



1. Battery voltage sensor (Sampling branches 1)
2. Dry contact fault detection (BMS Trip fault/DC Open circuit fault)
3. DC disconnect feedback (rack)
4. Battery current sensor
5. Battery voltage sampling
6. Battery current sampling
7. DC contactor control (module)
8. Bus voltage sampling
9. AC inverter current sensor
10. AC relay control (module)
11. AC Inverter voltage sensor
12. Grid voltage sampling
13. AC circuit breaker control (rack)
14. Output current sensor
15. Grid voltage sensor
16. Lightning arrester fault detection
17. fault signal detection

Certificate of Conformity

No. ESY 076777 0119 Rev. 00

Function module and control signal of DSP:

