

**Certificate of Compliance - Annex A**

Product Family (1): A1-HYB-G2 Series				
Power Conversion System (PCS)				
Model	A1-HYB-3.8K-G2	A1-HYB-5.0K-G2	A1-HYB-6.0K-G2	A1-HYB-7.6K-G2
<b>PV input terminal:</b>				
V <sub>max</sub> PV (Vdc)	550	550	550	550
I <sub>sc</sub> PV (A <sub>dc</sub> )	20 / 20	20 / 20	20 / 20	20 / 20 / 20
No. of MPPT / Strings per MPPT	2 / 1	2 / 1	2 / 1	3 / 1
Max. input voltage (Vdc)	550	550	550	550
Nominal input voltage (Vdc)	360	360	360	360
Range of PV operating voltage (Vdc)	90 - 500	90 - 500	90 - 500	90 - 500
MPPT range (Vdc)	90 - 500	90 - 500	90 - 500	90 - 500
Range of PV voltage@ full output (Vdc)	176 - 500	232 - 500	278 - 500	235 - 500
Input start voltage (Vdc)	120	120	120	120
Max. PV input current (A <sub>dc</sub> )	16 / 16	16 / 16	16 / 16	16 / 16 / 16
Max input power per MPPT (W)	5000 / 5000	5000 / 5000	5000 / 5000	5000 / 5000 / 5000
Max. PV input power, total (W)	5700	7500	9000	11400
<b>Grid terminal (bidirectional):</b>				
Nominal AC voltage (Vac)	120/240 V, (L1, L2, N)	120/240 V, (L1, L2, N)	120/240 V, (L1, L2, N)	120/240 V, (L1, L2, N)
Operating AC output voltage range (Vac)	211.2 V – 264 V @ 240 V	211.2 V – 264 V @ 240 V	211.2 V – 264 V @ 240 V	211.2 V – 264 V @ 240 V
Nominal AC frequency (Hz)	60	60	60	60
Operating AC frequency range, reconnect (Hz)	59.3 - 60.5	59.3 - 60.5	59.3 - 60.5	59.3 - 60.5
Output power factor rating	Default >0.9 9 (Adjustable +/-0.8)	Default >0.9 9 (Adjustable +/-0.8)	Default >0.9 9 (Adjustable +/-0.8)	Default >0.9 9 (Adjustable +/-0.8)
Nominal AC output current (A <sub>ac</sub> )	15.9	20.9	25	31.7
Max. Continuous AC output current (A <sub>ac</sub> )	15.9	20.9	25	31.7
Nominal AC output power @ 240 V, (W)	3816	5016	6000	7608
Max. Continuous AC output power @ 240 V, (VA)	3816	5016	6000	7608
Max. Continuous AC input current (A <sub>ac</sub> )	15.9	20.9	25	31.7
Nominal AC input power (W)	3816	5016	6000	7608
Max. Continuous AC input power (VA)	3816	5016	6000	7608
Max. overcurrent protection (amps), Branch Circuit breaker, (A)	20 A, 2P	25 A, 2P	30 A, 2P	40 A, 2P
<b>Battery terminal (bidirectional):</b>				
Battery Type	Li-ion	Li-ion	Li-ion	Li-ion
Nominal voltage (Vdc)	150	150	150	150
Range of DC operating voltage (Vdc)	75 - 450	75 - 450	75 - 450	75 - 450
Range of DC operating voltage @full discharge / charge power (Vdc)	75 - 450	100 - 450	120 - 450	150 - 450
Max. charging/output current (A <sub>dc</sub> )	54	54	54	54
Max. charging/output power (W)	3816	5016	6000	7608
Max. discharging/input current (A <sub>dc</sub> )	54	54	54	54
Max. discharging/input power (W)	4060	5336	6383	8094
Max. overcurrent protection device, (A)	80 A, 2P	80 A, 2P	80 A, 2P	80 A, 2P
<b>Others</b>				
Normal operation temperature range (°C)	-25 °C to +60	-25 °C to +60	-25 °C to +60	-25 °C to +60

This **Annex A** shall not be reproduced, except in full, without the approval of CSA Group.

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	°C, no derating below 45 °C.	°C, no derating below 45 °C.	°C, no derating below 45 °C.	°C, no derating below 45 °C.
Enclosure Type	Type 4X	Type 4X	Type 4X	Type 4X
Altitude	< 3000 m	< 3000 m	< 3000 m	< 3000 m
Over Voltage Category	OVC IV	OVC IV	OVC IV	OVC IV

Product Family (2): A1-AC-G2 Series				
Power Conversion System (PCS)				
Model	A1-AC-3.8K-G2	A1-AC-5.0K-G2	A1-AC-6.0K-G2	A1-AC-7.6K-G2
<b>Grid terminal (bidirectional):</b>				
Nominal AC voltage (Vac)	120/240 V, (L1, L2, N)	120/240 V, (L1, L2, N)	120/240 V, (L1, L2, N)	120/240 V, (L1, L2, N)
Operating AC output voltage range (Vac)	211.2 V – 264 V @ 240 V	211.2 V – 264 V @ 240 V	211.2 V – 264 V @ 240 V	211.2 V – 264 V @ 240 V
Nominal AC frequency (Hz)	60	60	60	60
Operating AC frequency range, reconnect (Hz)	59.3 - 60.5	59.3 - 60.5	59.3 - 60.5	59.3 - 60.5
Output power factor rating	Default >0.99 (Adjustable +/-0.8)	Default >0.99 (Adjustable +/-0.8)	Default >0.99 (Adjustable +/-0.8)	Default >0.99 (Adjustable +/-0.8)
Nominal AC output current (Aac)	15.9	20.9	25	31.7
Max. Continuous AC output current (Aac)	15.9	20.9	25	31.7
Nominal AC output power @ 240 V, (W)	3816	5016	6000	7608
Max. Continuous AC output power @ 240 V, (VA)	3816	5016	6000	7608
Max. Continuous AC input current (Aac)	15.9	20.9	25	31.7
Nominal AC input power (W)	3816	5016	6000	7608
Max. Continuous AC input power (VA)	3816	5016	6000	7608
Max. overcurrent protection (amps), Branch Circuit breaker, (A)	20 A, 2P	25 A, 2P	30 A, 2P	40 A, 2P
<b>Battery terminal (bidirectional):</b>				
Battery Type	Li-ion	Li-ion	Li-ion	Li-ion
Nominal voltage (Vdc)	150	150	150	150
Range of DC operating voltage (Vdc)	75 - 450	75 - 450	75 - 450	75 - 450
Range of DC operating voltage @full discharge / charge power (Vdc)	75 - 450	100 - 450	120 - 450	150 - 450
Max. charging/output current (A <sub>dc</sub> )	54	54	54	54
Max. charging/output power (W)	3816	5016	6000	7608
Max. discharging/input current (A <sub>dc</sub> )	54	54	54	54
Max. discharging/input power (W)	4060	5336	6383	8094
Max. overcurrent protection device, (A)	80 A, 2P	80 A, 2P	80 A, 2P	80 A, 2P
<b>Others</b>				
Normal operation temperature range (°C)	-25 °C to +60 °C, no derating below 45 °C.	-25 °C to +60 °C, no derating below 45 °C.	-25 °C to +60 °C, no derating below 45 °C.	-25 °C to +60 °C, no derating below 45 °C.
Enclosure Type	Type 4X	Type 4X	Type 4X	Type 4X
Altitude	< 3000 m	< 3000 m	< 3000 m	< 3000 m
Over Voltage Category	OVC IV	OVC IV	OVC IV	OVC IV

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Product Family (3): A1-SMT-G2 Series				
Power Conversion System (PCS)				
Model	A1-SMT-3.8K-G2	A1-SMT-5.0K-G2	A1-SMT-6.0K-G2	A1-SMT-7.6K-G2
<b>PV input terminal:</b>				
V <sub>max</sub> PV (Vdc)	550	550	550	550
I <sub>sc</sub> PV (A <sub>dc</sub> )	20 / 20	20 / 20	20 / 20	20 / 20 / 20
No. of MPPT / Strings per MPPT	2 / 1	2 / 1	2 / 1	3 / 1
Max. input voltage (Vdc)	550	550	550	550
Nominal input voltage (Vdc)	360	360	360	360
Range of PV operating voltage (Vdc)	90 - 500	90 - 500	90 - 500	90 - 500
MPPT range (Vdc)	90 - 500	90 - 500	90 - 500	90 - 500
Range of PV voltage@ full output (Vdc)	176 - 500	232 - 500	278 - 500	235 - 500
Input start voltage (Vdc)	120	120	120	120
Max. PV input current (A <sub>dc</sub> )	16 / 16	16 / 16	16 / 16	16 / 16 / 16
Max input power per MPPT (W)	5000 / 5000	5000 / 5000	5000 / 5000	5000 / 5000 / 5000
Max. PV input power, total (W)	5700	7500	9000	11400
<b>Grid terminal:</b>				
Nominal AC voltage (Vac)	120/240 V, (L1, L2, N)	120/240 V, (L1, L2, N)	120/240 V, (L1, L2, N)	120/240 V, (L1, L2, N)
Operating AC output voltage range (Vac)	211.2 V – 264 V @ 240 V	211.2 V – 264 V @ 240 V	211.2 V – 264 V @ 240 V	211.2 V – 264 V @ 240 V
Nominal AC frequency (Hz)	60	60	60	60
Operating AC frequency range, reconnect (Hz)	59.3 - 60.5	59.3 - 60.5	59.3 - 60.5	59.3 - 60.5
Output power factor rating	Default >0.9 9 (Adjustable +/-0.8)	Default >0.9 9 (Adjustable +/-0.8)	Default >0.9 9 (Adjustable +/-0.8)	Default >0.9 9 (Adjustable +/-0.8)
Nominal AC output current (A <sub>ac</sub> )	15.9	20.9	25	31.7
Max. Continuous AC output current (A <sub>ac</sub> )	15.9	20.9	25	31.7
Nominal AC output power @ 240 V, (W)	3816	5016	6000	7608
Max. Continuous AC output power @ 240 V, (VA)	3816	5016	6000	7608
Max. overcurrent protection (amps), Branch Circuit breaker, (A)	20 A, 2P	25 A, 2P	30 A, 2P	40 A, 2P
<b>Others</b>				
Normal operation temperature range (°C)	-25 °C to +60 °C, no derating below 45 °C.	-25 °C to +60 °C, no derating below 45 °C.	-25 °C to +60 °C, no derating below 45 °C.	-25 °C to +60 °C, no derating below 45 °C.
Enclosure Type	Type 4X	Type 4X	Type 4X	Type 4X
Altitude	< 3000 m	< 3000 m	< 3000 m	< 3000 m
Over Voltage Category	OVC IV	OVC IV	OVC IV	OVC IV

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Backup Interface (BI)	
Model	A1-BI-200-G2
Grid terminal (bidirectional):	
Nominal AC Grid voltage (Vac)	120/240 V, (L1, L2, N)
Output/inject to Grid voltage range (Vac)	211.2 V – 264 V @ 240 V
Nominal AC Grid frequency (Hz)	60 Hz
Output/inject to Grid frequency range, reconnect (Hz)	59.3 - 60.5
Nominal AC input/absorb current (Aac)	160 A
Max. Continuous AC input/absorb current (Aac)	160 A
Nominal AC input/absorb power, (L-L) (W)	38400 W
Max. Continuous AC input/absorb power, (L-L) (VA)	38400 VA
Nominal AC input/absorb power, (L-N) (W)	19200 W
Max. Continuous AC input/absorb power, (L-N) (VA)	19200 VA
Max. overcurrent protection (amps), Branch Circuit breaker, (A)	200 A, 2P
AC output terminal: Load	
Nominal AC output voltage (Vac)	120/240 V, (L1, L2, N)
Nominal AC output frequency (Hz)	60 Hz
Nominal AC output current (Aac)	160 A
Max. Continuous AC output current (Aac)	160 A
Nominal AC output power (W)	38400 W
Max. Continuous AC output power (VA)	38400 VA
Maximum Continuous unbalance current, stand-alone mode @ 120 V, (A)	41.7 A
Nominal AC input/absorb power, (L-N) (W)	19200 W
Max. Continuous AC input/absorb power, (L-N) (VA)	19200 VA
AC input terminal (From ESS or PV): INV1=INV2=INV3=INV4	
Nominal AC input voltage (Vac)	120/240 V, (L1, L2, N)
Nominal AC input frequency (Hz)	60 Hz
Nominal AC input current (Aac)	31.7 A
Max. Continuous AC input current (Aac)	31.7 A
Nominal AC input power (W)	7600 W
Max. Continuous AC input power (VA)	7600 VA
Max. overcurrent protection device, (A)	40 A
AC input terminal: generator	
Nominal AC input voltage (Vac)	120/240 V, (L1, L2, N)
Nominal AC input frequency (Hz)	60 Hz
Nominal AC input current (Aac)	63 A
Max. Continuous AC input current (Aac)	63 A
Nominal AC input power, (L-N) (W)	7500 W
Nominal AC input power, (L-L) (W)	15000 W
Max. Continuous AC input power, (L-N) (VA)	7500 VA
Max. Continuous AC input power, (L-L) (VA)	15000 VA
Max. overcurrent protection device, (A)	80 A
Others	
Normal operation temperature range (°C)	-13 °F to +140 °F
Enclosure Type	Type 3R
Altitude	< 3000 m
Over Voltage Category	OVC IV