

OVER 12 GW SOLDGlobal Leader for Fixed Tilt Structures & Trackers

TECHNICAL DATASHEET

MAXSPAN[™]

BEST QUALITY AND PRICED POST DRIVEN FIXED TILT SYSTEMS



FAST INSTALL + HANDLES SLOPING GROUND

LESS POSTS WITH UNMATCHED SPAN AND UP TO 15% TERRAIN SLOPES

- Supports all poly, glass, and thin film modules
- Rugged design enables 175 mph [78 m/s] wind and 90 psf [4,300 Pa] snow loads
- Pull test and geotech services available
- Galvanized Z purlins have integrated trays for easy wire management
- 10° to 35° tilt with multiple inter-row spacing options



OVER 12 GW SOLD

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GameChange Solar

HEADQUARTERS

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SERVICE SUPERCENTERS

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FEATURES

- Industry's most flexible racking system handles undulating ground conditions
- · Three axes of adjustability demanded by installers for navigating real world site conditions where significant adjustability in the field is required
- The unmatched span capability of MaxSpan™ means there are fewer foundations than competing systems, which means less posts and less post installation cost. As few as 180 posts per MW for 2 up in portrait. 130 posts per MW for 3 up in portrait.
- Over 5" [12.7 cm] vertical adjustment for fast top of post leveling
- Up to 4'-0" [122 cm] high ground clearance to allow for snow and vegetation
- 10° to 35° tilt with multiple inter-row spacing options
- Available for framed modules (including First Solar Series 6[™]) in 2 to 4 portrait and 4 to 8 landscape and for multiple glass on glass module configurations including First Solar Series 4™
- · Full layout and engineering analysis for every project
- Integrated grounding and wire management
- · WideFlange and roll formed posts available
- South facing and East/West system option
- Single and Dual Post configuration available
- StubPost™ With adjustable extender to handle rolling ground without grading
- 35% shorter and lighter stub posts for faster handling and faster post driving
- Install StubPost™
- Install extender and base bracket at the same time
- Pre-assembled "Swiss Army Knife" Beam:
- One worker carry by weight
- Just bolt it onto post extender, cut zip tie, swing braces and brackets into position, and bolt down
- All hardware and brackets pre-attached and in assembly kit
- Super simple staging: one unit replaces previous staging of nuts, bolts, brackets, braces, and beam
- MaxSpan[™] with TwistClamps[™]
 - TwistClamps™ Increase Install Speed 400%
- 400 modules per worker day versus 100 with nuts and bolts
- One worker inserts and twists all preassembled TwistClamps™ into purlins
- Follow-up workers slide modules under TwistClamps™
- Workers then use torque wrenches to do just one final rotation on the pre-attached serrated flange nyloc nut to reach required torque and simultaneously grounds the module
- Modules always align even if posts and beams are far out of alignment since workers can slide modules north and south under TwistClamps
- No power tools or hardware needed
- No follow-up torquing operations required

TEST & CERTIFICATION

- Meet IBC and ASCE standards for structural loading
- Electrical bonding with GameChange top mount clamps or star washers included
- ETL / UL 2703 tested (similar to the relevant sections of IEC 61215 & 61730)
- Wind tunnel tested by industry leader CPP
- Independent assessment by Black & Veatch
- · Warranty 20 years Designed and engineered in USA

- PE Stamped Drawings Design loads according to local building codes: ASCE 7, NBC, Eurocode, AS1170, GB 50009
- 100% code compliant designs for any locality

PULL TEST & GEOTECH

- Vertical and lateral capacity of the post is determined by pull test
- Test data is then analyzed by our in-house engineering team in parallel with geotechnical report to give the most efficient embedment depths, spans and post type

MATERIAL

- Post: G235 [55 μm] galvanized steel (HDG ASTM A123 option also available)
- Galvanized Purlins, NS Beam, Brace: G90 [20 µm] galvanized steel. Standard up to G180 [40 µm] special order.
- Star bolt or ETL / UL top mount teethed module clamp: stainless steel & magnicoat
- Proprietary Integrated Hardware™: For faster structure assembly, module mounting and reduced 0&M cost. Oversized Serrated Flange Nyloc Nut and Oversized Flange Star Bolt with integrated star washer eliminates the need for washers and star washers.

MEDIUM VOLTAGE POWER STATION 4000-S2-US / 4200-S2-US / 4400-S2-US / 4600-S2-US





Robust

- Complete station is UL listed for higher safety and lower risk
- Station and all individual components type-tested for maximum reliability
- Optimally suited to extreme ambient conditions

Simple Integration

- Plug and play concept
- Completely pre-assembled for easy set-up and commissioning

Cost-Effective

- Fully integrated transformer and switchgear simplifies logistics
- Minimun O&M requirements create lowest cost of ownership

Flexible

- One product for all markets and applications
- Ideally suited for PV applications, PV plus storage (DC coupled) and storage applications (AC coupled)

MEDIUM VOLTAGE POWER STATION 4000-S2-US / 4200-S2-US / 4400-S2-US / 4600-S2-US

Turnkey solution for PV, storage, and PV plus storage power plants

With the power of the new robust central inverters, the Sunny Central UP or Sunny Central Storage UP, and with perfectly integrated medium-voltage components, the new Medium Voltage Power Station (MVPS) offers even more power density in a turn-key solution available worldwide. The solution is the ideal choice for next-generation PV power plants operating at 1500 V DC. Delivered pre-configured on a 20-foot container-integrated skid, the solution is easy to transport and quick to commission. The UL1741-listed MVPS combines rigorous plant safety with maximum energy yield and minimized deployment and operating risk. The MVPS is DC-coupling ready for large-scale storage integration.

MEDIUM VOLTAGE POWER STATION 4000-S2-US / 4200-S2-US

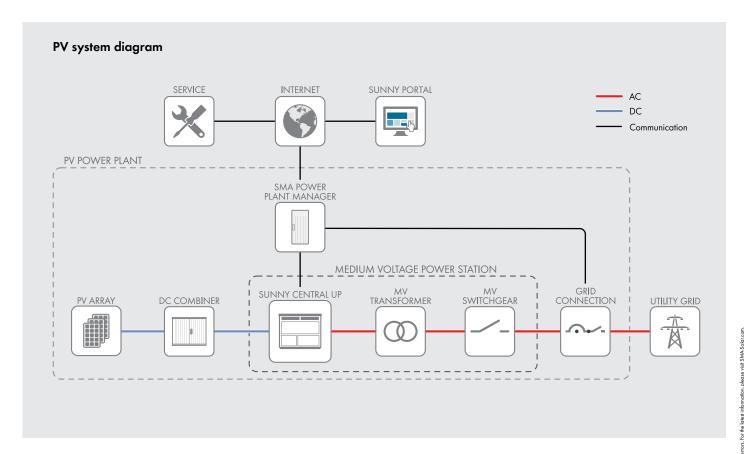
1 x SC 4000 UPUS or 1 x SC 3500 UPUS or 1 x SC 3500 UPUS or 1 x SC 3400 UPXTUS 1 x S	Technical Data	MVPS 4000-S2-US	MVPS 4200-S2-US
1 x SCS 3450 IRUS or 1 x SCS	Input (DC)		
1 x SCS 3450 UPXTUS 1 x SCS 3460 UPXTUS 1500 V		1 x SC 4000 UP-US or	1 x SC 4200 UP-US or
Max. input velloge Monitor of DC inputs	Available inverters	1 x SCS 3450 UP-US or	1 x SCS 3600 UP-US or
Number of DC Timputs Integrated zone membroring O O O O O O O O O O O O O O O O O O		1 x SCS 3450 UP-XT-US	1 x SCS 3600 UP-XT-US
Integrated 200e monitoring	Max. input voltage	1500 V	1500 V
200 A, 250 A, 315 A, 350 A, 400 A, 450 A, 500 A	Number of DC inputs	dependent on the	e selected inverter
Output (AC) on the medium-voltage side Kosted power with SCUPUS (at 25°C to 43°C optional 50°C)¹¹ A000 NVA / 3600 NVA A200 NVA / 3700 NVA Roted power with SCUPUS (at 25°C to 43°C optional 50°C)¹¹ A3450 NVA / 2930 NVA A300 NVA / 3750 NVA A300 NVA A300 NVA / 3750 NVA A300 NVA A300 NVA / 3750 NVA A300 NVA A	ntegrated zone monitoring		
Read power with SCURUS for 25°C to +25°C / 40°C optional 50°C 3450 kW / 2930 kW / 3600 kW / 3780 kW / 3000 kW / 3	Available DC fuse sizes (per input)	200 A, 250 A, 315 A, 35	0 A, 400 A, 450 A, 500 A
Raded power with SCS-UR-US (at -25° C to +25° C / 40°C optional 50° C) 3450 WA / 2930 WA 370 VWA / 3750 VWA 3750 V	Output (AC) on the medium-voltage side		
Charging power with SCSUPRTUS (et 25°C to + 25	Rated power with SC-UP-US (at -25°C to +35°C / 40°C optional 50°C) ¹⁾	4000 kVA / 3600 kVA	4200 kVA / 3780 kVA
Discharging power with SCSURFULS (at 25°C to + 25°C / 40°C optional 50°C) 4000 kW/ 3400 kW 12 kV to 34.5 kV 12 kV to 3	Rated power with SCS-UP-US (at -25°C to +25°C / 40°C optional 50°C) ¹⁾	3450 kVA / 2930 kVA	3620 kVA / 3075 kVA
12 W to 34.5 EV 12 W to 3	Charging power with SCS-UP-XT-US (at -25°C to + 25°C / 40°C optional 50°C) ¹⁾	3590 kVA/3000 kVA	3770 kVA / 3150 kVA
AC power frequency AC power fedicinery AC power fedicine	Discharging power with SCS-UP-XT-US (at -25°C to + 25°C / 40°C optional 50°C) ¹⁾	4000 kVA / 3400 kVA	4200 kVA / 3570 kVA
AC power frequency Intransformer vector group Dy11 / YNd11 / YNyy0 Intransformer vector group Dy11 / YNd11 / YNy0 Intransformer vector group Dy11 / YNN0 / YN	Typical nominal AC voltages	12 kV to 34.5 kV	12 kV to 34.5 kV
Transformer vector group Dy1 YNd11 YNyQ	•	50 Hz / 60 Hz	50 Hz / 60 Hz
Transformer cooling methods Transformer efficiency. Standard / Eco Design 1 / Eco Design 2 Mox. Istal harmonic distortion Reactive power feed-in (up to 60% of nominal power) Power factor at rotted power / displacement power factor adjustable Inverter efficiency Max. Efficiency / European efficiency³¹ / CEC weighted efficiency⁴¹ Protective devices Input-side disconnection poin! Medium-voltage protection Covervoltage protection medium-voltage control room (according to IEC 62271-202) General Data Self-consumption (max. / partial load / average)¹¹ Self-consumption (partial max. / partial load / average)¹¹ Self-consumption (max. / partial load / average)¹¹ Self-consumptio	· · · ·	•	•
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Max, total harmonic distortion Reactive power feed-in (up to 60% of nominal power) Power factor at rotted power / displacement power factor adjustable Inverter efficiency Max, afficiency// European efficiency ³¹ / CEC weighted efficiency ⁴¹ Protective devices Input-side disconnection poin! Discoveroltage protection Coveroltage protection Coveroltage protection Coveroltage protection Coveroltage protection Control costing in the max of the protein of the pr	·		
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Power factor at rated power / displacement power factor adjustable Inverter efficiency Inverter efficiency Wax. efficiency** / European efficiency** / CEC weighted efficiency** 98.7% / 98.5% / 98.5% / 98.5% / 98.5% / 98.5% Protective devices Input-side disconnection point Output-side disconnection point DC overvoltage protection Galvanic isolation Internal ara classification medium-voltage control room (according to IEC 62271-202) General Data Timenal ara classification medium-voltage control room (according to IEC 62271-202) General Data Self-consumption (max. / partial load / average)** Self-consumption (max. / partial load / average)** Self-consumption (max. / partial load / average)** Self-consumption (stand-by)** Degree of protection according to IEC 60529 Environment: standard / harsh Degree of protection according to IEC 60721-3-4 (4C1, 452 / 4C2, 4S4) Degree of protection according to IEC 60721-3-4 (4C1, 452 / 4C2, 4S4) Degree of protection according to IEC 60721-3-4 (4C1, 452 / 4C2, 4S4) Degree of protection according to IEC 6072 Inverter electronics IP54 Environment: standard / harsh Degree of protection according to IEC 6072 Inverter electronics IP54 Environment: standard / harsh Degree of protection according to IEC 6072 Inverter electronics IP54 Environment: standard / harsh Degree of protection according to IEC 6072 Inverter electronics IP54 Environment: standard / harsh Degree of protection according to IEC 6072 Inverter electronics IP54 Environment: standard / harsh Degree of protection according to IEC 6072 Inverter electronics IP54 Environment: standard / harsh Degree of protection according to IEC 6072 Inverter electronics IP54 Environment: standard / harsh Degree of protection according to IEC 6072 Inverter electronics IP54 Environment: standard / harsh Degree of protection according to IEC 6072 Inverter electronics IP54 Environment: standard / harsh Degree of protection according to IEC 6072 Inverter electronics IP54 Environment: standard / harsh Degree			
Inverter efficiency Max. efficiency** / European efficiency** / CEC weighted efficiency** Max. efficiency** / European efficiency** / CEC weighted efficiency** Protective devices Input-side disconnection point DC load-break switch Output-side disconnection point Covervoltage protection Galvanic isolation Internal arc classification medium-voltage control room (according to IEC 62271-202) General Data Dimensions equal to 20-foot HC shipping container (W / H / D) Self-consumption (max. / partial load / average)** Self-consumption (stand-by)** Self-consumption (stand-by)** Self-consumption (stand-by)** Degree of protection according to IEC 60529 Environment: standard / harsh Degree of protection according to IEC 60721-3-4 (AC1, 452 / AC2, 454) Degree of protection according to IEC 60721-3-4 (AC1, 452 / AC2, 454) Degree of protection according to IEC 60721-3-4 (AC1, 452 / AC2, 454) Degree of protection according to IEC 60721-3-5 (AC1, 452 / AC2, 454) Degree of protection according to IEC 60721-3-4 (AC1, 452 / AC2, 454) Degree of protection according to IEC 60721-3-4 (AC1, 452 / AC2, 454) Degree of protection according to IEC 60721-3-4 (AC1, 452 / AC2, 454) Degree of protection according to IEC 60721-3-4 (AC1, 452 / AC2, 454) Degree of protection according to IEC 60721-3-4 (AC1, 452 / AC2, 454) Degree of protection according to IEC 60721-3-4 (AC1, 452 / AC2, 454) Degree of protection according to IEC 60721-3-4 (AC1, 452 / AC2, 454) Degree of protection according to IEC 60721-3-4 (AC1, 452 / AC2, 454) Degree of protection according to IEC 60721-3-4 (AC1, 452 / AC2, 454) Degree of protection according to IEC 60721-3-4 (AC1, 452 / AC2, 454) Degree of protection according to IEC 60721-3-4 (AC1, 452 / AC2, 454) Degree of protection according to IEC 60721-3-4 (AC1, 452 / AC2, 454) Degree of protection according to IEC 60721-3-4 (AC1, 452 / AC2, 454) Degree of protection according to IEC 60721-3-4 (AC1, 452 / AC2, 454) Degree of protection according to IEC 60721-3-4 (AC1, 452 / AC2, 454)		1 / 0.8 overexcited	to 0.8 underexcited
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Internal arc classification medium-voltage control room (according to IEC 62271-202) General Data Dimensions equal to 20-foot HC shipping container (W / H / D) 6058 mm / 2896 mm / 2438 mm 4 181 Self-consumption (max. / partial load / average) ¹¹ \$81, kW / < 1.8 kW / < 2.0 kW \$370 W Degree of protection according to IEC 60529 Environment: standard / harsh Degree of protection according to IEC 60721-3-4 (4C1, 452 / 4C2, 4S4) Max. operating altitude above mean sea level 1000 m / 2000 m Fresh air consumption of inverter Features DC terminal AC connection Top changer for MV-transformer: without / with Top changer for WV-transformer: without / with AC connection Top changer for eveternal loads: without / 10 / 20 / 30 / 40 / 50 / 60 kVA Medium-voltage switchgear: without / 3 feeders 2 cable feeders with load-break switch, 1 transformer feeder with circuit breaker, internal arc classification Integrated oil containment: without / with	• .	Strige dire	asier type i
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Terminal lug AC connection AC connection Tap changer for MV-transformer: without / with Shield winding for MV-Transformer: without / with Station enclosure color Transformer for external loads: without / 10 / 20 / 30 / 40 / 50 / 60 kVA Medium-voltage switchgear: without / 3 feeders 2 cable feeders with load-break switch, 1 transformer feeder with circuit breaker, internal arc classification IAC A FL 20 kA 1 s according to IEC 62271-200 Short circuit rating medium voltage switchgear (25 kA 1 s) Industry standards (for other standards see the inverter datasheet) IEC 60076, IEC 62271-200, IEC 62271-202, EN50588-1 IEEE C37.100.1, IEEE C57.12, C37.20.9, UL 1741 listed, CSC Certificate, UL 347	, ,		
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AC connection Tap changer for MV-transformer: without / with Shield winding for MV-Transformer: without / with Shield winding for MV-Transformer: without / with Station enclosure color RAL 7004 Transformer for external loads: without / 10 / 20 / 30 / 40 / 50 / 60 kVA Medium-voltage switchgear: without / 3 feeders 2 cable feeders with load-break switch, 1 transformer feeder with circuit breaker, internal arc classification IAC A FL 20 kA 1 s according to IEC 62271-200 Short circuit rating medium voltage switchgear (25 kA 1 s) Industry standards (for other standards see the inverter datasheet) IEC 60076, IEC 62271-200, IEC 62271-202, EN50588-1 IEEE C37.100.1, IEEE C57.12, C37.20.9, UL 1741 listed, CSC Certificate, UL 347		Tormin	al lua
Tap changer for MV-transformer: without / with Shield winding for MV-Transformer: without / with Station enclosure color Transformer for external loads: without / 10 / 20 / 30 / 40 / 50 / 60 kVA Medium-voltage switchgear: without / 3 feeders 2 cable feeders with load-break switch, 1 transformer feeder with circuit breaker, internal arc classification IAC A FL 20 kA 1 s according to IEC 62271-200 Short circuit rating medium voltage switchgear (25 kA 1 s) Industry standards (for other standards see the inverter datasheet) IEC 60076, IEC 62271-200, IEC 62271-202, EN50588-1 IEEE C37.100.1, IEEE C57.12, C37.20.9, UL 1741 listed, CSC Certificate, UL 347			
Shield winding for MV-Transformer: without / with Station enclosure color Transformer for external loads: without / 10 / 20 / 30 / 40 / 50 / 60 kVA Medium-voltage switchgear: without / 3 feeders 2 cable feeders with load-break switch, 1 transformer feeder with circuit breaker, internal arc classification IAC A FL 20 kA 1 s according to IEC 62271-200 Short circuit rating medium voltage switchgear (25 kA 1 s) Industry standards (for other standards see the inverter datasheet) IEC 60076, IEC 62271-200, IEC 62271-202, EN50588-1 IEEE C37.100.1, IEEE C57.12, C37.20.9, UL 1741 listed, CSC Certificate, UL 347			
Station enclosure color Transformer for external loads: without / 10 / 20 / 30 / 40 / 50 / 60 kVA Medium-voltage switchgear: without / 3 feeders 2 cable feeders with load-break switch, 1 transformer feeder with circuit breaker, internal arc classification IAC A FL 20 kA 1 s according to IEC 62271-200 Short circuit rating medium voltage switchgear (25 kA 1 s) Industry standards (for other standards see the inverter datasheet) IEC 60076, IEC 62271-200, IEC 62271-202, EN50588-1 IEEE C37.100.1, IEEE C57.12, C37.20.9, UL 1741 listed, CSC Certificate, UL 347	•	· ·	
Transformer for external loads: without / 10 / 20 / 30 / 40 / 50 / 60 kVA Medium-voltage switchgear: without / 3 feeders 2 cable feeders with load-break switch, 1 transformer feeder with circuit breaker, internal arc classification IAC A FL 20 kA 1 s according to IEC 62271-200 Short circuit rating medium voltage switchgear (25 kA 1 s) Industry standards (for other standards see the inverter datasheet) IEC 60076, IEC 62271-200, IEC 62271-202, EN50588-1 IEEE C37.100.1, IEEE C57.12, C37.20.9, UL 1741 listed, CSC Certificate, UL 347	· · · · · · · · · · · · · · · · · · ·	•	
Medium-voltage switchgear: without / 3 feeders 2 cable feeders with load-break switch, 1 transformer feeder with circuit breaker, internal arc classification IAC A FL 20 kA 1 s according to IEC 62271-200 Short circuit rating medium voltage switchgear (25 kA 1 s) Integrated oil containment: without / with Industry standards (for other standards see the inverter datasheet) IEC 60076, IEC 62271-200, IEC 62271-202, EN50588-1 IEEE C37.100.1, IEEE C57.12, C37.20.9, UL 1741 listed, CSC Certificate, UL 347			
Short circuit rating medium voltage switchgear (25 kA 1 s) Integrated oil containment: without / with Industry standards (for other standards see the inverter datasheet) IEC 60076, IEC 62271-200, IEC 62271-202, EN50588-1 IEEE C37.100.1, IEEE C57.12, C37.20.9, UL 1741 listed, CSC Certificate, UL 347	Medium-voltage switchgear: without / 3 feeders 2 cable feeders with load-break switch, 1 transformer feeder with circuit breaker, internal arc classifi-		
Integrated oil containment: without / with Industry standards (for other standards see the inverter datasheet) IEC 60076, IEC 62271-200, IEC 62271-202, EN50588-1 IEEE C37.100.1, IEEE C57.12, C37.20.9, UL 1741 listed, CSC Certificate, UL 347	·)
Industry standards (for other standards see the inverter datasheet) IEC 60076, IEC 62271-200, IEC 62271-202, EN50588-1 IEEE C37.100.1, IEEE C57.12, C37.20.9, UL 1741 listed, CSC Certificate, UL 347			
IEEE C37.100.1, IEEE C57.12, C37.20.9, UL 1741 listed, CSC Certificate, UL 347	•	·	
	indusiry sidilidatas (tot office sidilidatas see tile triveriet adiastieet)	IEEE C37.100.1, IEEE C57.1	2, C37.20.9, UL 1741 listed,
	● Standard features ○ Optional features — Not available		

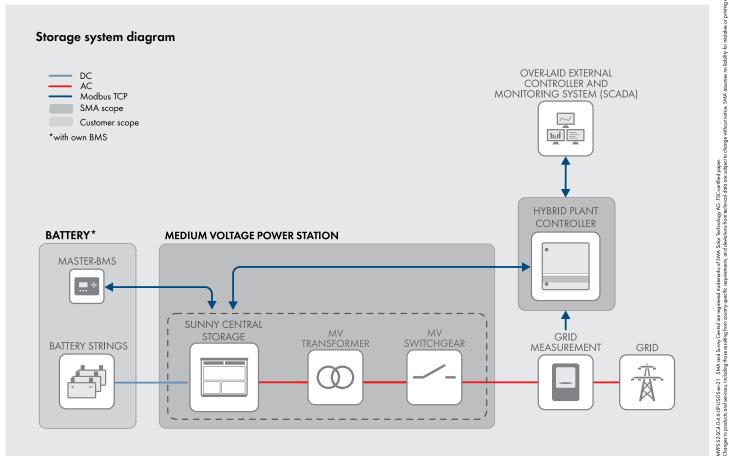
- 1) Data based on inverter. Further details can be found in the data sheet of the inverter.
- 2) KNAN = Natural ester fluid with natural air cooling
- 3) Efficiency measured at inverter without internal power supply $\,$
- 4) Efficiency measured at inverter with internal power supply

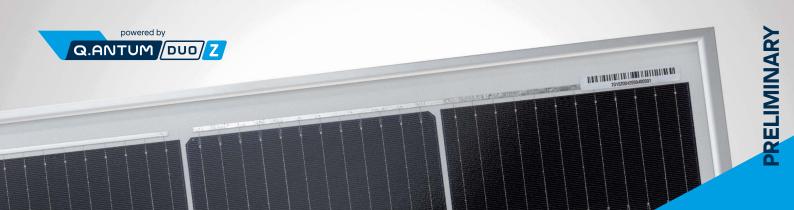
MEDIUM VOLTAGE POWER STATION 4400-S2-US / 4600-S2-US

1 x SC3 3800 UPUS or 1 x SC3 3950 UPUS 1	Technical Data	MVPS 4400-S2-US	MVPS 4600-S2-US
1 x SC3 3800 UPUS or 1 x SC3 3950 UPUS 1	Input (DC)		
Mox. input voltage Number of DC Enputs Instanced PC Enputs Instanced PC Enputs Integrated zone monitoring Available DC fisse sizes (per input) Output (AC) on the medium-voltage side Rated power with SCSURUS (at 2.5°C to +2.3°C / 40°C optional 50°C)** Rated power with SCSURUS (at 2.5°C to +2.3°C / 40°C optional 50°C)** Rated power with SCSURUS (at 2.5°C to +2.3°C / 40°C optional 50°C)** Rated power with SCSURUS (at 2.5°C to +2.5°C / 40°C optional 50°C)** Rated power with SCSURUS (at 2.5°C to +2.5°C / 40°C optional 50°C)** Rated power with SCSURUS (at 2.5°C to +2.5°C / 40°C optional 50°C)** Rated power with SCSURUS (at 2.5°C to +2.5°C / 40°C optional 50°C)** Rated power with SCSURUS (at 2.5°C to +2.5°C / 40°C optional 50°C)** Rated power with SCSURUS (at 2.5°C to +2.5°C / 40°C optional 50°C)** Rated power with SCSURUS (at 2.5°C to +2.5°C / 40°C optional 50°C)** Rated power with SCSURUS (at 2.5°C to +2.5°C / 40°C optional 50°C)** Rated power with SCSURUS (at 2.5°C to +2.5°C / 40°C optional 50°C)** Rated power with SCSURUS (at 2.5°C to +2.5°C / 40°C optional 50°C)** Rated power with SCSURUS (at 2.5°C to +2.5°C / 40°C optional 50°C)** Rated power with SCSURUS (at 2.5°C to +2.5°C / 40°C optional 50°C)** Rated power with SCSURUS (at 2.5°C to +2.5°C / 40°C optional 50°C)** Rated power with SCSURUS (at 2.5°C to +2.5°C / 40°C optional 50°C)** Rated power with SCSURUS (at 2.5°C to +2.5°C / 40°C optional 50°C)** Rated power with SCSURUS (at 2.5°C to +2.5°C / 40°C optional 50°C)** Rated power with SCSURUS (at 2.5°C to +2.5°C / 40°C optional 50°C)** Rated power with SCSURUS (at 2.5°C to +2.5°C / 40°C optional 50°C)** Rated power with SCSURUS (at 2.5°C to +2.5°C / 40°C optional 50°C)** Rated power with SCSURUS (at 2.5°C to +2.5°C to +2.5°C / 40°C optional 50°C)** Rated power with SCSURUS (at 2.5°C to +2.5°C to		1 x SC 4400 UP-US or	1 x SC 4600 UP-US or
1500 V	Available inverters	1 x SCS 3800 UP-US or	1 x SCS 3950 UP-US or
Appendix		1 x SCS 3800 UP-XT-US	1 x SCS 3950 UP-XT-US
Integrated Zone monitoring	Max. input voltage	1500 V	1500 V
200 A, 250 A, 315 A, 350 A, 400 A, 450 A, 500 A	Number of DC inputs	dependent on the	e selected inverter
Output (AC) on the medium-voltage side fixed power with SCUPUS (at 25°C to +23°C / 40°C optional 50°C 11 kteid power with SCUPUS (at 25°C to +23°C / 40°C optional 50°C 11 3800 kM / 3230 kM 3960 kW 490 kW 4110 kW 1300 kM / 3230 kM 3960 kW 4900 kW 490	Integrated zone monitoring)
Rained power with SCSUPUS (at 2.5°C to +3.5°C / 4.0°C optional 5.0°C 1 3800 kW / 3230 kW 3900 kW / 3330 kW 3900 kW / 3300 kW 3000 kW 3300 kW 3000 kW	Available DC fuse sizes (per input)	200 A, 250 A, 315 A, 35	0 A, 400 A, 450 A, 500 A
Read power with SCS-IPLIS (art 25°C to +25°C / 40°C optional 50°C)! 3950 NA/ 3300 NA 3960 NA/ 3336 NA 3960 NA/ 3336 NA 3960 NA/ 3336 NA 3960 NA/ 3336 NA 3100 NA 3130 NA 3100 NA	Output (AC) on the medium-voltage side		
Charging power with SCS-IRXFLVIS (nt 25°C to + 25°C / 40°C optional 50°C 10	Rated power with SC-UP-US (at -25°C to +35°C / 40°C optional 50°C) ¹⁾	4400 kVA / 3960 kVA	4600 kVA / 4140 kVA
Discharging power with SCSUPKTUS (at 25°C to + 25°C / 40°C optional 50°C)	Rated power with SCS-UP-US (at -25°C to +25°C / 40°C optional 50°C) ¹⁾	3800 kVA / 3230 kVA	3960 kVA / 3365 kVA
Discharging power with SCSUPKTUS (at 25°C to + 25°C / 40°C optional 50°C)	Charging power with SCS-UP-XT-US (at -25°C to + 25°C / 40°C optional 50°C) ¹⁾	3950 kVA / 3300 kVA	4130 kVA / 3455 kVA
Spical naminal AC voltages AC power frequency Frostformer vector group Dy11 / YNd11 / YNyO -		·	4600 kVA / 3910 kVA
AC power frequency AC power power frequency AC power power free free frequency AC power power free free free free free free free f	· · · · · · · · · · · · · · · · ·		
Transformer vector group Dy1 YNd11 YNy0 ● / ○ / ○ ● / ○ / ○ NANN N	••		
Transformer cooling methods Final Forms of the Cooling methods Final Forms efficiency: Standard / Eco Design 1 / Eco Design 2	· · ·	•	· ·
Frontsformer efficiency: Standard Eco Design 1 Eco Design 2	• • • • • • • • • • • • • • • • • • • •	· · · .	
Max, total harmonic distortion Reactive power feed-in up to 60% of nominal power) Newer factor a troted power / displacement power factor adjustable Inverter efficiency Max, efficiency// European efficiency ²¹ / CEC weighted efficiency ²² Protective devices Input side disconnection point Do load-break switch Do load-break switch Do verovaltage protection Galvanic isolation Feedures Surge arrester type I Act 20 kA 1 s General Data Medium-voltage exounce incuit breaker Surge arrester type I Act 20 kA 1 s General Data Seleconsumption (max. / partial load / average) Seleconsumption (max. / partial load / average) Seleconsumption (max. / partial load / average) Seleconsumption (stand-by) Degree of protection according to IEC 60529 Euroironment: standard / harsh Degree of protection according to IEC 60721-3-4 (AC1, 452 / 4C2, 4S4) Degree of protection according to IEC 60721-3-4 (AC1, 4S2 / 4C2, 4S4) Perfectives Determinal Acconnection Caccordinal Acconnection Freatures Terminal lug Acconnection Caccordinal for MV-transformer: without / with Acconnection Freatures Terminal lug Acconnection Freatures Terminal lug Acconnection Caccording to IEC 62271-200 Station according to IEC 6271-200 Station according to IEC 6072 accord	•		
Reactive power feed-in (up to 60% of nominal power) Prover factor at rated power / displacement power factor adjustable 1 / 0.8 oversetized to 0.8 underexcited in 0	· · · · · · · · · · · · · · · · · · ·		
Protective devices in trated power / displacement power factor adjustable 1 / 0.8 overexcited to 0.8 underexcited Inverter efficiency 98.7% / 98.6% / 98.5% 98.7% / 98.6% / 98.5% Protective devices 98.7% / 98.6% / 98.5% 98.7% / 98.6% / 98.5% Protective devices DC load-break switch DC overvoltage protection Medium-voltage vacuum circuit breaker DC overvoltage protection Surge arrester type DC overvoltage protection AC A 20 kA 1 s DC eneral Data Dimensions equal to 20-foot HC shipping container (W / H / D) 60.58 mm / 2896 mm / 2438 mm Velight Self-consumption (max. / partial load / average) Velight Self-consumption (max. / partial load / average) Veligere of protection according to IEC 60529 Control rooms IP23) Velorement: standard / harsh Ocean Velorement: standard / water			
Inverter efficiency Max. efficiency ¹¹ / European efficiency ¹² / CEC weighted efficiency ¹⁴ Max. efficiency ¹² / European efficiency ¹³ / CEC weighted efficiency ¹⁴ Potoetric devices Inputside disconnection point Del load-break switch Outputside disconnection point Medium-voltage vacuum circuit breaker Surge arrester type I Galvanic isolation Internal arc classification medium-voltage control room (according to IEC 62271-202) IAC A 20 KA 1 s General Data Dimensions equal to 20foot HC shipping container (W / H / D) Self-consumption (max. / partial load / average) ¹¹ Self-consumption (max. / partial load / average) ¹¹ Self-consumption (stand-by) ¹⁷ Self-consumption (stand-by) ¹⁷ Self-consumption (stand-by) ¹⁷ Self-consumption (stand-by) ¹⁸ Self-consumption is translated / harsh Degree of protection according to IEC 60729 Environment: standard / harsh Degree of protection according to IEC 60721-34 (AC1, 452 / 4C2, 454) Pogree of protection according to IEC 60721-34 (AC1, 452 / 4C2, 454) Pogree of protection according to IEC 60721-34 (AC1, 452 / 4C2, 454) Pogree of protection according to IEC 60721-34 (AC1, 452 / 4C2, 454) Pogree of protection according to IEC 60721-34 (AC1, 452 / 4C2, 454) Pogree of protection according to IEC 60721-34 (AC1, 452 / 4C2, 454) Pogree of protection according to IEC 60721-34 (AC1, 452 / 4C2, 454) Pogree of protection according to IEC 60721-34 (AC1, 452 / 4C2, 454) Pogree of protection according to IEC 60721-34 (AC1, 452 / 4C2, 454) Pogree of protection according to IEC 60721-34 (AC1, 452 / 4C2, 454) Pogree of protection according to IEC 60721-34 (AC1, 452 / 4C2, 454) Pogree of protection according to IEC 60721-34 (AC1, 452 / 4C2, 454) Pogree of protection according to IEC 60721-34 (AC1, 452 / 4C2, 454) Pogree of protection according to IEC 60721-34 (AC1, 452 / 4C2, 454) Pogree of protection according to IEC 60721-34 (AC1, 452 / 4C2, 454) Pogree of protection according to IEC 60721-34 (AC1, 452 / 4C2, 454) Pogree of protection according			~
Max. efficiency" / European efficiency" / CEC weighted efficiency ⁴ Protective devices Inputside disconnection point Output-side disconnection point Output-side disconnection point Ocovervollage protection Galvanic isolation Internal arc classification medium-voltage control room (according to IEC 62271-202) Internal arc classification medium-voltage control room (according to IEC 62271-202) Internal arc classification medium-voltage control room (according to IEC 62271-202) Reneral Data Self-consumption (max. / partial load / average) II Self-consumption (stand-by) II Degree of protection according to IEC 60529 Control rooms IP23D, inverter electronics IP54 Environment: standard / harsh Degree of protection according to IEC 60721-3-4 (AC1, 452 / 4C2, 4S4) II Max. aperting altitude above mean sea level 1000 m / 2000 m Septending altitude above mean sea level 1000 m / 2000 m Septending altitude above mean sea level 1000 m / 2000 m Septending altitude above mean sea level 1000 m / 2000 m Septending altitude above mean sea level 1000 m / 2000 m Septending altitude above mean sea level 1000 m / 2000 m Septending altitude above mean sea level 1000 m / 2000 m Septending altitude above mean sea level 1000 m / 2000 m Septending altitude above mean sea level 1000 m / 2000 m Septending altitude above mean sea level 1000 m / 2000 m Septending altitude above mean sea level 1000 m / 2000 m Septending altitude above mean sea level 1000 m / 2000 m Septending altitude above mean sea level 1000 m / 2000 m Septending altitude above mean sea level 1000 m / 2000 m Septending altitude above mean sea level 1000 m / 2000 m Septending altitude above mean sea level 1000 m / 2000 m Septending altitude above mean sea level 1000 m / 2000 m Septending altitude above mean sea level 1000 m / 2000 m Septending altitude above mean sea level 1000 m / 2000 m Septending altitude above mean		I / U.o overexcited	to 0.6 underexcited
Protective devices Input-side disconnection point Octoput-side disconnection Octoput-side octoput		00.70/ / 00.70/ / 00.50/	00.70/ / 00 / 0/ / 00 50/
Impulside disconnection point Output-side disconnection Output-side output-side side output-side	, , , , , , , , , , , , , , , , , , , ,	98.7% / 98.6% / 98.5%	98.7% / 98.6% / 98.5%
Output-side disconnection point Occurrently of the standard of the standards see the inverter datasheet) Occurrently of the standards (for other standards see the inverter datasheet) Occurrently of the standards (for other standards see the inverter datasheet) Occurrently of the standards (for other standards see the inverter datasheet) Occurrently of the standards (for other standards see the inverter datasheet) Occurrently occurrently on the standards (for other standards see the inverter datasheet) Occurrently occurren		221	
DC overvoltage protection Golvanic isolation Internal arc classification medium-voltage control room (according to IEC 62271-202) IAC A 20 kA 1 s General Data Dimensions equal to 20-foot HC shipping container (W / H / D) Weight Weight Self-consumption (max. / partial load / average) Self-consumption (max. / partial load / average) Self-consumption (max. / partial load / average) Self-consumption (stand-by) Self-consumption (stand-by) Self-consumption (stand-by) Degree of protection according to IEC 60529 Control rooms IP23D, inverter electronics IP54 Environment: standard / harsh Opegree of protection according to IEC 60721-3-4 {4C1, 4S2 / 4C2, 4S4} Opegree of protection according to IEC 60721-3-4 {4C1, 4S2 / 4C2, 4S4} Opegree of protection according to IEC 60721-3-4 {4C1, 4S2 / 4C2, 4S4} Opegree of protection according to IEC 60721-3-4 {4C1, 4S2 / 4C2, 4S4} Opegree of protection according to IEC 60721-3-4 {4C1, 4S2 / 4C2, 4S4} Opegree of protection according to IEC 60721-3-4 {4C1, 4S2 / 4C2, 4S4} Opegree of protection according to IEC 60721-3-4 {4C1, 4S2 / 4C2, 4S4} Opegree of protection according to IEC 60721-3-4 {4C1, 4S2 / 4C2, 4S4} Opegree of protection according to IEC 60721-3-4 {4C1, 4S2 / 4C2, 4S4} Opegree of protection according to IEC 60721-3-4 {4C1, 4S2 / 4C2, 4S4} Opegree of protection according to IEC 60721-3-4 {4C1, 4S2 / 4C2, 4S4} Opegree of protection according to IEC 60721-3-4 {4C1, 4S2 / 4C2, 4S4} Opegree of protection according to IEC 60721-3-4 {4C1, 4S2 / 4C2, 4S4} Opegree of protection according to IEC 60721-3-4 {4C1, 4S2 / 4C2, 4S4} Opegree of protection according to IEC 60721-3-4 {4C1, 4S2 / 4C2, 4S4} Opegree of protection according to IEC 60721-3-4 {4C1, 4S2 / 4C2, 4S4} Opegree of protection according to IEC 60721-3-4 {4C1, 4S2 / 4C2, 4S4} Opegree of protection according to IEC 60721-3-4 {4C1, 4S2 / 4C2, 4S4} Opegree of protection according to IEC 60721-3-4 {4C1, 4S2 / 4C2, 4S4} Opegree of protection according to IEC 60721-3-4 {4C1, 4S2 / 4C2, 4S4} Opegree of protection according to IEC			
Calvanic isolation Caccording to IEC 62271-202 IAC A 20 kA 1 s		Medium-voltage va	cuum circuit breaker
Internal arc classification medium-voltage control room (according to IEC 62271-202) General Data Dimensions equal to 20-foot HC shipping container (W / H / D) Self-consumption (max. / partial load / average) ¹⁾ Self-consumption (stand-by) ¹ Self-con	* '	Surge arre	ester type I
General Data Dimensions equal to 20-foot HC shipping container (W / H / D) 6058 mm / 2896 mm / 2438 mm 4 18 1 Self-consumption (max. / partial load / average) ¹¹ 8elf-consumption (stand-by) ¹¹ 8elf-consumption occording to IEC 60529 8ery of protection according to IEC 60721-3-4 (AC1, 4S2 / 4C2, 4S4) 8ery of protection according to IEC 60721-3-4 (AC1, 4S2 / 4C2, 4S4) 8ery of protection according to IEC 60721-3-4 (AC1, 4S2 / 4C2, 4S4) 8ery of protection according to IEC 60721-3-4 (AC1, 4S2 / 4C2, 4S4) 8ery of protection according to IEC 60721-3-4 (AC1, 4S2 / 4C2, 4S4) 8ery of protection according to IEC 60721-3-4 (AC1, 4S2 / 4C2, 4S4) 8ery of protection according to IEC 60721-3-4 (AC1, 4S2 / 4C2, 4S4) 8ery of protection according to IEC 60721-3-4 (AC1, 4S2 / 4C2, 4S4) 8ery of protection according to IEC 60721-3-4 (AC1, 4S2 / 4C2, 4S4) 8ery of protection according to IEC 60721-3-4 (AC1, 4S2 / 4C2, 4S4) 8ery of protection according to IEC 60721-200 8ery of protection acco	Galvanic isolation		
Weight Self-consumption (max. / partial load / average) ¹¹ Self-consumption (max. / partial load / average) ¹¹ Self-consumption (stand-by) ¹² Degree of protection according to IEC 60529 Environment: standard / harsh Degree of protection according to IEC 60721-3-4 (4C1, 452 / 4C2, 4S4) Maximum permissible value for relative humidity Max. operating altitude above mean sea level 1000 m / 2000 m Fresh air consumption of inverter Fresh air consumption of inverter Foctures DC terminal AC connection AC connection AC connection Shield winding for MV-transformer: without / with Shield winding for MV-transformer: without / with Station enclosure color Transformer for external loads: without / 10 / 20 / 30 / 40 / 50 / 60 kVA Medium-voltage switchgear: without / 3 feeders 2 cable feeders with load-back switch, 1 transformer feeder with circuit breaker, internal arc classification IAC A FL 20 kA 1 s according to IEC 62271-200 Short circuit rating medium voltage switchgear (25 kA 1 s) Integrated oil containment: without / with IEEE C37.100.1, IEEE C37.12, C37.20.9, UL 1741 listed, CSC Certificate, UL 347	Internal arc classification medium-voltage control room (according to IEC 62271-202)	IAC A 2	0 kA 1 s
Veight Self-consumption (max. / partial load / average] Self-consumption (max. / partial load / average] Self-consumption (stand-by) Self-consumpt	General Data		
Self-consumption (max. / partial load / average) ¹⁾ Self-consumption (stand-by) ¹⁾ Degree of protection according to IEC 60529 Environment: standard / harsh Degree of protection according to IEC 60721-3-4 (4C1, 4S2 / 4C2, 4S4) Maximum permissible value for relative humidity Max. operating allitude above mean sea level 1000 m / 2000 m Fresh air consumption of inverter Features Determinal AC connection AC connection Tap changer for MV-transformer: without / with Stelid winding for MV-transformer: without / with Stelid winding for MV-transformer: without / with Stotion enclosure color Transformer for external loads: without / 10 / 20 / 30 / 40 / 50 / 60 kVA Medium-voltage switchgear: without / 3 feeders 2 cable feeders with load-break switch, 1 transformer feeder with circuit breaker, internal arc classification lAC A FL 20 kA 1 s according to IEC 62271-200 Short circuit rating medium voltage switchgear (25 kA 1 s) Integrated oil containment: without / with IEEC 60076, IEC 62271-200, IEC 62271-200, EC CSC Certificate, UI 347	Dimensions equal to 20-foot HC shipping container (W / H / D)	6058 mm / 2890	5 mm / 2438 mm
Self-consumption (stand-by) ¹¹ Degree of protection according to IEC 60529 Control rooms IP23D, inverter electronics IP54 Environment: standard / harsh Degree of protection according to IEC 60721-3-4 (4C1, 4S2 / 4C2, 4S4) Maximum permissible value for relative humidity Max. operating altitude above mean sea level 1000 m / 2000 m Fresh air consumption of inverter Features DC terminal AC connection Top changer for MV-transformer: without / with Shield winding for MV-Transformer: without / with Station enclosure color Transformer for external loads: without / 10 / 20 / 30 / 40 / 50 / 60 kVA Medium-voltage switchgear: without / 3 feeders 2 cable feeders with load-break switch, 1 transformer feeder with circuit breaker, internal arc classification IAC A FL 20 kA 1 s according to IEC 62271-200 Short circuit rating medium voltage switchgear (25 kA 1 s) Integrated oil containment: without / with IEEE C37.100.1, IEEE C57.12, C37.20.9, UL 1741 listed, CSC Certificate, UL 347	Weight	< 1	8 t
Degree of protection according to IEC 60529 Environment: standard / harsh Degree of protection according to IEC 60721-3-4 (4C1, 452 / 4C2, 454) Maximum permissible value for relative humidity Max. operating altitude above mean sea level 1000 m / 2000 m Fresh air consumption of inverter Features DC terminal AC connection Top changer for MV-transformer: without / with Shield winding for MV-Transformer: without / with Shield winding for MV-Transformer: without / 10 / 20 / 30 / 40 / 50 / 60 kVA Medium-voltage switchgear: without / 3 feeders 2 cable feeders with load-break switch, 1 transformer feeder with circuit breaker, internal arc classification IAC A FL 20 kA 1 s according to IEC 62271-200 Short circuit rating medium voltage switchgear (25 kA 1 s) Industry standards (for other standards see the inverter datasheet) Control rooms IP23D, inverter electronics IP54 Control rooms IP23D, inverter electronics IP54 Control rooms IP23D, inverter electronics IP54 Control rooms IP23D, inverter electronics IP54 Control rooms IP23D, inverter electronics IP54 Control rooms IP23D, inverter electronics IP54 Control rooms IP23D, inverter electronics IP54 Control rooms IP23D, inverter electronics IP54 Control rooms IP23D, inverter electronics IP54 Control rooms IP23D, inverter electronics IP54 Control rooms IP23D, inverter electronics IP54 Control rooms IP23D, inverter electronics IP54 Control rooms IP23D, inverter electronics IP54 Control rooms IP3D, inverter electronics IP54 Control rooms IP23D, inverter electronics IP54 Control rooms IP3D, inverter electronics IP54 Control of 200 months/year) Control rooms IP3D, inverter electronics IP54 Control rooms IP3D, inverter electronics IP54 Control of 200 months/year) Control of 200 months/year) Control of 200 mon	Self-consumption (max. / partial load / average) ¹⁾	< 8.1 kW / < 1.8	3 kW / < 2.0 kW
Environment: standard / harsh Degree of protection according to IEC 60721-3-4 (4C1, 4S2 / 4C2, 4S4) Degree of protection according to IEC 60721-3-4 (4C1, 4S2 / 4C2, 4S4) Max. operating altitude above mean sea level 1000 m / 2000 m Max. operating altitude above mean sea level 1000 m / 2000 m Fresh air consumption of inverter Features DC terminal AC connection Tap changer for MV-transformer: without / with AC connection Tap changer for MV-transformer: without / with AC connection Tap changer for MV-transformer: without / with AC connection Transformer for external loads: without / 10 / 20 / 30 / 40 / 50 / 60 kVA Medium-voltage switchgear: without / 10 / 20 / 30 / 40 / 50 / 60 kVA Medium-voltage switchgear: without / 3 feeders 2 cable feeders with load-break switch, 1 transformer feeder with circuit breaker, internal arc classification IAC A FL 20 kA 1 s according to IEC 62271-200 Short circuit rating medium voltage switchgear (25 kA 1 s) Integrated oil containment: without / with Industry standards (for other standards see the inverter datasheet) IEEC 60076, IEC 62271-200, IEC 62271-202, EN50588-1 IEEE C37.100.1, IEEE C57.12, C37.20.9, UL 1741 listed, CSC Certifficate, UL 347	Self-consumption (stand-by) ¹⁾	< 37	'0 W
Degree of protection according to IEC 60721-3-4 (4C1, 4S2 / 4C2, 4S4) Maximum permissible value for relative humidity 95% (for 2 months/year) Max. operating altitude above mean sea level 1000 m / 2000 m Fresh air consumption of inverter 6500 m³/h Features DC terminal AC connection Tap changer for MV-transformer: without / with Shield winding for MV-transformer: without / with Station enclosure color Transformer for external loads: without / 10 / 20 / 30 / 40 / 50 / 60 kVA Medium-voltage switchgear: without / 3 feeders 2 cable feeders with load-break switch, 1 transformer feeder with circuit breaker, internal arc classification IAC A FL 20 kA 1 s according to IEC 62271-200 Short circuit rating medium voltage switchgear (25 kA 1 s) Industry standards (for other standards see the inverter datasheet) IEEE C37.100.1, IEEE C57.12, C37.20.9, UL 1741 listed, CSC Certificate, UL 347	Degree of protection according to IEC 60529	Control rooms IP23D, i	nverter electronics IP54
Maximum permissible value for relative humidity Max. operating altitude above mean sea level 1000 m / 2000 m Fresh air consumption of inverter Features DC terminal AC connection Tap changer for MV-transformer: without / with Shield winding for MV-transformer: without / with Stotion enclosure color Transformer for external loads: without / 10 / 20 / 30 / 40 / 50 / 60 kVA Medium-voltage switchgear: without / 3 feeders 2 cable feeders with load-break switch, 1 transformer feeder with circuit breaker, internal arc classification IAC A FL 20 kA 1 s according to IEC 62271-200 Short circuit rating medium voltage switchgear (25 kA 1 s) Integrated oil containment: without / with Industry standards (for other standards see the inverter datasheet) IEE 60076, IEC 62271-200, IEC 62271-202, EN50588-1 IEEE C37.100.1, IEEE C57.12, C37.20.9, UL 1741 listed, CSC Certificate, UL 347	Environment: standard / harsh	• ,	/ 0
Max. operating altitude above mean sea level 1000 m / 2000 m Fresh air consumption of inverter Features DC terminal AC connection Tap changer for MV-transformer: without / with To changer for MV-transformer: without / with Stelid winding for MV-Transformer: without / with Station enclosure color Transformer for external loads: without / 10 / 20 / 30 / 40 / 50 / 60 kVA Medium-voltage switchgear: without / 3 feeders 2 cable feeders with load-break switch, 1 transformer feeder with circuit breaker, internal arc classification IAC A FL 20 kA 1 s according to IEC 62271-200 Short circuit rating medium voltage switchgear (25 kA 1 s) Integrated oil containment: without / with Industry standards (for other standards see the inverter datasheet) IEEC 60076, IEC 62271-200, IEC 62271-202, EN50588-1 IEEE C37.100.1, IEEE C57.12, C37.20.9, UL 1741 listed, CSC Certificate, UL 347	Degree of protection according to IEC 60721-3-4 (4C1, 4S2 / 4C2, 4S4)	• ,	/ 0
Fresh air consumption of inverter Features DC terminal AC connection Tap changer for MV-transformer: without / with Station enclosure color Transformer for external loads: without / 10 / 20 / 30 / 40 / 50 / 60 kVA Medium-voltage switchgear: without / 1 transformer feeder with circuit breaker, internal arc classification IAC A FL 20 kA 1 s according to IEC 62271-200 Short circuit rating medium voltage switchgear (25 kA 1 s) Industry standards (for other standards see the inverter datasheet) IEEC 60076, IEC 62271-200,	Maximum permissible value for relative humidity	95% (for 2 n	months/year)
Fresh air consumption of inverter Features DC terminal AC connection Tap changer for MV-transformer: without / with Shield winding for MV-Transformer: without / with Station enclosure color Transformer for external loads: without / 10 / 20 / 30 / 40 / 50 / 60 kVA Medium-voltage switchgear: without / 3 feedbrack 2 cable feeders with load-break switch, 1 transformer feeder with circuit breaker, internal arc classification IAC A FL 20 kA 1 s according to IEC 62271-200 Short circuit rating medium voltage switchgear (25 kA 1 s) Integrated oil containment: without / with Industry standards (for other standards see the inverter datasheet) IEC 60076, IEC 62271-200, IEC 62271-202, EN50588-1 IEEE C37.100.1, IEEE C57.12, C37.20.9, UL 1741 listed, CSC Certificate, UL 347	Max. operating altitude above mean sea level 1000 m / 2000 m	• ,	/0
Features DC terminal AC connection Tap changer for MV-transformer: without / with Shield winding for MV-Transformer: without / with Station enclosure color Transformer for external loads: without / 10 / 20 / 30 / 40 / 50 / 60 kVA Medium-voltage switchgear: without / 3 feeders 2 cable feeders with load-break switch, 1 transformer feeder with circuit breaker, internal arc classification IAC A FL 20 kA 1 s according to IEC 62271-200 Short circuit rating medium voltage switchgear (25 kA 1 s) Industry standards (for other standards see the inverter datasheet) IEC 60076, IEC 62271-200, IEC 62271-202, EN50588-1 IEEE C37.100.1, IEEE C57.12, C37.20.9, UL 1741 listed, CSC Certificate, UL 347	• •		
Terminal lug AC connection Tap changer for MV-transformer: without / with Shield winding for MV-Transformer: without / with Station enclosure color Transformer for external loads: without / 10 / 20 / 30 / 40 / 50 / 60 kVA Medium-voltage switchgear: without / 3 feeders 2 cable feeders with load-break switch, 1 transformer feeder with circuit breaker, internal arc classification IAC A FL 20 kA 1 s according to IEC 62271-200 Short circuit rating medium voltage switchgear (25 kA 1 s) Integrated oil containment: without / with Industry standards (for other standards see the inverter datasheet) Terminal lug Outer-cone angle plug Outer-cone angle plug P / 0 RAL 7004 P / 0 / 0 / 0 / 0 / 0 / 0 P / 0 / 0 / 0 / 0 / 0 / 0 / 0 IRC 62271-200 Short circuit rating medium voltage switchgear (25 kA 1 s) IEEC 60076, IEC 62271-200, IEC 62271-202, EN50588-1 IEEE C37.100.1, IEEE C57.12, C37.20.9, UL 1741 listed, CSC Certificate, UL 347			•
AC connection Tap changer for MV-transformer: without / with Shield winding for MV-Transformer: without / with Station enclosure color Transformer for external loads: without / 10 / 20 / 30 / 40 / 50 / 60 kVA Medium-voltage switchgear: without / 3 feeders 2 cable feeders with load-break switch, 1 transformer feeder with circuit breaker, internal arc classification IAC A FL 20 kA 1 s according to IEC 62271-200 Short circuit rating medium voltage switchgear (25 kA 1 s) Integrated oil containment: without / with Industry standards (for other standards see the inverter datasheet) Outer-cone angle plug Outer-cone angle plug Outer-cone angle plug Outer-cone angle plug Outer-cone angle plug Outer-cone angle plug Outer-cone angle plug Outer-cone angle plug Octains and contains and co		Termin	nal lua
Tap changer for MV-transformer: without / with Shield winding for MV-Transformer: without / with Station enclosure color Transformer for external loads: without / 10 / 20 / 30 / 40 / 50 / 60 kVA Medium-voltage switchgear: without / 3 feeders 2 cable feeders with load-break switch, 1 transformer feeder with circuit breaker, internal arc classification IAC A FL 20 kA 1 s according to IEC 62271-200 Short circuit rating medium voltage switchgear (25 kA 1 s) Integrated oil containment: without / with Industry standards (for other standards see the inverter datasheet) IEC 60076, IEC 62271-200, IEC 62271-202, EN50588-1 IEEE C37.100.1, IEEE C57.12, C37.20.9, UL 1741 listed, CSC Certificate, UL 347			
Shield winding for MV-Transformer: without / with Station enclosure color Transformer for external loads: without / 10 / 20 / 30 / 40 / 50 / 60 kVA Medium-voltage switchgear: without / 3 feeders 2 cable feeders with load-break switch, 1 transformer feeder with circuit breaker, internal arc classification IAC A FL 20 kA 1 s according to IEC 62271-200 Short circuit rating medium voltage switchgear (25 kA 1 s) Integrated oil containment: without / with Industry standards (for other standards see the inverter datasheet) IEC 60076, IEC 62271-200, IEC 62271-202, EN50588-1 IEEE C37.100.1, IEEE C57.12, C37.20.9, UL 1741 listed, CSC Certificate, UL 347			
Station enclosure color Transformer for external loads: without / 10 / 20 / 30 / 40 / 50 / 60 kVA Medium-voltage switchgear: without / 3 feeders 2 cable feeders with load-break switch, 1 transformer feeder with circuit breaker, internal arc classification IAC A FL 20 kA 1 s according to IEC 62271-200 Short circuit rating medium voltage switchgear (25 kA 1 s) Integrated oil containment: without / with Industry standards (for other standards see the inverter datasheet) IEC 60076, IEC 62271-200, IEC 62271-202, EN50588-1 IEEE C37.100.1, IEEE C57.12, C37.20.9, UL 1741 listed, CSC Certificate, UL 347	• •		
Transformer for external loads: without / 10 / 20 / 30 / 40 / 50 / 60 kVA Medium-voltage switchgear: without / 3 feeders 2 cable feeders with load-break switch, 1 transformer feeder with circuit breaker, internal arc classification IAC A FL 20 kA 1 s according to IEC 62271-200 Short circuit rating medium voltage switchgear (25 kA 1 s) Integrated oil containment: without / with Industry standards (for other standards see the inverter datasheet) IEC 60076, IEC 62271-200, IEC 62271-202, EN50588-1 IEEE C37.100.1, IEEE C57.12, C37.20.9, UL 1741 listed, CSC Certificate, UL 347	· · · · · · · · · · · · · · · · · · ·	· ·	
Medium-voltage switchgear: without / 3 feeders 2 cable feeders with load-break switch, 1 transformer feeder with circuit breaker, internal arc classification IAC A FL 20 kA 1 s according to IEC 62271-200 Short circuit rating medium voltage switchgear (25 kA 1 s) Integrated oil containment: without / with Industry standards (for other standards see the inverter datasheet) IEC 60076, IEC 62271-200, IEC 62271-202, EN50588-1 IEEE C37.100.1, IEEE C57.12, C37.20.9, UL 1741 listed, CSC Certificate, UL 347			
Short circuit rating medium voltage switchgear (25 kA 1 s) Integrated oil containment: without / with Industry standards (for other standards see the inverter datasheet) IEC 60076, IEC 62271-200, IEC 62271-202, EN50588-1 IEEE C37.100.1, IEEE C57.12, C37.20.9, UL 1741 listed, CSC Certificate, UL 347	Medium-voltage switchgear: without / 3 feeders 2 cable feeders with load-break switch, 1 transformer feeder with circuit breaker, internal arc classifi-		
Integrated oil containment: without / with Industry standards (for other standards see the inverter datasheet) IEC 60076, IEC 62271-200, IEC 62271-202, EN50588-1 IEEE C37.100.1, IEEE C57.12, C37.20.9, UL 1741 listed, CSC Certificate, UL 347			
Industry standards (for other standards see the inverter datasheet) IEC 60076, IEC 62271-200, IEC 62271-202, EN50588-1 IEEE C37.100.1, IEEE C57.12, C37.20.9, UL 1741 listed, CSC Certificate, UL 347			
IEEE C37.100.1, IEEE C57.12, C37.20.9, UL 1741 listed, CSC Certificate, UL 347	,		
		IEEE C37.100.1, IEEE C57.1	2, C37.20.9, UL 1741 listed,
● Standard features		COC Cermin	

- 1) Data based on inverter. Further details can be found in the data sheet of the inverter.
- 2) KNAN = Natural ester fluid with natural air cooling
- 3) Efficiency measured at inverter without internal power supply $\,$
- 4) Efficiency measured at inverter with internal power supply







Q.PEAK DUO XL-G11.3 / BFG 570-585

BIFACIAL DOUBLE GLASS MODULE WITH EXCELLENT RELIABILITY AND ADDITIONAL YIELD









BIFACIAL ENERGY YIELD GAIN OF UP TO 20%

Bifacial Q.ANTUM solar cells make efficient use of light shining on the module rear-side for radically improved LCOE.



LOW ELECTRICITY GENERATION COSTS

Q.ANTUM DUO Z combines cutting edge cell separation and innovative wiring with Q.ANTUM Technology for higher yield per surface area, lower BOS costs, higher power classes, and an efficiency rate of up to 21.5%.



INNOVATIVE ALL-WEATHER TECHNOLOGY

Optimal yields, whatever the weather with excellent low-light and temperature behavior.



ENDURING HIGH PERFORMANCE

Long-term yield security with Anti LID and Anti PID Technology 1 , Hot-Spot Protect and Traceable Quality Tra. $\mathbb{Q}^{\mathbb{M}}$.



FRAME FOR VERSATILE MOUNTING OPTIONS

High-tech aluminum alloy frame protects from damage, enables use of a wide range of mounting structures and is certified regarding IEC for high snow (5400 Pa) and wind loads (2400 Pa).



A RELIABLE INVESTMENT

Double glass module design enables extended lifetime with 12-year product warranty and improved 30-year performance warranty².

THE IDEAL SOLUTION FOR:

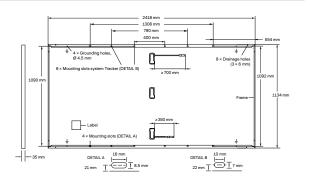


Ground-mounted solar power plants



 $^{^1}$ APT test conditions according to IEC/TS 62804-1:2015 method B (–1500 V, 168 h) including post treatment according to IEC 61215-1-1 Ed. 2.0 (CD)

² See data sheet on rear for further information



ELECTRICAL CHARACTERISTICS

PO	WER CLASS			570		575		580		585	
MIN	IIMUM PERFORMANCE AT STANDARE	TEST CONDITIO	NS, STC ¹	AND BSTC1 (POWER TO	LERANCE -	+5 W / -0 W)			
					BSTC*		BSTC*		BSTC*		BSTC*
	Power at MPP¹	P _{MPP}	[W]	570	623.5	575	629.0	580	634.4	585	639.9
_	Short Circuit Current ¹	I _{sc}	[A]	13.50	14.77	13.52	14.80	13.55	14.83	13.57	14.86
mun	Open Circuit Voltage ¹	V _{oc}	[V]	53.50	53.69	53.53	53.72	53.56	53.75	53.59	53.78
Jin ji	Current at MPP	I _{MPP}	[A]	12.83	14.03	12.87	14.09	12.92	14.14	12.97	14.19
_	Voltage at MPP	V_{MPP}	[V]	44.44	44.43	44.66	44.65	44.88	44.87	45.10	45.09
	Efficiency ¹	η	[%]	≥20.8	≥22.8	≥21.0	≥23.0	≥21.2	≥23.2	≥21.4	≥23.4

Bifaciality of P_{MPP} and I_{SC} 70% \pm 5% • Bifaciality given for rear side irradiation on top of STC (front side) • According to IEC 60904-1-2

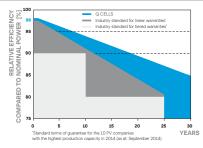
 $^{1}\text{Measurement tolerances P}_{\text{MFP}}\pm3\%; I_{\text{SC}}, V_{\text{OC}}\pm5\% \text{ at STC}: 1000 \text{ W/m}^{2}; \\ ^{+}\text{at BSTC}: 1000 \text{ W/m}^{2}+\phi\times135 \text{ W/m}^{2}, \\ \phi=70\%\pm5\%, 25\pm2\%\text{C}, \text{AM 1.5 according to IEC 60904-3}; \\ ^{+}\text{Measurement tolerances P}_{\text{MFP}}\pm3\%; I_{\text{SC}}, V_{\text{OC}}\pm5\% \text{ at STC}: 1000 \text{ W/m}^{2}; \\ ^{+}\text{at BSTC}: 1000 \text{ W/m}^{2}+\phi\times135 \text{ W/m}^{2}, \\ \phi=70\%\pm5\%, 25\pm2\%\text{C}, \text{AM 1.5 according to IEC 60904-3}; \\ ^{+}\text{Measurement tolerances P}_{\text{MFP}}\pm3\%; I_{\text{SC}}, V_{\text{OC}}\pm5\% \text{ at STC}: \\ ^{+}\text{Measurement tolerances P}_{\text{MFP}}\pm3\%; I_{\text{SC}}, V_{\text{OC}}\pm5\%; \\ ^{+}\text{Measurement tolerances P}_{\text{MFP}}\pm3\%; I_{\text{SC}}, V_{\text{CC}}\pm3\%; \\ ^{+}\text{Measurement tolerances P}_{\text{MFP}}\pm3\%; I_{\text{SC}}\pm3\%; \\ ^{+}\text{Measurement tolerances P}_{\text{MFP}}\pm3\%; I_{\text{SC}}\pm3\%; \\ ^{+}\text{Measurement tolerances P}_{\text{MFP}}\pm3\%; \\ ^{+}\text{Measurement tolerances P}_{\text{M$

MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NMOT2

	Power at MPP	P _{MPP}	[W]	429.1	432.9	436.6	440.4
드	Short Circuit Current	I _{sc}	[A]	10.87	10.89	10.91	10.93
ij	Open Circuit Voltage	V _{oc}	[V]	50.60	50.63	50.66	50.68
₫	Current at MPP	I _{MPP}	[A]	10.09	10.14	10.18	10.22
	Voltage at MPP	V _{MPP}	[V]	42.51	42.71	42.89	43.08

²800 W/m², NMOT, spectrum AM 1.5

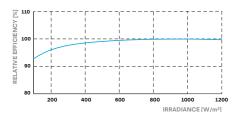
Q CELLS PERFORMANCE WARRANTY



At least 98% of nominal power during first year. Thereafter max. 0.45% degradation per year. At least 94% of nominal power up to 10 years. At least 85% of nominal power up to 30 years.

All data within measurement tolerances. Full warranties in accordance with the warranty terms of the Q CELLS sales organisation of your respective country.

PERFORMANCE AT LOW IRRADIANCE



Typical module performance under low irradiance conditions in comparison to STC conditions ($25 \, ^{\circ}\text{C}$, $1000 \, \text{W/m}^2$).

TEMPERATURE COEFFICIENTS							
Temperature Coefficient of I _{SC}	α	[%/K]	+0.04	Temperature Coefficient of Voc	β	[%/K]	-0.27
Temperature Coefficient of P	v	[%/K]	-0.34	Nominal Module Operating Temperature	NMOT	l _o CJ	42+3

PROPERTIES FOR SYSTEM DESIGN

Maximum System Voltage	V_{SYS}	[V]	1500	PV module classification	Class II
Maximum Reverse Current	I _R	[A]	20	Fire Rating based on ANSI/UL 61730	C/TYPE 29 ³
Max. Design Load, Push / Pull		[Pa]	3600/1600	Permitted Module Temperature on Continuous Duty	-40°C - +85°C
Max Test Load Push / Pull		[Pa]	5400 / 2400	3 New Type is similar to Type 3 but with metallic frame	

QUALIFICATIONS AND CERTIFICATES

IEC 61215:2016, IEC 61730:2016. This data sheet complies with DIN EN 50380.





Note: Installation instructions must be followed. See the installation and operating manual or contact our technical service department for further information on approved installation and use of this product.

Hanwha Q CELLS GmbH

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CELLS 🖸

Specifications subject to technical changes © Q CELLS Q.P.EAK DUO XL-G11.3_BFG_570-585_2020-11_Rev01_EN

SUNNY CENTRAL 4000 UP-US / 4200 UP-US / 4400 UP-US / 4600 UP-US





Efficient

- Up to 4 inverters can be transported in one standard shipping container
- Overdimensioning up to 150% is possible
- Full power at ambient temperatures of up to 35°C

Robust

- Intelligent air cooling system OptiCool for efficient cooling
- Suitable for outdoor use in all climatic ambient conditions worldwide

Flexible

- Conforms to all known grid requirements worldwide
- Q on demand
- Available as a single device or turnkey solution, including medium-voltage block

Easy to Use

- Improved DC connection area
- Connection area for customer equipment
- Integrated voltage support for internal and external loads

SUNNY CENTRAL 4000 UP-US / 4200 UP-US / 4400 UP-US / 4600 UP-US

The new Sunny Central: more power per cubic meter

With an output of up to 4600 kVA and system voltages of 1500 V DC, the SMA central inverter allows for more efficient system design and a reduction in specific costs for PV power plants. A separate voltage supply and additional space are available for the installation of customer equipment. True 1500 V technology and the intelligent cooling system OptiCool ensure smooth operation even in extreme ambient temperature as well as a long service life of 25 years.

SUNNY CENTRAL 4000 UP-US / 4200 UP-US

echnical data	SC 4000 UP-US	SC 4200 UP-US
nput (DC)		
APP voltage range V _{DC} (at 25 °C / at 50 °C)	880 to 1325 V / 1100 V	921 to 1325 V / 1050 V
Ain. input voltage V _{DC, min} / Start voltage V _{DC, Start}	849 V / 1030 V	891 V / 1071 V
Max. input voltage V _{DC, max}	1500 V	1500 V
Max. input current I _{DC, max}	4750 A	4750 A
Max. short-circuit current I _{DC} sc	6400 A	6400 A
Number of DC inputs	24 double pole fused	
Max. number of DC cables per DC input (for each polarity)	2 x 800 kcmil,	
ntegrated zone monitoring		
Available PV fuse sizes (per input)	200 A, 250 A, 315 A, 35	O A. 400 A. 450 A. 500 A
Available battery fuse size (per input)	750	
Output (AC)		
Nominal AC power at cos φ = 1 (at 35°C / at 50°C)	4000 kVA ¹¹⁾ / 3600 kVA	4200 kVA ¹²⁾ / 3780 kVA
Nominal AC power at $\cos \varphi$ + (at 35° C / at 50° C)	3200 kW ¹¹ / 2880 kW	3360 kW ¹²⁾ / 3024 kW
, , , , , , , , , , , , , , , , , , , ,	3850 A / 3465 A	3850 A / 3465 A
Nominal AC current I _{AC, nom} (at 35°C / at 50°C) Max. total harmonic distortion	·	
viax. total narmonic alstortion Nominal AC voltage / nominal AC voltage range ^{1) 8)}	< 3% at nominal power 600 V / 480 V to 720 V	< 3% at nominal power 630 V / 504 V to 756 V
	50 Hz / 47	
AC power frequency / range	50 Hz / 47 60 Hz / 57	
Ain. short-circuit ratio at the AC terminals ⁹⁾	>	
Ower factor at rated power / displacement power factor adjustable 8) 10)	1 / 0.8 overexcited	to 0.8 underexcited
fficiency	-	
Max. efficiency ² / European efficiency ² / CEC efficiency ³	98.7% / 98.6% / 98.5%	98.7% / 98.6% / 98.5%
Protective Devices	, ,	
nput-side disconnection point	DC load b	reak switch
Dutput-side disconnection point	AC circui	
OC overvoltage protection	Surge arre	
AC overvoltage protection (optional)	Surge arre	, ·
ightning protection (according to IEC 62305-1)	Lightning Prote	
	Lighting From	
Ground-fault monitoring / remote ground-fault monitoring		
nsulation monitoring		
Degree of protection	NEM	A 3K
General Data	2700 / 2210 / 1500	(100 4 / 01 2 / 42 5 : h)
Dimensions (W / H / D)	2780 / 2318 / 1588 mm	
Veight	<3700 kg /	
Self-consumption (max.4) / partial load5) / average6)	< 8100 W / < 180	
self-consumption (standby)	< 37	
nternal auxiliary power supply	O Integrated 8.4	
Operating temperature range ⁸⁾	-25°C to 60°C	
Noise emission ⁷⁾	67.0 c	• •
emperature range (standby)	-40°C to 60°C /	
emperature range (storage)	−40°C to 70°C /	′ –40°F to 158°F
Max. permissible value for relative humidity (condensing / non-condensing)	95% to 100% (2 mon	th/year) / 0% to 95%
Maximum operating altitude above MSL ⁸⁾ 1000 m / 2000 m	✓ (earlier temperate	•
resh air consumption	6500	m³/h
eatures		
OC connection	Terminal lug on each	n input (without fuse)
AC connection	With busbar system (three bus	sbars, one per line conductor)
Communication	Ethernet, Modbus M	aster, Modbus Slave
Communication with SMA string monitor (transmission medium)	Modbus TCP / Ether	net (FO MM, Cat-5)
inclosure / roof color	RAL 9016 ,	
Supply transformer for external loads	o (2.5	
tandards and directives complied with	UL 62109-1, UL 1741 (Chapter 3 IEEE 1547, N	1, CDR 6I), UL 1741-SA, UL 1998,
MC standards	FCC Part 1	
Quality standards and directives complied with	VDI/VDE 2862 page	
,	, 5, , 52 2532 page	,

- At nominal AC voltage, nominal AC power decreases in the same proportion
 Efficiency measured without internal power supply
 Efficiency measured with internal power supply

- 4) Self-consumption at rated operation
- 5) Self-consumption at < 75% Pn at 25°C
 6) Self-consumption averaged out from 5% to 100% Pn at 25°C
- 7) Sound pressure level at a distance of 10 m

- 8) Values apply only to inverters. Permissible values for SMA MV solutions from SMA can be found in the corresponding data sheets.
- 9) A short-circuit ratio of < 2 requires a special approval from SMA

- 10) Depending on the DC voltage
 11) Nominal power at 35°C max DC voltage of 1050 V
 12) Nominal power at 35°C max DC voltage of 1000 V
 13) Nominal power at 35°C max DC voltage of 1025 V

SUNNY CENTRAL 4400 UP-US / 4600 UP-US

echnical data	SC 4400 UP-US	SC 4600 UP-US
nput (DC)		
MPP voltage range V _{DC} (at 25 °C / at 50 °C)	962 to 1325 V / 1000 V	1003 to 1325 V / 1040 V
Min. input voltage V _{DC. min} / Start voltage V _{DC. Start}	934 V / 1112 V	976 V / 1153 V
Max. input voltage V _{DC, max}	1500 V	1500 V
Max. input current I _{DC max}	4750 A	4750 A
Max. short-circuit current I _{DC sc}	6400 A	6400 A
Number of DC inputs	24 double pole fused	
Max. number of DC cables per DC input (for each polarity)	2 x 800 kcmil,	
ntegrated zone monitoring	,	
Available PV fuse sizes (per input)	200 A, 250 A, 315 A, 350	O A. 400 A. 450 A. 500 A
Available battery fuse size (per input)	750	
Output (AC)		
Nominal AC power at cos φ =1 (at 35°C / at 50°C)	4400 kVA ¹²⁾ / 3960 kVA	4600 kVA ¹³⁾ / 4140 kVA
Nominal AC power at $\cos \varphi$ + (at 35° C / at 50° C)	3520 kW ¹² / 3168 kW	3680 kW ¹³ / 3312 kW
	3850 A / 3465 A	3850 A / 3465 A
Nominal AC current I _{AC, nom} (at 35°C / at 50°C) Max. total harmonic distortion	·	
viax. total narmonic alstortion Nominal AC voltage / nominal AC voltage range ^{1) 8)}	< 3% at nominal power 660 V / 528 V to 759 V	< 3% at nominal power 690 V / 552 V to 759 V
	50 Hz / 47	
AC power frequency / range	50 Hz / 47 60 Hz / 57	
Min. short-circuit ratio at the AC terminals ⁹	>	
Power factor at rated power / displacement power factor adjustable ^{8) 10)}	1 / 0.8 overexcited	to 0.8 underexcited
fficiency		
Max. efficiency ² / European efficiency ² / CEC efficiency ³	98.7% / 98.6% / 98.5%	98.7% / 98.6% / 98.5%
Protective Devices	, , , , , , , , , , , , , , , , , , , ,	, , , , , , , , , , , , , , , , , , , ,
nput-side disconnection point	DC load b	reak switch
Dutput-side disconnection point	AC circui	
OC overvoltage protection	Surge arre	
AC overvoltage protection (optional)	Surge arre	, ·
ightning protection (according to IEC 62305-1)	Lightning Prote	
Ground-fault monitoring / remote ground-fault monitoring	0,	
nsulation monitoring	NEM	
Degree of protection	INLIVI	A SK
General Data	2700 / 2210 / 1500	(100 4 / 01 2 / 42 5 : l-)
Dimensions (W / H / D)	2780 / 2318 / 1588 mm	
Weight	<3700 kg /	
Self-consumption (max.4) / partial load5) / average6)	< 8100 W / < 180	
Self-consumption (standby)	< 37	
nternal auxiliary power supply	O Integrated 8.4	
Operating temperature range ⁸⁾	-25°C to 60°C /	
Noise emission ⁷⁾	67.0 c	• •
emperature range (standby)	-40°C to 60°C /	
emperature range (storage)	-40°C to 70°C /	
Max. permissible value for relative humidity (condensing / non-condensing)	95% to 100% (2 mon	• •
Maximum operating altitude above MSL® 1000 m / 2000 m		
resh air consumption	6500	m³/h
eatures		
PC connection	Terminal lug on each	
AC connection	With busbar system (three bus	sbars, one per line conductor)
Communication	Ethernet, Modbus M	aster, Modbus Slave
Communication with SMA string monitor (transmission medium)	Modbus TCP / Ether	net (FO MM, Cat-5)
inclosure / roof color	RAL 9016 /	′ RAL 7004
Supply transformer for external loads	0 (2.5	kVA)
Standards and directives complied with	UL 62109-1, UL 1741 (Chapter 3 IEEE 1547, N	1, CDR 61), UL 1741-SA, UL 1998 NIL-STD-810G
MC standards	FCC Part 1	5 Class A
Quality standards and directives complied with	VDI/VDE 2862 page	2, DIN EN ISO 9001
	,	

- At nominal AC voltage, nominal AC power decreases in the same proportion
 Efficiency measured without internal power supply
 Efficiency measured with internal power supply

- 4) Self-consumption at rated operation
- 5) Self-consumption at < 75% Pn at 25°C
- 6) Self-consumption averaged out from 5% to 100% Pn at 25°C 7) Sound pressure level at a distance of 10 m

- 8) Values apply only to inverters. Permissible values for SMA MV solutions from SMA can be found in the corresponding data sheets.
- 9) A short-circuit ratio of < 2 requires a special approval from SMA
- 10) Depending on the DC voltage
 11) Nominal power at 35°C max DC voltage of 1050 V
 12) Nominal power at 35°C max DC voltage of 1000 V
 13) Nominal power at 35°C max DC voltage of 1025 V

