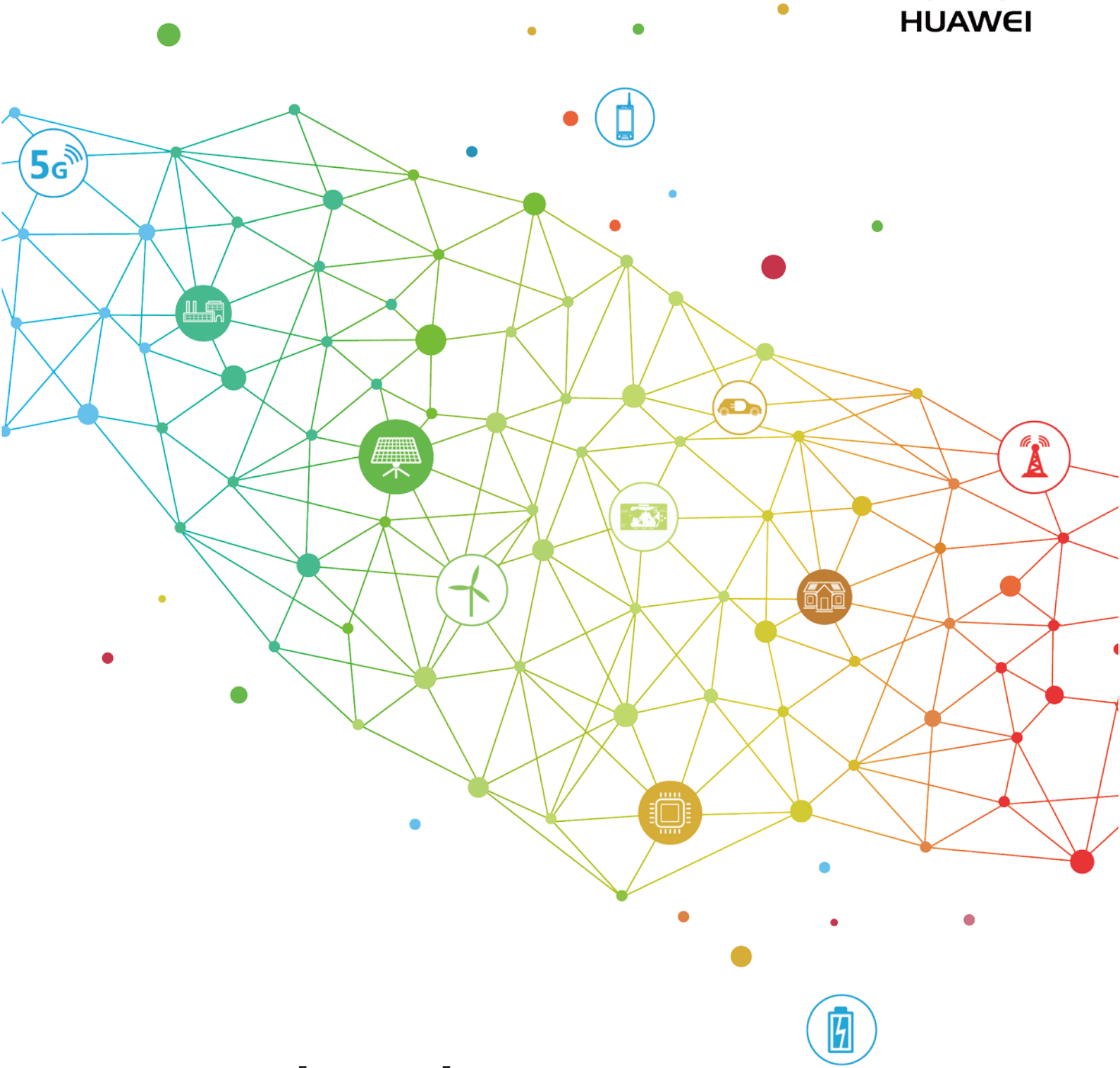
Smarter Energy for a Better Life

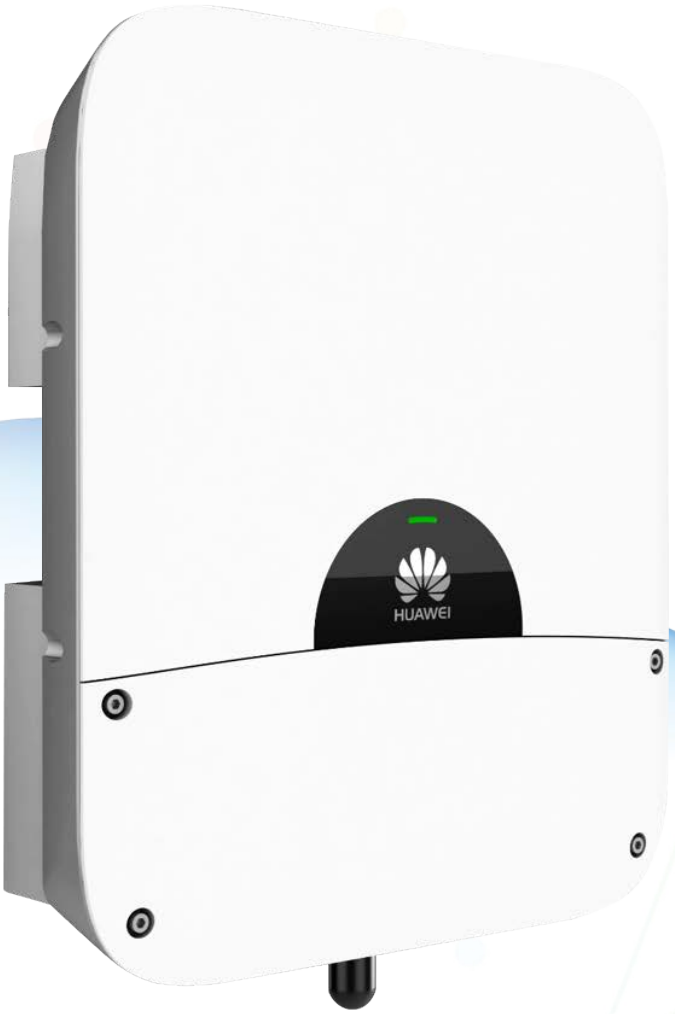
HUAWEI



Huawei FusionHome Smart Energy Solution

Smart Energy Center

SUN2000-3.8/5/7.6/9/10/11.4KTL-USL0



Higher Yields

- High efficiency inverter topology, CEC efficiency 99%

Simple & Easy

- Modularized design for easy Power Unit replacement
- Supports one-click inverter configuration

Safe & Reliable

- NEMA Type 4X, natural cooling
- Built-in arc fault protection and module-level rapid shutdown compliant with NEC 2014 and 2017

Future Proof

- Built-in energy storage interface for easy future expansion
- Built-in backup power for critical loads during grid interruption
- Built-in high accuracy RGM that complies with ANSI C12.20
- Built-in WLAN and leading 4G communication

Smart Energy Center (SUN2000-3.8/5/7.6/9/10/11.4KTL-USL0)

Technical Specification	SUN2000-3.8KTL-USL0	SUN2000-5KTL-USL0	SUN2000-7.6KTL-USL0	SUN2000-9KTL-USL0	SUN2000-10KTL-USL0	SUN2000-11.4KTL-USL0
Efficiency						
Maximum efficiency	99%					
CEC weighted efficiency	99%					
Input						
Maximum DC power	5130 Wp	6750 Wp	10260 Wp	12150 Wp	13500 Wp	15400 Wp
Maximum input voltage	500 Vdc					
Rated input voltage	370 Vdc					
Maximum input current	30 A	30 A	30 A	35 A	35 A	35 A
Output						
Rated output power	3.3 kW@208 V 3.8 kW@240 V	4.3 kW@208 V 5 kW@240 V	6.6 kW@208 V 7.6 kW@240 V	7.8 kW@208 V 9 kW@240 V	8.7 kW@208 V 10 kW@240 V	9.9 kW@208 V 11.4 kW@240 V
Rated output voltage	208 Vac, 240 Vac					
Rated AC grid frequency	60 Hz					
Rated output current	15.9 A	20.9 A	31.7 A	37.5 A	41.7 A	47.5 A
Adjustable power factor	0.8 leading ... 0.8 lagging					
Max. total harmonic distortion	< 3%					
Feature						
Revenue grade data ANSI C12.20	0.5% RGM (optional)					
Rapid shutdown – NEC 2014 and 2017 690.12	Yes					
Protection						
AFCI compliant to UL 1699B	Yes, compliant to UL 1699B Type I					
DC disconnect device	Yes					
Anti-Islanding protection	Yes					
DC reverse polarity protection	Yes					
Insulation monitoring	Yes					
DC surge arrester	Yes					
AC surge arrester	Yes					
Residual current detection	Yes					
AC overcurrent protection	Yes					
AC short-circuit current capability	Yes					
AC over-voltage protection	Yes					
Over-heat protection	Yes					
Ground-Fault isolation detection	Yes					
General Data						
AC output & backup output conduit size	0.75” Conduit			1.00” Conduit		
PV input, battery input conduit size	0.75” Conduit			0.75” Conduit		
Communication input conduit size	0.75” Conduit			0.75” Conduit		
Operating temperature range	-30℃ ~ 60℃					
Relative humidity	0 ~ 100%					
Operating altitude	0 - 4000 m (derating when over 2000m)					
Transformer-less, ungrounded	Yes					
Cooling	Natural Convection					
Noise emission	< 25 dB (A)			< 29 dB (A)		
Display	LED indicators					
Supported communication interface	RS485, WLAN (optional), 4G (optional)					
Weight	39.7 lb. (18 kg)			50.7 lb. (23 kg)		
Dimension (W x D x H)	15.75 in x 22.44 in x 6.30 in (400 mm x 570 mm x 160 mm)			17.52 in x 25.59 in x 6.30 in (445 mm x 650 mm x 160 mm)		
Protection Rating	NEMA Type 4X					
Self-consumption at night	< 2.5 W (with battery enabling < 5 W)					
Backup (optional)						
Rated continuous output power	3.5kVA@240V			5kVA@240V		
Peak output power	3.8kVA 10s @240V		5kVA 10s @240V		7kVA 10s @240V	
Battery Compatibility						
Battery	All series support LG Chem RESU 7H (Type-R) / RESU 10H (Type-R)					
Standards Compliance (more available upon request)						
EMC	FCC Part 15 Class B					
Safety	UL 1741, UL 1741SA, UL1998, UL1699B, UL 62109-1, CAN/CSA C22.2 107.1-1					
Grid connection standards	IEEE1547A, CA Rule 21 (UL 1741-SA)					
Others	ANSI C12.20, Sunspec Certified™					

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Smart PV Optimizer

SUN2000-375W-USP0

Higher Revenue

- Module-level MPPT adapted to all mismatch scenarios, increase system power production by 5%-30%
- Fitting more modules on rooftop for full utilization and achieves higher yields

Simple & Easy

- More flexible system design capability with Huawei optimizers (6 to 25 modules per string)
- Optimizer auto positioning saving monitoring setup time

Safe & Reliable

- NEMA Type 6P, support outdoor application
- Supports module level rapid shutdown for NEC 2017 690.11 and 690.12

Smart O&M

- Module-level monitoring to guarantee system performance and improve O&M efficiency
- One-click remote software mass upgrade

Smart PV Optimizer (SUN2000-375W-USP0)

Technical Specification	SUN2000-375W-USP0
Input	
Rated input power	375 W
Absolute maximum input voltage	80 V
MPPT operating voltage range	10 ~ 80 V
Maximum input current	12 A
Maximum efficiency	99.5%
Weighted efficiency	99%
Overvoltage category	II
Output	
Maximum output voltage	80 V
Maximum output current	15 A
Output bypass	Yes
Standard Compliance	
EMC	FCC Part15 Class B
Safety	UL1741, UL1703, UL2703
RoHS	Yes
General Specification	
Maximum allowed system voltage	600 V
Dimensions (W x L x H)	5.3 inch x 3.3 inch x 1 inch (135 mm x 85 mm x 25.2 mm)
Weight (including cables)	1.65 lb. (0.75 kg)
Input connector	MC4
Output connector	MC4
Output wire length	47 inch (1.2 m)
Operating temperature	-40℃ ~ 85 ℃
Humidity range	0-100 %
Protection rating	NEMA Type 6P
Monitoring	
Communication	Power Line Communication
Monitoring parameters	PV voltage, PV current, module temperature, output power, etc.
PV System Design Using A SUN2000L Inverter	
Min. string length (power optimizers)	6
Max. string length (power optimizers)	25
Max. power per string	5550 W
Parallel strings of different lengths or orientations	Yes

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HUAWEI TECHNOLOGIES USA, INC.
5700 Tennyson PKWY,
Plano, TX 75024
Tel.: 214-919-6000
fusionsolarna@huawei.com

HUAWEI TECHNOLOGIES CO., LTD.
Huawei Industrial Base
Bantian Longgang
Shenzhen 518129, P.R. China
Tel.: 400-822-9999
solar.huawei.com