



# INTELLIGENT PHOTOVOLTAIC CONTROLLER

## SUN2000-15/17/20KTL-M2 (Heavy current)

### Intelligent photovoltaic controller



#### Active safety

Ai-enabled active arc protection  
And precise positioning



#### Higher yield

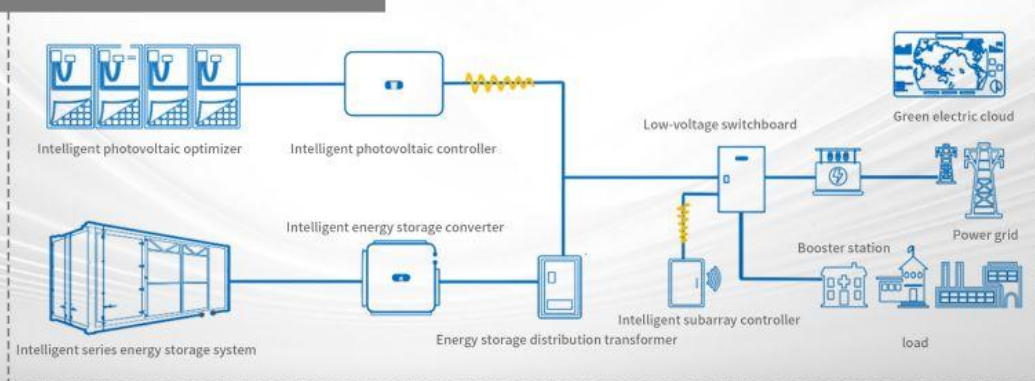
Fit optimizer Up to 30%  
increase in power



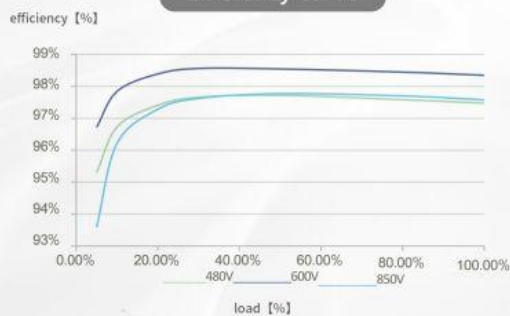
#### Flexible communication

WLAN support Fast  
Ethernet 4G communication

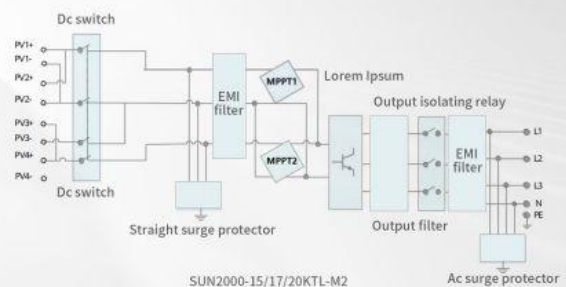
### Industry green power solutions



### Efficiency curve



### Circuit block diagram





# SUN2000-15/17/20KTL-M2

( Heavy current )

Technical parameter	SUN2000-15KTL-M2	SUN2000-17KTL-M2	SUN2000-20KTL-M2	
efficiency	Maximum efficiency	98.6%	98.6%	98.6%
	Chinese efficiency	97.8%	97.7%	97.7%
Input	Maximum recommended component power	22.500 Wp	25.500 Wp	30.000 Wp
	Maximum DC input voltage 1	1080 V		
	Operating voltage range 2	160 V ~ 950 V		
	Starting voltage	200 V		
	Rated input voltage	600 V		
	Maximum input current of each MPPT	27 A (two-way) / 18A (Single channel)		
	Maximum short-circuit current	39 A		
	MPPT quantity	2		
	Maximum number of input channels	4		
export	Adaptive network	Three phase		
	Rated output power	15000 W	17000 W	20000 W
	Maximum output apparent power	16500 VA	18700 VA	22000 VA
	Rated output voltage	220 Vac / 380 Vac, 230 Vac / 400 Vac, 3W + N + PE		
	Rated output frequency	50 Hz / 60 Hz		
	Maximum output current	25.2 A	28.5 A	33.5 A
	Power factor	0.8 Look ahead 0.8 hysteresis		
Characterization and protection	Maximum total harmonic distortion	< 3 %		
	Input DC switch	support		
	Antiisland protection	support		
	Ac overcurrent protection	support		
	Ac short circuit protection	support		
	Ac overvoltage protection	support		
	Dc reverse protection	support		
	Straight wandering surge protection	TYPE II		
	Ac surge protection	Yes, equivalent to the TYPE II protection level in EN/IEC 61643-11		
	Residual current detection unit	support		
	AFCI Intelligent arc protection	support		
	Remote power scheduling for dry nodes	support		
	Built-in PID repair 3	support		
Conventional parameter	Operating temperature	-25 ~ +60 °C		
	Operating relative humidity	0 % RH ~ 100% RH		
	Maximum working altitude	4000 m (Derating over 2000m)		
	Cooling mode	Natural convection		
	LED Pilot lamp	LED Pilot lamp: built-in WLAN + FusionSolar APP		
	Can be extended external communication	Standard: Built-in WLAN module, RS485 Optional: WLAN-FE smart communication stick, 4G smart communication stick		
	Weight (including mounting parts)	25 kg		
Dimensions (including mounting parts)	525 x 470 x 262 mm			
Class of protection	IP65			
Satisfied criteria	Adaptation optimizer type number	SUN2000-450W-P		
	secure	EN/IEC 62109-1, EN/IEC 62109-2		
	Grid connection standard	NB/T 32004		