

# All-In-One (HV) (5-20) kW

**Smarter Power Better Life** 





# ALL-IN-ONE 5-20kW

## **Compared With Separate Installation**



# All-in-one after-sales service

10-year warranty. Replace new machines instead of repairing.\*
No need to worry about after-sales between inverters and batteries of different brands.

\* For critical parts quality issues.



Integrated humanized design, removed redundant cables.Adds points to beauty and attractiveness.

# 



#### Integrated AC Charger, Plug & Play

Charging electric vehicles with clean energy, effectively save charging costs.

# **20%** reduction in installation time

• Stack installation with Plug & Play connection.

Makes the installation process time-saving, cost-effective and worry-free.



## All-in-one System Three Phase (HV) (10-20) kW

Type Designation	All-in-one sys-10kW-TH PRO	All-in-one sys-15kW-TH	All-in-one sys-20kW-TH
PV (input)			
Max. recommended PV array power [Wp]	20000	30000	40000
Max. PC input voltage [V]	20000	1000	40000
Rated PV input voltage [V]		650	
Start-up input voltage [V]		150	
MPPT voltage range [V]		150-950	
No. of MPPT/Strings per MPPT	3 (2/1	1/1)	3 (2/2/1)
Max. PV input current [A]	64 (32/16/16)		80 (32/32/16)
Max. DC short-circuit current [A]	80 (40/20/20) 1		100 (40/40/20)
Battery			
Battery type		Li-ion battery	
Max. charge/discharge current [A]		30/30	
Nominal voltage range [V]	192-512 (64 per module)		
Nominal capacity range	9.6 kWh-25.6 kWh (3.2 kWh / 50 Ah per module)		
Number of connectable modules		3-8 modules	
Backup (output)			
Rated output power (off-grid mode) [VA]	10000	15000	20000
Peak output power (off-grid mode)	16800 W / 16800 VA, 10s	25500 W / 25500 VA, 10s	32000 W / 32000 VA, 10s
lax. output power (on-grid mode)		43000 W / 43000 VA	
/ax. output current (on-grid mode) [A]		3*63	
Backup switching time [ms]	<10		
Rated voltage [V]	3/N/PE, 220/380; 230/400; 240/415		
requency range [Hz]		50/60	
Fotal harmonic distortion THDv, rated power, linear load) [%]		≤2	
Grid (input/output)			
Max. AC power from grid		43000 W / 43000 VA	
Rated AC output power [VA]	10000	15000	20000
lax. AC output power [VA]	10000	15000 22.8	20000 30.3
	15.2	22.8	30.3
		3/N/DE 220/380.230/400.240/415	
Rated AC voltage [V]		3/N/PE, 220/380; 230/400; 240/415 270-480	
Rated AC voltage [V] AC voltage range [V]		270-480	
Rated AC voltage [V] AC voltage range [V] Rated grid frequency [Hz]			
Rated AC voltage [V] AC voltage range [V] Rated grid frequency [Hz] Grid frequency range [Hz]		270-480 50/60	
Max. AC output current [A] Rated AC voltage [V] AC voltage range [V] Rated grid frequency [Hz] Grid frequency range [Hz] Total harmonic distortion (THDi, rated power) [%] Power factor at rated power/		270-480 50/60 45-55/55-65 <3	
Rated AC voltage [V] AC voltage range [V] Rated grid frequency [Hz] Grid frequency range [Hz] Total harmonic distortion (THDi, rated power) [%] Power factor at rated power/ Adjustable power factor		270-480 50/60 45-55/55-65	
Rated AC voltage [V] AC voltage range [V] Rated grid frequency [Hz] Grid frequency range [Hz] Total harmonic distortion (THDi, rated power) [%] Power factor at rated power/		270-480 50/60 45-55/55-65 <3	
Rated AC voltage [V] AC voltage range [V] Rated grid frequency [Hz] Grid frequency range [Hz] Fotal harmonic distortion (THDi, rated power) [%] Power factor at rated power/ Adjustable power factor Effciency	98.00/97.50	270-480 50/60 45-55/55-65 <3	/97.60
Rated AC voltage [V] AC voltage range [V] Rated grid frequency [Hz] Grid frequency range [Hz] Total harmonic distortion (THDi, rated power) [%] Power factor at rated power/ Adjustable power factor	98.00/97.50	270-480 50/60 45-55/55-65 <3 > 0.99/0.8.leading to 0.8 lagging	'97.60
Rated AC voltage [V] AC voltage range [V] Rated grid frequency [Hz] Grid frequency range [Hz] Total harmonic distortion (THDi, rated power) [%] Power factor at rated power/ Adjustable power factor Effciency Max. effciency/European effciency [%]	98.00/97.50	270-480 50/60 45-55/55-65 <3 > 0.99/0.8.leading to 0.8 lagging	'97.60
Rated AC voltage [V] AC voltage range [V] Rated grid frequency [Hz] Grid frequency range [Hz] Total harmonic distortion (THDi, rated power) [%] Power factor at rated power/ Adjustable power factor Effciency Max. effciency/European effciency [%] Protection & Function	98.00/97.50	270-480 50/60 45-55/55-65 <3 > 0.99/0.8.leading to 0.8 lagging 98.10/	'97.60
Rated AC voltage [V] AC voltage range [V] AC voltage range [V] Grid frequency [Hz] Fotal harmonic distortion (THDi, rated power) [%] Power factor at rated power/ Adjustable power factor Effciency Max. effciency/European effciency [%] Protection & Function Parallel*	98.00/97.50	270-480 50/60 45-55/55-65 <3 > 0.99/0.8.leading to 0.8 lagging 98.10/ Master-slave mode Type II, DC and AC	<sup>/</sup> 97.60
Rated AC voltage [V] AC voltage range [V] Rated grid frequency [Hz] Grid frequency range [Hz] Frotal harmonic distortion (THDi, rated power) [%] Power factor at rated power/ Adjustable power factor Effciency Max. effciency/European effciency [%] Protection & Function Parallel* Surge protection	98.00/97.50	270-480 50/60 45-55/55-65 <3 > 0.99/0.8.leading to 0.8 lagging 98.10/ Master-slave mode	<sup>/</sup> 97.60
Rated AC voltage [V] AC voltage range [V] Rated grid frequency [Hz] Grid frequency range [Hz] Fotal harmonic distortion (THDi, rated power) [%] Power factor at rated power/ Adjustable power factor Effciency Max. effciency/European effciency [%] Protection & Function Parallel* Surge protection Dvervoltage category	98.00/97.50	270-480 50/60 45-55/55-65 <3 > 0.99/0.8.leading to 0.8 lagging 98.10/ Master-slave mode Type II, DC and AC II DC and III AC	<sup>/</sup> 97.60
Rated AC voltage [V]       AC voltage range [V]         AC voltage range [V]       Rated grid frequency [Hz]         Grid frequency range [Hz]       Frequency [Hz]         Ford frequency range [Hz]       Frequency [Hz]         Fordat harmonic distortion (THDi, rated power) [%]       Power factor at rated power/         Adjustable power factor       Frequency [Mz]         Effciency       Max. effciency/European effciency [%]         Protection & Function       Protection         Darallel*       Surge protection         Overvoltage category       Protective class         Gird monitoring       Find monitoring	98.00/97.50	270-480 50/60 45-55/55-65 <3 > 0.99/0.8.leading to 0.8 lagging 98.10/ Master-slave mode Type II, DC and AC II DC and III AC Class I	<sup>'97.60</sup>
Rated AC voltage [V]         AC voltage range [V]         Rated grid frequency [Hz]         Grid frequency range [Hz]         Fotal harmonic distortion (THDi, rated power) [%]         Power factor at rated power/         Adjustable power factor         Effciency         Max. effciency/European effciency [%]         Protection & Function         Parallel*         Surge protection         Devervoltage category         Protective class	98.00/97.50	270-480 50/60 45-55/55-65 <3 > 0.99/0.8.leading to 0.8 lagging 98.10/ Master-slave mode Type II, DC and AC II DC and III AC Class I Yes	/97.60
Rated AC voltage [V]       AC voltage range [V]         AC voltage range [V]       Rated grid frequency [Hz]         Grid frequency range [Hz]       Frequency [Hz]         Fortal harmonic distortion (THDi, rated power) [%]       Power factor at rated power/         Adjustable power factor       Frequency [%]         Protection & Function       Protection & Function         Parallel*       Surge protection         Overvoltage category       Protective class         Fird monitoring       Docence polarity protection	98.00/97.50	270-480 50/60 45-55/55-65 <3 > 0.99/0.8.leading to 0.8 lagging 98.10/ 98.10/ Master-slave mode Type II, DC and AC II DC and III AC Class I Yes Yes	/97.60
Rated AC voltage [V]       AC voltage range [V]         AC voltage range [V]       BActed grid frequency [Hz]         Grid frequency range [Hz]       For an and the second	98.00/97.50	270-480 50/60 45-55/55-65 <3 > 0.99/0.8.leading to 0.8 lagging 98.10/ Master-slave mode Type II, DC and AC II DC and III AC Class I Yes Yes Yes Yes Yes Yes Yes	/97.60
Rated AC voltage [V]       AC voltage range [V]         AC voltage range [V]       Rated grid frequency [Hz]         Grid frequency range [Hz]       For the frequency [Hz]         For the frequency range [Hz]       For the frequency [Hz]         Power factor at rated power/       Adjustable power factor         Effciency       Max. effciency/European effciency [%]         Protection & Function       Power of the fourth o	98.00/97.50	270-480 50/60 45-55/55-65 <3 > 0.99/0.8.leading to 0.8 lagging 98.10/ Master-slave mode Type II, DC and AC II DC and III AC Class I Yes Yes Yes Yes Yes Yes Yes Yes	/97.60
Rated AC voltage [V]       AC voltage range [V]         AC voltage range [V]       AC voltage range [V]         Rated grid frequency [Hz]       Find frequency range [Hz]         For the frequency range [Hz]       Find frequency range [Hz]         For the frequency range [Hz]       Find frequency range [Hz]         Power factor at rated power/       Adjustable power factor         Effciency       Max. effciency/European effciency [%]         Protection & Function       Protection & Function         Parallel*       Surge protection         Overvoltage category       Protective class         Sind monitoring       Oc reverse polarity protection         Battery input reverse polarity protection       Sulation monitoring         AC short-circuit protection       Residual current protection         Residual current protection       Protection	98.00/97.50	270-480 50/60 45-55/55-65 <3 > 0.99/0.8.leading to 0.8 lagging 98.10/ Master-slave mode Type II, DC and AC II DC and III AC Class I Yes Yes Yes Yes Yes Yes Yes Yes	/97.60
Rated AC voltage [V]         AC voltage range [V]         AC voltage range [V]         Rated grid frequency [Hz]         Grid frequency range [Hz]         Total harmonic distortion (THDi, rated power) [%]         Power factor at rated power/ Adjustable power factor         Effciency         Max. effciency/European effciency [%]         Protection & Function         Darallel*         Surge protection         Dvervoltage category         Protective class         Sirid monitoring         DC reverse polarity protection         Battery input reverse polarity protection         Rouge Lurent protection         Corrective transmitter	98.00/97.50	270-480 50/60 45-55/55-65 <3 > 0.99/0.8.leading to 0.8 lagging 98.10/ Master-slave mode Type II, DC and AC II DC and III AC Class I Yes Yes Yes Yes Yes Yes Yes Yes	/97.60
Rated AC voltage [V]         AC voltage range [V]         AC voltage range [V]         Rated grid frequency [Hz]         Grid frequency range [Hz]         Total harmonic distortion (THDi, rated power) [%]         Power factor at rated power/         Adjustable power factor         Effciency         Max. effciency/European effciency [%]         Protection & Function         Darallel*         Surge protection         Dvervoltage category         Protective class         Sirid monitoring         DC reverse polarity protection         Battery input reverse polarity protection         Rouge Lurrent protection         Coswitch (PV)         Dver-heat protection         AC short-circuit protection         AC short-circuit protection         AC short-circuit protection         AC short-circuit protection         AC switch (PV)         Dver-heat protection	98.00/97.50	270-480 50/60 45-55/55-65 <3 > 0.99/0.8.leading to 0.8 lagging 98.10/ Master-slave mode Type II, DC and AC II DC and III AC Class I Yes Yes Yes Yes Yes Yes Yes Yes	/97.60
Rated AC voltage [V]       AC voltage range [V]         AC voltage range [V]       Rated grid frequency [Hz]         Grid frequency range [Hz]       Frequency range [Hz]         Fortal harmonic distortion (THDi, rated power) [%]       Power factor at rated power/         Adjustable power factor       Rated grid frequency [%]         Protection & Function       Parallel*         Surge protection       Povervoltage category         Protective class       Fird monitoring         DC reverse polarity protection       Ratery input reverse polarity protection         Residual current protection       Pover-heat protection         C switch (PV)       Pover-heat protection         C speneral Data       First	98.00/97.50	270-480 50/60 45-55/55-65 <3 > 0.99/0.8.leading to 0.8 lagging 98.10/ Master-slave mode Type II, DC and AC II DC and III AC Class I Yes Yes Yes Yes Yes Yes Yes Yes	<pre>/97.60</pre>
Rated AC voltage [V]       AC voltage range [V]         AC voltage range [V]       Rated grid frequency [Hz]         Grid frequency range [Hz]       From the second	98.00/97.50	270-480 50/60 45-55/55-65 <3 > 0.99/0.8.leading to 0.8 lagging 98.10/ Master-slave mode Type II, DC and AC II DC and III AC Class I Yes Yes Yes Yes Yes Yes Yes Yes	/97.60
Rated AC voltage [V]       AC voltage range [V]         AC voltage range [V]       Rated grid frequency [Hz]         Grid frequency range [Hz]       For the power of th	98.00/97.50	270-480 50/60 45-55/55-65 <3 > 0.99/0.8.leading to 0.8 lagging 98.10/ 98.10/ Master-slave mode Type II, DC and AC II DC and III AC Class I Yes Yes Yes Yes Yes Yes Yes Yes	/97.60
Rated AC voltage [V]       AC voltage range [V]         AC voltage range [V]       Rated grid frequency [Hz]         Grid frequency range [Hz]       Grid frequency range [Hz]         For the constraint of the power / Adjustable power factor       Referency         Brower factor at rated power / Adjustable power factor       Referency         Brotection & Function       Protection & Function         Protection & Function       Protection at rated power / Adjustable power factor         Barallel*       Burge protection         Derivervoltage category       Protective class         Bird monitoring       DC reverse polarity protection         Destroy input reverse polarity protection       Residual current protection         Cac short-circuit protection       Sesidual current protection         DC switch (PV)       Deriver-heat protection         Destroal Data       Gopology (PV/Battery)         Degree of protection       Dimensions (W*H*D) [mm]	98.00/97.50	270-480 50/60 45-55/55-65 <3 > 0.99/0.8.leading to 0.8 lagging 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 99.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98	/97.60
Rated AC voltage [V]       Rated AC voltage range [V]         Rated grid frequency [Hz]       Rated grid frequency [Hz]         rid frequency range [Hz]       Rated grid frequency [Hz]         rotal harmonic distortion (THDi, rated power) [%]       Rated grid frequency [Hz]         rotal harmonic distortion (THDi, rated power) [%]       Rated grid frequency rated power/         rotal harmonic distortion (THDi, rated power) [%]       Rated grid frequency [%]         Protection & Function       Rategrid frequency [%]         Protective class       Rategrid frequency [%]         Ratery input reverse polarity protection       Ratery input reverse polarity protection         Ratery input reverse polarity protection       Residual current protection         Ratery input reverse polareverse polary input reverse polary poly [%]	98.00/97.50	270-480 50/60 45-55/55-65 <3 > 0.99/0.8.leading to 0.8 lagging 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 99.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 99.10/ 99.10/ 99.10/ 99.10/ 99.10/ 99.10/ 99	/97.60
Rated AC voltage [V]       Rated AC voltage range [V]         Rated grid frequency [Hz]       Rated grid frequency [Hz]         rid frequency range [Hz]       Rated grid frequency [Hz]         rotal harmonic distortion (THDi, rated power) [%]       Rated grid frequency [Hz]         rotal harmonic distortion (THDi, rated power) [%]       Rated grid frequency rated power/         rotal harmonic distortion (THDi, rated power) [%]       Rated grid frequency [%]         Protection & Function       Ratell *         Ratelle *       Rategrid frequency [%]         Protection & Function       Ratell *         Rategrid frequency [w]       Ra	98.00/97.50	270-480 50/60 45-55/55-65 <3 > 0.99/0.8.leading to 0.8 lagging 98.10/ 98.10/ 98.10/ 98.10/ 98.10/ 10 C and III AC Class I Class I Yes Yes Yes Yes Yes Yes Yes Yes	/97.60
Rated AC voltage [V]       AC voltage range [V]         AC voltage range [V]       Rated grid frequency [Hz]         Grid frequency range [Hz]       Forter at rated power/         Values and the power factor at rated power/       Values and the power factor         Effciency       Protection & Function         Protection & Function       Protection & Function         Parallel*       Surge protection         Overvoltage category       Protection at rote polarity protection         Parallel reverse polarity protection       Ratery input reverse polarity protection         Surge protection       C short-circuit protection         Co switch (PV)       Derehat protection         Oc Switch (PV)       Derehat protection         Surge of protection       Protection         Action (PV)       Derehat protection         Degree of protection       Protection         Surge of protection       Protection	98.00/97.50	270-480 50/60 45-55/55-65 <3 > 0.99/0.8.leading to 0.8 lagging 98.10/ 98.10/ Master-slave mode Type II, DC and AC II DC and III AC Class I Yes Yes Yes Yes Yes Yes Yes Yes	/97.60
Rated AC voltage [V]       Image [V]         AC voltage range [V]       Image [V]         Rated grid frequency [Hz]       Image [Hz]         Grid frequency range [Hz]       Image [Hz]         Grid frequency factor at rated power/       Adjustable power factor         Effciency       Image [Hz]         Ax. effciency/European effciency [%]       Image [Hz]         Protection & Function       Image [Hz]         Protection & Function       Image [Hz]         Protection & Function       Image [Hz]         Protective class       Image [Hz]         Grid monitoring       Image [Hz]         DC reverse polarity protection       Image [Hz]         Image [Hz]       Image [Hz]         Image [Hz]       Image [Hz]         Oc reverse polarity protection       Image [Hz]         Image [Hz]       Image [Hz]	98.00/97.50	270-480 50/60 45-55/55-65 <3 > 0.99/0.8.leading to 0.8 lagging 98.10/ Master-slave mode Type II, DC and AC II DC and III AC Class I Yes Yes Yes Yes Yes Yes Yes Yes	/97.60
Rated AC voltage [V]       AC voltage range [V]         AC voltage range [V]       Rated grid frequency [Hz]         Grid frequency range [Hz]       Frequency range [Hz]         Fortal harmonic distortion (THDi, rated power) [%]       Protection at rated power/         Adjustable power factor       Rated grid frequency [%]         Protection & Function       Protection & Function         Parallel*       Protection & Function         Parallel*       Protective class         Sird monitoring       Protection         Dereverse polarity protection       Residual current protection         Battery input reverse polarity protection       Protection         Coswitch (PV)       Dover-heat protection         Doc switch (PV)       Dover-heat protection         Segree of protection       Dimensions (W*H*D) [mm]         Weight [Kg]       Mounting method         Deperating ambient temperature range [°C]       Storage temperature [°C]	98.00/97.50	270-480 50/60 45-55/55-65 <3 > 0.99/0.8.leading to 0.8 lagging 98.10/ Master-slave mode Type II, DC and AC II DC and III AC Class I Yes Yes Yes Yes Yes Yes Yes Yes	/97.60
Rated AC voltage [V]       AC voltage range [V]         AC voltage range [V]       AC voltage range [V]         AC voltage range [V]       BC voltage range [V]         AC voltage range [V]       BC voltage range [V]         Gated grid frequency range [Hz]       Fortal harmonic distortion (THDi, rated power) [%]         Prover factor at rated power/       Adjustable power factor         Effciency       Max. effciency/European effciency [%]         Protection & Function       Protection & Function         Parallel*       Burge protection         Dare protective class       Bird monitoring         DC reverse polarity protection       Battery input reverse polarity protection         Battery input reverse polarity protection       Battery input reverse polarity protection         Co switch (PV)       Dover-heat protection         DC switch (PV)       Dover-heat protection         SeG       General Data         Gopology (PV/Battery)       Dimensions (W*H*D) [mm]         Degree of protection       Dimensions (W*H*D) [mm]         Weight [kg]       Mounting method         Deperating ambient temperature range [°C]       Battary input range [%]         Cooling method       Dover input range [%]	98.00/97.50	270-480 50/60 45-55/55-65 <3 > 0.99/0.8.leading to 0.8 lagging 98.10/ Master-slave mode Type II, DC and AC II DC and III AC Class I Yes Yes Yes Yes Yes Yes Yes Yes	/97.60
Rated AC voltage [V]       AC voltage range [V]         AC voltage range [V]       Rated grid frequency [Hz]         Grid frequency range [Hz]       Frequency range [Hz]         Fortal harmonic distortion (THDi, rated power) [%]       Protection at rated power/         Adjustable power factor       Rated grid frequency [%]         Protection & Function       Protection & Function         Parallel*       Protection & Function         Parallel*       Protective class         Sird monitoring       Protection         Dereverse polarity protection       Residual current protection         Battery input reverse polarity protection       Protection         Coswitch (PV)       Dover-heat protection         Doc switch (PV)       Dover-heat protection         Segree of protection       Dimensions (W*H*D) [mm]         Weight [Kg]       Mounting method         Deperating ambient temperature range [°C]       Storage temperature [°C]	98.00/97.50	270-480 50/60 45-55/55-65 <3 > 0.99/0.8.leading to 0.8 lagging 98.10/ Master-slave mode Type II, DC and AC II DC and III AC Class I Yes Yes Yes Yes Yes Yes Yes Yes	/97.60
Rated AC voltage [V]       AC voltage range [V]         AC voltage range [V]       Rated grid frequency [Hz]         AC voltage range [V]       Rated grid frequency [Hz]         Frid frequency range [Hz]       Forter at rated power / Adjustable power factor         Effciency       Protection & Function         Protection & Function       Protection & Function         Parallel*       Surge protection         Overvoltage category       Protection explain for the power of	98.00/97.50	270-480 50/60 45-55/55-65 <3 > 0.99/0.8.leading to 0.8 lagging 98.10/ Master-slave mode Type II, DC and AC II DC and III AC Class I Yes Yes Yes Yes Yes Yes Yes Yes	/97.60
Rated AC voltage [V]       AC voltage range [V]         AC voltage range [V]       Rated grid frequency [Hz]         Find frequency range [Hz]       Forter and the power / Adjustable power factor         Effciency       Protection & Function         Protection & Function       Protection & Function         Deverse polarity protection       Deverse polarity protection         Deverse polarity protection       Battery input reverse polarity protection         Dever-heat protection       Dever-heat protection         Deverse polarity protection       Dever-heat protection         Deverse of protection       Dever-heat protection         Deverse of protection       Dever-heat protection         Deverse of protection       Deverse of protection	98.00/97.50	270-480 50/60 45-55/55-65 <3 > 0.99/0.8.leading to 0.8 lagging 98.10/ Master-slave mode Type II, DC and AC II DC and III AC Class I Yes Yes Yes Yes Yes Yes Yes Yes	<pre>/97.60</pre>
Rated AC voltage [V]       AC voltage range [V]         AC voltage range [V]       Rated grid frequency [Hz]         AC voltage range [Hz]       Frequency range [Hz]         Frequency range [Hz]       Frequency [Mz]         Oral harmonic distortion (THDi, rated power) [%]       Power factor at rated power/         Adjustable power factor       Effciency         Max. effciency/European effciency [%]       Protection & Function         Protection & Function       Protection & Function         Parallel*       Surge protection         Overvoltage category       Protective class         Fird monitoring       C         OC reverse polarity protection       Parallel *         Suttery input reverse polarity protection       Protection (PV)         Over-heat protection       Protection         C switch (PV)       Power-heat protection         Operating ambient temperature range [°C]       Storage temperature [°C]         Mounting method       Poperating ambient temperature range [°C]         Mounting method       Poperating ambient temperature range [%]         Cooling method       Poperating altitude [m]         Display       Protection	98.00/97.50	270-480 50/60 45-55/55-65 <3 > 0.99/0.8.leading to 0.8 lagging 98.10/ 98.10/ Master-slave mode Type II, DC and AC II DC and III AC Class I Yes Yes Yes Yes Yes Yes Yes Yes	<pre>/97.60</pre>
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## US\$3.2 Billion

2024 Turnover

1400+

1411 Qualified engineers are the driving force behind the exceptional R&D progress

**TOP 3 Sieyuan**思源电气 Electrical Equip. Manufacturer 22

22 Manufacturing bases

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With 10,000+ employees in 100+ countries and regions

1,000kV

Full range product: 10kV -1,000kV



Sieyuan Utility Scale BESS



C&l and Residential BESS

Shanghai Sieyuan Watten Technology Co., Ltd. Member of Sieyuan Electric Co., Ltd.





#### Swatten Europe Case

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#### Swatten APAC Case

<image>

#### **Compatible Battery Brand** \* For detailed list please contact our technical team EVE PYLONTECH מייפ POWER Dyness Dyness CE HAME VESTWOODS **FOLLOW** US! 🖓 in ñ ..... Facebook Linkedin YouTube