SOLAX POWER | BVB 09 PARTNER

X3-ULTRA

15kW | 30kW

Three-phase Hybrid Inverter

Commercial & Industrial
Hybrid Solution

Global: +86 571-56260008

www.solaxpower.com
info@solaxpower.com

Features

Three-phase Hybrid Inverter

Economic

- Maximum 200% oversize and 200% PV input power
- Maximum 36A input current per MPPT, support high power solar panel

Intelligent

- AI ready, forecasting solar generation and home consumption, smart energy management strategy
- VPP ready, SolaX cloud supports resource aggregator
- Support smart scene function, intelligent loads management
- Micro-grid ready, supporting a variety of scenarios, both on-grid and off-grid, balancing power between PCS and Hybrid in real time
- Support 7×24h scheduling mode
- Support Wireless meter solution
- Dual independent battery ports are ready to expand battery capacity free

Robust

- Robust back-up ability, switch over time <10ms, up to 200% EPS output for 10s, support half-wave loads
- Stronger, EPS operation without battery

Safe

- IP66 protection level
- AC&DC SPD type II, always guarding the inverter
- AFCI optional

X3-ULTRA

15-30kW

X3-ULTRA (THREE PHASE)

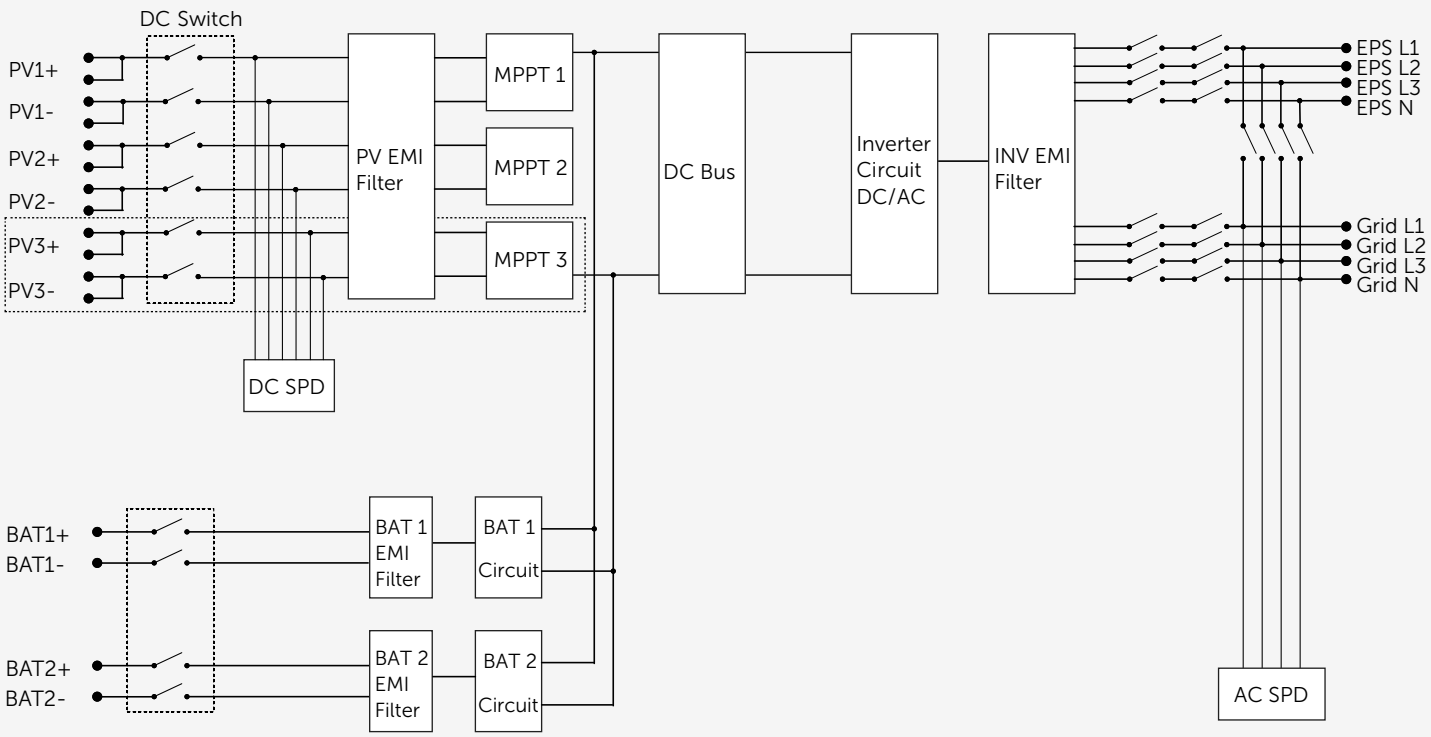
	X3-ULT-15K	X3-ULT-15KP	X3-ULT-19.9K	X3-ULT-20K	X3-ULT-20KP	X3-ULT-25K	X3 - ULT - 30K
INPUT PV							
Max. recommended PV array power [Wp]	30000	30000	40000	40000	40000	50000	60000
Max. input DC power [W]	30000	30000	40000	40000	40000	50000	60000
Max. DC voltage [V]①	1000						
Nominal DC operating voltage [V]	600						
No. of MPP trackers / Strings per MPP tracker	2 (2 / 2)	3 (2 / 2 / 2)	2 (2 / 2)	2 (2 / 2)	3 (2 / 2 / 2)		
Max. input current (input PV1 / input PV2 / input PV3) [A]②	36 / 36	36 / 36 / 36	36 / 36	36 / 36	36 / 36 / 36		
Max. short circuit current (input PV1 / input PV2 / input PV3) [A]②	45 / 45	45 / 45 / 45	45 / 45	45 / 45	45 / 45 / 45		
MPPT operating voltage range [V]③	160 - 950						
Start output voltage [V]	200						
OUTPUT AC(On-Grid)							
Nominal AC power [VA]	15000 (AS 4777 14999)		19999	20000	20000	25000 (VDE4105 24900)	30000 (AS 4777 29999, VDE4105 29900)
Max. apparent AC power [VA]	16500 (AS 4777 14999)		19999	22000	22000	27500 (VDE4105 24900)	30000 (AS 4777 29999, VDE4105 29900)
Rated grid voltage (AC voltage range) [V]	3P4W, 400 / 230						
Rated grid frequency [Hz]	50 / 60						
Nominal AC current [A]	21.8		29.0	29.0	29.0	36.3	43.5
Max. AC current [A]	24.0 (AS 4777 21.8)		29.0	31.9	31.9	39.9 (VDE4105 36.3)	43.5
Displacement power factor	1 (- 0.8 ~ 0.8)						
Total harmonic distortion (THDi, rated power) [%]	< 3						
INPUT AC							
Nominal AC power [VA]	15000	15000	19999	20000	20000	25000	30000
Nominal AC current [A]	21.8	21.8	29.0	29.0	29.0	36.3	43.5
Rated grid voltage (AC voltage range) [V]	3P4W, 400 / 230						
Rated grid frequency [Hz]	50 / 60						
BATTERY							
Battery type	Lithium - ion						
Battery voltage range [V]	120 - 800						
Max. charge / Discharge current [A]	60 (30 × 2)						
EPS OUTPUT(WITH BATTERY)							
EPS peak power [VA]	2 time of rated power, 10s						
EPS rated power [VA]	15000	15000	19999	20000	20000	25000	30000
EPS rated voltage [V], Frequency [Hz]	400 / 230; 50 / 60						
EPS rated current [A]	21.8	21.8	29.0	29.0	29.0	36.3	43.5
Switchover time [ms]	< 10						
Total harmonic distortion (THDv, linear Load) [%]	< 3						
POWER CONSUMPTION							
Internal consumption (night) [W]	< 5						
PROTECTION							
Anti-Islanding protection	Yes						
DC reverse polarity protection	Yes						
Insulation monitoring	Yes						
Residual current monitoring	Yes						
AC overcurrent protection	Yes						
AC short-circuit protection	Yes						
AC overvoltage protection	Yes						
Over-heat protection	Yes						
Battery reverse charging from grid	Yes						
Surge protection	Type II, DC and AC						
AFCI	OPT						

X3-ULTRA (THREE PHASE)

	X3-ULT-15K	X3-ULT-15KP	X3-ULT-19.9K	X3-ULT-20K	X3-ULT-20KP	X3-ULT-25K	X3 - ULT - 30K
EFFICIENCY							
MPPT efficiency	99.9%						
Max. efficiency	98.0%						
European efficiency	97.7%						
Rated Battery charge efficiency	98.5%						
Rated Battery discharge efficiency	97.0%						
STANDARD							
Safety	EN / IEC62109 - 1 / - 2						
EMC	EN61000 - 6 - 1 / 2 / 3 / 4; EN61000 - 3 - 11 / 12; EN 5011; IEC 62920						
Certification	VDE4105 / G99 / AS4777 / EN50549 / CEI 0 - 21 / IEC61727 / PEA / MEA / NRS - 097 - 2 - 1 / RD1699 / TOR						
GENERAL DATA							
Protection class	IP66						
Operating temperature range [°C]	- 35 ~ 60 (Derating above + 45)						
Relative humidity [%]	0 ~ 100						
Altitude [m]	< 3000						
Storage temperature [°C]	- 40 ~ +70						
Demensions (WxHxD) [mm]	696 x 526 x 240						
Weight [kg]	47						
Cooling concept	Smart cooling						
Topology	Transformerless						
Communication	Modbus (RS485), Meter (RS485), DI x 2, DO x 1						

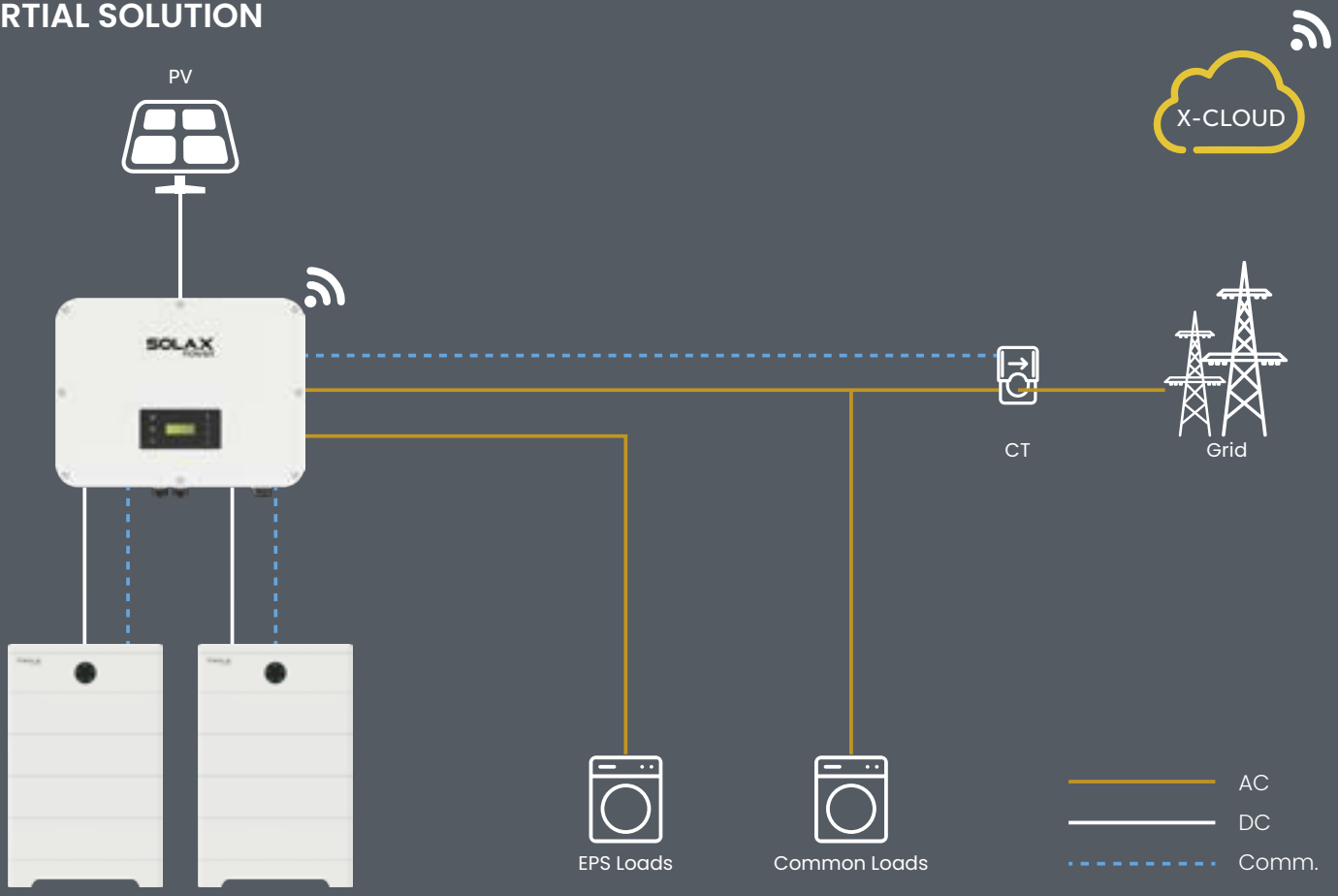
①: The maximum input voltage is the upper limit of the DC voltage. Any higher input DC voltage would probably damage inverter.
②: Input PV3 is only available for 15KP, 20KP, 25K, and 30K. When both strings are connected to a single MPPT, the maximum input current for a single string is 18A. When a single string is connected to one MPPT, the maximum input current for a single string is 20A.
③: Input voltage exceeding the operating voltage range may triggers inverter protection.

CIRCUIT DIAGRAM

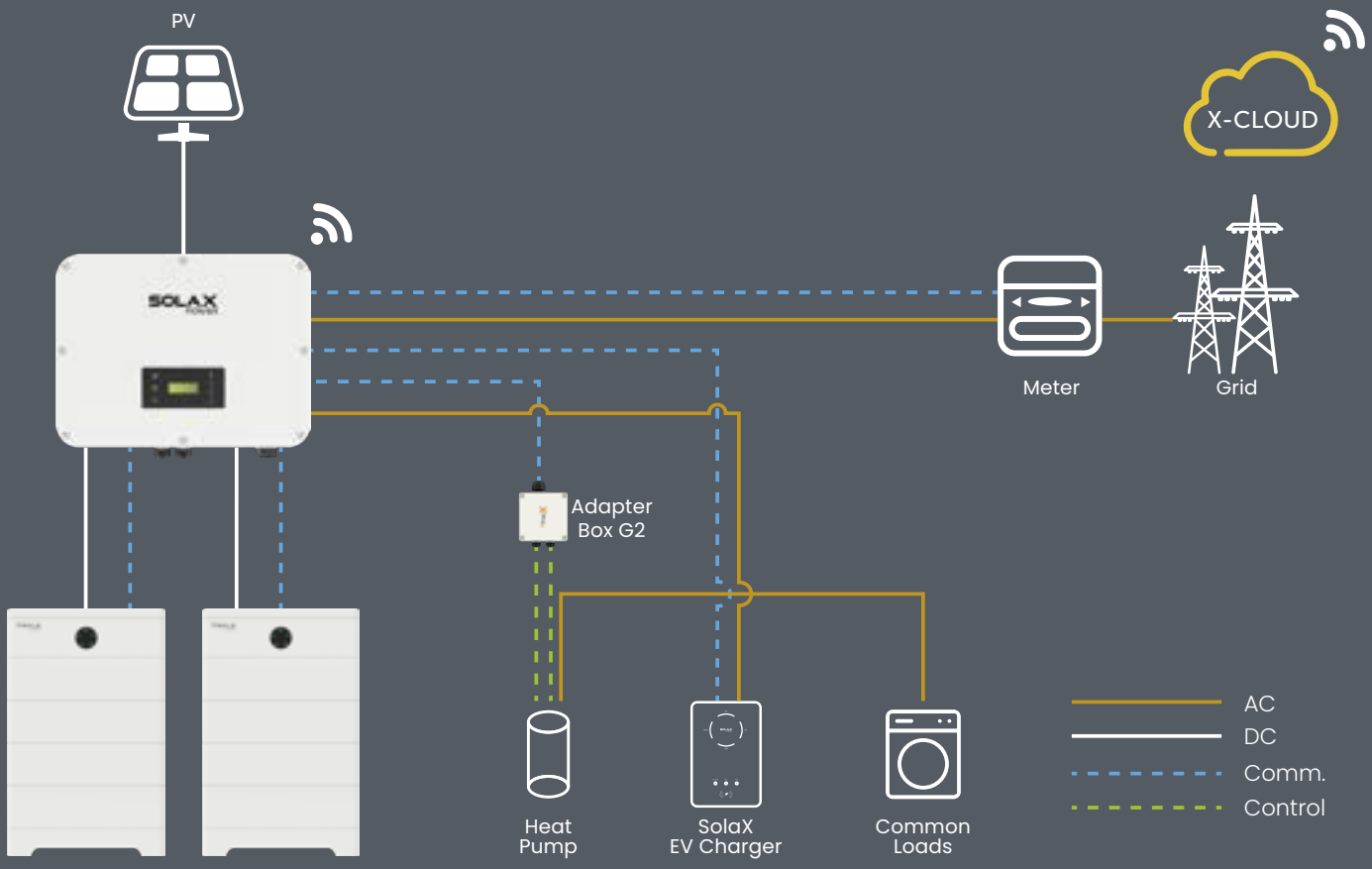


TYPICAL SCENARIO

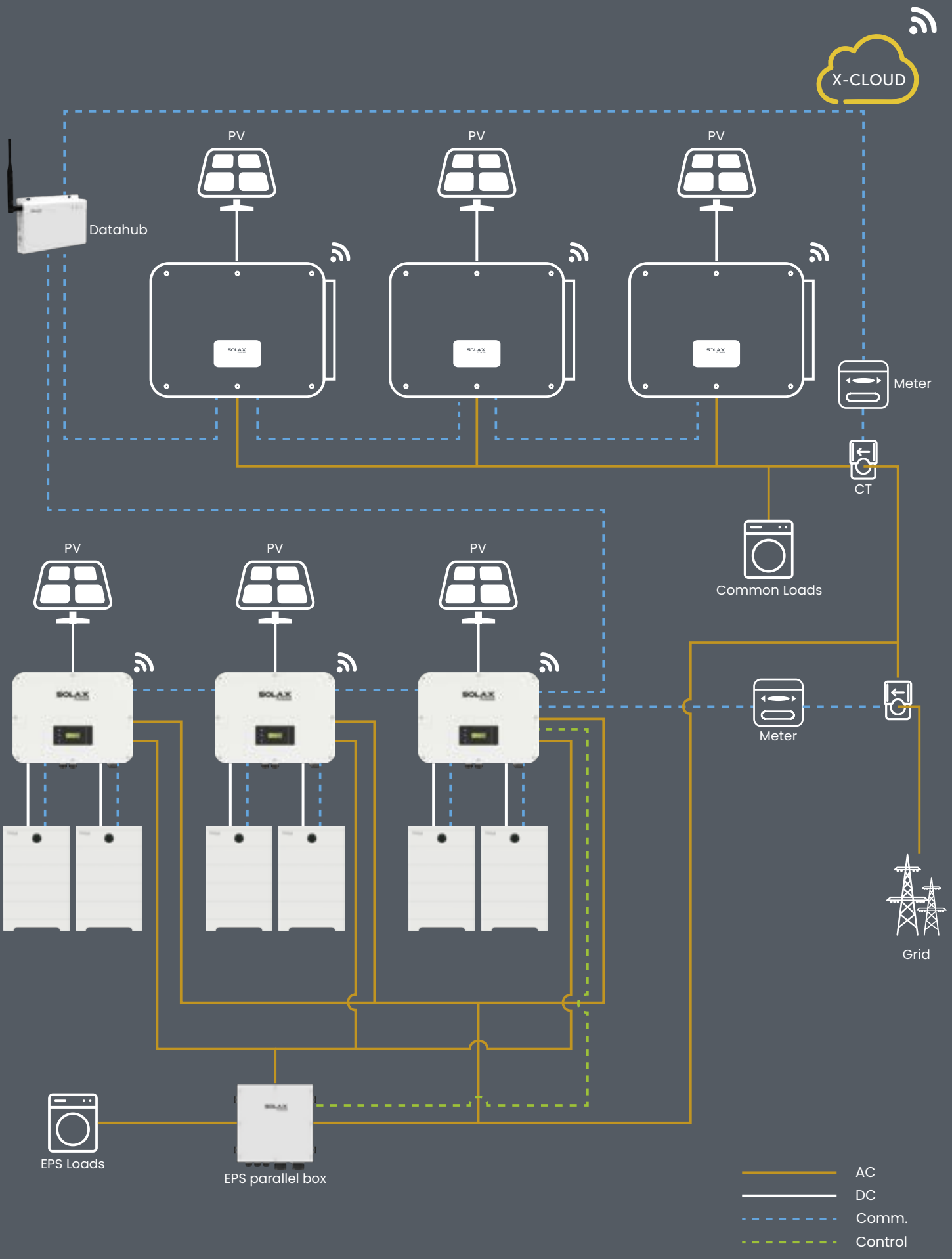
PARTIAL SOLUTION



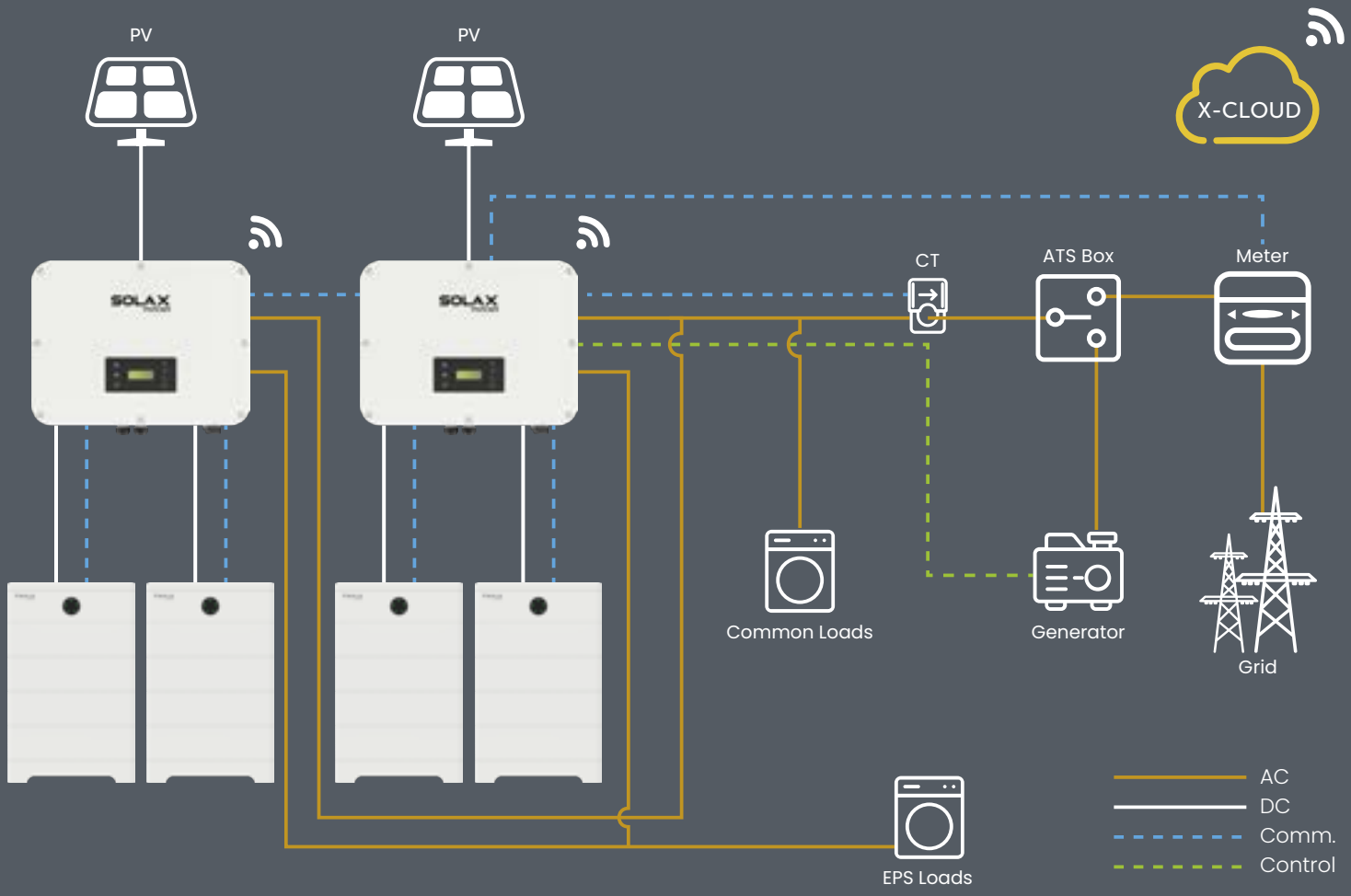
WHOLE HOME BACKUP SOLUTION



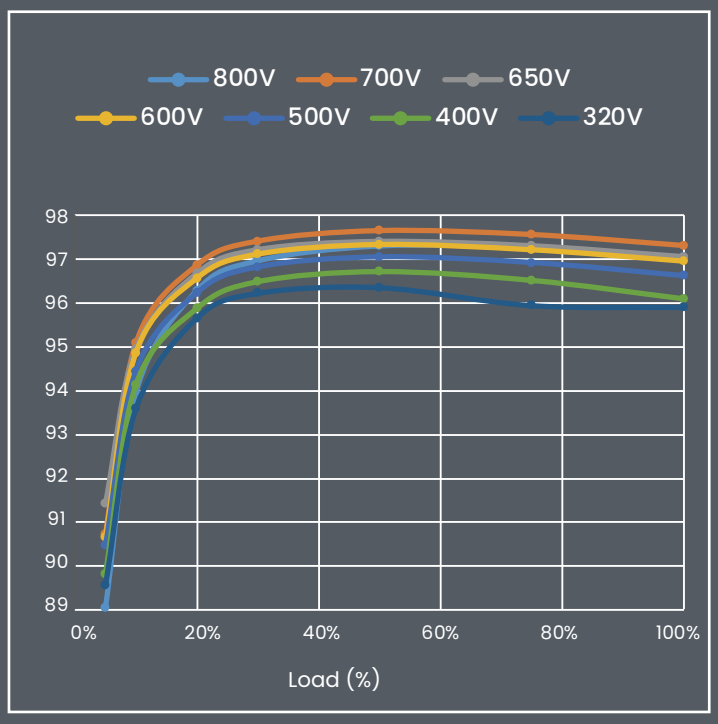
0 INJECTION SOLUTION



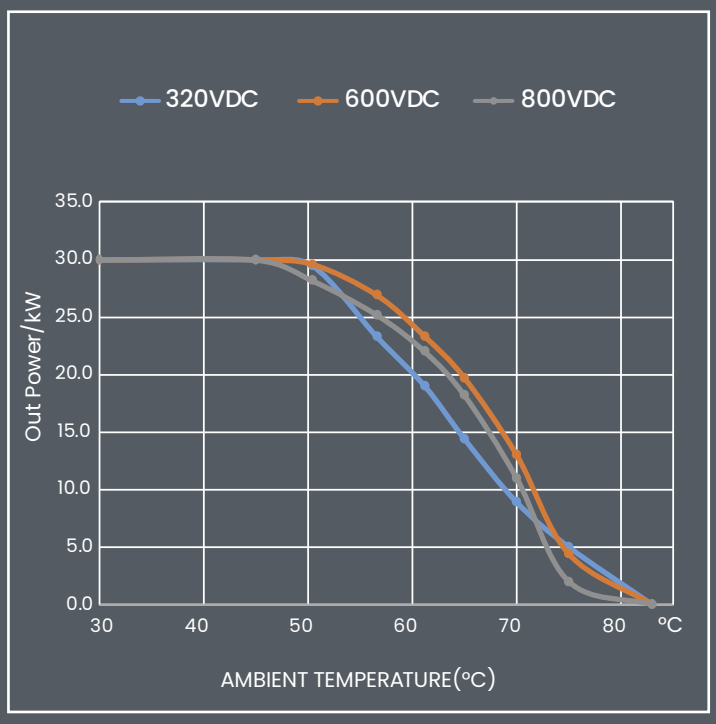
PARALLEL & GENERATOR INTEGRATED SOLUTION



EFFICIENCY CURVE (EU)



DERATING CURVE



Shanghai Stock Exchange
Stock Code: 688717

POWERING A GREEN FUTURE

www.solaxpower.com

Global: +86 571-56260008
PL: +48 662 430 292
AU: +61 1300 476 529
DE: +49 (0) 6142 4091 664
UK: +44 2476 586998
NED:+31 (0) 8527 37932
info@solaxpower.com
service@solaxpower.com

V2.0. Information may be subject to modify without notice.
650.00038.00