

Power Cube

SINGLE-PHASE HYBRID/AC

Power Cube is the latest generation of an integrated residential energy storage system, modularly designed to meet various installation scenarios.



FLEXIBLE APPLICATION

- 4ms seamless switch.
- Up to 200% PV input with 4 MPPTs, 20A per string.



EASY INSTALLATION

- Built-in gateway with 63A bypass for full house backup.
- No cables required between the inverter and batteries.



SAFE AND DURABLE

- Integrating active and passive safety.
- Intelligent AFCI function.
- IP66 and type II DC/AC surge protection.

3.7kW ... 12kW



Advanced System Monitoring
with **FoxCloud 2.0**



REMOTE MONITORING

- Monitor your system remotely via smartphone App or Web portal.
- Ready for AI mode, dynamic trading and VPP.



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MODEL	PQ1-3.7-P	PQ1-4.6-P	PQ1-5.0-P	PQ1-6.0-P	PQ1-7.0-P	PQ1-8.0-P	PQ1-10.0-P	PQ1-12.0-P
PV INPUT								
Max. Array Power[W]	16000	16000	16000	20000	20000	24000	24000	24000
Max. Input Power [W]	15700	16000	16000	18000	19000	20000	22000	24000
Max. MPPT Input Power (Per) [W]	8000							
Max. Input Voltage [V]	600 [I]							
Min. Input Voltage [V]	75							
Start-Up Input Voltage [V]	80							
Nominal Voltage [V]	360							
MPPT Voltage Range [V]	80 ~ 550							
MPPT Voltage Range (Full Load) [V]	96 ~ 550	120 ~ 550	130 ~ 550	105 ~ 550	121 ~ 550	105 ~ 550	130 ~ 550	155 ~ 550
Max. PV Input Current [A]	20/20	20/20	20/20	20/20/20	20/20/20	20/20/20/20	20/20/20/20	20/20/20/20
Max. Isc PV Current [A]	25/25	25/25	25/25	25/25/25	25/25/25	25/25/25/25	25/25/25/25	25/25/25/25
No. of MPP Trackers	2	2	2	3	3	4	4	4
Strings per MPP Tracker	1+1	1+1	1+1	1+1+1	1+1+1	1+1+1+1	1+1+1+1	1+1+1+1
BATTERY CONNECTION								
Battery Type	Lithium-Ion battery (LFP)							
Battery Voltage [V]	50 ~ 500							
Min. Operating Battery Voltage [V]	50							
Min. Battery Voltage @ Full AC Load [V]	78	95	105	125	145	165	207	247
Max. Battery Charge Power [W]	12000							
Max. Battery Discharge Power [W]	3680	4600	5000	6000	7000	8000	10000	12000
Max. Charge/Discharge Current [A]	50/50							
Depth of Discharge [%]	90							
Scalability	YES							
AC OUTPUT								
Rated Output Power [W]	3680	4600	5000	6000	7000	8000	10000	12000
Rated Apparent Power [VA]	3680	4600	5000	6000	7000	8000	10000 [2]	12000
Max. Apparent Power [VA]	3680	5060	5500	6600	7700	8800	11000 [2]	13200
Rated Grid Voltage [V]	220/230/240, L/N/PE							
Rated Grid Frequency [Hz]	50/60							
Rated Output Current [A]	16.7	20.9	22.7	27.3	31.8	36.4	45.5	54.5
Max. Output Current [A]	16.7	23.0	25.0	30.0	35.0	40.0	50.0	60.0
Power Factor	1 (Adjustable from 0.8 leading to 0.8 lagging)							
THDI [%]	<3 @rated power							
AC INPUT								
Max. Apparent Power [VA]	7000	7000	8800	11000	14500 [3]	14500 [3]	14500 [3]	14500 [3]
Rated Grid Voltage [V]	220/230/240, L/N/PE							
Rated Grid Frequency [Hz]	50/60							
Max. Input Current [A]	32.0	32.0	40.0	50.0	63.0 [3]	63.0 [3]	63.0 [3]	63.0 [3]
Power Factor	1 (Adjustable from 0.8 leading to 0.8 lagging)							
BACK UP OUTPUT								
Max. Apparent Power [VA]	3680	4600	5000	6000	7000	8000	10000	12000
Load Start Capability [A]	122 @2s							
Rated Output Voltage [V]	220/230/240, L/N/PE							
Rated Grid Frequency [Hz]	50/60							
Rated Output Current	32.0	32.0	40.0	50.0	63.0	63.0	63.0	63.0
for Backup Load (Bybass) [A]								
Max. Output Current [A]	16.7	20.9	22.7	27.3	31.8	36.4	45.5	54.5
Power Factor	1 (Adjustable from 0.8 leading to 0.8 lagging)							
Parallel Operation	Yes @ Max. 3 pcs							
Switch Time [ms]	<4							
THDV [%]	<3 @linear load							
EFFICIENCY								
Max. Static MPPT Efficiency [%]	99.90							
Max. Conversion Efficiency [%]	97.60	97.62	97.62	97.62	97.62	97.62	97.62	97.62
European Efficiency [%]	97.16	97.20	97.20	97.20	97.20	97.20	97.20	97.20
Max. Battery Charge Efficiency (PV to BAT) (@ Full Load) [%]	97.33							
Max. Battery Discharge Efficiency (BAT to AC) (@ Full Load) [%]	96.40							

TECHNICAL SPECIFICATIONS

MODEL	PQ1-3.7-P	PQ1-4.6-P	PQ1-5.0-P	PQ1-6.0-P	PQ1-7.0-P	PQ1-8.0-P	PQ1-10.0-P	PQ1-12.0-P
PROTECTION								
PV Reverse Polarity Protection					YES			
Anti-Islanding Protection					YES			
Output Short Protection					YES			
Leakage Current Protection					YES			
Insulation Resistor Detection					YES			
Overvoltage Category					YES			
Overcurrent Protection/Overtemperature Protection					YES			
Earth Fault					YES			
DC/AC Surge Protection					Type II (PV)/Type II (AC)			
AFCI Protection					Optional			
Battery Warming Function					Optional			
DC Switch					YES			
GENERAL DATA								
Dimensions (W*H*D) [mm]					570*420*380 (Inverter)			
Dimensions of Packing (W*H*D) [mm]					654*538*464 (Inverter)			
Net Weight [kg]					35.0 (Inverter)			
Gross Weight [kg]					40.5 (Inverter)			
Installation					Floor-mounted			
Operating Temperature Range [°C]					-25 ~ +55 (Derating at 45)			
Storage Temperature [°C]					-10 ~ +55			
Storage/Operation Relative Humidity [%]					0 ~ 95 (No condensation)			
Altitude [m]					<3000			
Protection Class					I			
Overvoltage Category					III (AC), II (DC)			
Pollution Degree					PD3 (PD2 inside)			
Ingress Protection					IP66 (For Outdoor Use)			
Standby Consumption [W]					<15 (Only PV and Grid)			
Cooling	Natural	Natural	Natural	Natural	Natural	FAN cooling	FAN cooling	FAN cooling
Noise Emission (Average) [dB]	<35	<35	<35	<35	<35	<50	<50	<50
Inverter Topology					Non-Isolated			
Communication Interface					Ethernet, EMS(RS485), Meter, WiLAN(WiFi+LAN+Bluetooth), 4G(Optional), DRM, Ripple Control, USB, BMS(CAN), SG Ready			
Display					LED, LCD, App, Website			
Export Limit Control					YES			
Button					Capacitive Touch Sensor			
STANDARD								
Safety					EN/IEC 62109-1, EN/IEC 62109-2, EN/IEC62477-1, EN/IEC 62040(AU)			
EMC					EN IEC 61000-6-1:2019, EN IEC 61000-6-3:2021, EN IEC 61000-6-2:2019, EN IEC 61000-6-4:2019, IEC 62920:2017			
RED					EN 50665:2017, ENIEC 62311:2020, EN 301 489-1 V2.2.3 (2019-11), EN 301 489-17 V3.2.4 (2020-09), EN 300 328 V2.2.2(2019-07), EN 55032:2015+A11:2020+A1:2020, EN 55035:2017+A11:2020			
Grid Regulation					AS/NZS 4777.2:2020			
Battery Regulation					IEC62619:2022			

[1] Voltages exceeding 600 V may damage the inverter.
[2] Under Australian standards, the maximum apparent power is 9999 VA.
[3] This parameter can be set and adjusted via the App.

TECHNICAL SPECIFICATIONS

MODEL	CQ7-S (w) _1S	CQ7-S (w) _2S	CQ7-S (w) _3S	CQ7-S (w) _4S	CQ7-S (w) _5S	CQ7-S (w) _6S	CQ7-S (w) _7S
ELECTRICAL CHARACTERISTICS							
Battery Type	LFP (LiFePO ₄)						
Battery Module	1	2	3	4	5	6	7
Nominal Energy [kWh]	6.96	13.92	20.88	27.84	34.80	41.76	48.72
Nominal Voltage [V]	57.6	115.2	172.8	230.4	288.0	345.6	403.2
Operating Voltage [V]	52.2 ~ 65.7	104.4 ~ 131.4	156.6 ~ 197.1	208.8 ~ 262.8	261.0 ~ 328.5	313.2 ~ 394.2	365.4 ~ 459.9
Recommend Discharge Current [A]	50						
Max. Charge/Discharge Current [A] ^{*1}	50						
Peak Discharge Current (60S) [A]	65						
Battery Pack Round-Trip Efficiency [%] ^{*2}	>95						
Depth of Discharge [%]	90						
Communication	CAN						
Display	LED*1						
Scalability	Max. 7 Modules in Series						
OPERATING CONDITIONS							
Installation Location	Outdoor/ Indoor						
Operating Temperature [°C] (warm up function off) ^{*3}	Charge: 0 ~ 55, Discharge: -10 ~ 55						
Operating Temperature [°C] (warm up function on)	Charge: -25 ~ 55, Discharge: -25 ~ 55						
Storage Temperature [°C]	-10 ~ 50						
Cooling Method	Natural Convection						
Humidity [%]	5 ~ 95 (No Condensation)						
Altitude [m]	Max. 3,000						
PROTECTION							
Fire Protection Function	YES						
MECHANICAL CHARACTERISTICS							
Dimensions (W*D*H) [mm]	660*360						
	*155	*310	*465	*620	*775	*930	*1085
Weight [kg] (±5%)	50.5	101.0	151.5	202.0	252.5	303.0	353.5
Cell Net Weight [kg] (±5%)	36.2	72.4	108.5	144.7	180.9	217.1	253.3
CERTIFICATES							
Safety	IEC 62619						
EMC	IEC 61000-6-1/2/3/4						
Transportation	UN38.3						
Ingress Protection	IP66						

*1 The current is affected by temperature, cell voltage and SOC.

*2 @25°C, 0.3C charging/discharging.

*3 Charge and discharge power reduction applies at low temperatures.