ESS ENERGY STORAGE BATTERIES



Smart Battery Solutions...

pilsan elektronik

www.pilsanelektronik.com



Pilsan Elektronik olarak 1998 yılından bu yana pil ve batarya sektöründe uzmanlaşarak hizmet veriyoruz. Kuruluşumuzdan itibaren güven, kalite, yenilik ve sürdürülebilirliği temel değerlerimiz haline getirdik. Enerji çözümleri sunarken müşterilerimizin ihtiyaçlarını eksiksiz karşılamayı ve iş ortaklarımız için güvenilir bir çözüm ortağı olmayı amaçlıyoruz. İstanbul Dudullu'daki merkezimizden hem sanayiye hem de perakende sektörüne yönelik çözümler geliştiriyoruz.

Ürün yelpazemiz, Li-ion, LiFePo4, Ni-Mh gibi farklı pil ve batarya teknolojilerini kapsarken, proje yönetiminden tasarıma, üretimden teslimata kadar her aşamada müşterilerimizin yanında yer alıyoruz. Sunduğumuz çözümlerle yalnızca enerji ihtiyacını karşılamakla kalmıyor, aynı zamanda yüksek performans, dayanıklılık ve verimlilik sağlıyoruz. Yenilikçi mühendislik anlayışımız sayesinde, her yıl onlarca projeyi başarıyla tamamlıyor ve global standartlarda ürünlerle rekabet gücümüzü artırıyoruz.

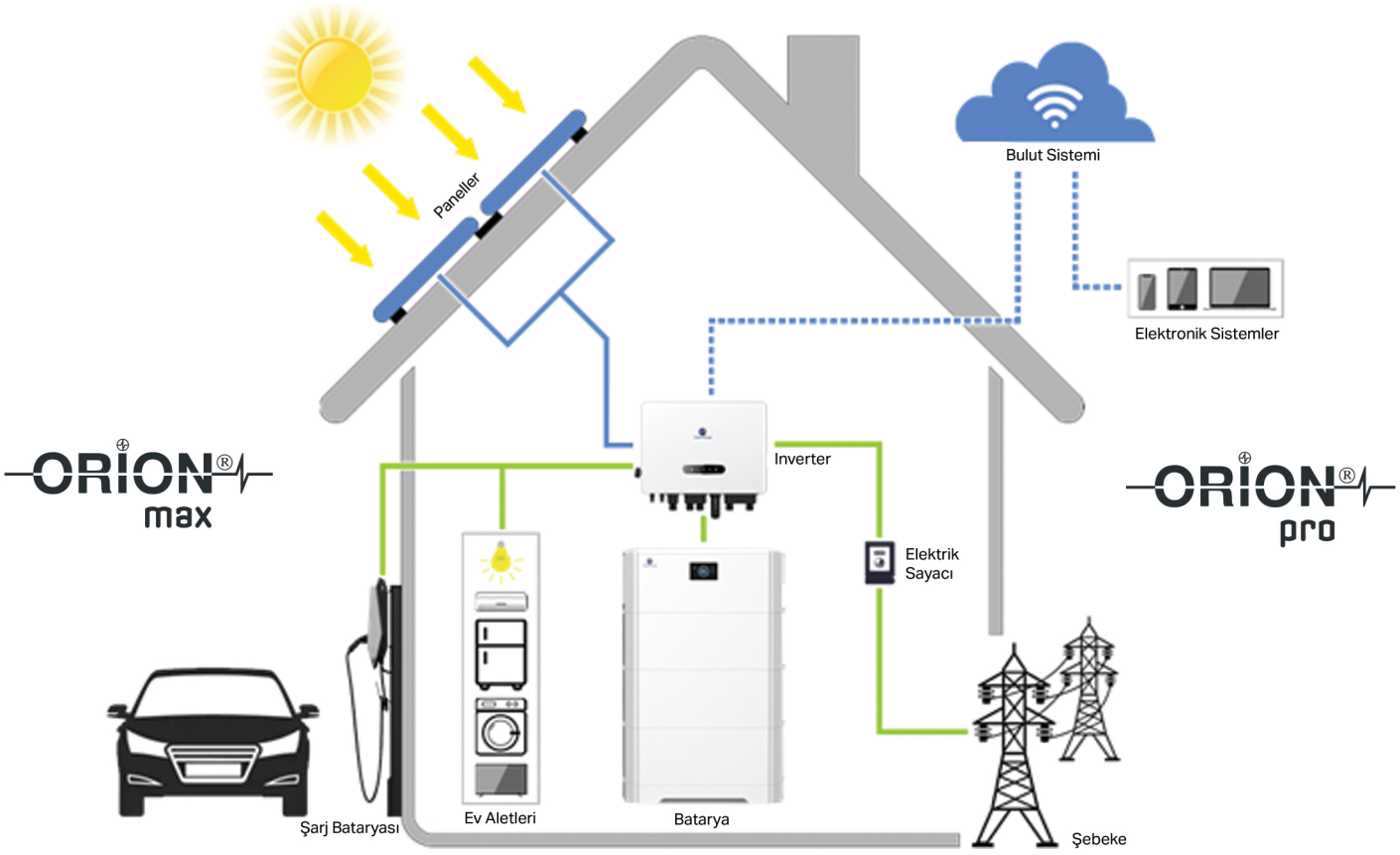
ISO 9001 Kalite Yönetim Sistemi çerçevesinde faaliyetlerimizi sürdürüyor ve tüm iş süreçlerimizi sürekli iyileştiriyoruz. AR-GE ve inovasyona yaptığımız yatırımlar sayesinde gelişen teknolojilere hızla uyum sağlıyor, müşteri geri bildirimlerini dikkate alarak ürünlerimizi her zaman daha iyiye taşıyoruz. Sektörümüzdeki hızlı değişimlere ayak uydurarak çevre dostu çözümler sunmak ve karbon ayak izimizi azaltmak önceliklerimiz arasında yer alıyor.

Bizim için sürdürülebilir büyümenin sırrı, müşteri memnuniyetine dayalı güven oluşturmak ve uzun vadeli ilişkiler kurmaktır. Hem B2B hem de B2C segmentlerinde pazarın en teknik ve yenilikçi firması olmayı hedefliyoruz. Çalışanlarımızın gelişimini destekleyen katılımcı bir yönetim anlayışı ile ilerliyor ve profesyonel yönetim sistemleri kurarak, kalitemizi her geçen gün daha da artırıyoruz.

Pilsan Elektronik



Orion Pro & Max
ESS Enerji Depolama Sistemi



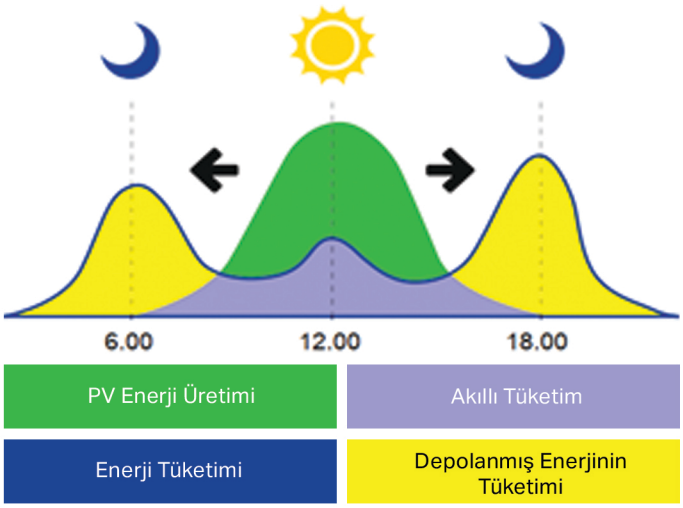
Enerji Üretimi
Sistemimiz gün içinde fazla güneş enerjisini otomatik olarak depolar. Ardından, ihtiyaç duyduğunuzda doğrudan pilinizden elektrik çekebilirsiniz

Akıllı Enerji Tüketimi
Sistemimiz, dalgalanan elektrik tarifelerine göre şarj ve deşarj dönemlerini planlamayı kolaylaştırır; Enerji, yoğun olmayan dönemlerde depolanabilir ve yoğun saatlerde kullanılabilir veya şebekeye geri satılabilir, bu da tarife farkından yararlanmanızı sağlar

Uzak Bağlantı
Sistemimiz gerçek zamanlı uzaktan enerji planlaması sağlar. Topluluk üyeleri arasında enerji kaynaklarının paylaşımını kolaylaştırmak için sanal bir enerji santraline (VPP) bağlanır

Güç Yedeği
Bir elektrik kesintisi sırasında sistemimiz, kullanıcılar için kesintisiz bir güç kaynağı sağlamak için güvenilir bir yedek güç kaynağı görevi görür

Akıllı Yönetim
Uygulamamız, sistemi parmaklarınızın ucuna getirerek akıllı telefonunuzda veya tabletinizde enerji arzınızı ve talebinizi izlemeniz ve analiz etmeniz için bir platform sağlar





Orion Max ORNMAX-10 (Tek Fazlı)

All-in-One Tek Fazlı Konut Enerji Depolama Sistemi



Model	Orion Max ORNMAX-10-3600	Orion Max ORNMAX-10-5000	Orion Max ORNMAX-10-6000
System Parameters			
Rated Output Power/EPS Power (W)	3600/3600	5000/5000	6000/6000
AC Output Voltage (Vac)		230V, L/N/PE	
Battery Capacity (kWh)		10 (Expandable to 40 kWh)	
Protection Level		IP55	
Operating Temperature		Charge: 0~55°C; Discharge: -20~60°C	
Storage Temperature		-10°C~35°C (Recommended)	
Weight (kg)		129	
Dimension (W*H*D, mm)		580*1100*230	
Inverter Parameters			
Max. PV Input Power (W)		9000	
Max. PV Input Voltage (Vdc)		580	
MPPT Voltage Range (Vdc)		100~550	
Rated Output Power (W)	3600	5000	6000
Rated Output Voltage (Vac)		230	
Rated Output Current (A)	15.7	21.7	26.1
Weight (kg)		19	
Dimension (W*H*D, mm)		580*280*230	
Battery Parameters			
Battery Type		LiFePO4	
Battery Capacity (kWh)		10	
Rated Voltage (Vdc)		332.8	
Voltage Range (Vdc)		291.2~374.4	
Max. Charge/Discharge Current (A)		20/20	
Max. Number of Parallel Connections		4	
Weight (kg)		110	
Dimension (W*H*D, mm)		580*820*213	

Orion Max ORNMAX-10T (Üç Fazlı)

All-in-One Üç Fazlı Konut Enerji Depolama Sistemi



Model	ORNMAX-10T-4000	ORNMAX-10T-5000	ORNMAX-10T-6000	ORNMAX-10T-8000	ORNMAX-10T-10000	ORNMAX-10T-12000
System Parameters						
Rated Output Power/EPS Power (W)	4000/4000	5000/5000	6000/6000	8000/8000	10000/10000	12000/12000
AC Output Voltage (Vac)	400/380V, 3W/N/PE					
Battery Capacity (kWh)	10 (Expandable to 40 kWh)					
Protection Level	IP55					
Operating Temperature	Charge: 0~55°C; Discharge: -20~60°C					
Storage Temperature	-10°C~35°C (Recommended)					
Weight (kg)	140.6					
Dimension (W*H*D, mm)	580*1245*213					
Inverter Parameters						
Max. PV Input Power (W)	6000	7000	9000	12000	15000	15000
MPPT Voltage Range (Vdc)	200~850					
Max. PV Input Current (Adc)	13*2					
Rated Output Power (W)	4000	5000	6000	8000	10000	12000
Rated Output Voltage (Vac)	400/380					
Rated Output Current (A)	6	7.6	9.1	12.2	15.2	18.2
Weight (kg)	30.6					
Dimension (W*H*D, mm)	580*425*213					
Battery Parameters						
Battery Type	LiFePO4					
Battery Capacity (kWh)	10					
Rated Voltage (Vdc)	332.8					
Voltage Range (Vdc)	291.2~374.4					
Max. Charge/Discharge Current (A)	20/20					
Max. Number of Parallel Connections	4					
Weight (kg)	110					
Dimension (W*H*D, mm)	580*820*213					

Orion Max ORNMAX-HESB1

HV Modüler Konut Enerji Depolama Sistemi



Model	Orion Max ORNMAX-HESB1-15	Orion Max ORNMAX-HESB1-20	Orion Max ORNMAX-HESB1-25
Number of Batteries	3	4	5
Rated Capacity (kWh)	15.36	20.48	25.6
Rated Voltage (V)	153.6	204.8	256
Voltage Range (V)	134.4~172.8	179.2~230.4	224~288
Rated Charge/Discharge Current (A)	52.5/52.5		
Communication Interface	CAN/RS485		
Protection Features	Charging over voltage protection, Discharging under voltage protection, Over current protection, Over temperature protection, Low temperature protection, Short circuit protection, etc.		
Protection Level	IP55		
Operating Altitude	≤2000m (Rated power will decrease at an altitude of above 2000m)		
Operating Temperature	Charge: 0~55°C; Discharge: -20~60°C		
Storage Temperature	-10°C~35°C (Recommended)		
Relative Humidity	5%~90%, Non-condensation		
Weight (kg)	146.5	189	231.5
Dimension (W*H*D, mm)	720*1110*220	720*1360*220	720*1610*220



Orion Max
AG Duvar Tipi Enerji Depolama Sistemi



Inverter Model	3000S	3600S	4000S	5000S	6000S
Inverter Parameters					
Max. PV Input Power (W)	4500	6000	6000	7500	9000
Max. PV Input Voltage (Vdc)			600		
MPPT Voltage Range (Vdc)			80~550		
Rated Output Power (W)	3000	3600	4000	5000	6000
Rated Output Voltage (Vac)			220V/230V/240V, L/N/PE		
Nominal Output Power (W)	3000	3600	4000	5000	6000
Nominal Output Current (A)	13.6	16.4	18.2	22.7	27.2
Battery Voltage Range (Vdc)			42~58		
Max. Charging/ Discharging Current (A)	75	85	85	100	100
Nominal Charging/ Discharging Power (kW)	3	3.6	4	5	5
Ingress Protection Rating			IP65		
Weight (kg)			21		
Dimension (W*H*D, mm)			500*470*180		

Battery Model	ORNMAX-5120-C
Battery Parameters	
Battery Capacity (kWh)	5.12
Rated Voltage (Vdc)	51.2
Voltage Range (Vdc)	44.8~57.6
Rated Charge/Discharge Current (A)	50
Max. Charge/Discharge Current (A)	100
Communication Interface	CAN/WIFI
Protection Features	Charging over voltage protection, Discharging under voltage protection, Over current protection, Over temperature protection, Low temperature protection, Short circuit protection, etc.
Protection Level	IP20
Number of Parallel	Max. 4
Operating Condition	Indoor
Installation	Wall mounting
Operating Altitude	≤2000m (Rated power will decrease at an altitude of above 2000m)
Operating Temperature	Charge: 0~55°C; Discharge: -20~60°C
Storage Temperature	-10°C~35°C (Recommended)
Relative Humidity	5%~90%, Non-condensation
Weight (kg)	48
Dimension (W*H*D, mm)	500*440*167

Orion Max ORNMAX-LV

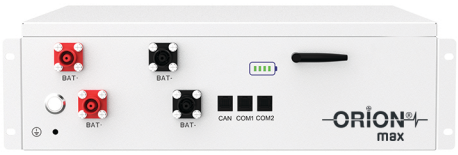
LV Kabin Tipi Enerji Depolama Ünitesi



Model	Orion Max ORNMAX-5LV	Orion Max ORNMAX-10LV	Orion Max ORNMAX-15LV	Orion Max ORNMAX-20LV
Number of Batteries	1	2	3	4
Rated Capacity (kWh)	5.12	10.24	15.36	20.48
Rated Voltage (V)	51.2			
Voltage Range (V)	44.8~55.2			
Rated Charge/Discharge Current (A)	50	100	150	200
Max. Charge/Discharge Current (A)	100	180	240 (Cabinet) 200 (Rack)	240 (Cabinet) 200 (Rack)
Communication Interface	CAN/RS485/Wi-Fi			
Protection Features	Charging over voltage protection, Discharging under voltage protection, Over current protection, Over temperature protection, Low temperature protection, Short circuit protection, etc.			
Protection Level	IP55 (Cabinet type)/IP20 (Rack type)			
Operating Altitude	≤2000m (Rated power will decrease at an altitude of above 2000m)			
Operating Temperature	Charge: 0~50°C; Discharge: -20~60°C			
Storage Temperature	-10°C~35°C (Recommended)			
Relative Humidity	5%~90%, Non-condensation			
Weight (kg)	45	90	135	180
Dimension (W*H*D, mm)	480*137*460/Pack			
	592*964*542/Standard cabinet			

Orion Max ORNLV5120 / ORNLV7200 / ORNLV9600

LV Enerji Depolama Modülü (Lityum-Ion)







Model	Orion Max ORNMAX-5200LV	Orion Max ORNMAX-7200LV	Orion Max ORNMAX-9600LV
Rated Capacity (kWh)	5.12	7.2	9.6
Rated Voltage (V)	51.2 (Optional 48V)		
Voltage Range (V)	44.8~57.6		
Rated Charge/Discharge Current (A)	50	50	100
Max. Charge/Discharge Current (A)	100	100	150
Communication Interface	CAN/WIFI (Optional)	CAN/RS485	CAN/RS485
Protection Features	Charging over voltage protection, Discharging under voltage protection, Over current protection, Over temperature protection, Low temperature protection, Short circuit protection, etc.		
Protection Level	IP20		
Operating Condition	Indoor		
Installation	Removable rack mount/19-inch cabinet installation		
Operating Altitude	≤2000m (Rated power will decrease at an altitude of above 2000m)		
Operating Temperature	Charge: 0~55°C; Discharge: -20~60°C		
Storage Temperature	-10°C~35°C (Recommended)		
Relative Humidity	5%~90%, Non-condensation		
Weight (kg)	48	60	76
Dimension (W*H*D, mm)	480*137*460	482*180*488	491*214*500

*CBLV 9600 with touch screen

Orion Max ORNHES-B

Ticari ve Endüstriyel HV Enerji Depolama Sistemi



Model	Orion Max ORNHES-B 3060	Orion Max ORNHES-B 4060	Orion Max ORNHES-B 5060
Battery Parameters			
System Capacity (kWh)		61.44	
Number of Batteries		12	
System Nominal Voltage (Vdc)		614.4	
System Voltage Ranges (Vdc)		537.6~700.8	
Charge/Discharge Current (A)		50/50 (Recommended)	
Max. Continuous Charge/discharge Current (A)		100/100	
PV Input Parameters			
Max. PV Input Power (kW)	39	52	65
Starting Voltage (Vdc)		180	
Max. PV Input Voltage (Vdc)		1000	
AC Output Parameters			
Rated Output Power (kW)	30	40	50
Max. Output Power (kW)	33	44	55
Rated Output Current (A)	45.5/43.5	60.7/58	75.8/72.5
Output Voltage (Vac)		380/400V，3W/N/PE	
Air Parameters			
Rated Voltage (Vac)		220	
Rated Cooling Capacity (W)		2000 (L35/L35)	
Rated Cooling Power Input (W)		850 (L35/L35)	
Rated Heating Capacity (W)		1000	
Rated Heating Power Input (W)		1000	
Protection Level		IP55	
System Parameters			
Weight (kg)		850	
Dimension (W*H*D, mm)		840*2120*955 (Inverter not included)	
Protection Level		IP55	
Fire Protection System		Smoke detectors, Temperature detectors, Type S aerosol fire extinguishers	
Operating Temperature		Charge: 0~50°C; Discharge: -20~55°C	
Storage Temperature		-10°C~35°C (Recommended)	

Orion Max ORNHSL280B - 1P224S / ORNHSL280B - 1P240S

Hava Soğutma Enerji Depolama Kabini



Model	Orion Max ORNHSL280B - 1P224S	Orion Max ORNHSL280B - 1P240S
DC Side Parameters		
Nominal Energy (kWh)	200.7	215
Configuration	1P224S	1P240S
Nominal Capacity (Ah)	280	
System Nominal Voltage (Vdc)	716.8	768
System Voltage Ranges (Vdc)	627.2~806.4	672~864
Max. Charge Current (A)	160	
Nominal Current (A)	140	
SOC Available Range	5%~95%	
Nominal Charge/Discharge Rate	0.5P/0.5P	
AC Side Parameters		
Nominal Output Power (kW)	100	
Nominal Grid Voltage (Vac)	400 (3P4W)	
Nominal Power Grid Frequency (Hz)	50/60	
Grid Voltage Range (Vac)	360~440	
Max. AC Current (A)	160	
Nominal AC Current (A)	144	
THDi (Grid-Connected)	≤3% (At nominal power)	
THDu (Off-Grid)	≤1% (Linear load)	
Power Factor	-0.99~0.99	
System Parameters		
Cabinet Dimension (W*H*D, mm)	1430*2130*1312	
Weight (kg)	~2400	
Protection Level	IP54	
Corrosion Protection Level	C3	
Operating Temperature	-20°C~55°C	
Operating Altitude	≤2000m (Rated power will decrease at an altitude of above 2000m)	
Thermal Management Mode	Forced air cooling	
Fire Protection System	Aerosol	
Communication	4G/Ethernet	

Orion Max ORNHES-A

Ticari ve Endüstriyel HV Enerji Depolama Sistemi



Model	Orion Max ORNHES-30	Orion Max ORNHES-40	Orion Max ORNHES-50	Orion Max ORNHES-60
System Parameters				
System Capacity (kWh)	30.72	40.96	51.2	61.44
System Usable Capacity (kWh)*	27.64	36.86	40.08	55.29
Number of Batteries	6	8	10	12
System Nominal Voltage (Vdc)	307.2	409.6	512	614.4
System Voltage Ranges (Vdc)	268.8~350.4	358.4~467.2	448~584	537.6~700.8
Charge/Discharge Current (A)	50/50 (Recommended)			
Max. Continuous Charge/discharge Current (A)	100/100			
Operating Temperature	Charge: 0~55°C; Discharge: -20~60°C			
Storage Temperature	-10°C~35°C (Recommended)			
Relative Humidity	5%~90%, Non-condensation			
Installation	Removable rack mount			
Protection Level	IP20			
Communication	CAN/RS485/Wi-Fi			
Weight (kg)	280	370	460	550
Dimension (W*H*D, mm)	560*1200*460	560*1480*460	560*1760*460	560*2040*460
Battery Module Parameters				
Battery Capacity (kWh)	5.12			
Battery Voltage (Vdc)	51.2			
Weight (kg)	42.7			
Dimension (W*H*D, mm)	450*135*412			
HV Control Box Parameters				
Rated Voltage (Vdc)	1000			
Rated Current (A)	100			
Weight (kg)	13.6			
Dimension (W*H*D, mm)	450*135*410			

Orion Pro

Duvar Tipi Enerji Depolama Sistemi (Slim Tip)



Model			ORNPRO-5S	ORNPRO-10S
Nominal energy			LiFePO4	LiFePO4
Nominal Voltage (V)			51.2	51.2
Nominal Capacity (wh)			5120	10240
Usable Capacity (wh)			4608	9216
Cell & Method			16S1P	16S2P
Dimension(mm)(W*H*D)			(700*540*90) ±1mm	(980*700*100) ±2mm
Weight(Kg)			48.3±2Kg	95±2Kg
Discharge Voltage (V)			47	
Charge Voltage (V)			55	
Charge	Rate. Current / Power		50A / 2.56kW	100A / 5.12kW
	Max. Current / Power		80A / 4.096kW	160A / 8.192kW
	Peak Current / Power		110A / 5.632kW	210A / 10.752kW
Discharging	Rate. Current / Power		100A / 5.12kW	200A / 10.24kW
	Max. Current / Power		120A / 6.144kW, 1s	220A / 11.264kW, 1s
	Peak Current / Power		150A / 7.68kW, 1s	250A / 12.80kW, 1s
Communication			RS232, RS485, CAN, WIFI(Optional), Bluetooth(Optional)	
Depth Of Discharge(%)			90%	
Expansion			up to 32 units in parallel	
Working Temperature		Charge	0~55℃	
		Discharge	-20~55℃	
Storage Temperature			0~35℃	
Short Circuit Current /Duration Time			350A, Delay time 500μs	
Cooling Type			Nature	
Protection Level			IP20	
Monthly Self-discharge			≤ 3%/month	
Humidity			≤ 60% ROH	
Altitude(m)			< 4000	

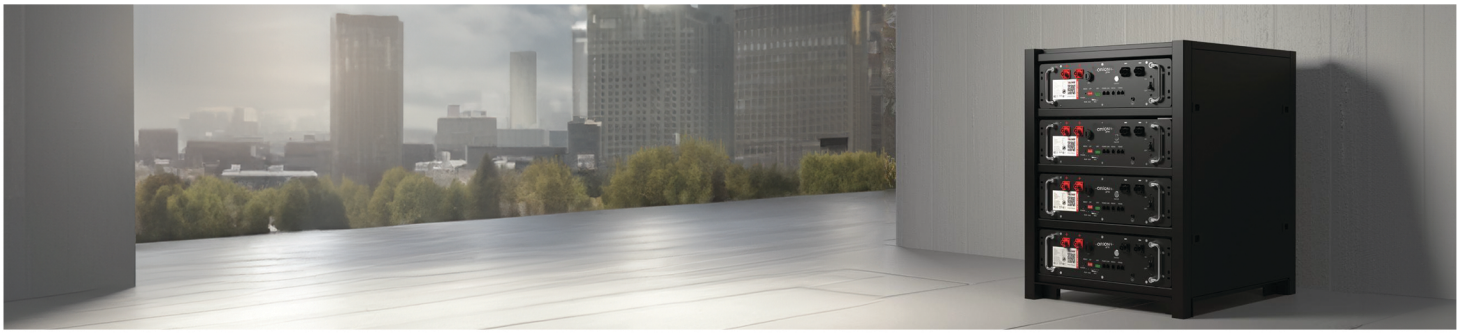
Orion Pro
Duvar Tipi Enerji Depolama Sistemi



Model		ORNPRO-5	ORNPRO-10	ORNPRO-15
Battery Type		LiFePO4	LiFePO4	LiFePO4
Nominal Voltage (V)		51.2	51.2	51.2
Nominal Capacity (wh)		5120	10240	15360
Usable Capacity (wh)		4608	9216	13824
Cell & Method		16S1P	16S2P	16S1P
Dimension(mm)(W*H*D)		540*490*147	820*490*147	950*600*190
Weight(Kg)		53	95	130
Discharge Voltage (V)		47		
Charge Voltage (V)		55		
Charge	Rate. Current / Power	50A / 2.56kW	100A / 5.12kW	150A / 7.68kW
	Max. Current / Power	80A / 4.096kW	160A / 8.192kW	240A / 12.288kW
	Peak Current / Power	110A / 5.632kW	210A / 10.752kW	310A / 15.872kW
Discharging	Rate. Current / Power	100A / 5.12kW	200A / 10.24kW	300A / 15.36kW
	Max. Current / Power	120A / 6.144kW, 1s	220A / 11.264kW, 1s	310A / 15.872kW, 1s
	Peak Current / Power	150A / 7.68kW, 1s	250A / 12.80kW, 1s	400A / 20.48kW, 1s
Communication		RS232, RS485, CAN, WIFI(Optional), Bluetooth(Optional)		
Depth Of Discharge(%)		90%		
Expansion		up to 32 units in parallel		
Working Temperature	Charge	0~55℃		
	Discharge	-20~55℃		
Storage Temperature		0~35℃		
Short Circuit Current /Duration Time		350A, Delay time 500μs		
Cooling Type		Nature		
Protection Level		IP20		
Monthly Self-discharge		≤ 3%/month		
Humidity		≤ 60% ROH		
Altitude(m)		< 4000		

Orion Pro

Kabin Tip Enerji Depolama Sistemi



Model			ORNPRO-5R	ORNPRO-10R	ORNPRO-15R
Battery Type			LiFePO4	LiFePO4	LiFePO4
Nominal Voltage (V)			51.2	51.2	51.2
Nominal Capacity (wh)			5120	10240	15360
Usable Capacity (wh)			4608	9216	13824
Cell & Method			16S1P	16S2P	16S1P
Dimension(mm)(W*H*D)			538*483(442)*136	590*483(442)*222	780*483(442)*222
Weight(Kg)			46	95	130
Discharge Voltage (V)			47		
Charge Voltage (V)			55		
Charge	Rate. Current / Power		50A / 2.56kW	100A / 5.12kW	150A / 7.68kW
	Max. Current / Power		80A / 4.096kW	160A / 8.192kW	240A / 12.288kW
	Peak Current / Power		110A / 5.632kW	210A / 10.752kW	310A / 15.872kW
Discharging	Rate. Current / Power		100A / 5.12kW	200A / 10.24kW	300A / 15.36kW
	Max. Current / Power		120A / 6.144kW, 1s	220A / 11.264kW, 1s	310A / 15.872kW, 1s
	Peak Current / Power		150A / 7.68kW, 1s	250A / 12.80kW, 1s	400A / 20.48kW, 1s
Communication			RS232, RS485, CAN, WIFI(Optional), Bluetooth(Optional)		
Depth Of Discharge(%)			90%		
Expansion			up to 63 units in parallel		
Working Temperature		Charge	0~55℃		
		Discharge	-20~55℃		
Storage Temperature			0~35℃		
Short Circuit Current /Duration Time			350A, Delay time 500μs		
Cooling Type			Nature		
Protection Level			IP20		
Monthly Self-discharge			≤ 3%/month		
Humidity			≤ 60% ROH		
Altitude(m)			< 4000		

Orion Pro

Modüler Konut Tipi Enerji Depolama Sistemi





Model	ORNPRO-HV2	ORNPRO-HV3	ORNPRO-HV4	ORNPRO-HV5	ORNPRO-HV6	ORNPRO-HV7
Rated voltage(V)	204.8	307.2	409.6V	512	614.4	716.8
Cell model(LFP-3.2V)	3.2V 52Ah 102.4V 5.32kWh					
System configuration	64S1P	96S1P	128S1P	160S1P	192S1P	224S1P
Rate power(KWh)	10.64	15.97	21.29	26.62	31.94	37.27
Charge upper voltage	227.2V	340.8V	454.4V	568V	681.6V	795.2V
Discharge lower voltage	182.4V	273.6V	364.8V	456V	547.2V	645.12V
Recommended current	26A					
Maximum charging current	52A					
Maximum discharging current	52A					
Dimensions (W*D*H,mm)	665*370*425	665*370*575	665*370*725	665*370*875	665*370*1025	665*370*1175
Pack weight(kg)	122	172	222	272	322	372
Communication protocol	CAN BUS(Baud rate @500Kb/s @250Kb/s)/Mod bus RTU(@9600b/s)					
Host software protocol	CAN BUS(Baud rate @250Kb/s) / Wifi / Bluetooth					
Operation temperature range	Charge:0~55℃					
	Discharge: -10~55℃					
Protection level	IP54					
Storage tempearture	-10℃~40℃					
Storage humidity	10%RH~90%RH					
Internal impedance	≤1Ω					

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Esnek ve Modüler HV Enerji Depolama Sistemi



Model	ORNPRO-HV5F	ORNPRO-HV6F	ORNPRO-HV7F	ORNPRO-HV8F	ORNPRO-HV9F	ORNPRO-HV10F
Battery Module	57.6V 135Ah 7.776kWh					
Rated Voltage(V)	288.0	345.6	403.2	460.8	518.4	576.0
Rated Capacity(Ah)	135	135	135	135	135	135
Cell Model(LFP-3.2V)(Ah)	135	135	135	135	135	135
System Configuration	90S1P	108S1P	126S1P	144S1P	162S1P	180S1P
Battery Single Box Number	5 pack+ 1 control box	6 pack+ 1 control box	7 pack+ 1 control box	8 pack+ 1 control box	9 pack+ 1 control box	10 pack+ 1 control box
Rate Power(kWh)	38.88	46.66	54.43	62.21	69.98	77.76
Charge Cut-off Voltage(V)	319.5	383.4	447.3	511.2	575.1	639.0
Discharge Cut-off Voltage(V)	256.5	307.8	359.1	410.4	461.7	513.0
Recommended Current(A)	68	68	68	68	68	68
Maximum Charging Current(A)	80	80	80	80	80	80
Maximum Discharging Current(A)	80	80	80	80	80	80
Dimension(L*W*H)(MM)	586*713*1071	586*713*1226	586*713*1381	586*713*1536	586*713*1691	586*713*1846
Host Software Protocol	CAN BUS (Baud rate @250Kb/s)					
Operation Temperature Range	Charge:0~55℃					
	Discharge:-20~55℃					
Protection Level	IP20					
Storage Temperature	-10℃~40℃					
Storage Humidity	10%RH ~90%RH					
Internal Impedance	≤1Ω					
Weight	Base: 18kg | Single Pack: 68kg | High voltage Box: 20kg					

3 Phase Hybrid Inverter



System Parameters	
Communication Port	EMS:RS485 Battery: CAN/RS485
DIDO	DI: 2-way DO: 2-way
Maximum power	97.8%
Installation	Insertion Frame
Loss	Standby <10W, No-load power <100W
Protection	IP20
Temperature Range	-30~60℃
Humidity Range	5~95%
Cooling	Intelligent Forced Air Cooling
Altitude	2000m (90%/80% reduction for 3000/4000 meters respectively)

Battery Parameters		
Battery Model	ORNPRO3-HV8	ORNPRO3-HV5
Number Of Battery Packs	8	5
Rated Voltage (V)	460.8	288
Voltage Range (V)	410.4-511.2	256.5-319.5
Rated Energy (kWh)	62.4	39
Max. Discharging Current (A)	67.5	

PV Parameter		
Inverter Model	INV C30	INV C15
Maximum Power	19.2kW+19.2kW	19.2kW+19.2kW
Maximum PV Voltage	850V	
PV Starting Voltage	250V	
MPPT Voltage Range	200V-830V	
Maximum PV Current	32A+32A	32A+32A

AC Side (Grid-connected)		
Rated Power	30kVA	15kVA
Rated Current	43.5A	22A
Rated Grid Voltage	400V/230V	
Grid Voltage Range	-20%~15%	
Voltage Frequency Range	50Hz/47Hz~52Hz	
	60Hz/57Hz~62Hz	
Voltage Harmonics	<5% (>30% Load)	
Power Factor	-0.8~0.8	

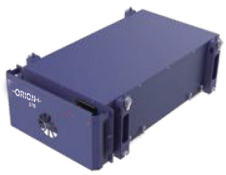
AC Side (Off-grid)		
Rated Output Power	30kVA	15kVA
Maximum Output Power	33kVA	16.5kVA
Rated Output Current	43.5A	22A
Maximum Output Current	48A	24.2A
Rated Voltage	400V/230V	
Output Voltage Harmonics	< 3% (Resistive Load)	
Unbalance	100%	
Frequency Range	50/60Hz	
Output Overload (Current)	48A < I load ≤54A/100S 54A < I load ≤65A/100S	1.1x continuous / 1.25x 30S / 1.5x 0.1S

System Parameters		
Weight	617kg	407kg
Dimension(W*L*H)	586*713*1.719 mm	586*713*1.254 mm

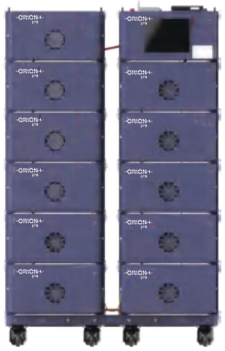
Orion Pro
Konut Tipi Modüler Enerji Depolama Sistemi

ESS-GRID	ORNPRO-304-10	ORNPRO-304-11	ORNPRO-304-12	ORNPRO-304-13	ORNPRO-304-14	ORNPRO-304-15	ORNPRO-304-16
Rated Voltage(V)	512.0	563.2	614.4	665.6	716.8	768.0	819.2
Rated Capacity(Ah)	304						
Cell Model(LFP-3.2V)(Ah)	304						
System Configuration	160S1P	176S1P	192S1P	208S1P	224S1P	240S1P	256S1P
Rate Power(kWh)	155.6	171.2	186.8	202.3	217.9	233.5	249.0
Charge Upper Voltage(V)	568.0	624.8	681.6	738.4	795.2	852.0	908.8
Discharge Lower Voltage(V)	456.0	501.6	547.2	592.8	638.4	684.0	729.6
Recommended Current(A)	152						
Max. Charging Current(A)	200						
Max. Discharging Current(A)	200						
Dimension(L*W*H)(MM)	High Voltage Control Box	501*840*250					
	Single Battery Pack	501*846*250					
Number of Series	10	11	12	13	14	15	16
Communication Protocol	CAN BUS / Modbus RTU						
Host Software Protocol	CANBUS (Baud rate @500Kb/s or 250Kb/s)						
Operation Temperature Range	Charge:0~55℃						
	Discharge: -20~55℃						
Protection Level	IP20						
Storage Temperature	-10℃~40℃						
Storage Humidity	10%RH ~90%RH						
Internal Impedance	≤1Ω						
Weights(KG)	1214	1329	1463	1578	1693	1808	1923

Note: Parameters can be adjusted according to customer requirements



S304 Battery Pack



304 Battery Rack



304 Battery Rack

Orion Pro

Entegre Enerji Depolama Kabinleri (Flexio Serisi)



DC PV CABINET	
Model	ORNPROC-500L
AC (GRID-CONNECTED)	
Photovoltaic (DC/DC) Power Rating	500kW
PV (Low Voltage Side) DC Voltage Range	312V~500V
PV Maximum DC Current	1600A
Number Of PV MPPT Circuits	10
Protection Grade	IP54
Protection Grade	I
Display	Touch LCD touch screen
Relative Humidity	0~95% (non-condensing)
Noise Level	Less than 78dB
Ambient Temperature	-25℃~60℃ (Derating above 45℃)
Cooling Method	Intelligent air cooling
EMS Communication	Ethernet / 485
Dimension (W*D*H)	1300*1000*2300mm
Weight	500kg

BATTERY CABINET PARAMETERS	
Rated Battery Capacity	241kW
Rated System Voltage	768V
System Voltage Range	672V~852V
Cell Capacity	314Ah
Battery Type	LiFePO4 battery (LFP)
Battery Series-parallel Connection	1P*16S*15S
Maximum Charge/Discharge Current	157A
Protection Grade	IP54
Protection Grade	I
Cooling And Heating Air Conditioning	3kW
Noise Level	Less than 78dB
Cooling Method	Intelligent air-cooling
BMS Communication	CAN
Dimension (W*D*H)	1150*1100*2300mm
Weight	1800kg

AC ENERGY STORAGE CABINETS	
Model	ORNPROC-500E
AC (GRID-CONNECTED)	
PCS Rated AC Power	500kW
PCS Maximum AC Power	550kW
PCS Rated AC Current	720A
PCS Maximum AC Current	790A
PCS Rated AC Voltage	400V，3W+PE/3W+N+PE
PCS Rated AC Frequency	50/60±5Hz
Total Harmonic Distortion Of Current THDI	<3% (rated power)
Power Factor	-1 overrun ~ +1 hysteresis
Voltage Total Harmonic Distortion Rate THDU	<3% (linear load)
Load Voltage Rating	400Vac，3W+PE/3W+N+PE
Load Voltage Frequency	50/60Hz
Overload Capacity	110% long term operation; 120% 1 minute
Off-grid Output THDu	≤ 2% (linear load)
PCS DC Side Voltage Range	625~950V (three-phase three-wire) / 670~950V (three-phase four-wire)
PCS DC Side Maximum Current	880A
Protection Grade	IP54
Protection Grade	I
Isolation Mode	Transformer isolation: 500kVA
Self-consumption	<100W (without transformer)
Display	Touch LCD touch screen
Relative Humidity	0~95% (non-condensing)
Noise Level	Less than 78dB
Ambient Temperature	-25℃~60℃ (Derating above 45℃)
Cooling Method	Intelligent air cooling
Altitude	2000m (over 2000m derating)
BMS Communication	CAN
EMS Communication	Ethernet / 485
Dimension (W*D*H)	1450*1000*2300mm
Weight	1700kg

Orion Pro

Entegre Enerji Depolama Sistemi (Kabinet Serisi)



Model	ORNPRO-ESS-200	ORNPRO-ESS-215	ORNPRO-ESS-225	ORNPRO-ESS-241
System Parameter	100kW/200kWh	100kW/215kWh	100kW/225kWh	100kW/241kWh
Cooling Method	Air-cooled			
Battery Parameters				
Rated Battery Capacity	200.7kWh	215kWh	225kWh	241kWh
Rated System Voltage	716.8V	768V	716.8V	768V
Battery Type	Lithium Iron Phosphate Battery (LFP)			
Cell Capacity	280Ah	280Ah	314Ah	314Ah
Max. Charge/Discharge Current	140A	140A	157A	157A
Battery Series-parallel Connection Method	1P*16S*14S	1P*16S*15S	1P*16S*14S	1P*16S*15S
PV Parameters (Optional; none /50kW/150kW)				
Max. PV Input Voltage	1000V			
Max. PV Power	100kW		125kW	
MPPT Quantity	2			
MPPT Voltage Range	200-850V			
MPPT Full Load Open Circuit Voltage Range (Recommended)*	345V-580V	345V-620V	360V-580V	360V-620V
AC Parameters				
Rated AC Power	100kW		125kW	
Nominal AC Current Rating	144A		181A	
Rated AC Voltage	400Vac/230Vac ,3W+N+PE/3W+PE			
DC Side Voltage Range	580~1000V (3P3W) / 670~1000V (3P4W)			
DC Side Full Load Voltage Range	625~950V (3P3W) / 670~950V (3P4W)			
Rated Frequency	50Hz/60Hz(±5Hz)			
Total Current Harmonic Distortion (THD)	<3% (Rated Power)			
Power Factor Adjustable Range	1 Ahead ~ +1 Behind			
General Parameters				
Protection Level	IP54			
Fire Protection System	Aerosols / Perfluorohexanone / Heptafluoropropane			
Isolation Method	Non-isolated (Optional Transformer)			
Operating Temperature	-25℃~60℃ (>45℃ derating)			
Poster Height	3000m(>3000m Derating)			
Communication Interface	RS485 / CAN2.0 / Ethernet / Dry contact		CAN/ Ethernet / RS485	
Dimension (L*W*H)	1800*1100*2300mm		1850*1100*2300mm	
Weight (With Batteries Approx.)	2350kg	2400kg	2450kg	3090kg

Orion LFP 51,2V 100 Ah Battery
Lithium Iron Phosphate



Model	**Orion LFP51.2-100**
Battery capacity(kWh)	5,12
Rated voltage (Vdc)	51,2
Voltage Range (Vdc)	35,2~58,4
Cell Capacity	100Ah
Recommended Standard Charge Method (A)	20
Maximum Charge Method (A)	50
Maximum Discharge (A)	100
Communication Interface	RS232/RS485/CAN
Protection Features	Charging overvoltage protection, discharging undervoltage protection, overcurrent protection, overtemperature protection, low temperature protection, short circuit protection, etc.
Operating Condition	Indoor
Installation	Removable rack mount/19-inc cabinet installation
Operating Temperature	Charge 0-~55C - Discherge -20~60C
Storage temperature	0C-35C
Weight(kg)	51,20
Dimension (W*H*D cm)	43*17*63

Battery Manager System (BMS)

Pro modeller için geçerlidir

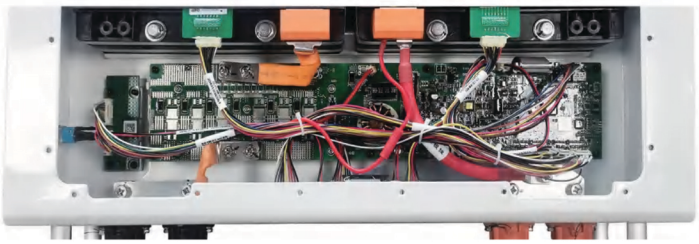
50A-300A

Çoklu deşarj akımı seçenekleri

Over 40+

Uyarlanabilir inverter protokol seçimi





Sinyal İşleme

Harici sistemden kontrol talimatları almak ve batarya durum bilgisi göndermek ve alınan talimatları ve bilgileri işlemek.

Bluetooth, WiFi Fonksiyonu

Uzaktan gerçek zamanlı izleme, çevrimiçi parametre ayarı, OTA yazılım yükseltmesi.

Tespit & Kontrol

Akü voltajı, akımı, sıcaklığı ve diğer parametrelerin gerçek zamanlı izlenmesi,
ve ayarlanan parametre aralığına göre kontrol edin.

Veri İşleme ve Depolama

Toplanan akü parametrelerini işleyin, analiz edin ve akünün çalışma durumunu & geçmiş verilerini kaydedin ve saklayın.





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