

ARKEN® Solar  
hybrid

ARKEN® Solar

**Sürdürülebilir  
Enerjinin Gücü  
Arken Solar**



**ARKEN GENERATOR  
SOLAR HYBRİD  
GENERATOR GROUPS**

[www.arkenjenerator.com](http://www.arkenjenerator.com)

# ARKEN GENERATOR

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Arken Generator, established in 2012 with the slogan "Life Goes On" and 100% Turkish capital, started its journey. Arken Generator has the capacity to produce the highest added value under a single roof and has the capability to manufacture diesel generators ranging from 2 kVA to 2750 kVA, with an annual production capacity of 5,000 units.

Operating in a 14,000 m<sup>2</sup> area in Arnavutköy, Istanbul, Arken Generator offers solutions tailored to customer and project requirements. In addition to its central factory, Arken has a strong service network throughout Turkey, including regional offices in Istanbul Anatolian Side, Ankara, Aegean, Mediterranean, Southeastern Region, and Çukurova Regional Representative Office. While producing energy solutions, Arken also establishes distributorships and signs successful projects internationally, from the Middle East to the Turkish Republics, Europe to Africa.

# VISION

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- To be a company that creates value for our country, our customers, our employees, and our shareholders, based on the "Integrated Management System."
- To ensure lasting and sustainable customer satisfaction in sales and after-sales services, starting from the production stage.
- To be able to respond quickly to the special needs of our customers with the technological and innovative solutions we offer.

# MISSION

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- With our slogan "Life Goes On," to be present with our brand in every area where energy continuity is of vital importance, both in Turkey and worldwide.
- By ensuring the continuous development of our industry, to create value for our national economy in terms of both production and employment.
- As a 100% locally owned Turkish company, to stand out among our competitors worldwide and make a difference with our quality and professional engineering team.

# WHY ARKEN SOLAR HYBRID?



## MAINTENANCE AND REPAIR

Our expert engineers and technical teams are always prepared for technical issues.



## BUDGET-FRIENDLY

We provide high-quality service at economical prices.



## REMOTE MONITORING

With remote monitoring, we ensure easy tracking in rugged terrains.



## QUIET OPERATION

We provide generators that operate at low noise levels with silent enclosures.



## CUSTOMER-FOCUSED PROJECTS

We prepare customized projects and offers with different generator brands at the desired power level.



## REDUCING CO2 EMISSIONS

We offer a more environmentally friendly approach with hybrid generators produced by combining solar energy and diesel generators.

# AREAS OF HYBRID GENERATORS



**Off- Grid Locaitons**



**Mining Sites**



**Rural Electrificaton**



**Industrial Facilities**



**Telecommunication  
Towers**



**Military Facilities**



**Mining Activities**



**Eco-Friendly Holiday  
Villages**



**Agricultural Applications**



**Constructions Sites**



**Emergency Backup  
Power**



**Disaster Relief**

# SOLAR HYBRID GENERATOR ADVANTAGES



It reduces diesel fuel consumption when solar energy is utilized.



It lowers operating costs.



It reduces carbon emissions as solar energy is used.



It offers long-term sustainable energy solutions.



Remote monitoring and control systems.



The diesel generator provides a continuous power source when solar energy is low or unavailable.

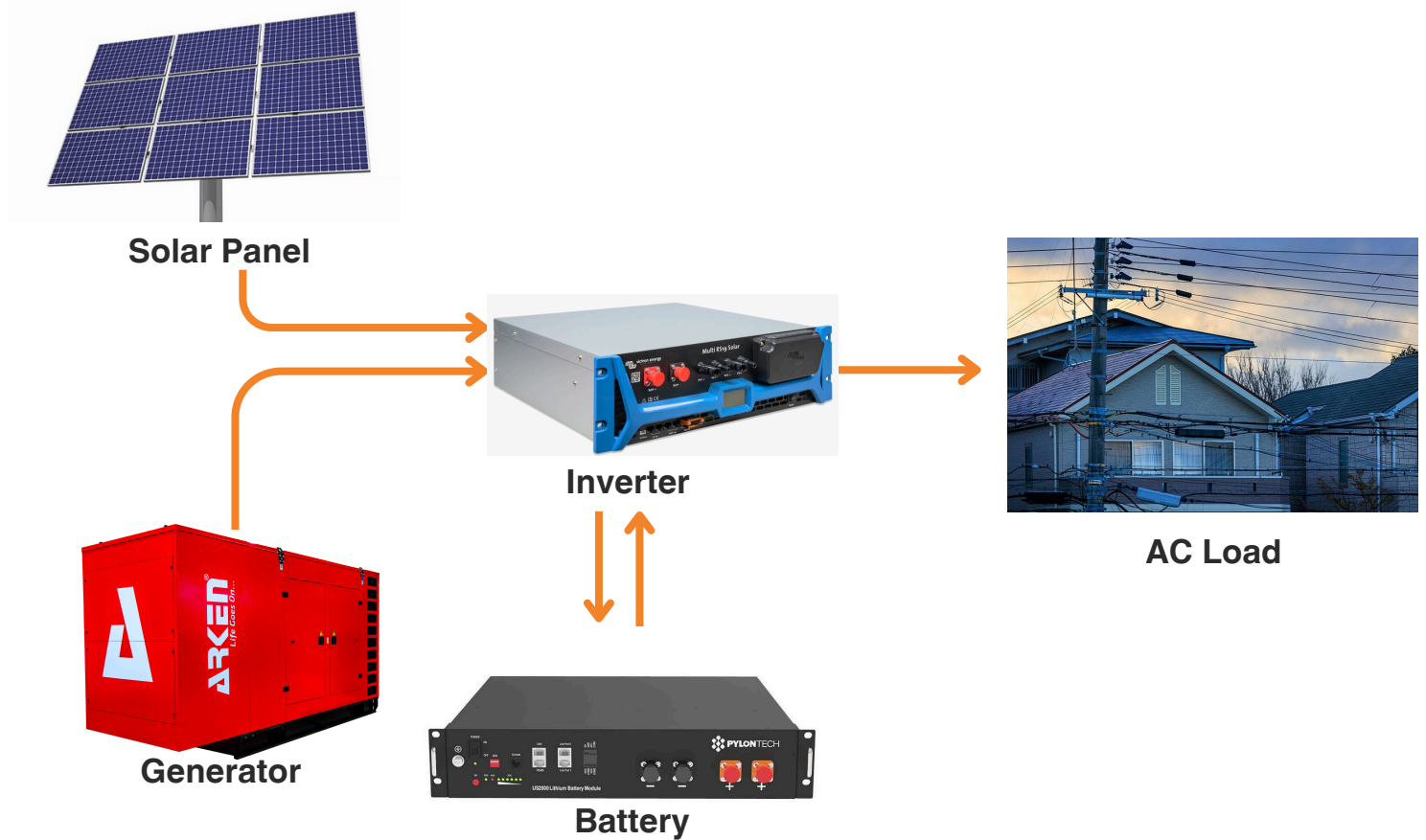


It enables the development of various projects with customer-focused solutions.



Designs are made in a wide range of power capacities.

# OPERATING PRINCIPLE



Solar hybrid diesel generators are systems that increase energy efficiency by combining solar energy and diesel generator technologies.

First, solar panels convert sunlight into electrical energy, which is used directly to meet the user's needs. When there is excess energy production, it is stored in battery systems. The stored energy is then used when solar energy is insufficient or unavailable, ensuring continuous power supply. If both solar energy and stored energy are insufficient, the system automatically activates the diesel generator. This way, energy resources are used more efficiently, fuel consumption is reduced, and maximum benefit is gained from solar energy. Additionally, these systems help reduce carbon emissions.





**Clean Energy**  
**Uninterrupted Power**



## OUR PRODUCTS



ARKEN Solar		ARK-12H5M-N5	ARK-15H7M-N5	ARK-22H11M-N5	ARK-Q42H22M-N5	ARK-Q66H33T-N5
OUTPUT POWER/ ÇIKIŞ GÜCÜ	Output power at 25°C/ Çıkış Gücü 25°C	5kW	7kW	11kW	22kW	33kW
	Solar Daily Power (μ) Günlük Güneş Enerjisi (μ)	20 kWh	40 kWh	60 kWh	120kWh	180 kWh
	AC Output Voltage/ AC Çıkış Gerilimi	50Hz, 230V				50Hz, 400V
	Output Switch/Çıkış Şalteri	40A	50A	63A	120A	4P-63A
INPUT POWER/GİRİŞ GÜCÜ	Solar Panels/Güneş Paneli	5kWp (9X550W)	8,8kWp (16X550W)	13,2kWp (24X550W)	26,4kWp (48X550W)	39,6kWp (72X550W)
	PV Array MPPT Voltage Range/ Güneş Paneli MPPT Gerilim Aralığı	120V~450V				
	Diesel Generator Power/ Dizel Jeneratör Gücü	11,5kVA /9,2 kW	15kVA /12 kW	22kVA /17,6 kW	42 kVA /33,6kW	63kVA / 48 kW
	Generator Engine / Jeneratör Motor	Quanchai				
	Fuel Types / Yakıt Tipi	Standard Diesel: EN590:96 BS 2869 - A1 or A2				
	Fuel Consumption/ Yakıt Tüketimi	Fuel is only used when the generator is active. /Yakıt sadece jeneratör aktifken kullanılır. When the generator is on it will meet the load and charge the battery./ Jeneratör çalıştığında yükü karşılar ve aküyü şarj eder.				
	Fuel Tank Capacity/ Yakıt Tankı Kapasitesi	43L	43L	62L	120L	250L
STORAGE/DEPOLAMA	Battery Type/Batarya Tipi	Pomega LFP/ -Lityum Demir Fosfat				
	Capacity/Kapasite @ 25°C/kW	9,6 kWh	14,4 kWh	19,2 kWh	43,2 kWh	57,6 kWh
	Capacity/Kapasite @ 25°C/AMP	48V - 200A	48V - 300A	48V - 400A	48V - 900A	48V - 1200A
	Humidity/Nem	5% ~ 95%(RH)				
	Charge Time (approx.) / Şarj Süresi (ortalama)	2				
	Service life (years)/ Hizmet Ömrü (yıl)	10+ Years /10+ yıl	10+ Years /10+ yıl	10+ Years /10+ yıl	10+ Years /10+ yıl	10+ Years /10+ yıl
CONTROL / KONTROL	Inverter and System Controls/ İnvertör ve Sistem Kontroller	MPPT charge controllers, remote communication, monitoring & control. User friendly graphical display performance & event logs. Enhanced system management. Low fuel level alarm & monitoring / MPPT Solar şarj kontrol cihazları, uzaktan iletişim, izleme ve kontrol. Kullanıcı dostu grafiksel performans ve hata kayıtları. Gelişmiş sistem yönetimi. Düşük yakıt seviyesi alarmı ve izleme.				
	Soft Start / Yumuşak Çalıştırma	24/7 manually operated timer with soft start functionality to prevent overloading / Aşırı yüklemeyi önlemek için yumuşak başlatma işlevine sahip 7/24 manuel olarak çalıştırılan zamanlayıcı				
MECHANICAL / MEKANİK	Dimensions Length (mm) / Uzunluk	Custom on request / Müşteri talebine göre				
	Dimensions Width (mm) / Genişlik					
	Dimensions Height (mm) / Yükseklik					
	Model Weight (kg) / Ağırlık	Forklift pockets - lower lift guides and crane overhead guides / Forklift cepleri - alt kaldırma kılavuzları ve vinç baş üstü kılavuzları				
STANDARDS / STANDARTLAR	Safety/Güvenlik	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2				
	Emission, Immunity/ Emisyon, Dayanıklılık	EN 55014-1, EN 55014-2, EN-IEC 61000-3-2, EN-IEC 61000-3-3, IEC 61000-6-1, IEC 61000-6-2, IEC 61000-6-3				
	Machine Standards / Makine Yönetmeliği	2006/42/EC EN ISO 12100:2016				
	Quality Standards / Kalite Standartları	ISO 9001:2015, CE, TS ISO8528-5, TS ISO 8528-13, TS ISO 8528-4, ISO 10002:2014, ISO 14001:2015, ISO 45001:2018, Noise Directive 2000/14/EC				
NOT:		Arken ürünlerde değişiklik ve revizyon yapılabilir. Ürünler belli güç aralıklarında kombinasyon yapılabilir. (GÜNEŞ PANELİ,AKÜ ORANLARI, MOTOR MODEL VE GÜÇLERİNİ vb. DEĞİŞTİREBİLİR.) Arken can make changes and revisions to the products. Products can be combined in certain power ranges. (SOLAR PANEL, BATTERY RATES, MOTOR MODELS AND POWERS, etc. can be changed).				

ARKEN Solar		ARK-B110H50N5	ARK-B220H100N5	ARK-B300H150N5	ARK-B420H200N5
OUTPUT POWER/ ÇIKIŞ GÜCÜ	Output power at 25°C/ Çıkış Gücü 25°C	50kW	100kW	150kW	200kW
	Solar Daily Power (μ)/ Günlük Güneş Enerjisi (μ)	250 kWh	500 kWh	750 kWh	1000kWh
	AC Output Voltage/ AC Çıkış Gerilimi	When the daily power is exceeded, the diesel generator will start.			
	Output Switch/ Çıkış Şalteri	4P160A	4P160-400A	4P160-400A	4P250-400A
INPUT POWER/GİRİŞ GÜCÜ	Solar Panels/ Güneş Paneli	65kWp (119X550W)	130kWp (238X550W)	196kWp (357X550W)	262kWp (474X550W)
	PV Array MPPT Voltage Range/ Güneş Paneli MPPT Gerilim Aralığı	110V - 600V			
	Diesel Generator Power/ Dizel Jeneratör Gücü	110kVA /88 kW	220kVA /176 kW	300kVA /240 kW	420 kVA /336 kW
	Generator Engine / Jeneratör Motor	Cummins / Perkins / Isuzu / Honda / Yanmar / Kubota / etc.			
	Fuel Types / Yakıt Tipi	Standard ISO 8000			
	Fuel Consumption/ Yakıt Tüketimi	Fuel is only used when the generator is on. When the generator is on it will meet the load and the solar panels will charge the battery.			
	Fuel Tank Capacity/ Yakıt Tankı Kapasitesi	250L	580L	580L	820L
STORAGE/DEPOLAMA	Battery Type/Batarya Tipi	Pomega			
	Capacity/Kapasite @ 25°C/kW	102,4 kWh	204,8 kWh	307,2 kWh	409,6 kWh
	Capacity/Kapasite @ 25°C/AMP	512V - 200A	512V - 400A	512V - 600A	512V - 800A
	Humidity/Nem	0% - 100%			
	Charge Time (approx.) / Şarj Süresi (ortalama)	12-14 hours			
	Service life (years)/ Hizmet Ömrü (yıl)	10+ Years /10+ yıl	10+ Years /10+ yıl	10+ Years /10+ yıl	10+ Years /10+ yıl
CONTROL / KONTROL	Inverter and System Controls/ İnvertör ve Sistem Kontroller	MPPT Charge Controllers, remote communication, monitoring & management. Low fuel level alarm & monitoring / MPPT Solar şarj kontrol cihazları ve yönetim sistemi.			
	Soft Start / Yumuşak Çalıştırma	24/7 manually operated timer with soft start functionality to prevent overload.			
MECHANICAL / MEKANİK	Dimensions Length (mm) / Uzunluk	5900	5900	7290	7290
	Dimensions Width (mm) / Genişlik	2350	2350	2500	2500
	Dimensions Height (mm) / Yükseklik	2370	2370	2500	2500
	Model Weight (kg) / Ağırlık	4920	7350	9510	11450
	Model Lift Points / Kaldırma Noktaları	Forklift pockets - lower lift guides and crane hook			
STANDARDS / STANDARTLAR	Safety/Güvenlik	IEC/EN 60335-1			
	Emission, Immunity/ Emisyon, Dayanıklılık	EN 55014-1, EN 55014-2, EN-IEC 61000-3-2, EN-IEC 61000-3-3			
	Machine Standards / Makine Yönetmeliği	EN 60204-1			
	Quality Standards / Kalite Standartları	ISO 9001:2015, CE, TS 16949, ISO 14001:2015			

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H200N5	ARK-B500H250N5	ARK-B660H300N5	ARK-B825H400N5	ARK-B1035H500N5
çW	250kW	300kW	400kW	500kW
çWh	1250 kWh	1500 kWh	2000 kWh	2500 kWh
erator will be activated. / Günlük güç aşıldığında dizel jeneratör devreye girecektir.				
50Hz, 400V				
630A	4P320-800A	4P400-1000A	4P500-1250A	4P640-1600A
76X550W)	327kWp (595X550W)	393kWp (714X550W)	523kWp (952X550W)	654kWp (1190X550W)
150V~850V				
/336kW	500kVA / 400 kW	660kVA / 528kW	825kVA /660 kW	1010kVA /808 kW
MOTEURS Baudouin				
Diesel: EN590:96 BS 2869 - A1 or A2				
erator is active. /Yakıt sadece jeneratör aktifken kullanılır.				
d charge the battery./ Jeneratör çalıştığında yükü karşılar ve aküyü şarj eder.				
:82,1 L/h 60,7 L/h 41,0 L/h	100% load:95,9 L/h 75% load: 69,6 L/h 50% load: 46,6 L/h	100% load:124,2 L/h 75% load: 95,4 L/h 50% load:64,7 L/h	100% load:161,5 L/h 75% load: 116,4 L/h 50% load: 76,9 L/h	100% load:194,1 L/h 75% load: 143,7 L/h 50% load: 97,3 L/h
DL	820L	1140L	1500L	1500L
LFP/ -Lityum Demir Fosfat				
kWh	512 kWh	614,4 kWh	819,2 kWh	1024 kWh
800A	512V - 1000A	512V - 1200A	512V - 1600A	512V - 2000A
5% ~ 95%(RH)				
2				
/10+ yıl	10+ Years /10+ yıl	10+ Years /10+ yıl	10+ Years /10+ yıl	10+ Years /10+ yıl
g & control. User friendly graphical display performance & event logs. Enhanced system				
arı, uzaktan iletişim, izleme ve kontrol. Kullanıcı dostu grafiksel performans ve hata kayıtları. Gelişmiş sistem				
Düşük yakıt seviyesi alarmı ve izleme.				
ding / Aşırı yüklemeyi önlemek için yumuşak başlatma işlevine sahip 7/24 manuel olarak çalıştırılan zamanlayıcı				
10	13500	13500	Custom on request / Müşteri talebine göre	
10	2500	2500		
10	2500	2500		
50	14500	18200		
overhead guides / Forklift cepleri - alt kaldırma kılavuzları ve vinç baş üstü kılavuzları				
1000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2				
1000-3-2, EN-IEC 61000-3-3, IEC 61000-6-1, IEC 61000-6-2, IEC 61000-6-3				
2006/42/EC EN ISO 12100:2016				
ISO8528-5, TS ISO 8528-13, TS ISO 8528-4, ISO 10002:2014,				
015, ISO 45001:2018, Noise Directive 2000/14/EC				
Arken can make changes and revisions to the products. Products can be combined in certain power ranges. (SOLAR PANEL, BATTERY RATES, MOTOR MODELS AND POWERS, etc. can be				

# THE BRANDS WE PARTNER WITH

## Solar Panels

**Smart**  
GÜNEŞ TEKNOLOJİLERİ

**JA SOLAR**

**Trina**solar

**CW**  **Enerji**  
güneşin olduğu her yerde...

**Jinko**<sup>Solar</sup>

## Inverter

**SINEXCEL**

 **Voltronic Power**  
Advancing Power

 **victron energy**  
BLUE POWER

 **SINENG**

**Fronius**

**S**  **FAR**  
SOLAR

 **Solplanet**  
by AISWEI

**Deye**

**SUNGROW**  
Clean power for all

## Storage

 **Pomega**

 **aspilsan**

 **PYLONTECH**

 **LG**



# OUR PRODUCT

MOTEURS  
**Baudouin**



 **Perkins**







  
上柴动力  
SDEC POWER



 **MITSUBISHI  
DIESEL ENGINE**



 **YANMAR**



  
**LINZ**  
ELECTRIC



**STAMFORD | AvK**



  
NECRA  
GENERATORS



# OUR REFERENCES

- **Tiny House Project - ARK-Q15**  
**İstanbul/ TÜRKİYE**



- **Telecommunication Project - ARK-Q22**  
**AZERBAIJAN**





# REFERANSLARIMIZ

- Telecommunication Project- ARK-B25  
Osmaniye / TÜRKİYE



- Military Project - ARK-Q12  
TÜRKİYE





ARKEN® Solar  
hybrid

ARKEN®



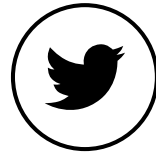
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*Hayat Hiç Durmasın...*  
*Life Goes On...*