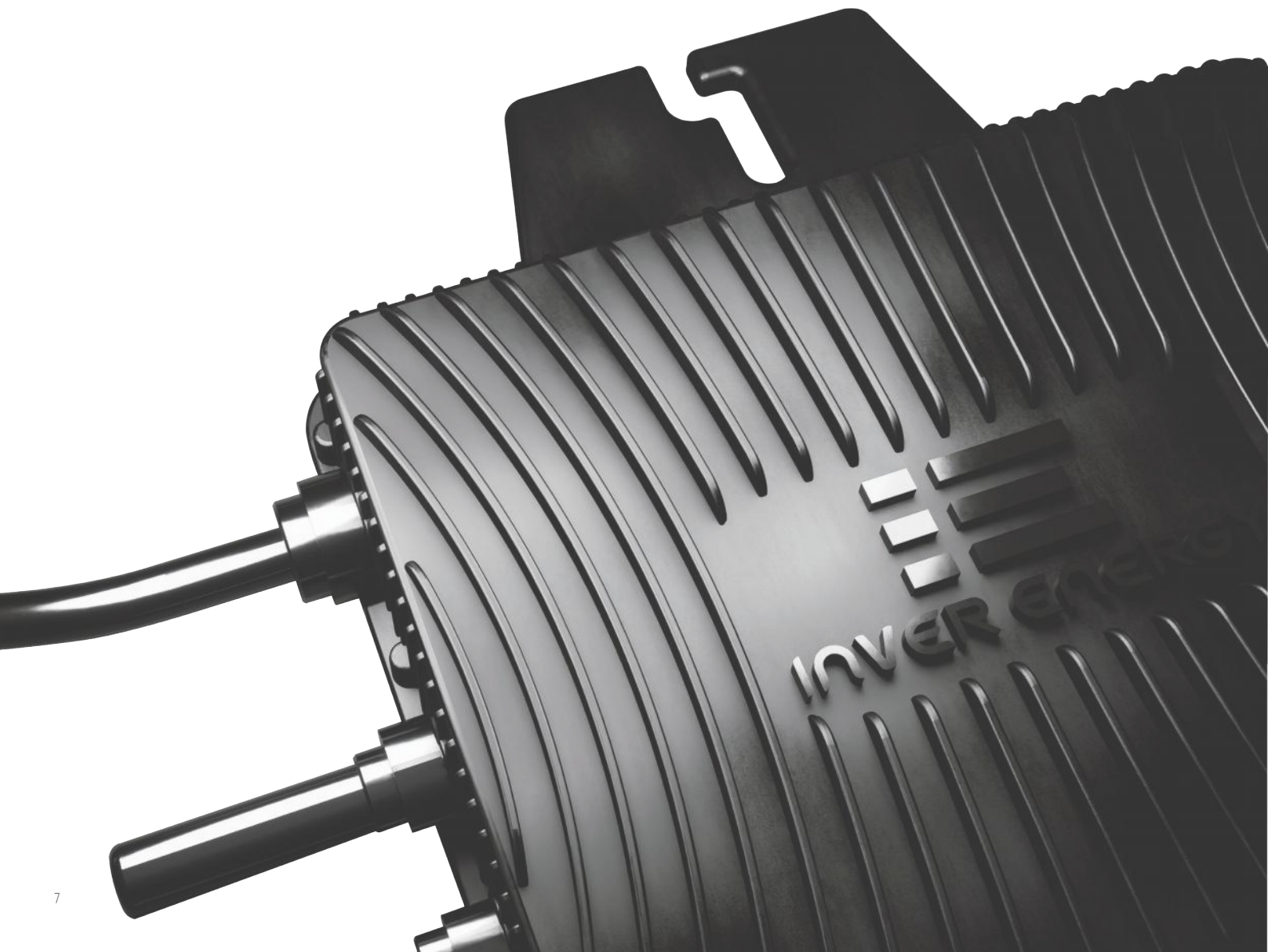


Invertechs Microinverter



Advantages of Microinverters

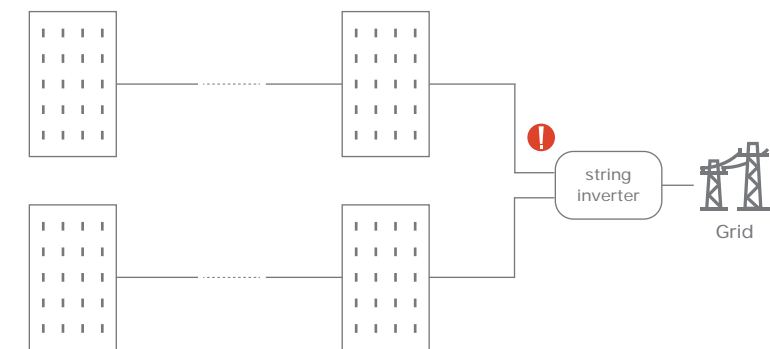
01

Safe

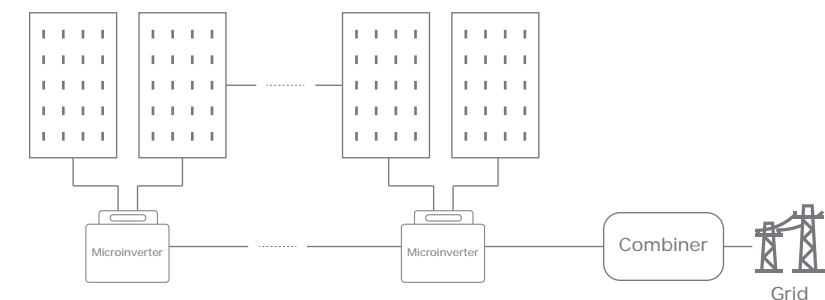
Traditional string inverters have each module connected in series, which poses the risk of electric shock, arc fire, and difficulty in extinguishing the fire.

- **Arc fire:** The DC summary terminal will generate 300V-1500V DC high voltage. After years of use, problems like broken wires, loose connections can potentially cause fire reaching temperatures of at least 3000°C.

- **Difficulty in extinguishing fire:** If a photovoltaic power station is on fire, firefighters cannot extinguish the fire as long as there is voltage on the DC side of the power station, otherwise there is a risk of electric shock. Firefighters can only put out the fire after sunset or after the PV system has completely burned out.



While microinverters have each panel connected in parallel. The maximum DC voltage does not exceed 120V, which can completely solve the fire hazards and fire-extinguishing difficulties caused by DC high-voltage arcing.

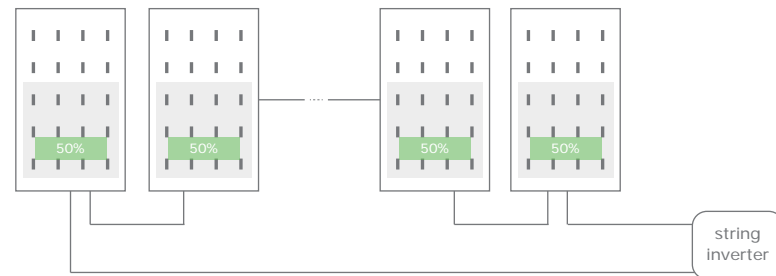


02 *Efficient*

As all modules are connected in series in a string inverter system, the failure of one module may lead to the failure of the entire system.

And a string inverter has only one MPPT (maximum power tracking), which cannot guarantee the maximum output of each module.

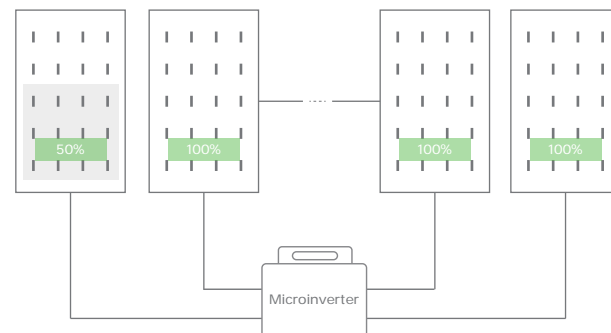
The efficiency of a string inverter is limited by the output of the least efficient module—the Barrel Effect.



While for microinverter input, each module has an MPPT, ensuring that each module has maximum output. Even if one or several modules fail or have unusual low efficiency due to shadow occlusion, it won't affect the overall efficiency of the system and thus can avoid the barrel effect.

Moreover, the installation of microinverters is more flexible than string inverters. Each module can be flexibly installed according to the lighting and roof tilt pattern to obtain maximum output efficiency.

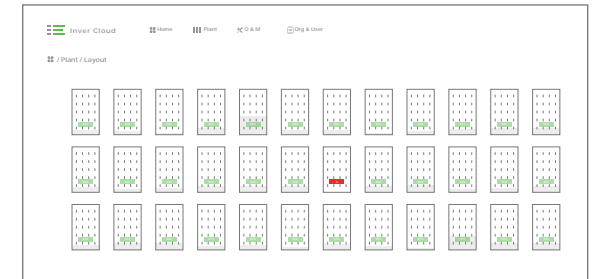
Under the same conditions, the overall power generation of a system installed with microinverters will be 5-25% higher than that with string inverters.



03 *Intelligent*

Module level monitoring enables monitoring & controlling the power generation of each module and the whole system in real time.

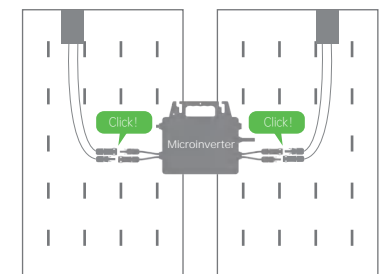
Technicals can accurately identify the fault remotely and locate faulty module with abnormal efficiency, which greatly facilitates O&M (operation and maintenance), and reduces the O&M costs.



04 *Flexible*

A single microinverter can connect 1/2/4 modules, with small size and light weight, it can be installed directly on the brackets and can be adjusted to different roof orientations and angles.

More microinverters and modules can be installed at any time to expand or modify the system capacity.



05 *Reliable*

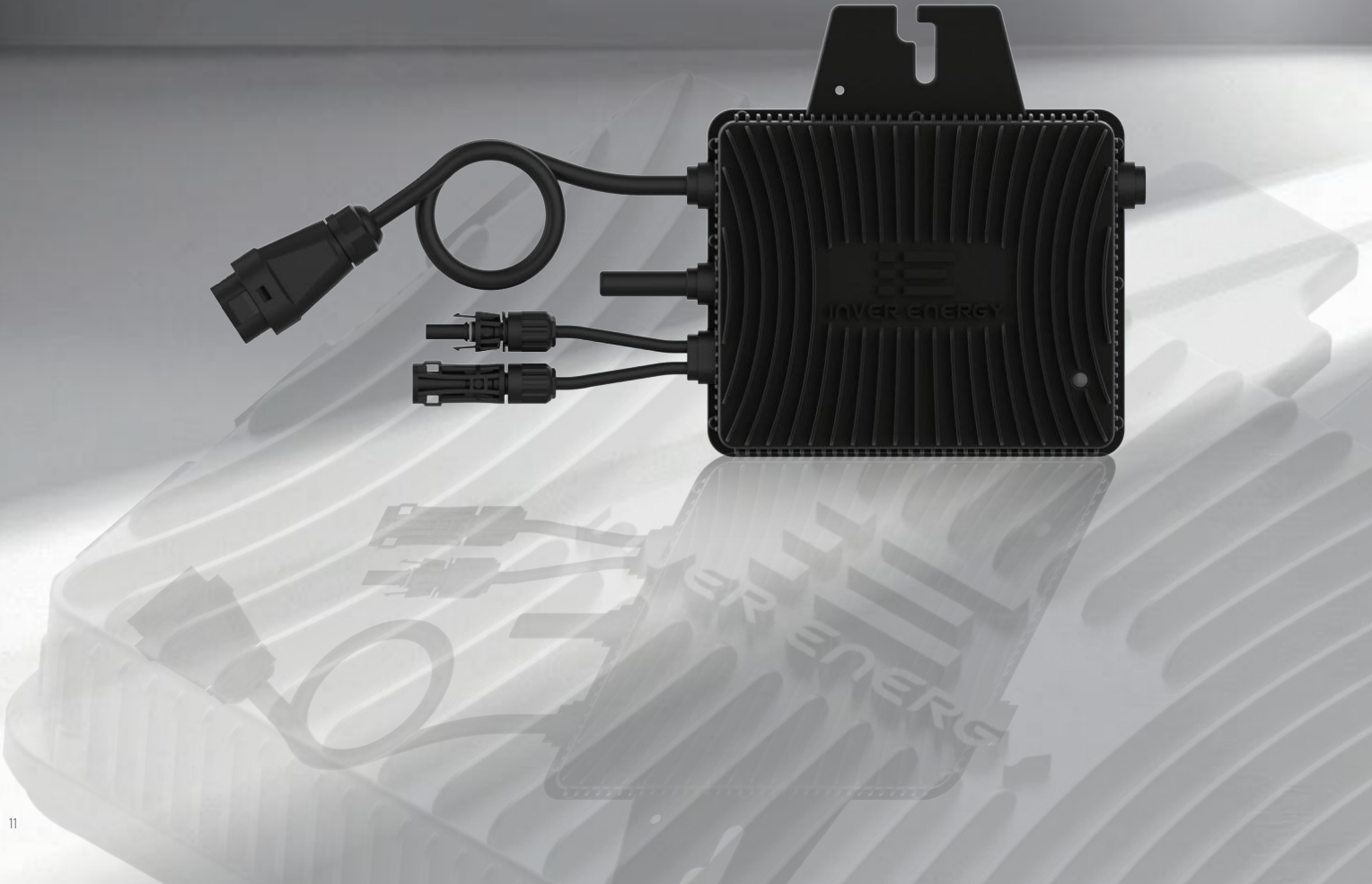
Microinverter's 25-year lifespan is equivalent to the lifespan of a module, so no secondary replacement is required.

Fanless design, IP67, fully insulated, makes it safer for outdoor use.









IS-030S/IS-040S/IS-050S

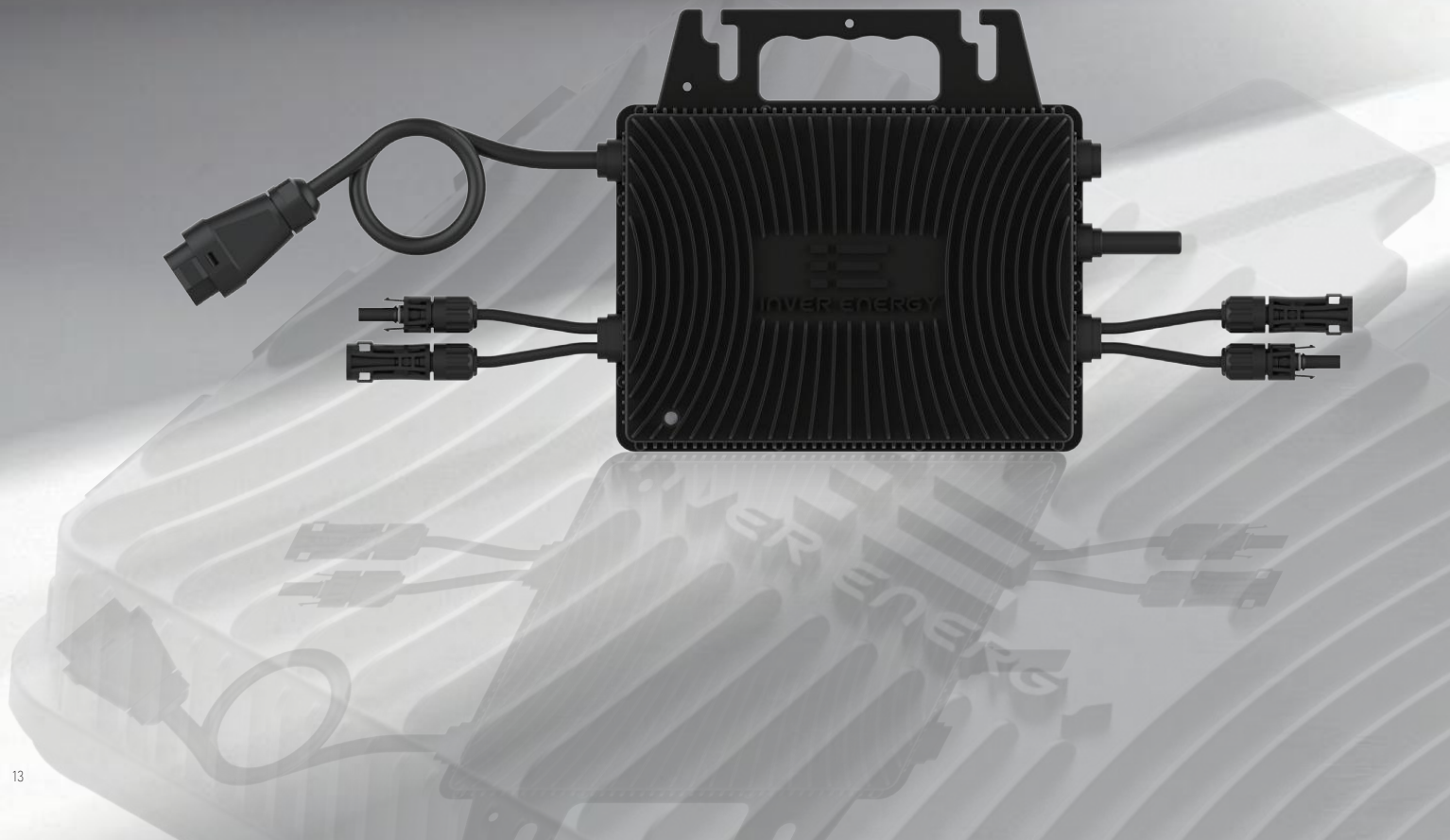
-  Safer with rapid shutdown compliance
-  Plug & Play, easy installation
-  96.7%+ peak efficiency with MPPT
-  WiFi integrated, direct communication with APP
-  IP67 protection, adapt to outdoor use
-  25 years design lifetime and 12 years warranty



Product Model	IS-030S	IS-040S	IS-050S
Input Data (DC)			
Recommended PV Module Power (W)	240~405+	320~540+	400~670+
MPPT Voltage Range (V)	16~60		
Maximum Input Voltage (V)	60		
Startup Voltage (V)	22		
Maximum Input Current (A)	15	16	17
Maximum input short circuit current (ISC) (A)	25		
Number of MPPTs	1		
Output Data (AC)			
Rated Output Power (W)	300	400	500
Rated Output Current (A)	1.30	1.74	2.17
Nominal Output Voltage (V)	220 / 230 / 240		
Nominal Output Frequency (Hz)	50 / 60		
Power Factor (Default/Adjustable)	0.99 / 0.90 leading...0.90 lagging		
Total Harmonic Distortion (THDi)	<3%		
Efficiency			
Peak Efficiency	96.70%	96.70%	96.70%
Nominal MPPT Efficiency	99.90%		
Nighttime Power Consumption (mW)	<50		
Mechanical Data			
Operating Temperature Range (°C)	-40 ~ +65		
Storage Temperature Range (°C)	-40 ~ +85		
Altitude (m)	4000		
Noise (dB)	<20		
Enclosure Environmental Rating	IP67		
Cooling	Natural Cooling		
Dimensions (W*H*D mm)	192*208*35		
Weight (kg)	1.95		
Features			
Communication	WiFi / 2.4G		
Monitoring System	Inver Cloud		
APP	Inver Dealer / Inver Energy		
Warranty	12 Years		
Compliance	CE / VDE4105 / EN50549-1		







IS-060S/IS-080S

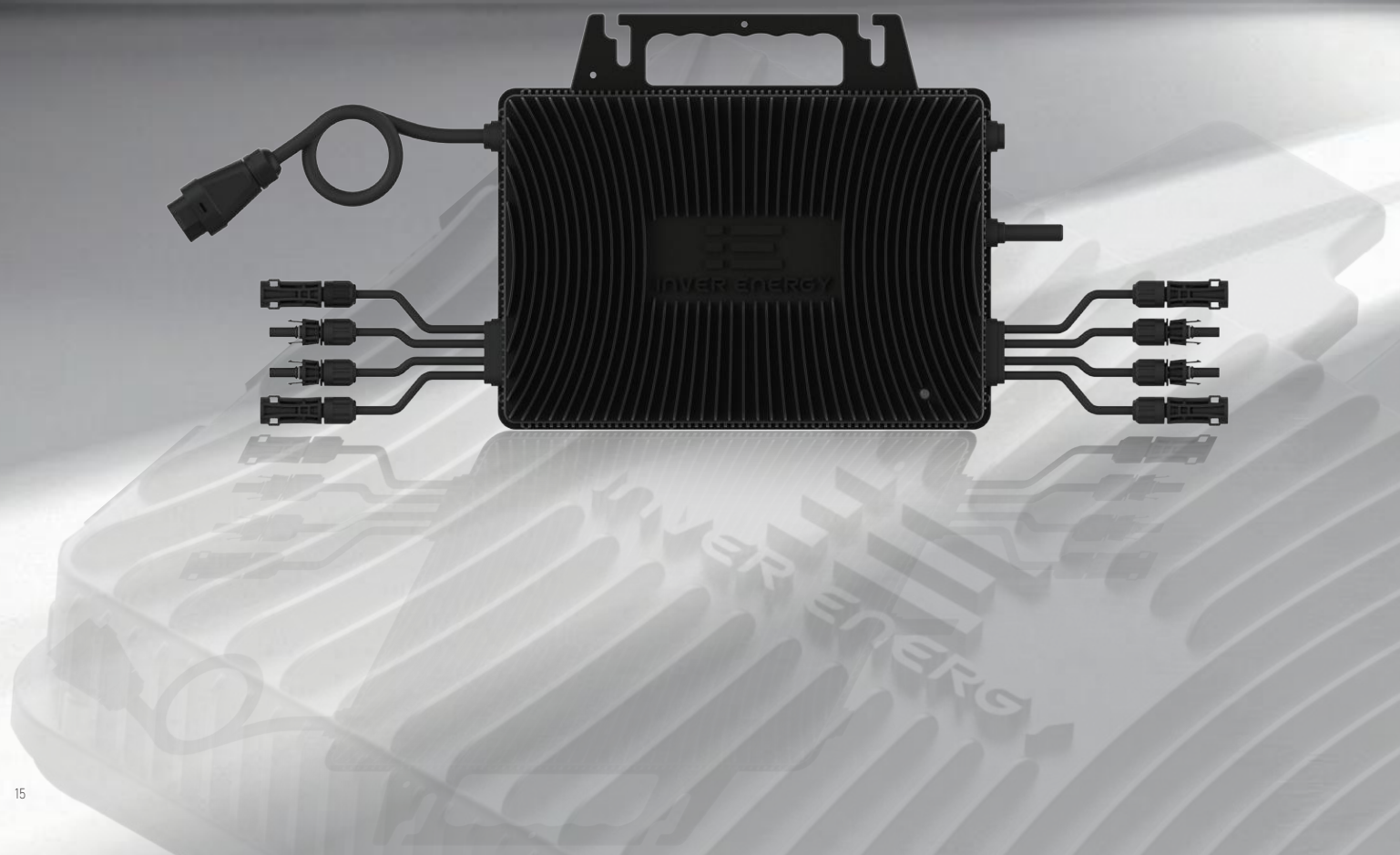
-  Safer with rapid shutdown compliance
-  Plug & Play, easy installation
-  2 MPPTs, 96.7%+ peak efficiency
-  WiFi integrated, direct communication with APP. Module level monitoring
-  IP67 protection, adapt to outdoor use
-  25 years design lifetime and 12 years warranty



Product Model	IS-060S	IS-080S
Input Data (DC)		
Recommended PV Module Power (W)	(240~405+)*2	(320~540+)*2
MPPT Voltage Range (V)	16~60	
Maximum Input Voltage (V)	60	
Startup Voltage (V)	22	
Maximum Input Current (A)	15*2	16*2
Maximum input short circuit current (ISC) (A)	25	
Number of MPPTs	2	2
Output Data (AC)		
Rated Output Power (W)	600	800
Rated Output Current (A)	2.61	3.48
Nominal Output Voltage (V)	220 / 230 / 240	
Nominal Output Frequency (Hz)	50 / 60	
Power Factor (Default / Adjustable)	0.99 / 0.90 leading...0.90 lagging	
Total Harmonic Distortion (THDi)	<3%	
Efficiency		
Peak Efficiency	96.70%	96.70%
Nominal MPPT Efficiency	99.90%	
Nighttime Power Consumption (mW)	<50	
Mechanical Data		
Operating Temperature Range (°C)	-40 ~ +65	
Storage Temperature Range (°C)	-40 ~ +85	
Altitude (m)	4000	
Noise (dB)	<20	
Enclosure Environmental Rating	IP67	
Cooling	Natural Cooling	
Dimensions (W*H*D mm)	235*223*35	
Weight (kg)	2.84	
Features		
Communication	WiFi / 2.4G	
Monitoring System	Inver Cloud	
APP	Inver Dealer / Inver Energy	
Warranty	12 Years	
Compliance	EN 62109-1/-2; EN 61000-6-1/-2/-3/-4; EN 50549-1; PN-EN 50549-1 NF-EN 50549-1; CEI 0-21; VDE-AR-N 4105 (DAkkS)	

IS-160S/IS-180S/IS-200S

-  Safer with rapid shutdown compliance
-  Plug & Play, easy installation
-  4 MPPTs, 96.7%+ peak efficiency
-  WiFi integrated, direct communication with APP. Module level monitoring
-  IP67 protection, adapt to outdoor use
-  25 years design lifetime and 12 years warranty



Product Model	IS-160S	IS-180S	IS-200S
Input Data (DC)			
Recommended PV Module Power (W)	(320~540+)*4	(360~600+)*4	(400~670+)*4
MPPT Voltage Range (V)	16~60		
Maximum Input Voltage (V)	60		
Startup Voltage (V)	22		
Maximum Input Current (A)	16*4	16.5*4	17*4
Maximum input short circuit current (ISC) (A)	25		
Number of MPPTs	4		
Output Data (AC)			
Rated Output Power (W)	1600	1800	2000
Rated Output Current (A)	6.96	7.83	8.70
Nominal Output Voltage (V)	220 / 230 / 240		
Nominal Output Frequency (Hz)	50 / 60		
Power Factor (Default / Adjustable)	0.99 / 0.90 leading...0.90 lagging		
Total Harmonic Distortion (THDi)	<3%		
Efficiency			
Peak Efficiency	96.70%	96.70%	96.70%
Nominal MPPT Efficiency	99.90%		
Nighttime Power Consumption (mW)	<50		
Mechanical Data			
Operating Temperature Range (°C)	-40 ~ +65		
Storage Temperature Range (°C)	-40 ~ +85		
Altitude (m)	4000		
Noise (dB)	<20		
Enclosure Environmental Rating	IP67		
Cooling	Natural Cooling		
Dimensions (W*H*D mm)	340*286*39		
Weight (kg)	4.90		
Features			
Communication	WiFi / 2.4G		
Monitoring System	Inver Cloud		
APP	Inver Dealer / Inver Energy		
Warranty	12 Years		
Compliance	CE / VDE4105 / EN50549-1		