

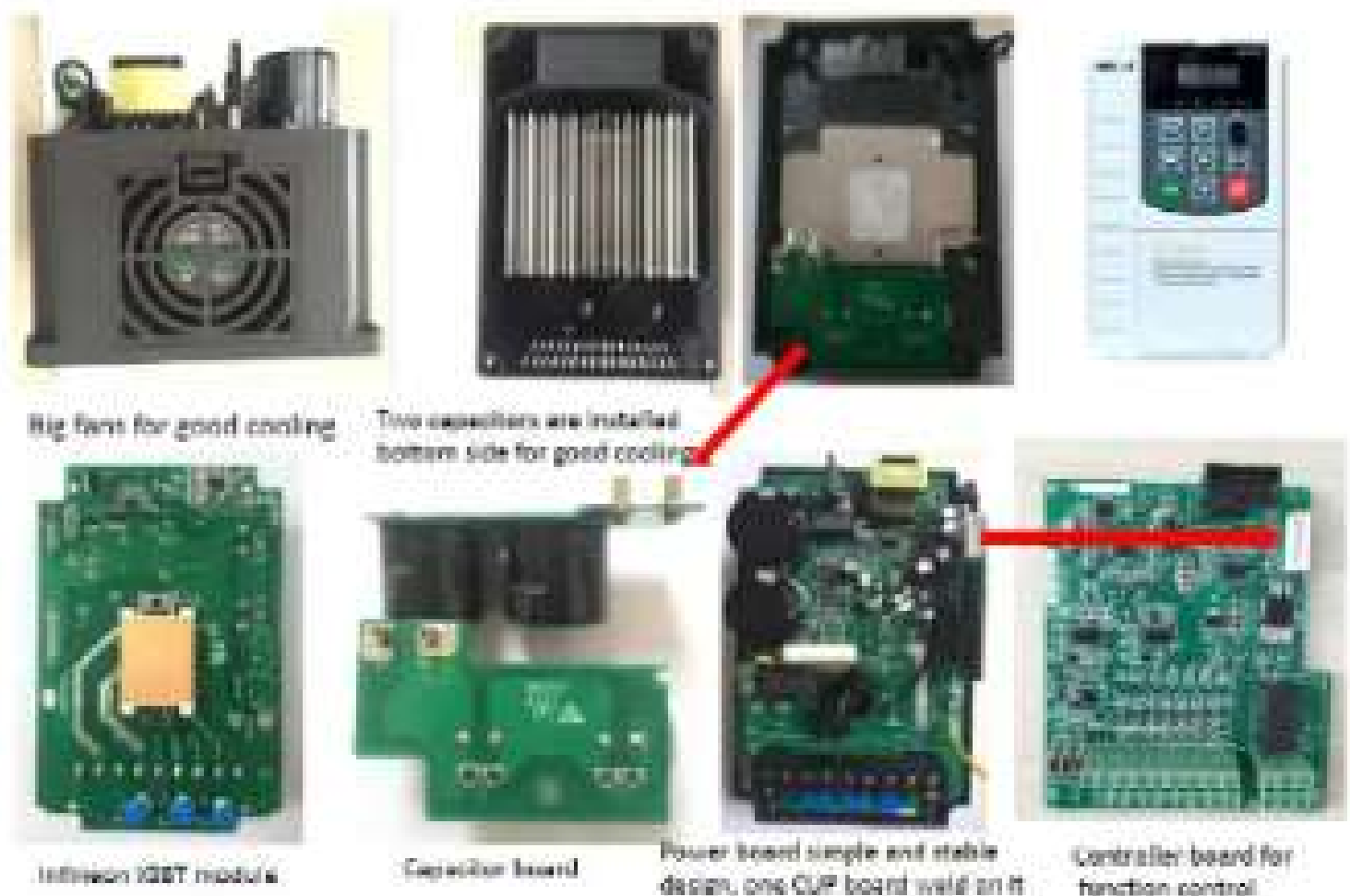
HELIOS

The Power of SUN



Solar Pumping Inverter

Best Quality Components:



HELIOS master the core technology of control algorithm and have a good cooperation with International Motor Control Research Institutes to keep our technology always at a high level. Most of our engineer are much experienced in inverter area for more than 12 years, and some of them (software and hardware engineer) are well-reputed for their technology and experience.

Our customer/partner/user are widely distributed around the world, such as USA, Brazil, Mexico, India, Pakistan, Bangladesh, Yemen, Saudi Arabic, Somalia, Egypt, Morocco, Kenya, South Africa etc...Our customer have wining a good market and reputation by their great efforts and our products.

HELIOS will continue to make great efforts to improve the Technology, Quality and Service!

H380 SERIES MPPT Solar Pump Inverter:



H380 series Solar Pump Inverter is based on frequency inverter and widely used for solar pump system.

Nowadays, H380 are hot selling in the countries who are lack of water and want to use solar energy to get more water for home-use, irrigation, farming etc...

H380 are suitable with the solar pump system well due to our experienced R&D team and customers. It always helps our agent/dealer to get a good reputation from their market, like USA, Middle East, Africa etc...

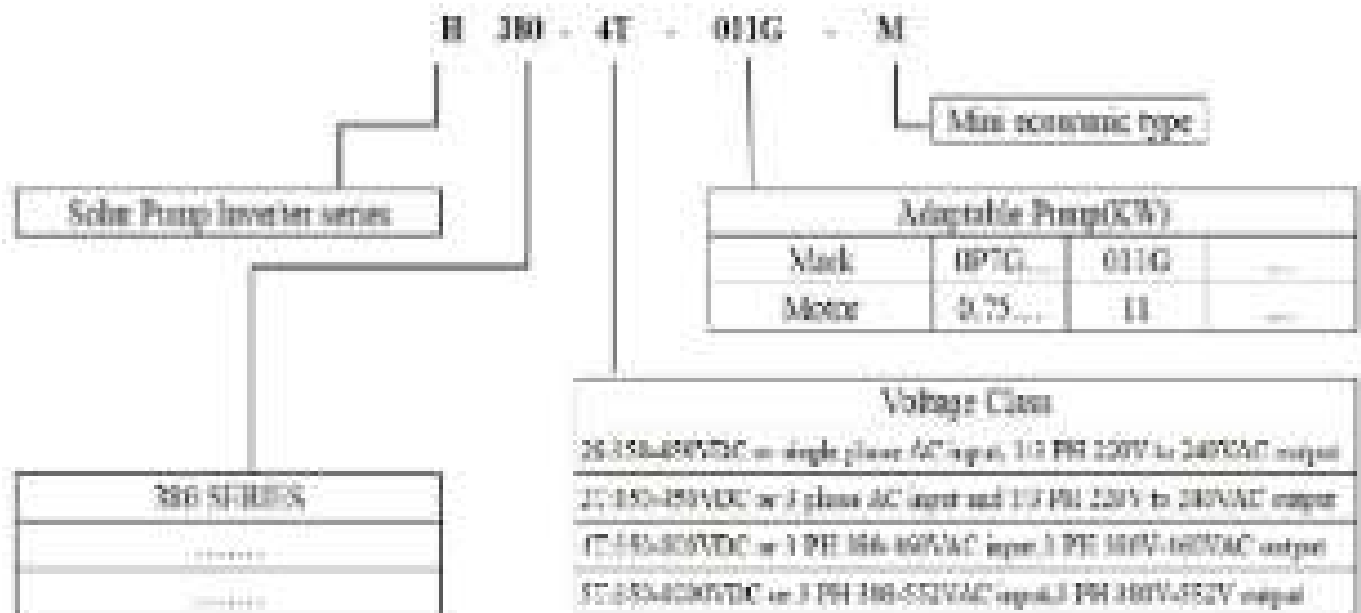
Several advantages of H380 solar pump inverter:

- Maximum power point tracking (MPPT) with fast response speed and stable operation
- Enable to drive for PMSM high speed and high efficiency pumps without motor ID auto tuning
- Dry run (under load) protection, lowest speed auto tuning, Pumps maximum current protection, Minimum power input protection...
- The PQ (power/flow) performance curve enables to calculate the flow output from the pump
- Dual mode AC and DC power supply input is available
- Digital signal of water level sensor and analog signal of water level sensor for water tank fulling detect
- Dedicated hardware design with dual CPU, independent air dust design
- Import IGBT module such as Infineon/Fuj to ensure good quality
- Enhanced lightning protection module
- GPS remote control module for distance monitoring, control, parameters modification etc
- Efficiency is higher than 99.5%, power factory not less than 0.5%

Technical specification:

Recommended MPPT voltage-range	Required to install: for 24 (24V to 48VDC input, 48V 24VDC output) Vmp min (rated VDC for 24), 24V to 48VDC input, 48V 24V to 48VDC output
Recommended input VDC and Vmp (voltage of solar power panel voltage)	VDC 48V(24V), Vmp 60V(24V) for 24 model or 24V DC pump VDC 48V(24V), Vmp 60V(24V) for 48 model or 48V DC pump
Motor type	Control for permanent magnet synchronous motor and asynchronous motor pump.
Rated output voltage	4-Phase: 240V/360V/480V 3-phase: 200V/300V/400V
Output frequency range	0~maximum frequency 50Hz, resolution:0.1Hz
MPPT efficiency	98.5%, close efficiency of use to drive MPPT pump
Applied temperature range	H-type for submersible pumps, 0-50°C rated current for all, 0-50°C rated current for 24. F-type for general pumps, 0-50°C rated current for all, 0-50°C rated current for 24.
Water pump control special performance	MPPT (maximum power point tracking); CVT (constant voltage tracking); auto/manual operation, dry run protection, low stop frequency protection, maximum power input, motor maximum current protection, flow calculating, energy generated calculating and water tank level detected
Protection function	Phase loss protection, phase short circuit protection, ground to phase short protection , input and output short circuit protection, stall protection, lightning protection
Protection degree	IP00, for force cooling
Working mode	MPPT or CVT
Altitude	Below 1000m, above 1000m, de-rated 1% for every additional 100m
Standard AC input backup control	EA, Design based on vector control drive F4000 series, more specification please refer to F4000 vector control drive operation manual
Auto-stop and Auto-start	Control by external switch, float switch, RS485 communication It will auto-start at starting when get enough power from sunlight, and stop at sunset when power is less than solar panel under terminal control mode

The designation rules of H380 solar pump inverter



H380 solar pump inverter voltage range:

Model	Applicable for pumps	Input DC voltage	Over voltage point	Under voltage point	Suggest Vmp	Suggest Vsc
H380-05	For 200V AC	150V - 450V	450V	100V	310VDC	380VDC
H380-4T	For 400V AC	250V - 800V	800V	200V	520VDC	650VDC

Models and specification:

S N	Models	Rate current I	Output voltage (3PH VAC)	Applicable for pumps	MPPT voltage (VDC)
General type 2S, 150 to 450 VDC or 220/ 240VAC input, Vimp 310, Voc 580					
1	H380-2S-0P7G	3.8A	220V/240V	0.75KW	260 to 375
2	H380-2S-1P5G	7A	220V/240V	1.5KW	260 to 375
3	H380-2S-2P2G	9A	220V/240V	2.2KW	260 to 375
4	H380-2S-004G	17A	220V/240V	4.0KW	260 to 375
General type 4T, 250/350 to 800 VDC or 380/ 440VAC input, Vimp520, Voc650					
1	H380-4T-0P7G	2.3A	380V-440V	0.75KW	486 to 750
2	H380-4T-1P5G	3.8A	380V-440V	1.5KW	486 to 750
3	H380-4T-2P2G	5.1A	380V-440V	2.2KW	486 to 750
4	H380-4T-004G	9A	380V-440V	4.0KW	486 to 750
5	H380-4T-5P5G	13A	380V-440V	5.5KW	486 to 750
6	H380-4T-7P5G	17A	380V-440V	7.5KW	486 to 750
7	H380-4T-110G	25A	380V-440V	11KW	486 to 750
8	H380-4T-015G	32A	380V-440V	15KW	486 to 750
9	H380-4T-018G	37A	380V-440V	18KW	486 to 750
10	H380-4T-022G	45A	380V-440V	22KW	486 to 750
11	H380-4T-030G	60A	380V-440V	30KW	486 to 750
12	H380-4T-033G	75A	380V-440V	37KW	486 to 750
13	H380-4T-045G	91A	380V-440V	45KW	486 to 750
14	H380-4T-055G	110A	380V-440V	55KW	486 to 750
15	H380-4T-075G	150A	380V-440V	75KW	486 to 750
16	H380-4T-095G	180A	380V-440V	90KW	486 to 750
17	H380-4T-110G	220A	380V-440V	110KW	486 to 750

Applications:

Our H380 series Solar Pump Inverter are widely used in Solar Pump Systems, which are popular in irrigation, agriculture, fountain and as a key part of whole system controller.



Drinking water supply



Green irrigation systems



Agricultural irrigation systems



Livestock watering



Swimming pool



Water tank