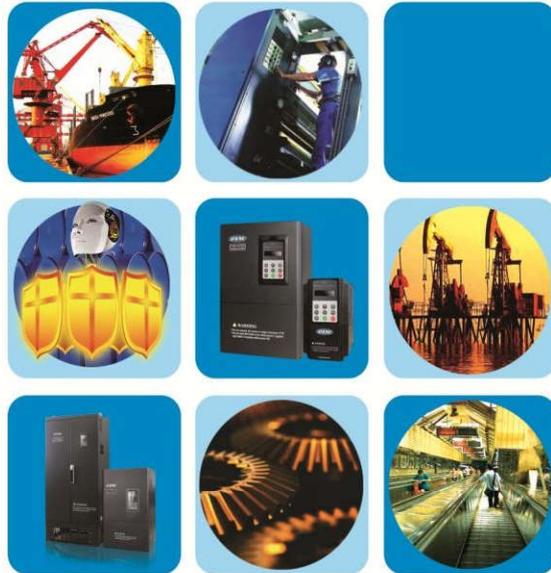


**ENC**

Inverter > China Great Brand



# P

## Product

### Selection Brochure

**ENC ELECTRIC**

SHENZHEN ENCOM ELECTRIC TECHNOLOGIES CO.,LTD.

# About us

## Company introduction

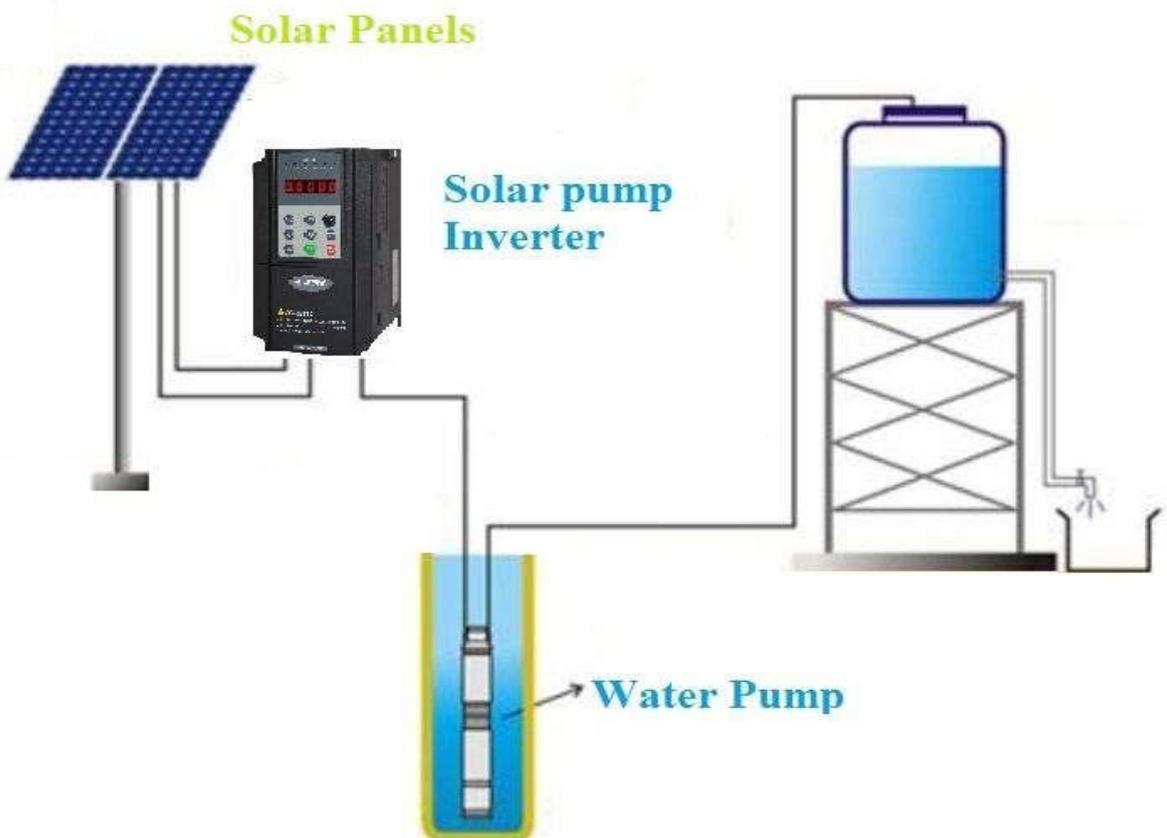
Shenzhen Encom Electric Technologies CO., LTD is a state-level high-tech enterprise with independent intellectual property rights, focusing on industrial automation products' development, production and sales. The main products include frequency inverter/ac drive, servo controller, PLC, new energy systems.

ENC company was established in 2004, has passed ISO9001: 2008 quality management system certification and the European Union CE certification, won the National Innovation Fund, the Shenzhen strategic emerging industries fund, product innovation award, the most investment value award and repeatedly won "China top ten low-voltage inverter domestic brands" title.



1. Won National Innovation Fund enterprise, China's high-tech enterprise
2. Repeatedly won **"China top ten domestic brands"** title
3. With more than **13 years** of rich experience R&D team
4. With completely independent intellectual property rights, has **dozens of patents**
5. Master the world's leading asynchronous, **synchronous vector control technology and torque control technology**
6. **ISO9001:2008 system certification unit**, strict and standard information quality control system
7. Has more than **30 offices** in China
8. ENC provide quality products and services for more than **30 countries'** industrial user

Green Power, Green World.  
ENC help you to change the world.



## *EN600 Solar pump Inverter*

EN600 series inverter special for solar pump which has high efficiency.

It supplies by solar panel without extra battery to convert the the electrical energy to ac power and drive three phase pump motor. A lot of applications can be used for, like underground water supply, agriculture irrigation, forestry irrigation, desert control, pasture animal husbandry,

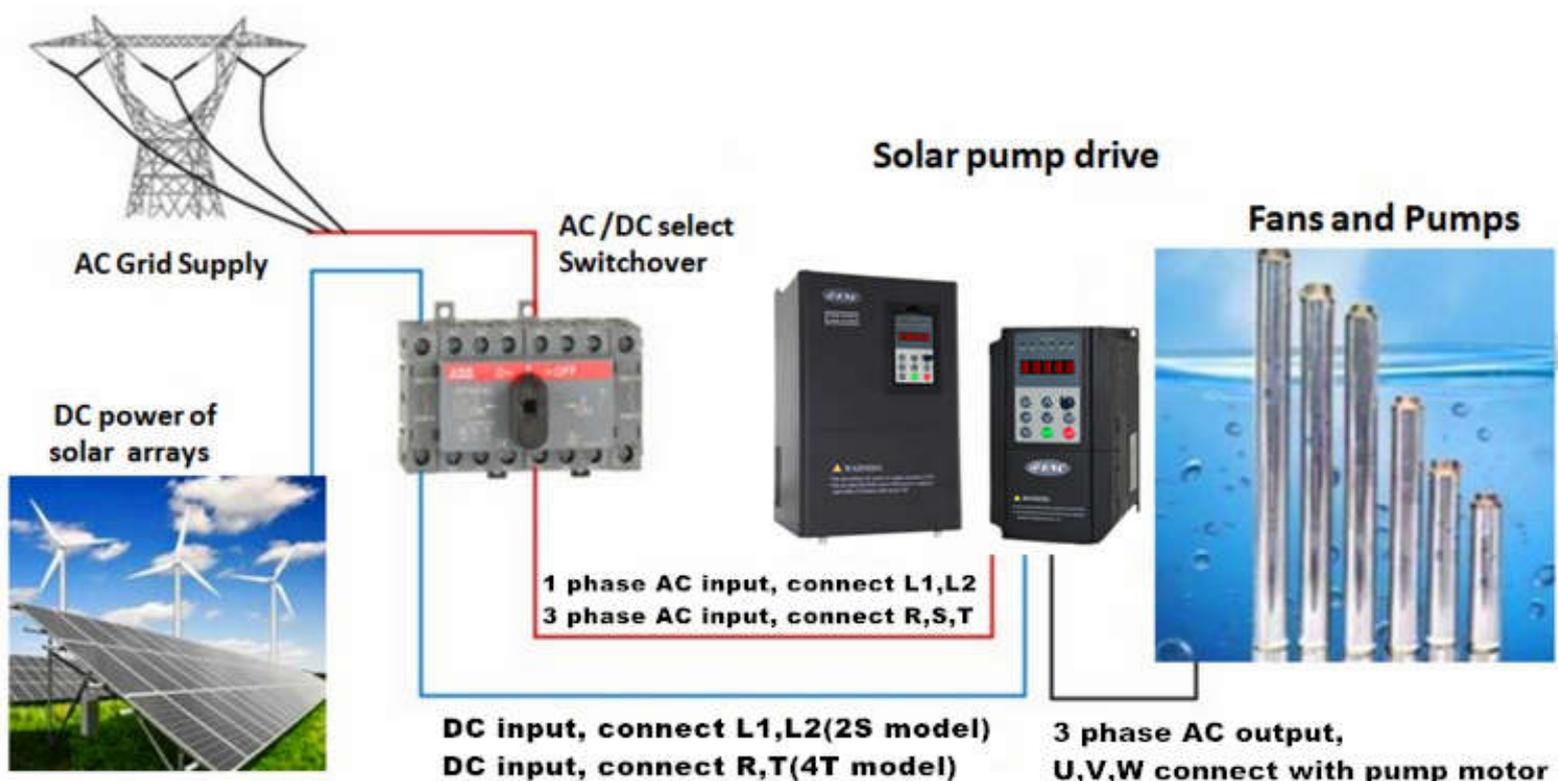
water supply for islands, waste water treatment engineering and so on.

MPPT function(maximum power point tracking), CVT(Constant voltage tracking), weak light auto-sleep, strong light auto wake-up, high water level auto-stop, low water level auto-start, dry run protection(under load protection) etc. functions available.



## *Features of EN600 series solar pump inverter*

1. Two control mode: CVT mode and MPPT mode;
2. Maximum power point tracking;
3. Sun light week auto sleep, with strong light auto wake up;
4. Low water level re-start, high water level automatic stop;
5. Support both DC and AC input. Without sun and during raining days, select grid AC supply and drive the pump by setting parameters;
6. Support RS485 (free protocol and Modbus protocol), Profibus-DP, CanLink and CanOpen;
7. Fast installation, no need extra maintenance;
8. Compatible with most solar panels;
9. Support keyboard upload, download and copy parameters, makes parameters setup easily.



### ***EN600 solar pump inverter Specifications***

Type	4T series	2S series
Max input DC voltage	800V DC	400V DC
Recommended MPPT&CVT voltage range	350V~750V DC	160V~380VDC
Recommended input voltage	530V DC/380V AC	310V DC/220V AC
Rated output voltage	3PH 380V AC	3PH 220V AC
MPPT efficiency	>97%	
Output frequency range	0~600Hz	
Max efficiency	>97%	
Protection level	IP20 Forced Air cooling	
Altitude	Below 1000m; above 1000m, de-rated 10% for every additional 1000m	
Solar pump inverter type	G:G type for submersible pumps; P:P type for centrifugal pump;	

### ***Recommended solar array configurations***

The power range of solar array should be 1.2 to 1.3 times of the rated power of inverter;

The open-circuit voltage of solar array should be 1.1 times to 1.2 times of rated DC bus voltage.

### ***EN600 solar pump inverter special parameters graph***

The instruction just suitable for EN600 series inverter with function for solar pump. For other specifications no wrote here please refer to EN600 series standard manual.

### ***Symbol description***

× ---- parameter can't be changed in process of running

○ ---- parameter can be changed in process of running

\* ---- read-only parameter, un-modifiable

### ***Function parameter schedule graph***

Function Code	Name	Set Range	Min. Unit	Factory Default	Modification
F01.00	Main frequency input channel selection	11:MPPT provision frequency	1	0	○
F08.18	Input terminal X1 function selection	1:Forward running FWD terminal 2:Reverse running REV terminal 72:Water upper limit level terminal 73:Water low limit level terminal	1	1	×
F08.19	Input terminal X2 function selection	1:Forward running FWD terminal 2:Reverse running REV terminal 72:Water upper limit level terminal 73:Water low limit level terminal	1	2	×
F08.20	Input terminal X3 function selection	1:Forward running FWD terminal 2:Reverse running REV terminal 72:Water upper limit level terminal 73:Water low limit level terminal	1	0	×
F08.21	Input terminal X4 function selection	1:Forward running FWD terminal 2:Reverse running REV terminal 72:Water upper limit level terminal 73:Water low limit level terminal	1	0	×
F11.01	Provision channel selection	9:Setup byF12.14 (CVT target voltage)	1	0	○
F11.02	Feedback channel selection	9:DC BUS voltage	1	0	○
F12.14	CVT target voltage	200.0~1000.0V	0.1	500.0V	○

F17.06	Wakeup DC Voltage	Range: 100.0~1000.0V	450.0V
F17.07	Sleep DC Voltage	Range: 100.0~1000.0V	350.0V
F17.08	MPPT Low limit Frequency	Range:0.00Hz ~ Upper limit Frequency	10.00Hz
F17.09	MPPT Mode Function	Range:0~1	0

0: Disabled

1: Enable MPPT Function

When set F17.09=1 and F01.00=11, the inverter will run under MPPT mode.

F17.10	Wakeup delay time	Range:0~30.0S	5S
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For Solar pump application, there are two modes CVT mode and MPPT mode for choose.

CVT mode: Set F11.00=1(PID Close-loop valid), F11.01=9(Choose F12.14 as CVT target voltage), F11.02=9(Choose DC BUS voltage as feedback), F11.13=1, F19.32=0200.

When DC BUS voltage lower than the value of F17.07 (Sleep DC voltage), the inverter will come

into Sleep mode. When DC Bus voltage higher than F17.06 (Wakeup DC voltage) and lasts F17.10 (Wakeup delay time), the inverter will wake up and start to work again.

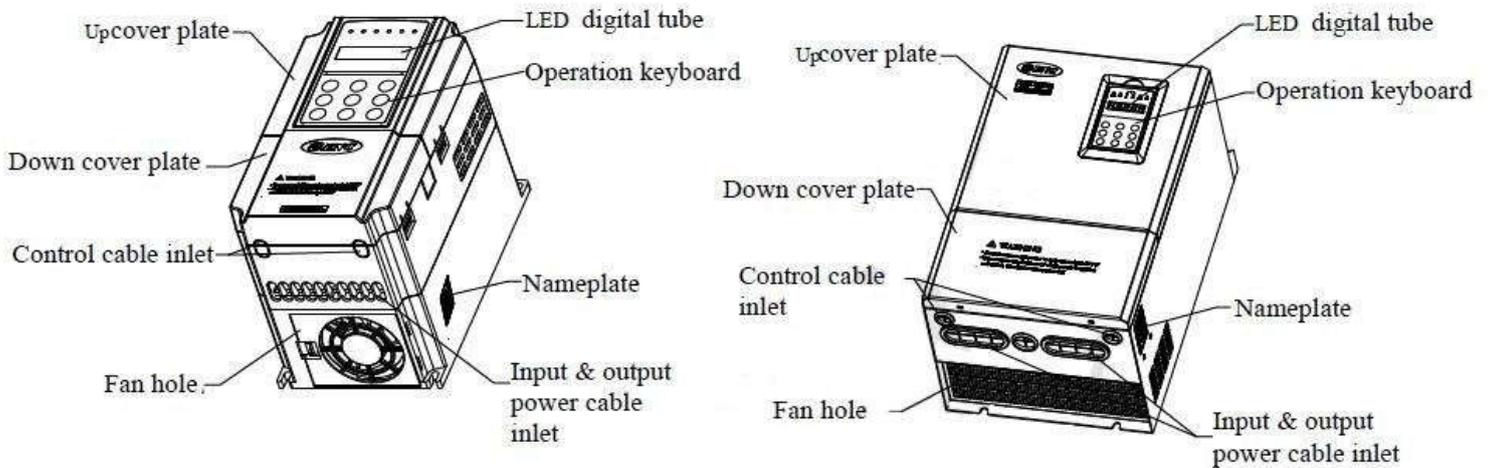
MPPT mode: Set F17.09=1, F01.00=11, MPPT function enabled.

Please adjust F17.06, F17.07, F17.08 and F17.10 properly to get suitable effect.

Water upper limit level and Water low limit level functions available for CVT mode and MPPT mode, please refer to #72 and #73 functions for multi-input function terminal at F8 parameters Group.

## Appearance and parts name explanation

### EN600 Appearance and parts name explanation



### EN600 Parts name sketch

### Outer size

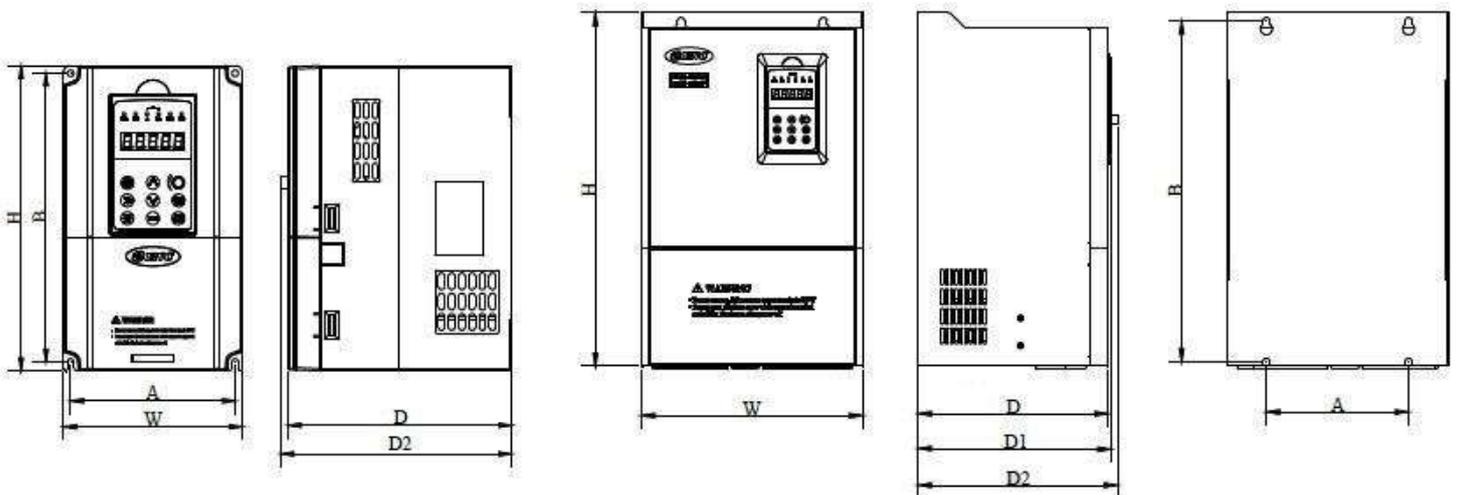


Fig.a

Fig.b

### EN600 mounting size

Inverter type	A (mm)	B (mm)	W (mm)	H (mm)	D (mm)	D1 (mm)	D2 (mm)	Fix Hole (mm)	Fig. No.
EN600-2S0004	104	186	115	200	151	-	164	5	Fig.a
EN600-2S0007									
EN600-2S0015									
EN600-2S0022									
EN600-2S0037	129	227	140	240	175	-	188	5	Fig.a
EN600-4T0007G/0015P	104	186	115	200	151	-	164	5	Fig.a
EN600-4T0015G/0022P									
EN600-4T0022G/0037P									
EN600-4T0037G/0055P									
EN600-4T0055G/0075P	129	227	140	240	175	-	188	5	Fig.a
EN600-4T0075G/0110P									
EN600-4T0110G/0150P	165	281	180	304	189	-	202	6	Fig.a
EN600-4T0150G/0185P									
EN600-4T0185G/0220P	180	382	250	398	210	214	223	9	Fig.b
EN600-4T0220G/0300P									
EN600-4T0300G/0370P	180	434	280	450	240	244	253	9	Fig.b
EN600-4T0370G/0450P									
EN600-4T0450G/0550P	190	504.5	290	530	250	254	263	9	Fig.b
EN600-4T0550G/0750P									