



User's Guide (Edition V2.1)

YX3900 series inverter special for PV water pumps



Preface

YX3900 special inverters are developed for the power supply of water pumps based on the core control algorithm of high performance inverters and the control requirements of PV water pumps, All series products apply world famous brand modules such as Fuji and infineon ect. The function of Maximum power tracking, dormant at weak light, wake up at strong light, high water level dormant, underload pre-warning and other control protection functions can ensure normal operation of water pumps according to the customers' requirements to switch to the grid power supply.

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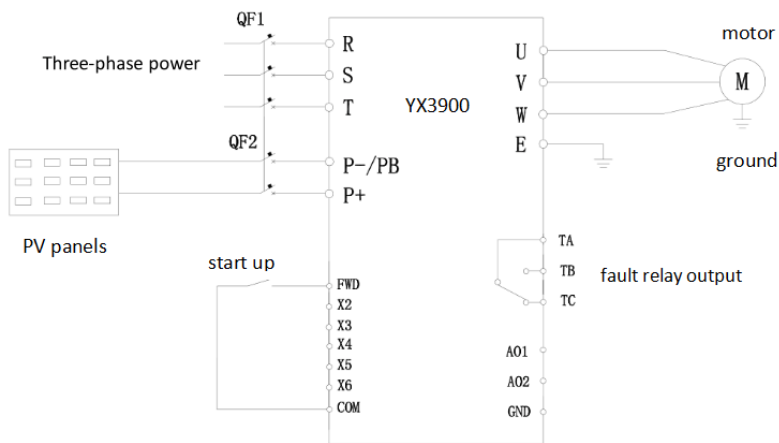
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Chapter 1 Basic wiring diagram



Chapter 2 Function Parameter Table

Symbol Description

“○”:means that the parameter can be revised during running state.

“×”: means that the parameter can not be revised during running state.

“*”: means read-only parameter which can not be revised.

Function Code Table

P0 Group: Basic running function parameter					
Func Code	Name	Range	Min Unit	Factory Default	Modify
P0.00	Control mode selection	0: V/F Control 1: Senseless vector control	1	0	○
P0.01	Freq control channel selection	0: Analog potentiometer on control panel(single display valid) 1: ▲、▼key on control panel(single display valid) 2: Digital setting 1,control panel given(double display valid) 3: Digital setting 2, UP/DOWN terminal given 4: Digital setting 3, serial port given 5: VI analog given (VI-GND) 6: CI analog given(CI-GND) 7: Pulse terminal given(PULSE) 8: Combination given (refer to P3.00)	1	0	○
P0.02	Initial digital set freq.	P0.19lower limit freq.~P0.20upper limit freq.	0.01HZ	50.00HZ	○
P0.03	Running command mode selection	0: Control panel mode 1: Terminal control mode 2: Serial port control mode	1	0	○
P0.04	Running direction setting	Unit's place: 0: Forward 1:Reverse Ten's place: 0:REV allowed REV 1:REV prohibited	1	10	○
P0.05	FWD/REV dead time	0.0~120.0s	0.1s	0.1s	○
P0.06	Max output freq.	50.00Hz~500.00Hz	0.01Hz	50.00Hz	×
P0.07	Basic running freq	1.00Hz~500.00Hz	0.01Hz	50.00Hz	×
P0.08	Max output voltage	1~480V	1V	inverter rated voltage	×

P0.09	Torque boost	0.0%~30.0%	0.1%	2.0%	×
P0.10	Torque boost cut-off freq.	0.00Hz~Basic running freq.P0.07	0.00	50.00Hz	○
P0.11	Torque boost mode	0: Manual 1: Auto	1	0	○
P0.12	Carrier freq	1.0K~14.0K	0.1K	8.0K	×
P0.13	Acc/Dec time unit	0: Second 1: Minute	0	0	×
P0.14	Acc time 1	0.1~6000.0	0.1	20.0	○
P0.15	Dec time 1	0.1~6000.0	0.1	20.0	○
P0.16	Upper limit freq.	Lower limit freq. ~Max output freq.P0.06	0.01Hz	50.00Hz	×
P0.17	Lower limit freq.	0.00Hz~Upper limit freq.	0.01Hz	0.00Hz	×
P0.18	Lower limit freq. Running mode	0: Running at lower limit freq 1: Stopping	1	0	×
P0.19	V/F curve setting	0: Constant torque curve 1: Reduced torque curve 1 (1.2 times the power) 2: Reduced torque curve 2 (1.7 times the power) 3: Reduced torque curve 3 (2.0 times the power) 4: Customized V/F curve	1	0	×
P0.20	V/F Freq.valueP3	P0.25 ~ P0.07 Basic running freq.	0.01Hz	0.00Hz	×
P0.21	V/F Volt.valueV3	P0.26 ~ 100.0%	0.1%	0.0%	×
P0.22	V/F Freq.valueP2	P0.27 ~ P0.23	0.01Hz	0.00Hz	×
P0.23	V/F Volt.valueV2	P0.28 ~ P0.24	0.1%	0.0%	×
P0.24	V/F Freq.valueP1	0.00~P0.25	0.01Hz	0.00Hz	×
P0.25	V/F Volt.valueV1	0~ P0.26	0.1%	0.0%	×

P2 Group: Start/Brake function parameter					
Func Code	Name	Range	Min Unit	Factory default	Modify
P2.00	Start running mode	0: Start from start freq. 1: Brake first, then start from start freq. 2: Track speed, then start.	1	0	×
P2.01	Start freq.	0.40~20.00Hz	0.01Hz	0.50Hz	○
P2.02	Start freq. running duration	0.0~30.0s	0.1s	0.0s	○
P2.03	DC brake current as start	0~15%	1%	0%	○
P2.04	DC brake time as start	0.0~60.0s	0.1s	0.0s	○
P2.05	Stop mode	0: Dec 1: Free Stop 2: Dec+DC brake	1	0	×
P2.06	Start freq. of DC brake as stop	0.0~15.00Hz	0.0Hz	3.00Hz	○
P2.07	DC brake time as stop	0.0~60.0s	0.1s	0.0s	○
P2.08	DC brake current as stop	0~15%	1%	0%	○

P3 Group :Auxiliary running parameter					
Func Code	Name	Range	Min Unit	Factory default	Modify
P3.01	Parameter initialization setting	LED unit's place: 0: All parameters are allowed to be revised. 1: All parameters are not allowed to be revised except this parameter itself. 2: All parameters are not allowed to be revised except P0.02 parameter and this parameter itself LED ten's place: 0: Inaction 1: Factory default reset 2: Clear history fault record	1	0	×

P3.43	Running display parameter selection1	00~15	1	00	○
P3.44	Stop display parameter selection2	00~15	1	00	○
P3.45	No unit display coefficient	0.1~60.0	0.1	29.0	○
P3.46	JOG/REV Switching control and the sencond-row digital display paramter selection	Unit's place: 0: Select the JOG point operation 1: Select the REV reverse operation Ten's place:(Double display valid) The second-row digital display parameter selection	1	0	×

P4 Group: Terminal control function parameter					
Func Code	Name	Range	Min Unit	Factory default	Modify
P4.00	Input terminal X1 function selection	0: Idle terminal 1: Multi-stage speed control terminal 1 2: Multi-stage speed control terminal 2 3: Multi-stage speed control terminal 3 4: External FWD JOG control input 5: External REV JOG control input 6: Acc/Dec time terminal 1 7: Acc/Dec time terminal 2 8: Acc/Dec time terminal 3 9: 3-wire control 10: Free stop input (FRS) 11: External stop command 12: Stopping DC brake input command DB 13: Inverter running prohibited 14: Freq. increase command(UP) 15: Freq. decrease command(DOWN) 16: Acc/Dec prohibited command 17: External reset input (clear fault) 18: Peripheral equipment fault input (normally open) 19: Freq. control channel selection 1 20: Freq. control channel selection 2 21: Freq. control channel selection 3	1	0	×

		22: Command switched to terminal 23: Running command control mode selection 1 24: Running command control mode selection 2 25: Swing frequency selection 26: Swing frequency running reset 27: Close loop invalid 28: Simple PLC pause running command 29: PLC invalid 30: PLC Reset in stopping state 31: Freq. switch to CI 32: Counter trig signal input 33: Counter clear input 34: External interrupt input 35: Pulse freq. input (only valid for X6)			
P4.01	Input terminal X2 function selection	Ditto	1	0	x
P4.02	Input terminal X3 function selection	Ditto	1	0	x
P4.03	Input terminal X4 function selection	Ditto	1	0	x
P4.04	Input terminal X5 function selection	Ditto	1	0	x
P4.05	Input terminal X6 function selection	Ditto	1	0	x
P4.06	Input terminal X7 function selection	Ditto	1	0	
P4.07	Input terminal X8 function selection	Ditto	1	0	

P4.08	FWD/REV running mode selection	0: 2-wire control mode 1 1: 2-wire control mode 2 2: 3-wire control mode 1 3: 3-wire control mode 2	1	0	×
P4.09	UP/DN Rate	0.01—99.99Hz/s	0.01	1.00Hz/s	○
P4.10	2-way open collector output terminal OC1 output selection	0: Inverter in running(RUN) 1: Freq. arrival signal(FAR) 2: Freq. level detected signal(FDT1) 3: Reserved 4: Overload pre-alarm signal(OL) 5: Under voltage locking(LU) 6: External fault stopping (EXT) 7: Output freq. upper limit(FH) 8: Output freq. lower limit(FL) 9: Inverter in zero speed running 10: Simple PLC stage running finish 11: A PLC running cycle finish 12: Set counts arrival 13: Specified counts arrival 14: Inverter ready for running(RDY) 15: Inverter fault 16: Start freq. running time 17: DC brake time when start 18: DC brake time when stop 19: Swing freq. upper/lower limit 20: Set running time arrival 21: Upper limit of pressure alarm signal 22: Lower pressure alarm signal	1	0	×
P4.11	2-way open collector output terminal OC2 output selection	Ditto	1	0	×
P4.12	Relay TA/TB/TC output selection	Ditto	1	15	×
P4.13	Relay RA/RB/RC output selection	Ditto	1	0	×
P4.14	Freq. arrival detection range	0.00~400.00Hz	0.01Hz	5.00Hz	○
P4.15	FDT1(freq. level)	0.00~Upper limit freq	0.01Hz	10.00Hz	○
P4.16	FDT1 lag	0.00~50.00Hz	0.01Hz	1.00Hz	○

P4.17	Analog output (AO1) selection	unit's place : Output freq.(0~upper limit freq.) 1: Output current(0~2 times motor rated current) 2: Output voltage(0~1.2 times inverter rated voltage) 3: Bus bar voltage 4: PID given 5: PID feedback 6: VI (0~10V) 7: CI(0~10V/4~20mA) ten's place: 0: 0~10V 1: 0~20mA 2: 4~20mA	01	00	○
P4.18	Analog output (AO1) gain	0.50~2.00	0.01	1.00	○
P4.19	Analog output (AO2) selection	unit's place : Output freq.(0~upper limit freq.) 1: Output current(0~2 times motor rated current) 2: Output voltage(0~1.2 times inverter rated voltage) 3: Bus bar voltage 4: PID given 5: PID feedback 6: VI (0~10V) 7: CI(0~10V/4~20mA) ten's place: 0: 0~10V 1: 0~20mA 2: 4~20mA	01	00	○
P4.20	Analog output (AO2) gain	0.50~2.00	0.01	1.00	○
P4.21	DO output terminal function selection	unit's place : 0: Output freq.(0~upper limit freq.) 1: Output current(0~2 times motor rated current) 2: Output voltage(0~1.2 times inverter rated voltage) 3: Bus bar voltage (0~800V) 4: PID given 5: PID feedback 6: VI (0~10V) 7: CI(0~10V/4~20mA)	1	0	○
P4.22	DO max pulse output freq.	0.1K~20.0K (max 20KHz)	0.1KHz	10.0KHz	○

P4.23	Set counts given	F4.20~9999	1	0	○
P4.24	Specified counts given	0~F4.19	1	0	○
P4.25	Overload pre-alarm detection level	20%~200%	1	130%	○
P4.26	Overload pre-alarm delay time	0.0~20.0s	0.1s	5.0s	○

P5 Group: Protection function parameter

Func Code	Name	Range	Min Unit	Factory default	Modify
P5.00	Motor overload protection mode selection	0: Stop outputting 1: Inaction	1	0	×
P5.01	Motor overload protection coefficient	20~120%	1	100%	×
P5.02	Overvoltage stall Selection	0: Prohibited 1: Allowed	1	1	×
P5.03	Overvoltage stall point	380V: 120~150% 220V: 110~130%	1%	140% 120%	○
P5.04	Auto current limit level	110%~200%	1%	150%	×
P5.05	Freq. drop rate during current limit	0.00~99.99Hz/s	0.01Hz/s	10.00Hz/s	○
P5.06	Auto current limit mode selection	0: Constant speed invalid 1: Constant speed valid Note: Acc/Dec valid	1	1	×
P5.07	Restart setting after power failure	0: Inaction 1: Action	1	0	×
P5.08	Restart waiting time after power failure	0.0~10.0s	0.1s	0.5s	×
P5.09	Fault self-recovery times	0~10 0: Self-recovery invalid Note: Self-recovery invalid in overload or overheat	1	0	×
P5.10	Self-recovery interval time	0.5~20.0s	0.1s	5.0s	×
P5.11	Input missing phase protection	0: Inaction 1: Action	1	0	○

P6 Group: Fault record function parameter					
Func Code	Name	Range	Min Unit	Factory default	Modify
P6.00	Last fault record	Last fault record	1	0	*
P6.01	Output freq. in last fault	Output freq. in last fault	0.01Hz	0	*
P6.02	Set freq. in last fault	Set freq. in last fault	0.01Hz	0	*
P6.03	Output current in last fault	Output current in last fault	0.1A	0	*
P6.04	Set freq. in last fault	Set freq. in last fault	1V	0	*
P6.05	Output current in last fault	Output current in last fault	1V	0	*
P6.06	Output voltage in last fault	Output voltage in last fault	10C	0	*
P6.07	Last 2 fault record	Last 2 fault record	1	0	*
P6.08	Last 3 fault record	Last 3 fault record	1	0	*
P6.09	Last 4 fault record	Last 4 fault record	1	0	*
P6.10	Last 5 fault record	Last 5 fault record	1	0	*
P6.11	Last 6 fault record	Last 6 fault record	1	0	*

P7 Group: PV Inverter Specific Parameter Setting					
Func Code	Name	Range	Function Parameter Detailed Description	Factory default	Modify
P7.00	PV inverter selection	0: Invalid 1: Valid 2:MPPT given	0: Invalid 1 PV inverter control, Given voltage is setted by P7.05 2 PV inverter control, automatic adjustment control of the maximum power control	0	×
P7.01	Feedback channel selection	7:PV inverter selection	PV inverter control selection7	0	×
P7.02	Given channel filtering time constant	0.01~50.00s	-	0.50s	○

P7.03	Feedback channel filtering time constant	0.01~50.00s	-	0.50s	○
P7.04	Given Voltage setting	P7.24-P7.25	Given Voltage setting	540V	×
P7.05	Close loop adjustment characteristics	0: Positive effect 1: Negative effect	-	0	○
P7.06	Feedback channel gain	0.01~10.00	-	1.00	○
P7.07	PID Controller structure	0: Proportional control 1: Integral control 2: Proportional integral control 3: Proportional, integral and differential control	-	1	×
P7.08	Proportional gain KP	0.00~5.00	-	5.00	○
P7.09	Integral time constant	0.1~100.0s	-	10.0s	○
P7.10	Differential gain	0.0~5.0	-	0.0	×
P7.11	Sampling period	0.01~1.00s	-	0.10	○
P7.12	Tolerance limit	0.0~20.0%	-	0.0%	○
P7.13	Frequency-decreasing at sudden power loss	0~P7.25	Frequency-decreasing at sudden power loss setting	450V	○
P7.14	Frequency decreasing ratio at sudden power loss	0.00HZ~ P0.19	After the power loss of the grid, the bus voltage drops to the sudden frequency-decreasing point, the inverter begin to decrease the running frequency, to make the inverter generate power again. The returning power can maintain the bus voltage to ensure a rated running of the inverter until the recovery of power.	10.00HZ	○

P7.15	Delay time of frequency-decreasing at sudden power loss	0.1~600.0s	-	10.0s	○
P7.16	Warning at lower bus voltage	1~P7.25	When the target voltage is continuously lower than the voltage value of P7.19, passing P7.20 the delay time, reported E-35 low-light alarm. Under low-light alarm status with in the time of P7.21, the target voltage is continuously larger than the voltage value of P7.19, automatic alarm reset to resume operation.	400V	○
P7.17	Delay time of warning at lower bus voltage	0.1~600.0s	-	10.0s	○
P7.18	Recovery delay time of warning at lower bus voltage	0.1~600.0s	-	10.0s	○
P7.19	MPPT operation coefficients	0~600	-	90	○
P7.20	MPPT operation time coefficient	0~250s	-	0.5s	○
P7.21	Mini voltage reference of Max. power tracking	0~700	Valid in MPPT Max. tracking voltage, the Mini. Tracked voltage	480V	○
P7.22	Max. voltage reference of Max. power tracking	0~700	Valid in MPPT Max. tracking voltage, the Max. tracking voltage	560V	○

P7.23	PID Control of positive and negative role and feedback pressure error polarity	unit's place: 0: PID Control action 1: PID Control reaction ten's place: 0: Feedback pressure less than the actual pressure 1: Feedback pressure is greater than the actual pressure	-	01	x
P7.24	Voltage error adjustment coefficient	0.001~20.000Mpa	-	0.000Mpa	x
P7.25	Closed loop of preset frequency	Range: 0~Upper limit freq	-	0.00Hz	x
P7.26	Closed loop of preset frequency holding time	Range: 0.0~200.0s	-	0.0s	x

B-Monitoring: function parameter

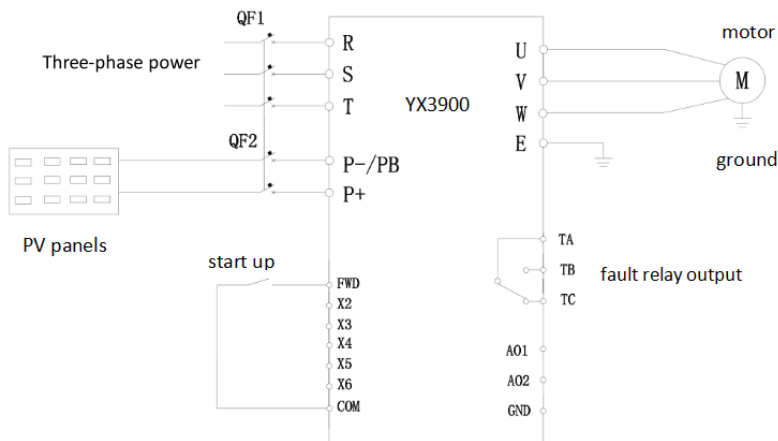
Func Code	Name	Range	Min Unit	Factory default	Change
b-00	Output freq	Present output freq	0.01Hz		*
b-01	Set freq.	Present set freq.	0.01Hz		*
b-02	Output voltage	Effective value of present output voltage	1V		*
b-03	Output current	Effective value of present output current	0.1A		*
b-04	Bus bar voltage	Present DC bus bar voltage	1V		*
b-05	Module temperature	IGBT heat sink temperature	10C		*
b-06	Motor speed	Present motor speed	1r/min		*
b-07	Running time	One continuous running time	1H		*
b-08	Input/output terminal state	Input/output terminal state	—		*
b-09	Analog input VI	Analog input VI value	0.01V		*
b-10	Analog input CI	Analog input CI value	0.01V		*

b-11	External pulse input	External pulse width input value	1ms		*
b-12	Inverter rated current	Inverter rated current	0.1A		*
b-13	Inverter rated voltage	Inverter rated voltage	1V		*

Chapter 3 Commissioning guide

3.1 Wiring and commissioning steps

Wiring system according to the wiring diagram, YX3900 Series supports solar PV panels supply electricity or mains supply. Note: solar power and electricity supply both power access can only choose one, can not access!



3.2 Set the motor parameters

- 1) Set P3.01=10 and restore to the factory settings.
- 2) Detection of water yield for water pumps

The default for the panel to start the drive, click "FWD" key and the default mode is MPPT, observe the running frequency and water yield. If the operation frequency or water yield is low at normal light, the motor wires may be reserved, so it is necessary to exchange the wiring.

- 3) PI adjustment to the water yield

If the user requires large or low water yield, it is necessary to adjust P7.11 proportional gain properly. The bigger PI parameters, the stronger the PI proportional gain and the effect is, but the frequency fluctuation of the motor is bigger; in reserve, the lower the water yield is, the more stable the motor frequency is.

The factory default has been adjusted to the maximum value.

4) Commissioning of MPPT speed tracking

P7.24 and P7.25 is the minimum and maximum voltage of the power tracking, concrete can be determined based on the rated motor voltage and solar panel power and the output voltage. Generally:

(a) If the rated voltage is 415V, P7.24=500 (minimum reference voltage), P7.25=580 (maximum reference voltage).

(b) If the rated voltage is 380V, P7.24=480 (minimum reference voltage), P7.25=560 (maximum reference voltage).

(c) If the rated voltage is 220V, P7.24=270 (minimum reference voltage), P7.25=330 (maximum reference voltage).

Above settings are only for reference, according to the scene and then make the appropriate adjustments.

5) Weak light alarm and reset time setting of fault delay

If the weak light alarm is needed, it is necessary to set lower voltage P7.19 weak light alarm E-35. When the target voltage is continuously lower than the voltage value of P7.19, P7.20 after the delay time, reported E-35 low-light alarm. Under weak light alarm state in the P7.21 time, continuous voltage is greater than P7.19 preparation, automatic alarm reset to resume operation.

Chapter4 Troubleshooting


4.1 Fault Alarm and Troubleshooting






When the inverter is abnormal, protection function acts: LED displays fault code and the content, fault relay acts, the inverter stops output and the motor coasts to stop. YX3900 series inverter's fault contents and troubleshooting is shown in Table 4-1. After fault alarm occurs, fault phenomenon should be recorded in detail, the fault should be processed according to Table 4-1. When in need of technical assistance, please contact your supplier.

Table 4-1 Alarms and troubleshooting

Fault code	Type of faults	Possible fault reasons	Troubleshooting
E-01	Acc over current	Acc time is too short	Adjust acc time
		V/F curve setup is not suitable	Adjust V/F curve
		Restart the motor in running	Setup start mode as speed tracking restart
		Torque boost setup is too big	Adjust torque boost or set as auto mode
		Inverter capacity is too low	Select inverter with proper capacity
E-02	Dec over current	Dec time is too short	Adjust Dec time
		Potential load or load inertia is too big	Add suitable braking device
		Inverter capacity is too low	Select inverter with proper capacity
E-03	Over current at constant speed running	Load mutation	Check load
		Acc or Dec time is too short	Adjust Acc or Dec time
		Input voltage abnormal	Check input power supply
		Load abnormal	check load
		Inverter capacity is too low	Select inverter with proper capacity
E-04	Acc overvoltage	Input voltage abnormal	Check input power supply
		Acc time is too short	Adjust Acc time
		Restart the motor in running	Setup start mode as speed tracking restart

Fault code	Type of faults	Possible fault reasons	Troubleshooting
E-05	Dec overvoltage	Dec time is too short	Adjust the Dec time
		Potential load or load inertia is too big	Add suitable braking device
E-06	Overvoltage at constant speed running	Input voltage abnormal	Check input power supply
		Acc or Dec time is too short	Adjust the Acc or Dec time
		Abnormal change of input voltage	Mount input reactor
		Load inertia is too big	Add suitable braking device
E-07	Overvoltage of control power supply	Input voltage abnormal	Check input power supply
E-08	Inverter overheat	Air duct obstruction	Clean air duct
		Environment temperature is too high	Improve the ventilation or decrease the carrier frequency
		Fan damaged	Replace a new fan
		Inverter module abnormal	Contact supplier
E-09	Inverter overload	Acc time is too short	Adjust Acc time
		DC braking value is too high	Decrease DC braking current and increase braking time
		V/F curve setup is not suitable	Adjust V/F curve
		Restart the motor in running	Setup start mode as speed tracking restart
		Mains voltage is too low	Check mains voltage
		Too heavy load	Select inverter with proper capacity
E-10	Motor overload	V/F curve setup is not suitable	Adjust V/F curve
		Mains voltage is too low	Check mains voltage
		General motor runs at low speed with heavy load for long term	Use a special motor for long term running

		Wrong setting of motor overload protection factor	Set the factor right
		Motor chocked or sudden change of load	Check load
E-11	Under voltage in running	Mains voltage is too low	Check mains voltage
E-12	Inverter module protection	Inverter over current	Refer to over current troubleshooting
		Output 3-phase fault or ground short	Re-wiring
		Air duct obstruction or fan damaged	Clean air duct or replace a new fan
		Environment temperature too high	Decrease environment temperature
		Control board connecting wire or plug-in unit loose	Check and re-wiring
		Current waveform abnormal due to output missing phase, etc.	Check wiring
		Auxiliary power damaged, or driving voltage under voltage	Contact supplier
		Control board abnormality	Contact supplier
E-13	Peripheral fault	Close external fault terminals	Check the reason
E-14	Current detecting circuit fault	Loose wiring or terminal connections	Check and re-wiring
		Auxiliary power source damaged	Contact supplier
		Hall component damaged	Contact supplier
		Abnormal amplifier circuit	Contact supplier
E-15	RS232/485 Communication fault	Wrong baud rate setting	Set baud rate properly
		Serial port communication fault	Press  key to reset or contact supplier
		Improper fault alarm parameter setting	Revise function code P3.09~P3.12
		Upper computer doesn't work	Check upper computer and connecting cable


E-16	System interference	Serious interference	Press  key to reset or install input power source filter
		DSP read/write error	Reset or contact supplier
E-17	EP ^{2P} PROM error	Read/write error of control parameter	press  key to reset or install input power source filter
E-18	Motor parameter over current fault	Power range of Motor and inverter do not match	Contact supplier press  key to reset
E-19	Input phase loss protection	One of R, S, T port has no voltage	press  key to reset check voltage of R, S, T
E-20	over current fault when restart	Over current when inverter restart and check speed	press  key to reset adjust relevant parameters
E-35	Weak light alarm	DC bus voltage lower than input DC the shold	Check the light is weak reason

7.2 Fault Record Search

This series inverter record the fault codes occurred in the last 6times and inverter running parameter when last fault occurred. The fault information is saved in P6 group.

7.3 Fault Reset

When fault occurred, please select the following methods to recover:

- (1) When fault code is displayed, after ensure it can be reset, press  key to reset.
- (2) Set any one of X1~X8 terminal as external RESET input (P4.00~P4.07=17).
- (3) Cut off power.



Attention

- (1) Reset the inverter after thoroughly investigating the cause of fault and clearing, otherwise, the inverter may be damaged.
- (2) If it can't be reseted or fault occurs again after reset, please check the cause of fault, continuous reset may damage inverter.
- (3) Reset the inverter after waiting for 5min when overload or overheat protection occurs.

Table :recommended solar modules

Inverter model	M a x D C input curre nt(A)	Open-circuit voltage degree of solar module									
		20±3V		20±3V		36±3V		42±3V			
	(A)	Mod ule powe r±5W P	Mod ules per string *strin gs	Mod ule powe r±5W P	Mod ules per string *strin gs	Mod ule powe r±5W P	Mod ules per string *strin gs	Mod ule powe r±5W P	Mod ules per string *strin gs	Mod ule powe r±5W P	Mod ules per string *strin gs
YX3900-4T007G	4.2	30	29*1	-	-	-	-	-	-	-	-
YX3900-4T0015G	6.1	60	30*1	-	-	-	-	-	-	-	-
YX3900-4T0022G	7.1	90	30*1	-	-	145	18*1	175	15*1	-	-
YX3900-4T0037G	16.5	85	28*2	220	22*1	140	17*2	160	15*2	-	-
YX3900-4T0055G	23.9	-	-	-	-	195	17*2	220	15*2	-	-
YX3900-4T0075G	30.6	-	-	215	21*2	175	17*3	200	15*3	300	15*2
YX3900-4T0110G	39.2	-	-	200	22*3	195	17*4	220	15*4	-	-
YX3900-4T0150G	49	-	-	205	22*4	200	18*5	240	15*5	300	15*4