



## UT200 Economical Series Variable Frequency Drive Catalog



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Company Philosophy  
立于品、胜于心!

# Corporate Profile

UniMAT Automation Technology Co., Ltd, established in 2004, is located in Shenzhen High-Tech Industrial Park. Our company specializes in automation technology and we have launched two series of PLC and one series inverter with brand UniMAT. As a leading industrial automation products and solutions provider, we provide the total automation solutions for metallurgy, automobile, electric power, petrochemical, environmental protection, cement, water treatment, new energy industries, etc. And we also provide PLC products for packaging machinery, rubber and plastics, ceramics, machinery, electronic equipment, textile machinery, engineering machinery, pharmaceutical machinery, mining machinery and other equipments.

Based on strict implementation of ISO9001 quality management and operation system, leading technology upgrade our quality, we are committed to offer 3-year warranty on PLC, and 18 months on inverters.

Since its establishment, UniMAT insists on independent research and development to enhance our own core technology. 35% of our employee and more than 10% of annual sales are involved in R & D, which covers the core platform technology research, application technology research and new product development.

### Company mission

To improve Human Productivity through Technology Development

### Value

Integrity, Responsibility, Cooperation, Innovation

### Company vision

Become the Global Leading and Respected Provider of Automatic Products and Service

### Company warranty

ISO 9001:2008 Management system  
TQC prouction and quality control system  
All products CE Certificated

## UT200 Economical Series Variable Frequency Drive Catalog

220V (single phase) 0.75KW-3.7KW  
380V (tri-phase) 0.75KW - 220KW



Reliable Accurate  
and quick response

1. No encoder vector control, torque response speed $\leq$ 20ms,
2. No encoder vector control, torque control accuracy  $\pm 1\%$ ,
3. No encoder vector control, 150% rated torque at 1Hz,
4. Widely voltage range, allowable voltage swing range is  $\pm 15\%$ ,
5. High overload capacity, 150% rated currency 60 seconds, 180% rated currency 2 seconds, 200% instantaneous trip,



Cost-efficient,  
Friendly and Adaptive

1. long-life components design to extend the product usage life,
2. compact constructure design to adapt different load operations,
3. Independent air-duct design to imporve anti-dust capacity, can be installed penetrably, higher adaptability,
4. Removable DC FAN to ensure system run stably and easy to wash and maintence,
5. Keyboard is plug-and-play, support leading out to outside, support data copy,

## —、UT 200 product characteristic

### Two drive control ways to be selected.

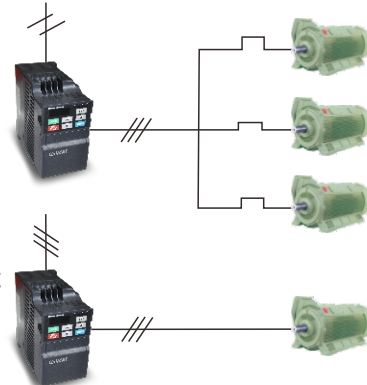
#### ○ V/F control

This control is used for the variable speed controls which no need fast response and high accuracy speed control or one inverter connects with multi motors and the motors' parameters are not confirmed or can not be self-study.

#### ○ No PG vector control

This control is used for all variable speed controls, if need high accuracy speed control, then configure to this model. It can get huge torque when fast torque response and low speed motor.

The best application, Suitable for Pressing machine at instant high torque, rapid currency response.



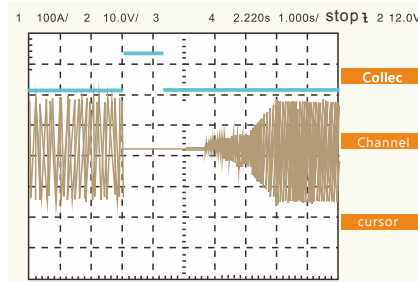
### Provide full self-study function

You can choose dynamic parameter self-study and static state parameter self-study by parameter setting

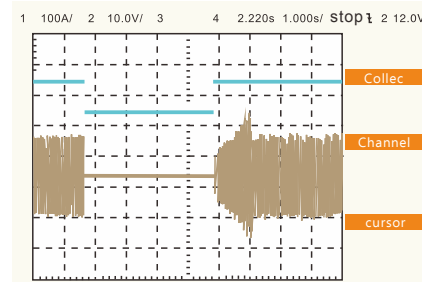
dynamic parameter self-study	It is best for the motor can not uncouple the load, e.g. the motor connects with gearbox etc Machinery, after self-study to obtain exact motor electrical parameter and then get high starting torque, high speed and high control accuracy.
static state parameter self-study	It is best for the motor can uncouple the load, empty load to operate self-study. And then the machinery get high starting torque, high speed and high control accuracy.

### Speed tracking way

Rotate speed tracking restart inverters first judge motor rotate speed and direction, then start with tracking motor frequency, implement smooth and shock-free start to rotating motors. It applies to large inertial load momentary interruption restart.



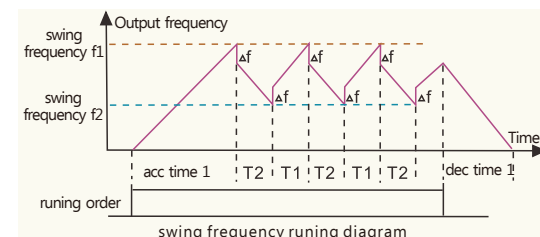
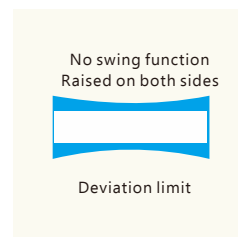
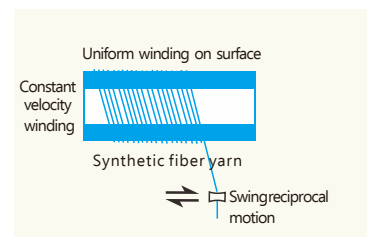
Software tracking



Hardware Tracking

The best application, Suitable for Fan, Blower etc which installed rotator machineries.

### Match Swing Frequency Function



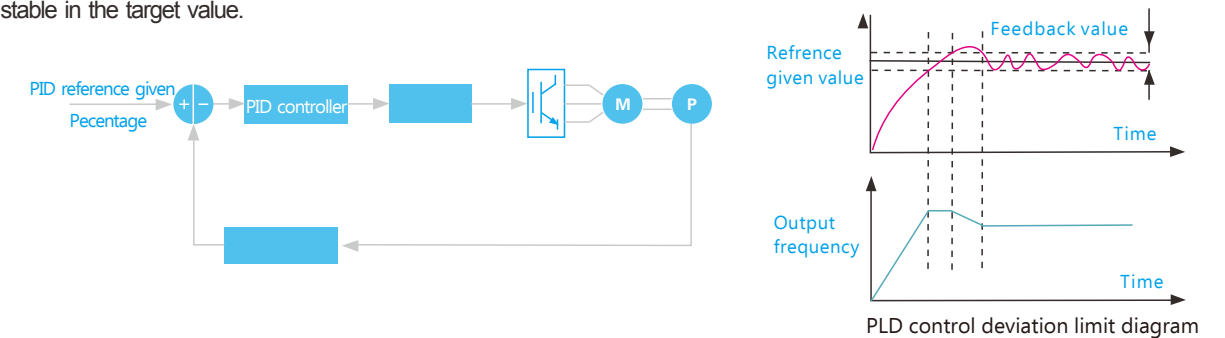
○ The main propose of swing frequency is to avoid the winding is overlapped and reduce electrostatic.

○ The silk processed by the machine with this function is better than the one from no this function machine, It improves the products quality and production efficiency.

The best application, Suitable for Textile, Chemical fiber which need swing frequency control. It can freely configurate the frequency range, speed, frequency etc parameters.

### Process PID contro

Process PID control function, by proportion, integral, differential computing to the residual quantity of controlled volume feedback signal and target signal, by adjusting inverter's output frequency, constitute a closed loop system, make the controlled volume stable in the target value.

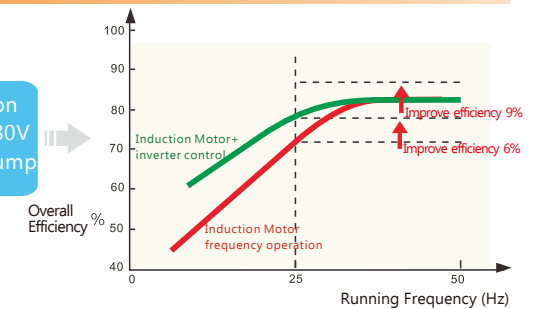


### Energy Saving

○ New generation Energy operation, Using the energy control of inverter can realize the induction motor's high-efficiency operation.

○ During running, Inverter automatically calculate the best output voltage to load via load status to save the electric energy.

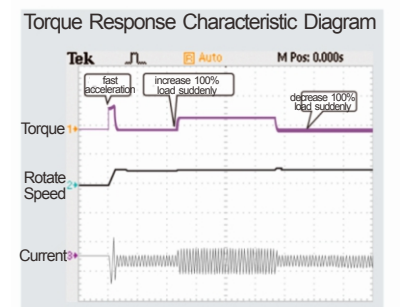
The application example of 380V 4.0KW Fan, Bump



### The load strain capacity

○ fast current-limiting, minimize over-current fault, protect the normal operation of inverter

○ Automatically limit current and voltage in running period, avoid frequent over-current and over-voltage trip



The best application: apply to air compressor, EPS power etc. impact load

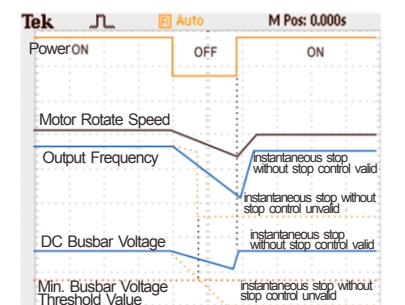
### Use professional "instantaneous stop non-stop" algorithm to trackle grid electric dazzling.

Via load feedback energy compensate the lower of voltage when momentary interrupting, keep inverters continuous running in short time.

○ can omit UPS etc. Special equipment. When detected low voltage, automatically momentary interrupting compensate

○ Search free running status rotate speed, restart easily, make the reliability of users' entire system improve

The best application, Suitable for dewater, Film production Line, Fan, Water Pump etc equipments which need power interruption control.



### Abundant function choice

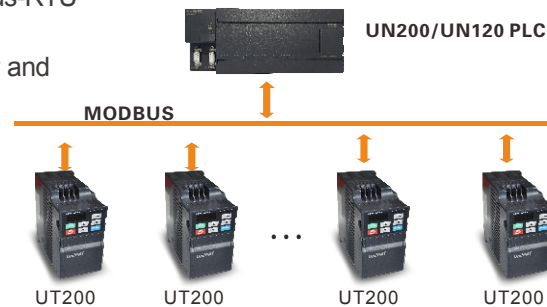
keypad locking and function choice	Achieve button partial or all locking, define partial buttons working range, prevent wrong operation.
protecting function	Motors which are power on short circuit detection, output default phase protection, over current protection, over voltage protection, under voltage protection, overheating protection, overload protection, etc.



## 通讯方式

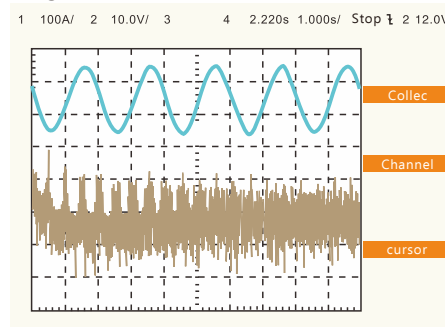
- Standard RS485 communication, Support Modbus-RTU
- Convenient for the connection of upper computer and PLC to realize the remote monitor.

The best application, Suitable for industrial control, Smart device etc which need on-scene communication.

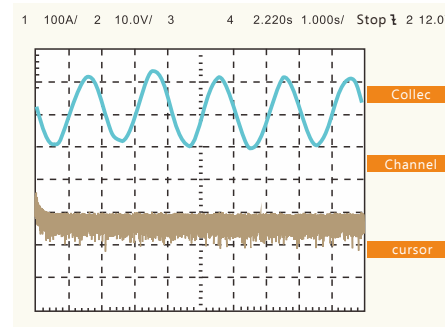


## Carrier self adaption

Carrier will be adjusted along with temperature, when inverters detect themselves radiator's temperature is higher, will lower carrier frequency automatically to lower inverters temperature rise. When radiator's temperature is lower, carrier frequency will recover to setting values. This function can reduce inverters overheating alarm.



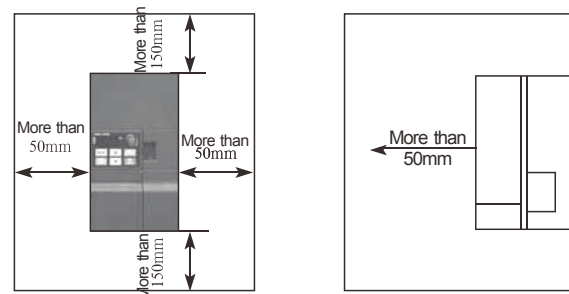
The interfering signal is strong under Fixed carrier



It can be denoise under Random Carrier

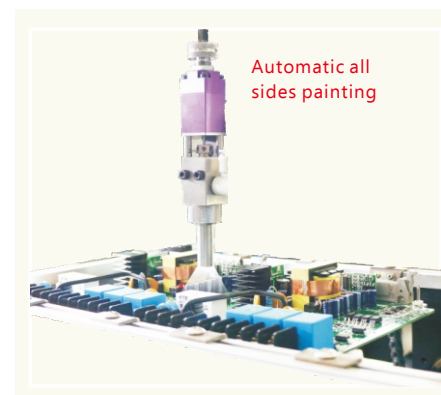
## Installation Method

- UT200 series inverters are wall mounting type, please install vertically
- Please check Single inverters installation as below. Multi inverters are in the same control cabinet, when installing, put inverters in parallel



## Anti-environmental design

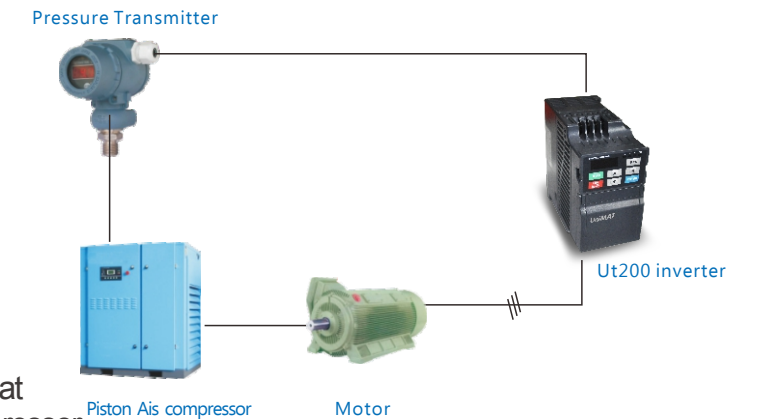
- Three proofing  
PCB three proofing( moisture proofing, salt spray proofing and fungus proofing)
- Protection grade  
Protection grade is IP20, higher grade can be required.
- Moisture resistant, dust resistant, oil resistant, vibration resistant, etc environment resistance products.



## The UT200 solution

### The solution of UT 200 Series in Air Compressor

- Save energy
- Reduce cost
- Improve press control accuracy
- Extend Compressor life
- Reduce Compressor noise
- No PG vector control, can long-term run at 20Hz according the load character of Compressor.
- Strong adaptability to environment, wide voltage input, output voltage automatic voltage regular function. The permitted input currency variations: Voltage  $380V \pm 15\%$ , Frequency:  $50Hz \pm 5\%$ .
- Advanced inbuilt PID algor ithm, quick response, high accuracy of constant voltage. Through parameter it configures target constant pressure and real feedback pressure for PID computation, the speed can adapt according to the scene air situation, non-polar adapt the motor speed, the air compressor has air and then the pressure keep stable. This can improve the working condition.
- International standard ModBus communication protocol, standard 485 communication module at inverter control panel, convenient for the air compressor communicates with the controller.
- Provide more than 20 kinds of fault protection functions, can realize the whole sides protection which from inverter to motor and to peripheral equipment. Inbuilt lightning current protection device to improve the self-protection of lightning induction.
- When power to the inverter, the system self-inspects the safety of software and hardware, revises the function parameters and control the equipment safety, avoid the user configures wrong.



Suitable for :



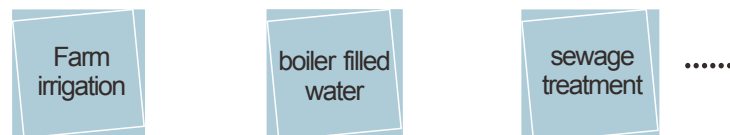


## Constant pressure water supply equipment application

1. Perfect performance at low frequency speed.
2. Advanced inbuilt PID closed loop algorithm.
3. High speed CPU control
4. Perfect fault protection, Perfect Three proofing processing, suit for industrial application environmental EMC design.
5. mini space dimension, save more space
6. Simple System, Less 37KW inbuilt stop unit, no need out-proportioning, low cost.
7. Low frequency operating steadily, it will alarm when output fault
8. Soft start and soft stop, it can eliminate water hammer effect, and reduce average torque and abrasion in motor axis, lower maintenance quantity and maintenance expenses, improve pump lifetime greatly
9. Variable frequency constant pressure speed governing supply water directly from headwaters, reduce secondary pollution of original water supply way, prevent source of many contagious disease
10. Achieving unattended operation by communication control, save manpower and material resources



### Suitable for :



## The solution of UT200 Series in the Blower-pump equipment application

1. Simplify the controlling circuit, multi flexible control way.
2. Easy to debug, all operation parameters of the inverter are debugged by intelligent keyboard and display. Easy to configure, change flexibly and debug in short time.
3. Safety protect function is complete, high security, alarm function, alarm information feedback in time
4. Built-in PID control algorithm, response quickly, PID closed loop moving and starting, faster into the stable phase
5. The compact constructional design for smaller space
6. The output of each frequency bands are stable, the over load ability is strong, start torque 0.5Hz can output 150%.
7. Replace total pressure start and inertia stop via inverter's soft start and soft stop function to lower the damage of starting current and mechanical shock to the equipment
8. Blower's blast capacity is proportional to revolution's first power, pressure is proportional to revolution's quadratic, blower's shaft power is proportional to revolution's cube. Lower blower's revolution, then the power consumption will lower, too, it's energy saving.
9. Complete protection function: Over current, over voltage, under voltage, motor overload etc.



### Suitable for :



## The solution of UT200 Series in the application at recirculation blower

- 1.output moment is large, overload capacity is good. Make the food compressed, pulping effectively
- 2.Control is simple, it can restrain shock caused by starting current
- 3.Obvious energy saving effect
- 4.Appearance is small and portable, save space, apply to small size food processing machinery
- 5.The performance is stable. In frequent start-stop situation, professional instantaneous stop non-stop algorithm, in the situation of light load or great inertia load, it has instantaneous power failure compensation to protect motors well
6. IGBT margin design, suit for constant forward reversal rotation large current long period working.
7. The inverter use special PMW to match the motor's different demand at low frequency start and high frequency field weakening.
8. Three proofing print, it's suitable for bad working environment
9. Special voltage frequency curve, multi bands speed control.
10. Large low frequency load ability and stop ability.



Suitable for:

Boiled  
dumpling  
making  
machine

food  
processing  
mixer

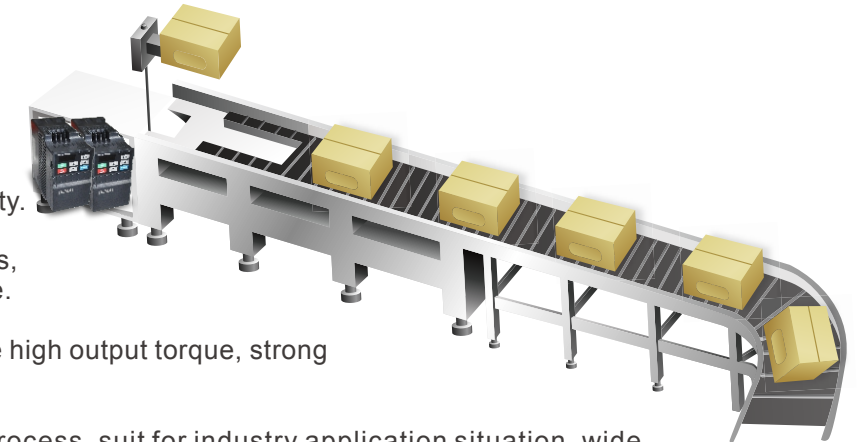
noodle  
machine

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## The application of UT200 in Belt equipment

1. Wide voltage design can meet bad power conditions.
- 2.Save energy more than 20%.
3. Accurate torque control, fast dynamic response, the working speed curve is S type keep the smooth acceleration and deceleration, no impact sensitivity.
4. Full safety protection functions, safe and strong anti-interference.
5. Low Frequency provide stable high output torque, strong over load ability.
6. Perfect three proofing print process, suit for industry application situation, wide voltage design meet bad power condition.
- 7.DC braking and dynamic braking can achieve load soft start, reduce shock to power grid, it can protect motor and belt
- 8.Low frequency moment is large, achieving speed governing control via external potentiometer, operate steadily, monitor current in real time, it will alarm when breaking down
9. Realize soft start, soft stop, reduce the mechanical shock to ensure working stable and reliable, the stop locates exactly, the heavy vehicles stop with the same place with the empty ones. Reliable and also have much indirect economic benefits.
10. Easy to speed control, and can be subsection setup, continuous adjust, It has plentiful functions, stable performance, Small Form Factor, low noise, etc



Suitable for:

Roller  
conveyor

transmission  
belt

climbing  
assembly  
line

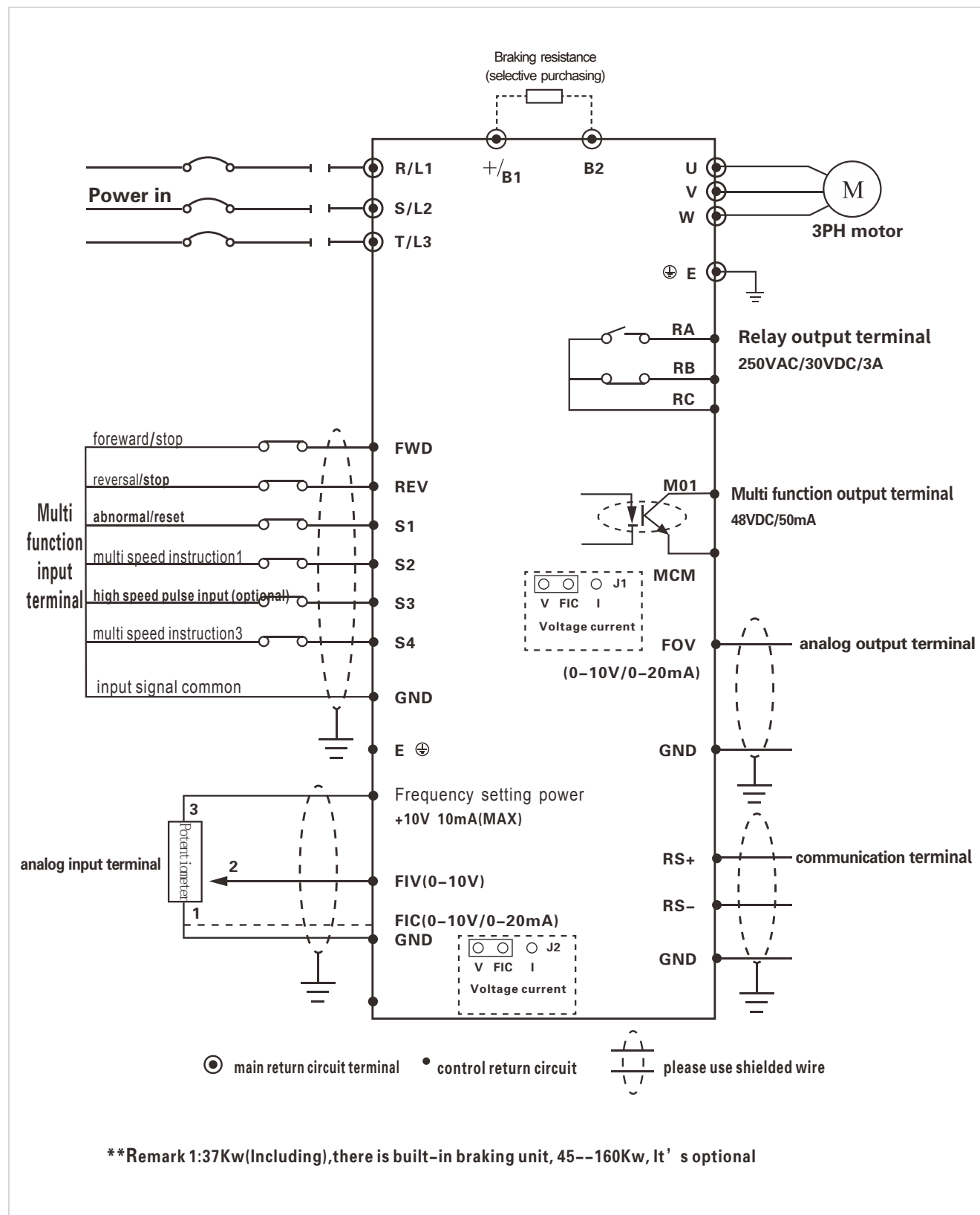
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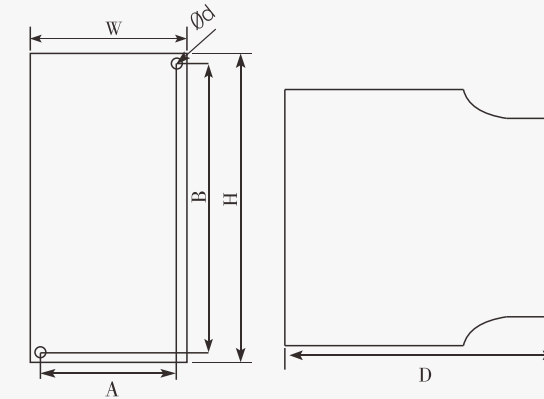
# Ut200 wiring and installation size

## Standard wiring diagram



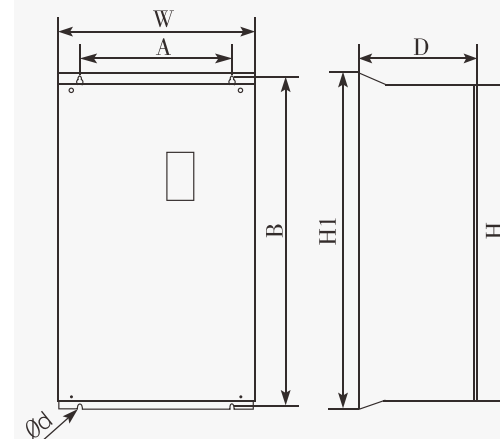
## Installation dimension

( 1 ) 0.4—22kW



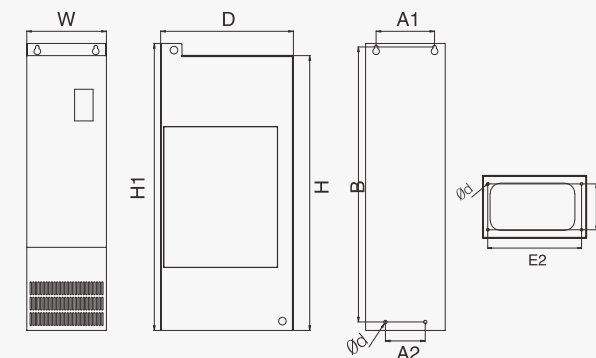
Inverter model	Inverter size				Install size			Remark
	W	H	H1	D	A	B	Φd	
UT 212-R40G1-1XA0	72	142	-	152	62.7	132.7	5	-
UT 212-R75G1-1XA0	72	142	-	152	62.7	132.7	5	-
UT 212-1R5G1-1XA0	100	183	-	143	90	173	5	-
UT 212-2R2G1-1XA0	100	183	-	143	90	173	5	-
UT 212-3R7G1-1XA0	100	183	-	143	90	173	5	-
UT 233-R40G1-1XA0	72	142	-	152	62.7	132.7	5	-
UT 233-R75G1-1XA0	72	142	-	152	62.7	132.7	5	-
UT 233-1R5G1-1XA0	100	183	-	143	90	173	5	-
UT 233-2R2G1-1XA0	100	183	-	143	90	173	5	-
UT 233-3R7G1-1XA0	100	183	-	143	90	173	5	-
UT 233-5R5G1-1XA0	100	183	-	143	90	173	5	-
UT 233-7R5G1-1XA0	130	260	-	184	120	250	5	-
UT 233-011G1-1XA0	130	260	-	184	120	250	5	-
UT 233-015G1-1XA0	195	280	-	179	182.5	266	7	-
UT 233-018G1-1XA0	195	280	-	179	182.5	266	7	-
UT 233-022G1-1XA0	195	280	-	179	182.5	266	7	-

( 2 ) 30—160kW



Inverter model	Inverter size				Install size			Remark
	W	H	H1	D	A	B	Φd	
UT 233-030G1-1XA0	245	390	425	193	180	410	7	can match built-in DC reactor
UT 233-037G1-1XA0	245	390	425	193	180	410	7	
UT 233-045G1-1XA0	300	500	540	252	200	522	9	
UT 233-055G1-1XA0	300	500	540	252	200	522	9	
UT 233-075G1-1XA0	338	546	576	256.5	270	560	9	no built-in DC reactor
UT 233-090G1-1XA0	338	550	580	300	270	564	9	
UT 233-110G1-1XA0	400	675	715	310	320	695	11	built-in DC reactor
UT 233-132G1-1XA0	400	675	715	310	320	695	11	
UT 233-160G1-1XA0	400	871.5	915	310	320	895	11	
UT 233-160G1-1XA0	400	871.5	915	310	320	895	11	

( 3 ) 185—220kW



Inverter model	Inverter size				Install size			Remark
	W	H	H1	D	A	B	Φd	
UT 233-185G1-1XA0	300	1035	1080	500	A1 : 220 A2 : 150	E1 : 220 E2 : 450	Φd : 13	
UT 233-200G1-1XA0	300	1035	1080	500	A1 : 220 A2 : 150	E1 : 220 E2 : 450	Φd : 13	
UT 233-220G1-1XA0	300	1035	1080	500	A1 : 220 A2 : 150	E1 : 220 E2 : 450	Φd : 13	

Remark: keyboard cut-out size

( 1 ) 0.4—22KW 68.5mm\*39mm( with jump ring)

( 2 ) 30—220KW external bracing tray cut-out size:70mm\*119mm



四、Function Parameter

List of Function Parameters

- ☆ : The parameter can be modified when the AC drive is in either stop or running state.
- ★ : The parameter cannot be modified when the AC drive is in the running state.
- : The parameter is the actually measured value and cannot be modified.
- \* : The parameter is factory parameter and can be set only by the manufacturer.

► Standard Function Parameters

Function Code	Parameter Name	Setting Range	Default	Property
P0.00	G/P type display	1: G type (constant torque load) 2: P type (variable torque load e.g. fan and pump)	Model dependent	★
P0.01	Control mode selection	0: Voltage/Frequency (V/F) control 1: Sensorless flux vector control (SFVC)	0	★
P0.02	Command source selection	0: Operation panel control 1: Terminal control 2: Communication control	0	☆
P0.03	Frequency source superposition selection	Unit's digit (Frequency source) 0: Main frequency source X 1: X and Y operation (operation relationship determined by ten's digit) 2: Switchover between X and Y 3: Switchover between X and "X and Y operation" 4: Switchover between Y and "X and Y operation" Ten's digit (X and Y operation) 0: X+Y 1: X-Y 2: Maximum 3: Minimum	00	☆
P0.04	Main frequency source X selection	0: Digital setting (P01.0 preset frequency, can modify the UP/DOWN, power lost don't memory) 1: Digital setting (P0.10 preset frequency, can modify the UP/DOWN, power lost memory) 2: FIV 3: FIC 4: Reserved 5: Pulse setting (S3) 6: Multistage instruction 7: Simple PLC 8: PID 9: Communications given	0	★
P0.05	Auxiliary frequency source Y selection	The same as P0.04 (Main frequency source X selection)	0	★
P0.06	Auxiliary frequency source superposition Y range selection	0: Relative to the maximum frequency 1: Relative to the main frequency source X	0	☆
P0.07	Auxiliary frequency source superposition Y range	0%~150%	100%	☆
P0.08	Acceleration time 1	0.00s~65000s	Model dependent	☆
P0.09	Deceleration time 1	0.00s~65000s	Model dependent	☆
P0.10	Frequency preset	0.00Hz~maximum frequency (P0.12)	50.00Hz	☆
P0.11	Rotation direction	0: Same direction 1: Reverse direction	0	☆
P0.12	Maximum frequency	50.00Hz~320.00Hz	50.00Hz	★

Function Code	Parameter Name	Setting Range	Default	Property
P0.13	Upper limit frequency source	0: P0.12 1: FIV 2: FIC 3: reserved 4: PULSE settings 5: communication settings	0	★
P0.14	Upper limit frequency	Frequency lower limit P0.16~Maximum frequency P0.12	50.00Hz	☆
P0.15	Upper limit frequency offset	0.00Hz~Maximum frequency P0.12	0.00Hz	☆
P0.16	Frequency lower limit	0.00Hz~Upper limit frequency P0.14	0.00Hz	☆
P0.17	Carrier frequency	1kHz~16.0kHz	Model dependent	☆
P0.18	Carrier frequency adjustment with temperature	0: No 1: Yes	1	☆
P0.19	Acceleration/Deceleration time unit	0: 1s 1: 0.1s 2: 0.01s	1	★
P0.21	Frequency offset of auxiliary frequency source for X and Y operation	0.00Hz~Maximum frequency P0.12	0.00Hz	☆
P0.22	Frequency reference	1: 0.1Hz 2: 0.01Hz	2	★
P0.23	Retentive of digital setting frequency upon power	0: Not retentive 1: Retentive	0	☆
P0.24	Acceleration/Deceleration time base frequency	0: Maximum frequency (P0.12) 1: Set frequency 2: 100Hz	0	★
P0.25	Base frequency for UP/DOWN modification during running	0: Running frequency 1: Set frequency	0	★
P0.26	Binding command source to frequency source	Unit's digit: Binding operation panel command to frequency source 0: No binding 1: Frequency source by digital setting 2: FIV 3: FIC 4: Reserved 5: Pulse setting (S3) 6: Multi-reference 7: Simple PLC 8: PID 9: Communication setting Ten's digit: Binding terminal command to frequency source (0~9, same as unit's digit) Hundred's digit: Binding communication command to frequency source (0~9, same as unit's digit)	000	☆
P0.27	Communication expansion card type	0: Modbus communication card	0	☆

► Input Terminals

Function Code	Parameter Name	Setting Range	Default	Property
P5.00	FWD function selection	0: No function 1: Forward RUN (FWD) 2: Reverse RUN (REV) 3: Three-line control 4: Forward JOG (FJOG) 5: Reverse JOG (RJOG) 6: Terminal UP 7: Terminal DOWN 8: Coast to stop 9: Fault reset (RESET) 10: RUN pause 11: Normally open (NO) input of external fault 12: Multi-reference terminal 1 13: Multi-reference terminal 2 14: Multi-reference terminal 3 15: Multi-reference terminal 4 16: Terminal 1 for acceleration/deceleration time selection 17: Terminal 2 for acceleration/deceleration time selection 18: Frequency source Switchover 19: UP and DOWN setting clear (terminal, operation panel) 20: Command source switchover terminal 21: Acceleration/Deceleration Prohibited 22: PID pause 23: PLC status reset 24: Swing pause 25: Counter input 26: Counter reset 27: Length count input 28: Length reset 29: Torque control prohibited 30: Pulse input (enabled only for S3) 31: Reserved 32: Immediate DC braking 33: Normally closed (NC) input of external fault 34: Frequency modification forbidden 35: Reverse PID action direction 36: External STOP terminal 1 37: Command source switchover terminal 2 38: PID integral pause 39: Switchover between main frequency source X and preset frequency 40: Switchover between auxiliary frequency source Y and preset frequency 41: Motor selection terminal 1 42: Motor selection terminal 2 43: PID parameter switchover 44: Reserved 45: Reserved 46: Speed control/Torque control switchover 47: Emergency stop 48: External STOP terminal 2 49: Deceleration DC braking 50: Clear the current running time 51-59: Reserved	1	★
P5.01	REV function selection		4	★
P5.02	S1 function selection		9	★
P5.03	S2 function selection		12	★
P5.04	S3 function selection		13	★
P5.05	S4 function selection		0	★
P5.10	S filter time	0.000s~1.000s	0.010s	☆
P5.11	Terminal command mode	0: Two-line mode 1 1: Two-line mode 2 2: Three-line mode 1 3: Three-line mode 2	0	★
P5.12	Terminal UP/DOWN rate	0.001Hz/s~65.535Hz/s	1.00Hz/s	☆
P5.13	FI curve 1 minimum input	0.00V~P5.15	0.00V	☆
P5.14	Corresponding setting of FI curve 1 minimum input	-100.0%~+100.0%	0.0%	☆
P5.15	FI curve 1 maximum input	P5.13~+10.00V	10.00V	☆
P5.16	Corresponding setting of FI curve 1 maximum input	-100.0%~+100.0%	100.0%	☆

Function Code	Parameter Name	Setting Range	Default	Property
P5.17	FI curve 1 filter time	0.00s~10.00s	0.10s	☆
P5.18	FI curve 2 minimum input	0.00V~P5.20	0.00V	☆
P5.19	Corresponding setting of FI curve 2 minimum input	-100.0%~+100.0%	0.0%	☆
P5.20	FI curve 2 maximum input	P5.18~+10.00V	10.00V	☆
P5.21	Corresponding setting of FI curve 2 maximum input	-100.0%~+100.0%	100.0%	☆
P5.22	FI curve 2 filter time	0.00s~10.00s	0.10s	☆
P5.23	FI curve 3 minimum input	-10.00V~P5.25	-10.00V	☆
P5.24	Corresponding setting of FI curve 3 minimum input	-100.0%~+100.0%	-100.0%	☆
P5.25	FI curve 3 maximum input	P5.23~+10.00V	10.00V	☆
P5.26	Corresponding setting of FI curve 3 maximum input	-100.0%~+100.0%	100.0%	☆
P5.27	FI curve 3 filter time	0.00s~10.00s	0.10s	☆
P5.28	PULSE minimum input	0.00kHz~P5.30	0.00kHz	☆
P5.29	Corresponding setting of pulse minimum input	-100.0%~100.0%	0.0%	☆
P5.30	PULSE maximum input	P5.28~100.00kHz	50.00kHz	☆
P5.31	Corresponding setting of pulse maximum input	-100.0%~100.0%	100.0%	☆
P5.32	PULSE filter time	0.00s~10.00s	0.10s	☆
P5.33	FI curve selection	Unit's digit: FIV curve selection 1: Curve 1 (2 points, see P5.13~P5.16) 2: Curve 2 (2 points, see P5.18~P5.21) 3: Curve 3 (2 points, see P5.23~P5.26) 4: Curve 4 (4 points, see C6.00~C6.07) 5: Curve 5 (4 points, see C6.08~C6.15) Ten's digit: FIC curve selection (1~5, same as FIV) Hundred's digit: FIA curve selection (1~5, same as FIV)	321	☆
P5.34	Setting for FI less than minimum input	Unit's digit: Setting for FIV less than minimum input 0: Minimum value 1: 0.0% Ten's digit: Setting for FIC less than minimum input (0~1, same as FIV) Hundred's digit: Setting for FIA less than minimum input (0~1, same as FIV)	000	☆
P5.35	FWD delay time	0.0s~3600.0s	0.0s	★
P5.36	REV delay time	0.0s~3600.0s	0.0s	★
P5.37	S1 delay time	0.0s~3600.0s	0.0s	★
P5.38	S valid mode selection 1	0: High level valid 1: Low level valid Unit's digit: FWD Ten's digit: REV Hundred's digit: S1 Thousand's digit: S2 Ten thousand's digit: S3	00000	★
P5.39	S valid mode selection 2	0: High level valid 1: Low level valid Unit's digit: S4	0	★

► Output Terminals

Function Code	Parameter Name	Setting Range	Default	Property
P6.00	M01 terminal output mode	1:Switch signal output(M01)	0	☆
P6.01	M01 function	0:No output 1:AC drive running 2:Fault output (stop) 3:Frequency-level detection FDT1 output 4:Frequency reached 5:Zero-speed running(no output at stop) 6:Motor overload pre-warning 7:AC drive overload pre-warning 8:Set count value Reached 9:Designated count value reached 10:Length reached 11:PLC cycle complete 12:Accumulative running time reached 13:Frequency limited 14:Torque limited 15:Ready for RUN 16:FIV>FIC 17:Frequency upper limit reached 18:Frequency lower limit reached (no output at stop) 19:Under voltage state output 20:Communication setting 21:Reserved 22:Reserved 23:Zero-speed running 2 (having output at stop) 24:Accumulative power-on time reached 25:Frequency level detection FDT2 output 26:Frequency 1 reached 27:Frequency 2 reached 28:Current 1 reached 29:Current 2 reached 30:Timing reached 31:FIV input limit exceeded 32:Load becoming 0 33:Reverse running 34:Zero current state 35:Module temperature reached 36:Software current limit exceeded 37:Frequency lower limit reached (having output at stop) 38:Alarm output 39:Reserved 40:Current running time reached	0	☆
P6.02	Relay output function(RA-RB-RC)	25:Frequency level detection FDT2 output 26:Frequency 1 reached 27:Frequency 2 reached 28:Current 1 reached 29:Current 2 reached 30:Timing reached 31:FIV input limit exceeded 32:Load becoming 0 33:Reverse running 34:Zero current state 35:Module temperature reached 36:Software current limit exceeded 37:Frequency lower limit reached (having output at stop) 38:Alarm output 39:Reserved 40:Current running time reached	2	☆
P6.07	FOV function selection	0:Running frequency 1:Set frequency 2:Output current 3:Output torque 4:Output power 5:Output voltage 6:Pulse input(100.0% for 100.0kHz) 7:FIV 8:FIC 9:Reserved 10:Length 11:Count value 12:Communication setting 13:Motor rotational speed 14:Output current(100.0% for 1000.0A) 15:Output voltage(100.0% for 1000.0V) 16:Reserved	0	☆
P6.08	Reserved			

Function Code	Parameter Name	Setting Range	Default	Property
P6.09	Reserved			☆
P6.10	FOV offset coefficient	-100.0%~+100.0%	0.0%	☆
P6.11	FOV gain	-10.00~+10.00	1.00	☆
P6.12	Reserved			☆
P6.13	Reserved			☆
P6.17	M01 output delay time	0.0s~3600.0s	0.0s	☆
P6.18	RA-RB-RC output delay time	0.0s~3600.0s	0.0s	☆
P6.19	RA-RB-RC output delay time	0.0s~3600.0s	0.0s	☆
P6.20	reserved			
P6.21	reserved			
P6.22	Output terminal valid mode selection	0:Positive logic 1:Negative logic Unit's digit:M01 Ten's digit:RA-RB-RC	00	☆

► Auxiliary Functions

Function Code	Parameter Name	Setting Range	Default	Property
P8.00	JOG running frequency	0.00Hz~maximum frequency	2.00Hz	☆
P8.01	JOG acceleration time	0.0s~6500.0s	20.0s	☆
P8.02	JOG deceleration time	0.0s~6500.0s	20.0s	☆
P8.03	Acceleration time 2	0.0s~6500.0s	Model dependent	☆
P8.04	Deceleration time 2	0.0s~6500.0s	Model dependent	☆
P8.05	Acceleration time 3	0.0s~6500.0s	Model dependent	☆
P8.06	Deceleration time 3	0.0s~6500.0s	Model dependent	☆
P8.07	Acceleration time 4	0.0s~6500.0s	Model dependent	☆
P8.08	Deceleration time 4	0.0s~6500.0s	Model dependent	☆
P8.09	Jump frequency 1	0.00Hz~maximum frequency	0.00Hz	☆
P8.10	Jump frequency 2	0.00Hz~maximum frequency	0.00Hz	☆
P8.11	Frequency jump amplitude	0.00Hz~maximum frequency	0.01Hz	☆
P8.12	Forward/Reverse rotation dead-zone time	0.0s~3000.0s	0.0s	☆
P8.13	Reverse control	0: Enabled 1: Disabled	0	☆
P8.14	Running mode when set frequency lower than frequency lower limit	0: Run at frequency lower limit 1: Stop 2: Run at zero speed	0	☆
P8.15	Droop control	0.00Hz~10.00Hz	0.00Hz	☆
P8.16	Accumulative power-on time threshold	0h~65000h	0h	☆
P8.17	Accumulative running time threshold	0h~65000h	0h	☆
P8.18	Startup protection	0: No 1: Yes	0	☆
P8.19	Frequency detection value(FDT1)	0.00Hz~maximum frequency	50.00Hz	☆
P8.20	Frequency detection hysteresis(FDT1)	0.0%~100.0% (FDT1 level )	5.0%	☆
P8.21	Detection range of frequency reached	0.0%~100.0% (maximum frequency )	0.0%	☆
P8.22	Jump frequency during acceleration/ deceleration	0: Disabled 1: Enabled	0	☆
P8.25	Frequency switchover point between acceleration time 1 and acceleration time 2	0.00Hz~maximum frequency	0.00Hz	☆
P8.26	Frequency switchover point between deceleration time 1 and deceleration time 2	0.00Hz~maximum frequency	0.00Hz	☆
P8.27	Terminal JOG preferred	0: Disabled 1: Enabled	0	☆
P8.28	Frequency detection value (FDT2)	0.00Hz~maximum frequency	50.00Hz	☆
P8.29	Frequency detection hysteresis (FDT2)	0.0%~100.0% (FDT2 level )	5.0%	☆
P8.30	Any frequency reaching detection value 1	0.00Hz~maximum frequency	50.00Hz	☆

Function Code	Parameter Name	Setting Range	Default	Property
P8.31	Any frequency reaching detection amplitude 1	0.0%~100.0% (maximum frequency )	0.0%	☆
P8.32	Any frequency reaching detection value 2	0.00Hz~maximum frequency	50.00Hz	☆
P8.33	Any frequency reaching detection amplitude 2	0.0%~100.0% (maximum frequency )	0.0%	☆
P8.34	Zero current detection level	0.0%~300.0% 100.0% for rated motor current	5.0%	☆
P8.35	Zero current detection delay time	0.01s~600.00s	0.10s	☆
P8.36	Output over current threshold	0.0% (no detection ) 0.1%~300.0% (rated motor current )	200.0%	☆
P8.37	Output over current detection delay time	0.00s~600.00s	0.00s	☆
P8.38	Any current reaching 1	0.0%~300.0% (rated motor current )	100.0%	☆
P8.39	Any current reaching 1 amplitude	0.0%~300.0% (rated motor current )	0.0%	☆
P8.40	Any current reaching 2	0.0%~300.0% (rated motor current )	100.0%	☆
P8.41	Any current reaching 2 amplitude	0.0%~300.0% (rated motor current )	0.0%	☆
P8.42	Timing function	0:Disabled 1:Enabled	0	☆
P8.43	Timing duration source	0: P8.44 1: FIV 2: FIC 3: reserved 100% of analog input corresponds to the value of P8.44	0	☆
P8.44	Timing duration	0.0Min~6500.0Min	0.0Min	☆
P8.45	FIV input voltage lower limit	0.00V~P8.46	3.10V	☆
P8.46	FIV input voltage upper limit	P8.45~10.00V	6.80V	☆
P8.47	Module temperature threshold	0°C~150°C	100°C	☆
P8.48	Cooling fan control	0: Fan working during running 1: Fan working continuously	0	☆
P8.49	Wakeup frequency	Dormant frequency (P8.51 ) ~maximum frequency (P0.12 )	0.00Hz	☆
P8.50	Wakeup delay time	0.0s~6500.0s	0.0s	☆
P8.51	Dormant frequency	0.00Hz~wakeup frequency (P8.49 )	0.00Hz	☆
P8.52	Dormant delay time	0.0s~6500.0s	0.0s	☆
P8.53	Current running time reached	0.0Min~6500.0Min	0.0Min	★

Order Data

U t200 Series Inverter Order Data

No.	Order No.	Power ( KW )	Rated Current ( A )
Ut200 Economical Series Inverter (220V Single Phase)			
1	UT 212-R40G1-1XA0	0.4	5.4
2	UT 212-R75G1-1XA0	0.75	7.2
3	UT 212-1R5G1-1XA0	1.5	10
4	UT 212-2R2G1-1XA0	2.2	16
5	UT 212-3R7G1-1XA0	3.7	17
UT200 Economical Series Inverter (380V Three Phase)			
1	UT 233-R40G1-1XA0	0.4	3.4
2	UT 233-R75G1-1XA0	0.75	3.8
3	UT 233-1R5G1-1XA0	1.5	5
4	UT 233-2R2G1-1XA0	2.2	5.8
5	UT 233-3R7G1-1XA0	3.7	10
6	UT 233-5R5G1-1XA0	5.5	15
7	UT 233-7R5G1-1XA0	7.5	20
8	UT 233-011G1-1XA0	11	26
9	UT 233-015G1-1XA0	15	35
10	UT 233-018G1-1XA0	18.5	38
11	UT 233-022G1-1XA0	22	46
12	UT 233-030G1-1XA0	30	62
13	UT 233-037G1-1XA0	37	76
14	UT 233-045G1-1XA0	45	90
15	UT 233-055G1-1XA0	55	105
16	UT 233-075G1-1XA0	75	140
17	UT 233-090G1-1XA0	90	160
18	UT 233-110G1-1XA0	110	210
19	UT 233-132G1-1XA0	132	240
20	UT 233-160G1-1XA0	160	290
21	UT 233-185G1-1XA0	185	330
22	UT 233-200G1-1XA0	200	370
23	UT 233-220G1-1XA0	220	410
UT200 Series Inverter Accessories			
1	UT 920-0KB01-1XA0	Ut200 inverter dedicated small keyboard (with potentiometer)	
2	UT 920-0KB11-1XA0	Ut200 inverter dedicated big keyboard (with potentiometer)	
3	UN 290-6AA22-1XA0	Ut200 keyboard expansion line (2 meters)	