

**Vectorque™**

**Constant Pressure Water Supply  
Additional Manual**

**(V9-H-S.P0/VT30-S.P0/VT100-S.P0)**

**V&T**

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AC DRIVE  
ADDITIONAL MANUAL

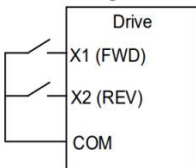
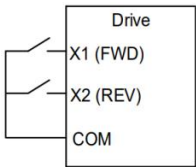
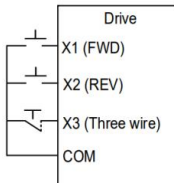
## Chapter 1 Parameters List

### 1.1 Hardware

Para. No. (参数)	Name (功能码名称)	Default (默认值)	Range (范围)	Unit (单位)	Attribute (属性)
<b>Basic Parameters (基本参数)</b>					
P0-000	<b>Language (语言选择)</b>	0	0 ... 1	/	x
	Selects the language of the parameter interface and other displayed information when viewed on the LCD keypad. <ul style="list-style-type: none"> <li>● <b>0: Chinese (中文)</b></li> <li>● <b>1: English (英文)</b></li> </ul>				
P0-002	<b>Motor control mode (电机控制模式)</b>	3	0 ... 5	/	x
	<ul style="list-style-type: none"> <li>● <b>0: Synchronous motor with encoder close-loop vector control (同步电机闭环)</b></li> <li>● <b>1: Synchronous motor without encoder open-loop vector control (同步电机开环)</b></li> <li>● <b>2: Asynchronous motor with encoder close-loop vector control (异步电机闭环)</b></li> <li>● <b>3: Asynchronous motor without encoder VF control (异步VF控制)</b></li> <li>● <b>4: Asynchronous motor without encoder open-loop vector control 1 (异步开环矢量控制 1)</b></li> <li>● <b>5: Asynchronous motor without encoder open-loop vector control 2 (异步开环矢量控制 2)</b></li> </ul>				
P0-004	<b>Run command reference selection (运行指令选择)</b>	1	0 ... 5	/	x
	Selects the source of run command. <ul style="list-style-type: none"> <li>● <b>0: Modbus communication (通讯)</b> Start and stop through Modbus communication (The Modbus address of the control word is <b>0x8000</b>; please refer to Appendix A in V9-H manual for more information).</li> <li>● <b>1: Keypad (操作键盘)</b> Start and stop through RUN key and STOP key on the keypad.</li> <li>● <b>2: External digital input terminal (数字输入端子)</b> Start and stop through digital input, refer to parameter P3-001 for more information.</li> <li>● <b>3 ... 5: Reserved (保留)</b></li> </ul> <b>Notes:</b> <ul style="list-style-type: none"> <li>➤ V9 series products CAN, CANopen, PROFIBUS-DP and PROFINET are optional.</li> <li>➤ The run command through CAN, CANopen, PROFIBUS-DP and PROFINET for V9 is same as Modbus communication (P0-004 = 0).</li> </ul>				

Para. No. (参数)	Name (功能码名称)	Default (默认值)	Range (范围)	Unit (单位)	Attribute (属性)
P0-005	<b>Speed command reference selection (速度指令选择)</b>	1	1 ... 14	/	x
	<p>Selects the source of speed (frequency) reference.</p> <ul style="list-style-type: none"> <li>● <b>0: Modbus (通讯)</b> The speed (frequency) reference is given to the drive through Modbus (The Modbus address of the Modbus communication speed reference is <b>0x8001</b>; please refer to Appendix A in V9-H for more information).</li> <li>● <b>1: Keypad (操作键盘)</b> The speed (frequency) reference is given by through √ and ∧ key on the keypad or parameter P1-000 to change the speed (or frequency) reference. Please refer to parameter P1-000 for more information.</li> <li>● <b>2: AI1 (模拟量 AI1)</b> The speed (frequency) reference is given through analog input AI1. 10V/20 mA = maximum speed P0-012.</li> <li>● <b>3 ... 4 : Reserved</b></li> <li>● <b>5: PID (PID 控制)</b> The speed (frequency) reference is given through PID controller. Refer to group PC for more information.</li> <li>● <b>6 ... 14: Refer V9-H user manual</b></li> </ul>				
P2-001	<b>Acceleration time 0 (加速时间 0)</b>	5.00	0.00 ... 655.35	s	○
	<b>Acceleration time 0 : Time from 0 to maximum speed P0-012. (加速时间 0 : 从 0 到最大速度 P0-012 的时间)</b>				
P2-002	<b>Deceleration time 0 (减速时间 0)</b>	5.00	0.00 ... 655.35	s	○
	<b>Deceleration time 0 : Time from maximum speed P0-012 to 0. (减速时间 0 : 从最高速度 P0-012 到 0 的时间)</b>				
<b>Digital inputs and outputs (数字输入和数字输出)</b>					
P3-001	<b>X1 Func Sel (X1 端子输入功能选择)</b>	03	00 ... 79	/	x
P3-002	<b>X2 Func Sel (X2 端子输入功能选择)</b>	04	00 ... 79	/	x
P3-003	<b>X3 Func Sel (X3 端子输入功能选择)</b>	00	00 ... 79	/	x
P3-004	<b>X4 Func Sel (X4 端子输入功能选择)</b>	00	00 ... 79	/	x
P3-005	<b>X5 Func Sel (X5 端子输入功能选择)</b>	00	00 ... 79	/	x
P3-006	<b>X6 Func Sel (X6 端子输入功能选择)</b>	00	00 ... 79	/	x
P3-007	<b>X7 Func Sel (X7 端子输入功能选择)</b>	00	00 ... 79	/	x

Para. No. (参数)	Name (功能码名称)	Default (默认值)	Range (范围)	Unit (单位)	Attribute (属性)
<p>The parameters P3-001 ... P3-007 are used to set the digital input functions.</p>					
<ul style="list-style-type: none"> <li>● <b>0: No function (无功能)</b> The digital input ON or OFF only displays the terminal status but does not trigger any functions.</li> </ul>					
<ul style="list-style-type: none"> <li>● <b>1: RUN (运行)</b> Run command input when P0-004 = 2. For example, if digital input X1 is used to start and stop the drive, set P0-004 = 2, P3-001=1. Then start and stop through digital input X1, 0 = stop, 1 = start.</li> </ul>					
<ul style="list-style-type: none"> <li>● <b>2: RUN direction invert (运行方向取反)</b> The signal is used to invert the run command direction. The signal can invert all the run command direction; include keypad, digital input and communication. 0 = the motor operates in the rotate direction that keep consistent with the speed reference and run command, 1 = the motor operates in the rotate direction that opposite to the speed reference and run command. <b>Note:</b> In general, this signal is used in conjunction with selection "1". For example, use X1 to start and X2 to invert the run direction, set P0-004 = 2, P3-001 = 1, P3-002 = 2.</li> </ul>					
<ul style="list-style-type: none"> <li>● <b>3: Forward (正转)</b></li> </ul>					
<ul style="list-style-type: none"> <li>● <b>4: Reverse (反转)</b> Forward and reverse run command when P0-004 = 2. For example, use X1 to start in forward direction and X2 to start in reverse direction, set P0-004 = 2, P3-001 = 3, P3-002 = 4: <b>Note:</b> Refer to parameter P3-016 for more information.</li> </ul>					
<ul style="list-style-type: none"> <li>● <b>5: External fault input (外部故障输入)</b> External fault is given through digital input. 0 = No external fault. 1 = Fault trip and motor coasts to stop.</li> </ul>					
<ul style="list-style-type: none"> <li>● <b>6: Fault reset (故障复位)</b> The signal resets the drive after a fault trip if the cause of the fault no longer exists.</li> </ul>					
<ul style="list-style-type: none"> <li>● <b>15: Emergency stop (紧急停车)</b> The drive immediately stops according to the stop mode after receive an emergency stop signal from digital input.</li> </ul>					
<ul style="list-style-type: none"> <li>● <b>16: Constant speed reference input 1 (多段速度输入端子 1)</b></li> </ul>					
<ul style="list-style-type: none"> <li>● <b>17: Constant speed reference input 2 (多段速度输入端子 2)</b></li> </ul>					
<ul style="list-style-type: none"> <li>● <b>18: Constant speed reference input 3 (多段速度输入端子 3)</b></li> </ul>					
<ul style="list-style-type: none"> <li>● <b>19: Constant speed reference input 4 (多段速度输入端子 4)</b></li> </ul>					
<p>When P0-005 = 8 or 9, it is possible to predefine 15 constant speeds in parameters P1-005 to P1-020. Constant speeds are selected through digital inputs. The digital input functions 16 to 18 are used to select the predefined speeds, refer to parameter P1-005 for more information.</p>					
<ul style="list-style-type: none"> <li>● <b>33: Three-wire control mode (三线式控制 1)</b> Refer to parameter P3-016 for more information.</li> </ul>					
<ul style="list-style-type: none"> <li>● <b>7...14, 20...32, 34...79: See V9-H manual for more information. (其他选项请参考 V9-H 说明书)</b></li> </ul>					

Para. No. (参数)	Name (功能码名称)	Default (默认值)	Range (范围)	Unit (单位)	Attribute (属性)																																																						
P3-016	<b>Two-wire / three-wire control mode selection</b> (三线式控制)	0	0 ... 3	/	×																																																						
<p>Selects the drive start and stop mode through digital inputs when P0-004 = 2.</p> <ul style="list-style-type: none"> <li> <b>0: Two wire control 1 两线式控制 1</b>                      E.g. : Start, stop and direction commands through digital inputs X1 and X2. (X1 闭合正转, X2 闭合反转)                     <div style="display: flex; align-items: flex-start; margin-top: 10px;"> <div style="flex: 1;">  </div> <div style="flex: 1;"> <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>X2:REV</th> <th>X1: FWD</th> <th>Start and stop</th> </tr> </thead> <tbody> <tr><td>0</td><td>0</td><td>Stop</td></tr> <tr><td>0</td><td>1</td><td>Forward</td></tr> <tr><td>1</td><td>0</td><td>Reverse</td></tr> <tr><td>1</td><td>1</td><td>Stop</td></tr> </tbody> </table> </div> <div style="flex: 1; margin-left: 20px;"> <p>Parameters setting: P0-004 = 2 P3-001 = 03 P3-002 = 04</p> </div> </div> </li> <li> <b>1: Two wire control 2 两线式控制 2</b>                      E.g. : Start, stop and direction commands through digital inputs X1 and X2. (X1 闭合正转, X1X2 闭合反转)                     <div style="display: flex; align-items: flex-start; margin-top: 10px;"> <div style="flex: 1;">  </div> <div style="flex: 1;"> <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>X2:REV</th> <th>X1: FWD</th> <th>Start and stop</th> </tr> </thead> <tbody> <tr><td>0</td><td>0</td><td>Stop</td></tr> <tr><td>0</td><td>1</td><td>Forward</td></tr> <tr><td>1</td><td>0</td><td>Stop</td></tr> <tr><td>1</td><td>1</td><td>Reverse</td></tr> </tbody> </table> </div> <div style="flex: 1; margin-left: 20px;"> <p>Parameters setting: P0-004 = 2 P3-001 = 03 P3-002 = 04</p> </div> </div> </li> <li> <b>2: Three wire control 1 三线式控制 1</b>                      E.g. : Pulse start forward through digital input X1, 0-&gt;1: start forward. Pulse start reverse through digital input X2, 0-&gt;1: start reverse.                      Pulse stop through digital input X3: 1-&gt;0: stop. (X3 闭合运行允许, X3 断开停机, X1 上升沿正转, X2 上升沿反转, X1X2 闭合保持。)                     <div style="display: flex; align-items: flex-start; margin-top: 10px;"> <div style="flex: 1;">  </div> <div style="flex: 1;"> <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>X3: Three-wire</th> <th>X2: REV</th> <th>X1: FWD</th> <th>Start and stop</th> </tr> </thead> <tbody> <tr><td>0</td><td>-</td><td>-</td><td>Stop</td></tr> <tr><td>1</td><td>0</td><td>0</td><td>Hold</td></tr> <tr><td>1</td><td>0</td><td>0-&gt;1</td><td>Forward</td></tr> <tr><td>1</td><td>0-&gt;1</td><td>0</td><td>Reverse</td></tr> <tr><td>1</td><td>1</td><td>1</td><td>Hold</td></tr> </tbody> </table> </div> <div style="flex: 1; margin-left: 20px;"> <p>Parameter settings: P0-004 = 2 P3-001 = 03 P3-002 = 04 P3-003 = 33</p> </div> </div> </li> </ul>						X2:REV	X1: FWD	Start and stop	0	0	Stop	0	1	Forward	1	0	Reverse	1	1	Stop	X2:REV	X1: FWD	Start and stop	0	0	Stop	0	1	Forward	1	0	Stop	1	1	Reverse	X3: Three-wire	X2: REV	X1: FWD	Start and stop	0	-	-	Stop	1	0	0	Hold	1	0	0->1	Forward	1	0->1	0	Reverse	1	1	1	Hold
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	<p>● <b>3: Three wire control 2 三线式控制 2</b></p> <p>E.g. : Pulse start forward through digital input X1, 0-&gt;1: start forward. Pulse start reverse through digital input X2, 0-&gt;1: start reverse.</p> <p>Pulse stop through digital input X3: 1-&gt;0: stop. (X3 闭合运行允许, X3 断开停机, X1 上升沿正转, X2 上升沿反转, X1X2 闭合反转。)</p> <div style="display: flex; align-items: flex-start;"> <div style="margin-right: 20px;"> </div> <table border="1" style="margin-right: 20px;"> <thead> <tr> <th>X3: Three-wire</th> <th>X2: REV</th> <th>X1: FWD</th> <th>Start and stop</th> </tr> </thead> <tbody> <tr><td>0</td><td>-</td><td>-</td><td>Stop</td></tr> <tr><td>1</td><td>0</td><td>0</td><td>Hold</td></tr> <tr><td>1</td><td>0</td><td>0-&gt;1</td><td>Forward</td></tr> <tr><td>1</td><td>0-&gt;1</td><td>0</td><td>Reverse</td></tr> <tr><td>1</td><td>1</td><td>1</td><td>Reverse</td></tr> </tbody> </table> <div> <p>Parameter settings:                      P0-004 = 2                      P3-001 = 03                      P3-002 = 04                      P3-003 = 33</p> </div> </div> <p>● <b>4: Two wire control 3 两线式控制 3</b></p> <p>E.g.: Pulse start through digital input X1, 0-&gt;1: start . Stop through digital input X2, 1 = stop.</p> <p><b>Note:</b> if X2 0 = stop is required, set the digital input invert in P3-008. (X1 上升沿启动, X2 闭合停机)</p> <div style="display: flex; align-items: flex-start;"> <div style="margin-right: 20px;"> </div> <table border="1" style="margin-right: 20px;"> <thead> <tr> <th>X2: REV</th> <th>X1: FWD</th> <th>Start and stop</th> </tr> </thead> <tbody> <tr><td>0</td><td>0</td><td>Hold</td></tr> <tr><td>0</td><td>0-&gt;1</td><td>Start</td></tr> <tr><td>1</td><td>0</td><td>Stop</td></tr> <tr><td>1</td><td>1</td><td>Stop</td></tr> </tbody> </table> <div> <p>Parameter settings:                      P0-004 = 2                      P3-001 = 03                      P3-002 = 04</p> </div> </div>	X3: Three-wire	X2: REV	X1: FWD	Start and stop	0	-	-	Stop	1	0	0	Hold	1	0	0->1	Forward	1	0->1	0	Reverse	1	1	1	Reverse	X2: REV	X1: FWD	Start and stop	0	0	Hold	0	0->1	Start	1	0	Stop	1	1	Stop				
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P3-020	<b>Y1 Func Sel (Y1 功能选择)</b>	3	0 ... 99	/	○																																							
P3-021	<b>Y2 Func Sel (Y2 功能选择)</b>	9	0 ... 99	/	○																																							
P3-022	<b>RA1 Func Sel (继电器 1 功能选择)</b>	15	0 ... 99	/	○																																							
P3-023	<b>RA2 Func Sel (继电器 2 功能选择)</b>	0	0 ... 99	/	○																																							
P3-024	<b>RA3 Func Sel (继电器 3 功能选择)</b>	0	0 ... 99	/	○																																							
Parameters P3-020 ... P3-024 are the digital and relay outputs function selection.																																												
<p>● <b>0: No function (无功能)</b></p> <p>● <b>1: Ready (上电正常)</b> . When the power-on-self-test of is normal after power on and the drive has no fault.</p> <p>● <b>2: Pre-charge OK (预充电信号发送)</b> . The drive is normally powered, the main circuit pre-charge relay or contactor signal is enabled.</p> <p>● <b>3: RUN (运行中)</b> . The signal is enabled when the drive is running.</p> <p>● <b>15: Fault output. (故障, 有故障输出, 无故障无输出)</b> . When the drive is in the stop status due to fault output, the signal is enabled.</p> <p>● <b>54: Non-fault output (故障取反, 无故障输出, 有故障无输出)</b> . Output a signal when the drive has no fault.</p> <p>● <b>4 ... 14, 16 ... 53, 55 ... 99</b> : See V9-H manual for more information. (其他选项请参考 V9-H 说明书)</p>																																												

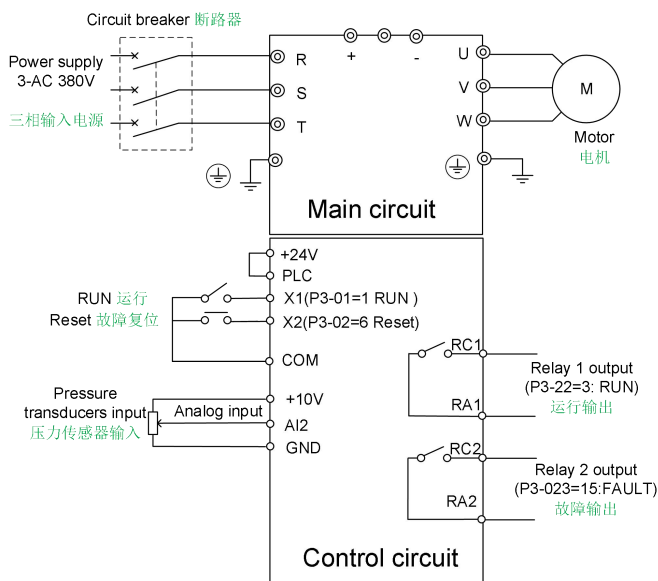
Para. No. (参数)	Name (功能码名称)	Default (默认值)	Range (范围)	Unit (单位)	Attribute (属性)
<b>Start and stop parameters (启停参数)</b>					
P5-000	<b>Start mode (启动方式)</b>	0	0 ... 2	/	x
	0: Normal start 正常启动 1: DC inject start 直流注入启动 2: Flying start 转速跟踪启动				
P5-008	<b>Stop mode (停机方式)</b>	0	0 ... 2	/	x
	0: Ramp stop 减速停车 1: Coast to stop 自由停车 2: Ramp stop + DC braking 减速停车+直流制动				
P5-015	<b>Running delay (启动命令的延迟)</b>	1.000	0.000 ... 10.000	/	x
	Once a start command is received, after the delay time defined by parameter P5-015, there will be output to the motor.				
PB-017	<b>Auto restart (自动重启)</b>	0	0 ... 1	/	x
PB-018	<b>Auto restart time (自动重启延迟时间)</b>	2	2 ... 1000	s	x
	PB-017 = 0: Disable 自动重启无效 PB-017 = 1: Enable 自动重启有效 ,如果使用了上电自动重启功能 , 请注意安全。 When automatic restart function is active and the start signal is valid, if the drive is powered up and last the time defined by parameter PB-018, the drive will start automatically without the need for the personal to intervene. This function should be used judiciously. <b>Note: Generally, it is not recommended to activate the automatic restart function. Because the motor will start automatically after powered. If the device is not ready or other unqualified operators are unclear about the situation, it may cause an accident.</b>				
<b>PID parameters (PID 相关参数)</b>					
PC-004	<b>PID reference selection (PID 给定源)</b>	0	0 ... 3	/	O
	The parameter PC-004 is used to set the PID reference channel. 0 : Parameter PC-010 ( 参数 PC-10 )      1 : Analog 1 ( 模拟量 AI1 ) 2 : Analog 2 ( 模拟量 AI2 )                3 : Analog 3 ( 模拟量 AI3 )				
PC-007	<b>PID feedback selection (PID 反馈源)</b>	2	0 ... 3	/	O
	The parameter PC-007 is used to set the PID feedback channel. 0 : None    1 : Analog 1 ( 模拟量 AI1 ) 2 : Analog 2 ( 模拟量 AI2 )                        3 : Analog 3 ( 模拟量 AI3 )				
PC-010	<b>PID reference (PID 设定值)</b>	20.00	-100.00 ... 100.00	%	O
	When PC-004=0 , PID reference value is set by PC-010 ( 当 PC-004=0 时候的 PID 设定值 )				

Para. No. (参数)	Name (功能码名称)	Default (默认值)	Range (范围)	Unit (单位)	Attribute (属性)
PC-041	<b>Sleep mode selection ( 休眠模式选择 )</b>	0110	0000 ... 0114	/	0
<p><b>Ones position:</b> Sleep mode selection ( 个位 : 睡眠模式选择 )</p> <p>0: Sleep mode is disabled. ( 睡眠模式无效 )</p> <p>1: Sleep mode 1 is enabled. ( 睡眠模式 1 )</p> <p>In this mode, entering or exiting sleep mode is determined by parameters <b>PC-042 ... PC-045</b>.  <b>( 在该模式下, 进入或退出睡眠模式由参数PC-042...PC-045确定 )</b></p> <p>When the running frequency is lower than the value set by PC-042, and after the delay time set by PC-043, then enter the sleep state.</p> <p>When the deviation between the PID reference and PID feedback is greater than the wake-up deviation set by PC-044, and after the delay time set by PC-045, then enter the wake-up state.  <b>( 当运行频率低于PC-042设置的值时, 经过PC-043设置的延迟时间后, 进入睡眠状态。当PID给定和PID反馈之间的偏差大于PC-044设置的唤醒偏差, 并且经过PC-045设置的延迟时间之后, 则进入唤醒状态。 )</b></p> <p>2: Sleep mode 2 is enabled ( 睡眠模式 2 )</p> <p>In this mode, entering or exiting sleep mode is determined by parameters <b>PC-046 ... PC-049</b>.  <b>( 在该模式下, 进入或退出睡眠模式由参数PC-046...PC-049确定 )</b></p> <p>When the PID feedback value reaches the value set by PC-046, and after the delay time set by PC-047, then enter the sleep state.</p> <p>When the PID feedback value reaches the wake-up pressure value set by PC-048, and after the delay time set by PC-049, the inverter will enter the wake-up state.  <b>( 当PID反馈值达到PC-046设定的值, 经过PC-047设定的延迟时间后, 进入睡眠状态。当PID反馈值达到PC-048设定的唤醒压力值时, 经过PC-049设定的延迟时间后, 逆变器将进入唤醒状态。 )</b></p> <p>Both sleep mode 1 and sleep mode 2 are applicable to the application of constant pressure water supply. Entering wake-up when PID feedback is low (low pressure), and entering sleep mode when the PID feedback is high (high pressure). The difference between sleep mode 1 and sleep mode 2 is that sleep mode 1 enters the sleep mode not only according to the actual pressure feedback, but also according to the frequency regulated by PID, and sleep mode 2 enters the sleep mode only according to the actual pressure feedback.  <b>( 睡眠模式1和睡眠模式2都适用于恒压供水的应用。当PID反馈低( 低压 )时进入唤醒, 当PID反馈高( 高压 )时进入睡眠模式。睡眠模式1和睡眠模式2的区别在于, 睡眠模式1不仅根据实际的压力反馈, 还根据PID调节的频率进入睡眠模式, 睡眠模式2仅根据实际压力反馈进入睡眠模式 )</b></p> <p>3: Sleep mode 3 is enabled ( 睡眠模式 3 )</p> <p>In this mode, entering or exiting sleep mode is determined by <b>AI1</b> analog value.</p> <p>If the analog input AI1 is less than the value set by PC-046, and after the delay time set by PC-047, then enter the sleep state.</p>					

Para. No. (参数)	Name (功能码名称)	Default (默认值)	Range (范围)	Unit (单位)	Attribute (属性)
	<p>If the analog input AI1 is greater than the value of PC-048, and after the delay time set by PC-049, then enter the wake-up state.                      ( 在该模式下，进入或退出睡眠模式由AI1模拟值决定。                      如果模拟输入AI1小于PC-046设置的值，并且在PC-047设置的延迟时间之后，则进入睡眠状态。                      如果模拟输入AI1大于PC-048的值，并且在PC-049设置的延迟时间之后，则进入唤醒状态。 )</p> <p>4: Sleep mode 4 is enabled ( 睡眠模式 4 )</p> <p>In this mode, entering or exiting sleep mode is determined by AI2 analog value.                      If the analog input AI2 is less than the value set by PC-046, and after the delay time set by PC-047, then enter the sleep state.                      If the analog input AI2 is greater than the value set by PC-048, and after the delay time set by PC-049, then enter the wake-up state.                      ( 在该模式下，进入或退出睡眠模式由 AI2 模拟值决定。                      如果模拟输入 AI2 小于 PC-046 设置的值，并且在 PC-047 设置的延迟时间之后，则进入睡眠状态。                      如果模拟输入 AI2 大于 PC-048 设置的值，并且在 PC-049 设置的延迟时间之后，则进入唤醒状态。 )</p> <p><b>Tens position: Auto start after fault reset ( 十位：故障复位后自动启动功能 )</b></p> <p>0: Not auto start after fault reset ( 0：故障复位后不自动启动 )</p> <p>In this mode, if RUN signal is ON, the drive will not auto start after fault reset. The drive will start after receiving RUN command rising edge. ( 在此模式下，如运行信号有效，则故障复位后，驱动器将不会自动启动。驱动器将在收到运行命令上升沿后启动。 )</p> <p>1: Auto start after fault reset ( 1：故障复位后自动启动 )</p> <p>In this mode, if RUN signal is ON, the drive will auto start after fault reset.                      ( 在此模式下，如果 RUN 信号有效，则驱动器将在故障复位后自动启动。 )</p> <p><b>Note: Generally, it is not recommended to activate this function. Because if run signal is ON, the motor will start automatically after reset the fault. If the device is not ready or other unqualified operators are unclear about the situation, it may cause an accident.</b></p> <p><b>Hundreds position: Motor phase loss detection ( 百位：电机输出缺相功能 )</b></p> <p>0: Inactive ( 0：输出缺相检测无效 )</p> <p>1: Active ( 1：输出缺相检测有效 )</p> <p>The drive trips on a fault if the motor phase loss is detected. ( 如果检测到电机缺相，驱动器会在故障时跳闸。 )</p>				

Para. No. (参数)	Name (功能码名称)	Default (默认值)	Range (范围)	Unit (单位)	Attribute (属性)
<b>Sleep mode 1 parameters (睡眠模式 1 参数)</b>					
PC-042	<b>Sleep frequency (休眠频率)</b>	20.00	00.00 ... 300.00	/	O
PC-043	<b>Sleep delay time (休眠检测延迟时间)</b>	1.0	0.0 ... 1000.0	s	O
PC-044	<b>Wake-up deviation (唤醒偏差)</b>	5.00	0.00 ... 200.00	%	O
PC-045	<b>Wake-up delay time (唤醒检测延迟时间)</b>	1.0	0.0 ... 1000.0	s	O
Parameters PC-042 ... PC-045 are the parameters for sleep mode 1, see parameter PC-041= 1 for more details. (参数 PC-042 ... PC-045 是睡眠模式 1 的参数, 更多细节请参见参数 PC-041=1。)					
<b>Sleep mode 2 / 3 / 4 parameters (睡眠模式 2 / 3 / 4 参数)</b>					
PC-046	<b>Sleep pressure (休眠压力)</b>	50.00	0.00 ... 200.00	%	O
PC-047	<b>Sleep delay time 2 (休眠检测延迟时间 2)</b>	1.0	0.0 ... 1000.0	s	O
PC-048	<b>Wake-up pressure (唤醒压力)</b>	40.00	0.00 ... 200.00	%	O
PC-049	<b>Wake-up delay time2 (唤醒检测延迟时间 2)</b>	1.0	0.0 ... 1000.0	s	O
Parameters PC-046 ... PC-049 are the parameters for sleep mode 2, see parameter, see parameter PC-041=2 / 3 / 4. (参数 PC-046 ... PC-049 是睡眠模式 2 的参数, 见参数, 见 PC-041=2/3/4。)					
PC-050	<b>Idling protect frequency (空转检测频率)</b>	49.00	0.00 ... 655.35	Hz	O
PC-051	<b>Idling protect current (空转检测电流)</b>	0.0	0.0 ... 200.0	%	O
PC-052	<b>Idling protect delay time (空转检测延迟)</b>	2.0	0.0 ... 3000.0	s	O
Parameters PC-046 ... PC-049 are the parameters for idling protect function. If the operating conditions meet the following conditions, the motor is considered to be in idling state: (1) The output frequency higher than the value of parameter PC-050. (2) Motor current is below the level set by parameter PC-051. (3) The conditions above have been valid longer than the time set by parameter PC-052.					
Note: Parameter PC-051 100.0% = motor rated current P6-004.					

## Chapter 2 Example of wiring and parameter setting 接线和参数调试举



Parameter	Value	Description
Auto-tune (自学习)		
P6-000	Set according to motor nameplate	Motor rated power 电机额定功率
P6-001		Motor rated voltage 电机额定电压
P6-002		Motor rated frequency 电机额定频率
P6-003		Motor rated speed 电机额定转速
P6-004		Motor rated current 电机额定电流
P6-005		Motor pole pairs (motor poles/2) 电机极对数, 是极数的一半
P6-017	1	Auto tune model. After setting, press RUN key to start auto-tune. 电机参数自学习, 设置后按 RUN 键进行参数的静止自学习
Control function parameters (功能参数)		
P0-004	2	Start command: digital input (端子启动)
P0-005	5	Speed reference: PID. (PID 控制)
P2-001	30.00	Acceleration time (加速时间)
P2-002	30.00	Deceleration time (减速时间)
P5-008	1	Stop mode: coast to stop (自由停机)

Constant Pressure Water Supply Additional Manual

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PC-004	0	PID reference model: parameter PC-010 setting (PID 给定通道: 参数设定)
PC-007	2	PID feedback model: analog input 2 (PID 反馈通道: AI2)
PC-010	60.00	PID reference value (PID 给定值)
PC-041	1	Sleep mode: sleep mode 1 (休眠模式 1)

Dear users,

According to the actual use requirements, we have made changes to the local design of the inverter. In order not to affect the use, please refer to the change information and commissioning instructions in this change manual for operation. This change manual should be used together with the V9-H/VTS30/VTS series product user's manual.

Thank you for your cooperation!

Shenzhen V&T Technologies Co., Ltd.

尊敬的用戶：

根据实际的使用要求，我们对变频器的局部设计作了更改，为了不影响您的使用，请参照本更改说明书中的更改信息及调试说明进行操作。本更改说明书请与蓝海华腾用户说明书配合使用。

感谢您的合作！

深圳蓝海华腾技术股份有限公司

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