

# AC Drive Basic-Operating Videos

## Chapter 1- AC Drive Basic-Operating Videos

### 1. **SA3** Basic-operating Video

Topic	Description
1. PU mode operation	When P.79=1, use the keypad for frequency setting and start/stop
Video link:	<a href="https://www.youtube.com/watch?v=6svq7-sNLPO">https://www.youtube.com/watch?v=6svq7-sNLPO</a>
2. External mode operation	When P.79=2, the frequency is set by the external terminal or analog signal, activated by STF/STR terminal
Video link:	<a href="https://www.youtube.com/watch?v=6svq7-sNLPO">https://www.youtube.com/watch?v=6svq7-sNLPO</a>
3. Combined mode operation	When P.79=4, frequency is set by the keypad, activation is controlled by external terminal STF/STR
Video link:	<a href="https://www.youtube.com/watch?v=6svq7-sNLPO">https://www.youtube.com/watch?v=6svq7-sNLPO</a>
4. Switching between traditional parameters and parameter groups	Controlled by 00-25/P.990
Video link:	<a href="https://www.youtube.com/watch?v=6svq7-sNLPO">https://www.youtube.com/watch?v=6svq7-sNLPO</a>
5. Monitoring switching between current, voltage and frequency	Controlled by keypad
Video link:	<a href="https://www.youtube.com/watch?v=6svq7-sNLPO">https://www.youtube.com/watch?v=6svq7-sNLPO</a>
6. Restore to default setting	Operation of P.998
Video link:	<a href="https://www.youtube.com/watch?v=6svq7-sNLPO">https://www.youtube.com/watch?v=6svq7-sNLPO</a>
7. Alarm history	Refer to the user manual
Video link:	<a href="https://www.youtube.com/watch?v=6svq7-sNLPO">https://www.youtube.com/watch?v=6svq7-sNLPO</a>

## 2. SE3 Basic-operating Video

Topic	Description
1. PU mode operation	When P.79=1, use the keypad for frequency setting and start/stop
Video link: <a href="https://www.youtube.com/watch?v=bbteiaqwR3E">https://www.youtube.com/watch?v=bbteiaqwR3E</a>	
2. External mode operation	When P.79=2, the frequency is set by the external terminal or analog signal, activated by STF/STR terminal
Video link: <a href="https://www.youtube.com/watch?v=bbteiaqwR3E">https://www.youtube.com/watch?v=bbteiaqwR3E</a>	
3. Combined mode operation	When P.79=4, frequency is set by the keypad, activation is controlled by external terminal STF/STR
Video link: <a href="https://www.youtube.com/watch?v=bbteiaqwR3E">https://www.youtube.com/watch?v=bbteiaqwR3E</a>	
4. Switching between traditional parameters and parameter groups	Controlled by 00-25/P.990
Video link: <a href="https://www.youtube.com/watch?v=bbteiaqwR3E">https://www.youtube.com/watch?v=bbteiaqwR3E</a>	
5. Monitoring switching between current, voltage and frequency	Controlled by keypad
Video link: <a href="https://www.youtube.com/watch?v=bbteiaqwR3E">https://www.youtube.com/watch?v=bbteiaqwR3E</a>	
6. Restore to default setting	Operation of P.998
Video link: <a href="https://www.youtube.com/watch?v=bbteiaqwR3E">https://www.youtube.com/watch?v=bbteiaqwR3E</a>	
7. Alarm history	Refer to the user manual
Video link: <a href="https://www.youtube.com/watch?v=bbteiaqwR3E">https://www.youtube.com/watch?v=bbteiaqwR3E</a>	

### 3. **SS2** Basic-operating Video

Topic	Description
1. PU mode operation	When P.79=1, use the keypad for frequency setting and start/stop
Video link:	<a href="https://www.youtube.com/watch?v=MSd-U1eYFQY&amp;list=PLWza8dfxMJw9jZVNo92waTysYabzwIYA">https://www.youtube.com/watch?v=MSd-U1eYFQY&amp;list=PLWza8dfxMJw9jZVNo92waTysYabzwIYA</a>
2. External mode operation	When P.79=2, the frequency is set by the external terminal or analog signal, activated by STF/STR terminal
Video link:	<a href="https://www.youtube.com/watch?v=MSd-U1eYFQY&amp;list=PLWza8dfxMJw9jZVNo92waTysYabzwIYA">https://www.youtube.com/watch?v=MSd-U1eYFQY&amp;list=PLWza8dfxMJw9jZVNo92waTysYabzwIYA</a>
3. Combined mode operation	When P.79=4, frequency is set by the keypad, activation is controlled by external terminal STF/STR
Video link:	<a href="https://www.youtube.com/watch?v=MSd-U1eYFQY&amp;list=PLWza8dfxMJw9jZVNo92waTysYabzwIYA">https://www.youtube.com/watch?v=MSd-U1eYFQY&amp;list=PLWza8dfxMJw9jZVNo92waTysYabzwIYA</a>
4. Monitoring switching between current, voltage and frequency	Controlled by keypad
Video link:	<a href="https://www.youtube.com/watch?v=MSd-U1eYFQY&amp;list=PLWza8dfxMJw9jZVNo92waTysYabzwIYA">https://www.youtube.com/watch?v=MSd-U1eYFQY&amp;list=PLWza8dfxMJw9jZVNo92waTysYabzwIYA</a>
5. Restore to default setting	Operation of P.998
Video link:	<a href="https://www.youtube.com/watch?v=MSd-U1eYFQY&amp;list=PLWza8dfxMJw9jZVNo92waTysYabzwIYA">https://www.youtube.com/watch?v=MSd-U1eYFQY&amp;list=PLWza8dfxMJw9jZVNo92waTysYabzwIYA</a>
6. Alarm history	Refer to the user manual
Video link:	<a href="https://www.youtube.com/watch?v=MSd-U1eYFQY&amp;list=PLWza8dfxMJw9jZVNo92waTysYabzwIYA">https://www.youtube.com/watch?v=MSd-U1eYFQY&amp;list=PLWza8dfxMJw9jZVNo92waTysYabzwIYA</a>

#### 4. SC3 Basic-operating Video

Topic	Description
1. PU mode operation	When P.79=1, use the keypad for frequency setting and start/stop
Video link:	<a href="https://www.youtube.com/watch?v=qc8qqMsG7EI">https://www.youtube.com/watch?v=qc8qqMsG7EI</a>
2. External mode operation	When P.79=2, the frequency is set by the external terminal or analog signal, activated by STF/STR terminal
Video link:	<a href="https://www.youtube.com/watch?v=qc8qqMsG7EI">https://www.youtube.com/watch?v=qc8qqMsG7EI</a>
3. Combined mode operation	When P.79=4, frequency is set by the keypad, activation is controlled by external terminal STF/STR
Video link:	<a href="https://www.youtube.com/watch?v=qc8qqMsG7EI">https://www.youtube.com/watch?v=qc8qqMsG7EI</a>
4. Switching between traditional parameters and parameter groups	Controlled by 00-25/P.990
Video link:	<a href="https://www.youtube.com/watch?v=qc8qqMsG7EI">https://www.youtube.com/watch?v=qc8qqMsG7EI</a>
5. Monitoring switching between current, voltage and frequency	Controlled by keypad
Video link:	<a href="https://www.youtube.com/watch?v=qc8qqMsG7EI">https://www.youtube.com/watch?v=qc8qqMsG7EI</a>
6. Restore to default setting	Operation of P.998
Video link:	<a href="https://www.youtube.com/watch?v=qc8qqMsG7EI">https://www.youtube.com/watch?v=qc8qqMsG7EI</a>
7. Alarm history	Refer to the user manual
Video link:	<a href="https://www.youtube.com/watch?v=qc8qqMsG7EI">https://www.youtube.com/watch?v=qc8qqMsG7EI</a>

## Chapter 2- IM Motor (Induction Motor) Tuning Process

Topic	Description
1. SA3 open loop control tuning	The tuning process for IM motors without a PG card.
Video link:	
	<a href="https://www.youtube.com/watch?v=wID4WPLQqe8">https://www.youtube.com/watch?v=wID4WPLQqe8</a>
2. SA3 closed-loop control tuning	The SA3 requires the installation of a PG card and the motor needs to be paired with an encoder.
Video link:	
	<a href="https://www.youtube.com/watch?v=ar22JNquShg">https://www.youtube.com/watch?v=ar22JNquShg</a>

## Chapter 3- PM Motor (Permanent Magnetic Motor) Tuning Process

Topic	Description
1. SA3 open loop control tuning	The tuning process for PM motors without a PG card.
Video link:	
	<a href="https://www.youtube.com/watch?v=TNiaaidF8jw">https://www.youtube.com/watch?v=TNiaaidF8jw</a>
2. SE3 open loop control tuning	The tuning process for PM motors without a PG card.
Video link:	
	<a href="https://www.youtube.com/watch?v=Ags5kUiM0MO">https://www.youtube.com/watch?v=Ags5kUiM0MO</a>

## Chapter 4- Example of INV software operation

Topic	Description
1. Using Shihlin INV software with SA3	Using INV software to control SA3
Video link:	
	<a href="https://www.youtube.com/watch?v=oVE6ApuwGp4">https://www.youtube.com/watch?v=oVE6ApuwGp4</a>
2. Open a saved parameter file	Using INV software to open the SC3 parameter file (in excel format)
Video link:	
	<a href="https://www.youtube.com/watch?v=KHivSDrSRck">https://www.youtube.com/watch?v=KHivSDrSRck</a>
3. Using Shihlin INV software with SC3	Using INV software to control SC3
Video link:	
	<a href="https://www.youtube.com/watch?v=eMT283MBtuw">https://www.youtube.com/watch?v=eMT283MBtuw</a>
4. Using INV software to monitor SS2	Output monitoring method
Video link:	
	<a href="https://www.youtube.com/watch?v=4A5lKCi14gE">https://www.youtube.com/watch?v=4A5lKCi14gE</a>

## Chapter 5- AC Drive Performance Test

Topic	Description
1. AC drive cross-comparison check	To detect the problem is on motor or AC drive side
Video link: <a href="https://www.youtube.com/watch?v=IOdyTUaxb2g">https://www.youtube.com/watch?v=IOdyTUaxb2g</a>	
2. SA3 rotation speed test	Relationship between output voltage, output frequency, output voltage and rotation speed
Video link: <a href="https://www.youtube.com/watch?v=AUehQSE44ew">https://www.youtube.com/watch?v=AUehQSE44ew</a>	
3. SE3 current test	Relationship between output current, input current and rotation speed
Video link: <a href="https://www.youtube.com/watch?v=eZ5Y1l6oz1c">https://www.youtube.com/watch?v=eZ5Y1l6oz1c</a>	