

# STVF-9 变频器参数

安装部

# MONITOR



| Classification     | BASIC NAME     | UNIT | Detail Description                 |
|--------------------|----------------|------|------------------------------------|
| BASIC LIST<br>基本参数 | WBST PMSM Ver  |      | 同步电机/异步电机，变频器程序版本                  |
|                    | SPEED FBK      | rpm  | 马达实际转速                             |
|                    | SPEED REF      | rpm  | 马达参考转速                             |
|                    | CURRENT        | A    | 电流                                 |
|                    | VOLTAGE        | V    | 电压                                 |
|                    | DC LINK VOLT   | V    | 直流电压（标准 $380 \times 1.41 = 537V$ ） |
|                    | ROTOR POSITION | V    | 确认U angle 是否正确（检修运行时检查）            |
|                    | LOAD PULSE     |      | 载重脉冲（有负载补偿时）                       |
|                    | FLOOR          | F    | 当前楼层                               |
|                    | CALL           | F    | 目的楼层                               |
|                    | DRIVE MODE     |      | 运行模式                               |
|                    | INITIAL        |      | 井道高度学习                             |

# MONITOR



| Classification | Basic Name     | Unit | Detail Description                |
|----------------|----------------|------|-----------------------------------|
| FLOOR<br>DATA  | CURRENT POS    | mm   | 轿厢当前位置                            |
|                | 1F POS         | mm   | 1层脉冲数（5000）                       |
|                | 64F POS        | mm   | 64层脉冲数                            |
|                | PLDL POS       | mm   | 下行减速开关位置                          |
|                | PLDH(PLDM) POS | mm   | DOWN direction middle part switch |
|                | PLDH POS       | mm   | DOWN direction upper part switch  |
|                | PLDH2 POS      | mm   |                                   |
|                | PLUL POS       | mm   | 上行减速开关位置                          |
|                | PLUH(PLUM) POS | mm   | UP direction middle part switch   |
|                | PLUH POS       | mm   | UP direction upper part switch    |
|                | PLUH2 POS      | mm   |                                   |

# Deceleration Distances



| speed<br>signal | 30M/M | 45M/M | 60M/M | 90M/M | 105M/M | 120M/M | 150M/M | 180M/M |
|-----------------|-------|-------|-------|-------|--------|--------|--------|--------|
| PLDL            | 650   | 1050  | 1450  | 1450  | 1450   | 1450   | 1450   | 1450   |
| PLDM            |       |       |       |       |        |        | 5050   | 7550   |
| PLDH            |       |       |       | 3050  | 4000   | 5050   | 7500   | 10500  |
| PLUL            | 650   | 1050  | 1450  | 1450  | 1450   | 1450   | 1450   | 1450   |
| PLUM            |       |       |       |       |        |        | 5050   | 7550   |
| PLUH            |       |       |       | 3050  | 4000   | 5050   | 7500   | 10500  |

# Inverter Menu >>2Program>>1Control



| Classification | Function Name    | Initial Value | Unit   | Remark                          |
|----------------|------------------|---------------|--------|---------------------------------|
| CONTROL LIST   | 01 EL SPEED      | 120           | MPM    | 设定电梯速度 (米/分钟)                   |
|                | 02 MAX RPM       | 191.0         | RPM    | 最大转速                            |
|                | 03 INSPECT RPM   | 23.9          | RPM    | 检修转速                            |
|                | 04 CREEP RPM     | 3.2           | RPM    | 爬行转速                            |
|                | 05 RELEVEL RPM   | 3.2           | RPM    | 反平层转速                           |
|                | 06 WSC READY     | 28            |        |                                 |
|                | 07 WSC START     | 36            |        |                                 |
|                | 08 WSC           | 9             |        |                                 |
|                | 09 FEED FWD GAIN | 0.4           |        |                                 |
|                | 10 Accel rate    | 0.50          | M/SEC2 | 加速斜率 (减速斜率一起更改)                 |
|                | 11 2th S TIME    | 1.0           | SEC    |                                 |
|                | 12 3th S1 TIME   | 0.5           | SEC    |                                 |
|                | 13 3th S2 TIME   | 0.5           | SEC    |                                 |
|                | 14 TQBIAS SELEC  | NO USE        |        | 力矩补偿方式                          |
|                | 15 TQBIAS DELTA  | 1.2           | A      | 自动补偿方式下，启动补偿调整 (22KW以内使用)       |
|                | 16 TQBIAS P GAIN | 0.5           |        |                                 |
|                | 17 TQBIAS BAND   | 0.3           | RPM    |                                 |
|                | 18 LS DATA 0%    | 0.0           |        | 使用负载感应器时，启动力矩补偿调整 (22KW & 30KW) |
|                | 19 LS DATA 50%   | 0.0           |        |                                 |
|                | 20 TQ BIAS GAIN  | 0.0           | %      |                                 |

# Inverter Menu >>2Program>>1Control



|              |                  |      |    |                            |
|--------------|------------------|------|----|----------------------------|
| Control List | 21 LOAD S/W GAIN | 0.00 |    | 使用负载开关时，启动补偿调整             |
|              | 22 TQBIAS OFFSET | 0.0  | A  | 轿厢平衡的偏差                    |
|              | 23 2th MIN LEN   | 50   | mm |                            |
|              | 24 2th MIN LEN.S | 50   | mm |                            |
|              | 25 3th MIN LEN   | 50   | mm |                            |
|              | 26 3th MIN LEN.S | 50   | mm |                            |
|              | 27 MAX FLOOR     | 12   | FL | 最大楼层                       |
|              | 28 DECEL2        | 1000 | mm | 到站钟距离点                     |
|              | 29 DECEL3        | 500  | mm | 语音报站距离点                    |
|              | 30 RUN OPEN LEN  | 50   | mm | 提前开门距离                     |
|              | 31 DECFL OFFSET  | 200  |    | 减速偏差值                      |
|              | 32 NEW PTN CTL   | OFF  |    |                            |
|              | 33 FWD DIRECTION | UP   |    | 马达正转时轿厢上/下（面对曳引轮逆时针转是标准正转） |
|              | 34 INIT START    | OFF  |    | 井道自学习                      |

# Inverter Menu >>2Program>>1Control



|                 |                    |  |  |  |
|-----------------|--------------------|--|--|--|
| Control<br>List | 35 MIN PTN GAIN    |  |  |  |
|                 | 36 VANE OFFSET     |  |  |  |
|                 | 37 E DECEL MODE    |  |  |  |
|                 | 38 INITQ ELD USE   |  |  |  |
|                 | 39 DBL SPD M SW    |  |  |  |
|                 | 40 SPD2 DEC OFFSET |  |  |  |
|                 | 41 UNI SPD2 LEN    |  |  |  |
|                 | 42 E DECEL ACCEL   |  |  |  |
|                 | 43 LV12 UP 30% SW  |  |  |  |
|                 | 44 LV12 70% SW     |  |  |  |
|                 | 45 LV12 DN 30% SW  |  |  |  |
|                 | 46 LV12 DN 70% SW  |  |  |  |
|                 | 47 CONV FF USE     |  |  |  |
|                 |                    |  |  |  |

# Inverter Menu >>2Program>>1Control ( Main-N )



| Classification | Function Name       | Initial Value | Unit | Remark        |
|----------------|---------------------|---------------|------|---------------|
| CONTROL LIST   | 01 EL SPEED         | 120           | MPM  | 设定电梯速度 (米/分钟) |
|                | 02 E/L ROPING       |               |      | 曳引比           |
|                | 03 MAX RPM          |               |      | 最大转速          |
|                | 04 SHORT RUN        |               |      |               |
|                | 05 INSPECT RPM      |               |      | 检修速度          |
|                | 06 CREEP RPM        |               |      |               |
|                | 07 RELEVEL RPM      |               |      |               |
|                | 08 FLR INIT DRV MPM |               |      |               |
|                | 09 SPECIAL DRV MPM  |               |      |               |
|                | 10 MAX FLOOR        |               |      | )             |
|                | 11 CHIME POINT      |               |      |               |
|                | 12 RUN OPEN LEN     |               |      |               |
|                | 13 2th MIN LENGTH   |               |      |               |
|                | 14 2th MIN LENGTHS  |               |      |               |
|                | 15 3th MIN LENGTH   |               |      |               |
|                | 16 3th MIN LENGTHS  |               |      |               |
|                | 17 FWD DIRECTION    |               |      |               |
|                | 18 GOVERNER SEL FWD |               |      |               |
|                | 19 TQBIAS SELECT    |               |      |               |
|                | 20 TQBIAS DELTA     |               |      |               |

# Inverter Menu >>2Program>>1Control ( Main-N )



|              |                      |  |  |  |
|--------------|----------------------|--|--|--|
| Control List | 21 TQBIAS READY TIME |  |  |  |
|              | 22 TQBIIAS BAND      |  |  |  |
|              | 23 LS 0%L DATA       |  |  |  |
|              | 24 LS 50%L DATA      |  |  |  |
|              | 25 LS TORQUE GAIN    |  |  |  |
|              | 26 SC JM             |  |  |  |
|              | 27 SC FEED FWD GAIN  |  |  |  |
|              | 28 SUDS ACCEL        |  |  |  |
|              | 29 SUDS PTN USE      |  |  |  |
|              | 30 UNBAL GAIN        |  |  |  |
|              | 31 UNBAL COM USE     |  |  |  |
|              | 32 2TH SURVE TIME    |  |  |  |
|              | 33 3TH START1 TIME   |  |  |  |
|              | 34 3TH START2 TIME   |  |  |  |

# Inverter Menu >>2Program>>1Control ( Main-N )



|              |                    |  |  |  |
|--------------|--------------------|--|--|--|
| Control List | 35 MIN PTN GAIN    |  |  |  |
|              | 36 VANE OFFSET     |  |  |  |
|              | 37 E DECEL MODE    |  |  |  |
|              | 38 INITQ ELD USE   |  |  |  |
|              | 39 DBL SPD M SW    |  |  |  |
|              | 40 SPD2 DEC OFFSET |  |  |  |
|              | 41 UNI SPD2 LEN    |  |  |  |
|              | 42 E DECEL ACCEL   |  |  |  |
|              | 43 LV12 UP 30% SW  |  |  |  |
|              | 44 LV12 70% SW     |  |  |  |
|              | 45 LV12 DN 30% SW  |  |  |  |
|              | 46 LV12 DN 70% SW  |  |  |  |
|              | 47 CONV FF USE     |  |  |  |
|              | 48 MOTOR THERMAL   |  |  |  |
|              | 49 ELD SPD MODE    |  |  |  |
|              | 50 NUM OF MOTOR    |  |  |  |
|              | 51 INIT START      |  |  |  |

# Inverter >>2Program>>3MOTOR



| Classification | Function Name    | Initial Value | Unit  | Remark                         |
|----------------|------------------|---------------|-------|--------------------------------|
| MOTOR LIST     | 01 INVERTER SEL  |               |       | 选择变频器                          |
|                | 02 MOTOR SELECT  |               |       | 选择马达（一种马达可能覆盖几种规格电梯）           |
|                | 03 MOTOR CAPACIT | 14.1          | kW    | 马达容量                           |
|                | 04 RATING V      | 322           | Vrms  | 额定电压                           |
|                | 05 RATING A      | 31            | V     | 额定电流                           |
|                | 06 MOTOR POLES   | 32            | POLES | 马达极数 赫兹*60 / 极对数=马达转速          |
|                | 07 PG PULSE      | 131072        | PPR   | 131072 编码器脉冲数（SINCOS标准 131072） |
|                | 08 WRPM_BASE     | 191           | RPM   | 马达基本转速                         |
|                | 09 Jm            | 55            |       | 马达惯性量                          |

# Inverter >>2Program>>3MOTOR



|            |                 |          |          |                                     |
|------------|-----------------|----------|----------|-------------------------------------|
| MOTOR LIST | 10 Know Angle   | 0        |          | It shows how to judge initial angle |
|            | 11 U Angle      | 0        |          | It shows the initial angle          |
|            | 12 ANGLE METHOD | DC ALIGN |          |                                     |
|            | 13 SEARCH TIME  | 4000     | mSec     |                                     |
|            | 14 MOTOR Ls     | 7.60     | mH       |                                     |
|            | 15 MOTOR Rs     | 0.18     | $\Omega$ |                                     |
|            | 16 EMF Constant | 0.83     |          |                                     |
|            | 17 MOTOR TYPE   |          |          |                                     |
|            | 18 Inj.VOLTAGE  | 120      | V        |                                     |
|            | 19 Inj.FREQ     | 500      | Hz       |                                     |

# Inverter >>2Program>>3MOTOR ( Main-N )



| Classification                  | Function Name    | Initial Value | Unit | Remark |
|---------------------------------|------------------|---------------|------|--------|
| MOTOR LIST<br>(SYCRO OR INDUCT) | 01 MOTOR SELECT  |               |      |        |
|                                 | 02 MOTOR CAPACIT |               |      |        |
|                                 | 03 MOT RATING    |               |      |        |
|                                 | 04 MOT RATING    |               |      |        |
|                                 | 05 MOTOR POLES   |               |      |        |
|                                 | 06 ENCODER PPR   |               |      |        |
|                                 | 07 WRPM BASE     |               |      |        |
|                                 | 08 IQSE RATE     |               |      |        |
|                                 | 09 KNOW U ANGLE  |               |      |        |
|                                 | 10 MOTOR U ANGLE |               |      |        |
|                                 | 11 ANGLE METHOD  |               |      |        |
|                                 | 12 SIG INJ TIME  |               |      |        |
|                                 | 13 MOTOR LS      |               |      |        |
|                                 | 14 MOTOR RS      |               |      |        |
|                                 | 15 MOTOR KE      |               |      |        |
|                                 | 16 M SHEAVE DIA  |               |      | 马达惯性量  |

# Inverter Menu>>2Program>>4FACTORY



| Classification | Function Name    | Initial Value | Unit | Remark                 |
|----------------|------------------|---------------|------|------------------------|
| FACTORY LIST   | 01 TORQUE LIMIT  | 150           | %    | 输出力矩极限                 |
|                | 02 DC LINK SCALE | 0.405         |      | 调整直流电压                 |
|                | 03 CURRENT SCALE | 53.72         | m    | 调整输出电流                 |
|                | 04 INPUT VOLTAGE | 380           | V    | 变频器输入电压                |
|                | 05 WCC           | 1000          |      |                        |
|                | 06 INV OC LEVEL  | 80            | A    |                        |
|                | 07 OS LEVEL      | 210           | RPM  |                        |
|                | 08 OLP TIME      | 10            | Sec  |                        |
|                | 09 SUDS ACC      | 600           |      |                        |
|                | 10 CARRIER FREQ  | 5             | KHz  |                        |
|                | 11 MOTOR ENC DIR | UP            |      | 编码器方向（马达正转时A相在前还是B相在前） |
|                | 12 ENCODER TYPE  | SINCOS        |      |                        |
|                | 13 SINCOS THETA  | OFF           |      | 手动输入SIN COS 值时，OFF=》ON |
|                | 14 SIN MAX       | 0             |      |                        |
|                | 15 SIN MIN       | 0             |      |                        |
|                | 16 COS MAX       | 0             |      |                        |
|                | 17 COS MIN       | 0             |      |                        |
|                | 18 ERASE ERROR   | OFF           |      | 清除变频器故障.               |
|                | 19 CURRENT Ver   | 1.0           |      |                        |
|                | 20 EEPROM Ver    | 1.0           |      |                        |
|                | 21 INIT EEPROM   | OFF           |      | 变频器初始化                 |

# Inverter Menu>>2Program>>4FACTORY(Main-N)



| Classification | Function Name        | Initial Value | Unit | Remark |
|----------------|----------------------|---------------|------|--------|
| FACTORY LIST   | 01 INVERTER CAPACITY |               |      |        |
|                | 02 MOTOR TYPE        |               |      |        |
|                | 03 SPEED PATTERN     |               |      |        |
|                | 04 INVERTER CTL MOD  |               |      |        |
|                | 05 INPUT VOLTAGE     |               |      |        |
|                | 06 ELD INPUT VOLT    |               |      |        |
|                | 07 TORQUE LIMIT      |               |      |        |
|                | 08 SCALE DC VOLT     |               |      |        |
|                | 09 SCALE CURRENT     |               |      |        |
|                | 10 INVERTER WCC      |               |      |        |
|                | 11 SC WSC            |               |      | )      |
|                | 12 SC WSC RYD        |               |      |        |
|                | 13 INV OC LEVEL      |               |      |        |
|                | 14 INV OV LEVEL      |               |      |        |
|                | 15 OVER SPD LEVEL    |               |      |        |
|                | 16 OVER LOAD TIME    |               |      |        |
|                | 17 ACCELATION        |               |      |        |
|                | 18 ENCODER DIR       |               |      |        |
|                | 19 DEC FLR OFFSET    |               |      |        |
|                | 20 DEC FLAG OFFSET   |               |      |        |
|                | 21 U/F INIT VOLT     |               |      |        |

# Inverter Menu>>2Program>>4FACTORY(Main-N)



| Classification | Function Name      | Initial Value | Unit | Remark |
|----------------|--------------------|---------------|------|--------|
| FACTORY LIST   | 22 V/F FREQ SET1   |               |      |        |
|                | 23 V/F FREQ SET2   |               |      |        |
|                | 24 V/F FREQ SET3   |               |      |        |
|                | 25 V/F FREQ1 VOLT  |               |      |        |
|                | 26 V/F FREQ2VOLT   |               |      |        |
|                | 27 V/F FREQ3VOLT   |               |      |        |
|                | 28 V/F PTN CONTROL |               |      |        |
|                | 29 ANGLE RST VOLT  |               |      |        |
|                | 30 TQRIPPLE COMP   |               |      |        |
|                | 31 TQPIPPLE GAIN   |               |      |        |
|                | 32 ENCODER TYPE    |               |      | )      |
|                | 33 SINCOS THETA    |               |      |        |
|                | 34 SIN MAX         |               |      |        |
|                | 35 SIN MIN         |               |      |        |
|                | 36 COS MAX         |               |      |        |
|                | 37 COS MIN         |               |      |        |
|                | 38 SPD BANDWIDTH   |               |      |        |
|                | 39 DCB HOLD TIME   |               |      |        |
|                | 40 POWER TEST GAIN |               |      |        |
|                | 41 POWER TEST      |               |      |        |
|                | 42 FWD---REV TEST  |               |      |        |

# Inverter Menu>>2Program>>4FACTORY(Main-N)



| Classification | Function Name  | Initial Value | Unit | Remark |
|----------------|----------------|---------------|------|--------|
| FACTORY LIST   | 43 CP TEST     |               |      |        |
|                | 44 ERROR ERASE |               |      |        |
|                | 45 ROM VERSION |               |      |        |
|                | 46 EEPROM VER  |               |      |        |
|                | 47 INIT EEPROM |               |      |        |
|                |                |               |      |        |
|                |                |               |      |        |
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|                |                |               |      |        |
|                |                |               |      |        |

# CURRENT SCALE



- ✓It shows the SCALE during the setting of CONVERTER output current.
- ✓This is decided by TURN RATIO of the current SENSOR.

| Inverter Capacity | Current Scale | Sensing Resistance | Current Sensor |
|-------------------|---------------|--------------------|----------------|
| 5.5~7.5kW         | 26.86         | 30 Ohm             | 50A            |
| 11kW              | 40.29         | 20 Ohm             | 50A            |
| 15kW              | 53.72         | 30 Ohm             | 100A           |
| 22kW              | 80.59         | 20 Ohm             | 300A           |
| 30kW              | 107.45        | 15 Ohm             | 300A           |