



SCR Power Regulator + Temperature controller 2 in 1

1. Dual-Mode Intelligent Control (2-in-1)

Supports PID Temperature Control Mode (CON=0, compatible with thermocouple/RTD inputs for precise temperature regulation) and SCR Process Control Mode (CON=1, compatible with analog inputs for voltage/current process control), catering to diverse industrial applications.

2. Comprehensive Power Monitoring & Display

- Real-time query functions for 3-phase current, 3-phase voltage, and heatsink temperature.
- Equipped with bright dual-row digital tubes and bar graph display, intuitively showing measured values, setpoints, and operation percentage (0-100%).

3. Multi-Layered Safety Protection (Core Advantage)

- Over-temperature Protection: Monitors heatsink temperature in real-time; automatically limits output power (adjustable percentage) upon over-temperature to protect the device.
- Over-current Cut-off Protection: When current exceeds target + deviation, operation output resets to zero and restarts to prevent surge damage to the SCR.
- Heater Break/Short Circuit Alarm: Uses the 1st current channel to determine heater status; enters STOP state and alarms upon abnormality.
- 3-Phase Unbalance Alarm: Supports voltage/current unbalance deviation settings; locks and stops operation upon abnormality.

4. Highly Flexible Parameter Configuration

- Offers up to 14 LCK password-protected menus, covering PID parameters, alarm modes, communication settings, cooling fan control, etc.
- Supports RS-485 communication with configurable device ID (0-255) and baud rate (2.4K~19.2K) for easy integration into host systems.
- Supports PID Auto-tuning (AT) and Heating Rate Intervention functions to effectively suppress temperature overshoot.

5. Industrial-Grade Cooling & Structural Design

- Built-in intelligent cooling fan control; automatically starts/stops based on heatsink temperature to extend fan lifespan.
- Rugged industrial-grade housing and terminal blocks; supports 220VAC power supply, suitable for harsh industrial environments.

Ordering Information

MWH300F-692 1 2 3 4 5

Type of SCR power regulators

MWH300F-692 Maxwell Power Regulator, MWH300F-692 series

1: Power supply for the unit itself

2 85~265Vac 50/60HZ
D 12-24VDC

2: Load Voltage

2 3 phase 200Vac~480Vac

3: Load amps

100 100A
125 125A
150 150A
175 175A
200 200A

4: Communication

N without communication
M With RS-485 modbus RTU communication

5: Input configuration

A03 4-20mA
V08 1-5VDC
V09 2-10VDC
A02 0-20mA
V03 0-5VDC
V04 0-10VDC

ITEM NO	Current	Load(3 phase)	
		220V star connection	380V delta connection
MWH300F-692-2-4-100-N-A03	100A	48KW	90KW
MWH300F-692-2-4-125-N-A03	125A	57KW	101KW
MWH300F-692-2-4-150-N-A03	150A	68KW	118KW
MWH300F-692-2-4-175-N-A03	175A	78KW	136KW
MWH300F-692-2-4-200-N-A03	200A	90KW	150KW

Remark: MWH300F-692-2-4-100-M-A03

MWH300F-692 series

2: power source 85~265Vac

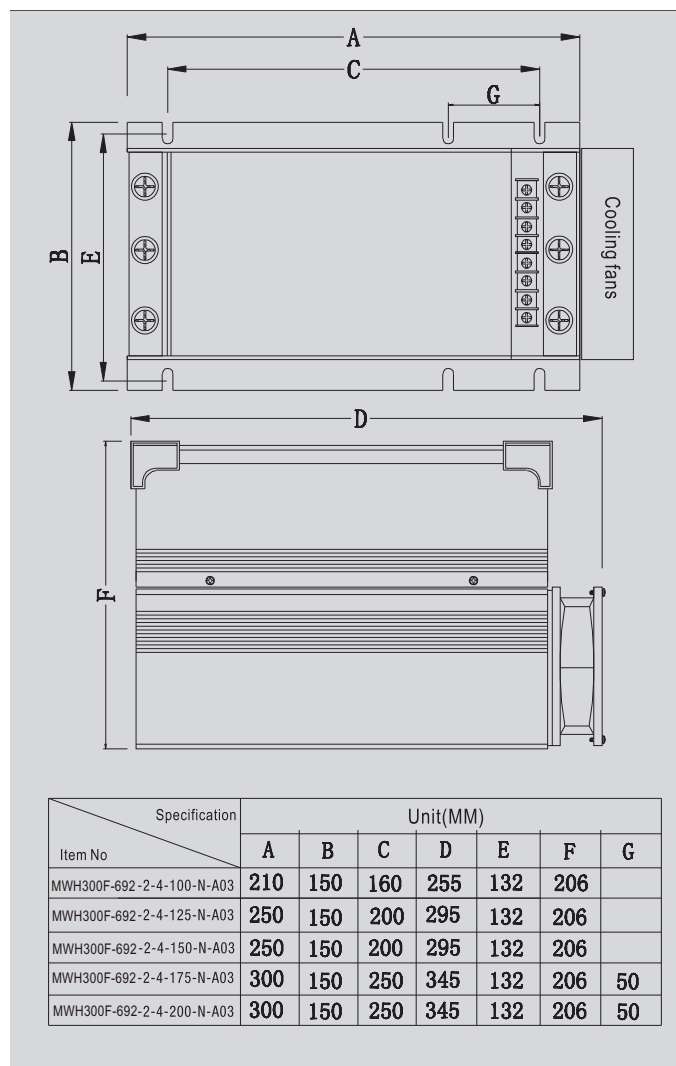
4: 3 phase 200~440V +/-15% load

100: 100 amps

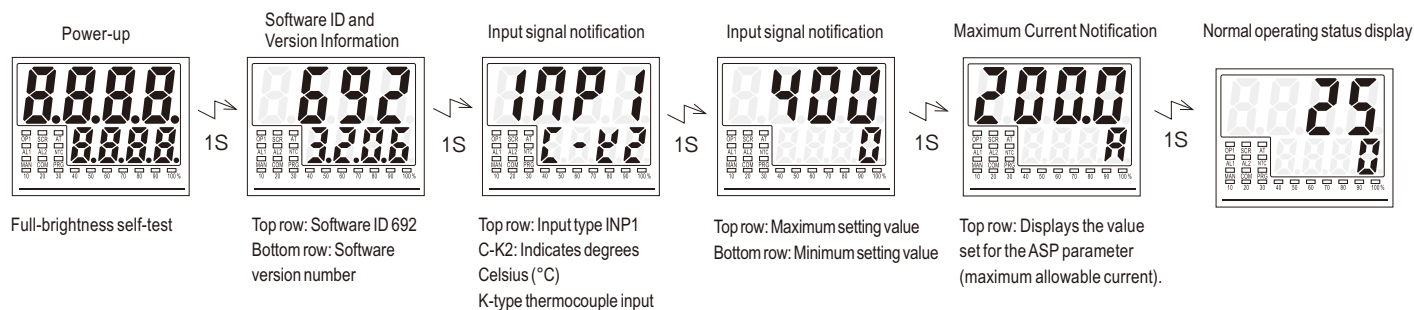
M: with RS-485 communication

A03: input is 4-20mA, 1-5VDC, 2-10Vdc

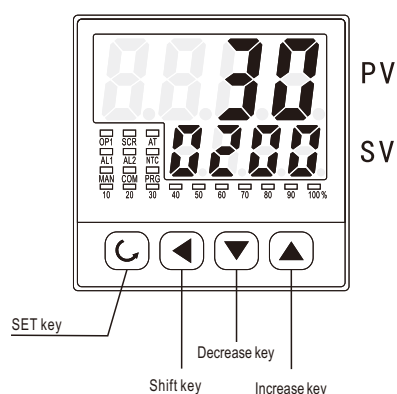
Size and dimension



I. Power-on Initialization



II. Display Interface



Under normal display conditions, the content shown in the upper and lower display windows of the instrument is as follows:

1. CON=0 (in PID temperature control mode):

Top row: Displays the measured temperature.

In Automatic mode: Bottom row displays the target temperature.

In Manual mode: Bottom row displays and allows setting of the manual output percentage (with one decimal place).

When stopped: Bottom row displays "StoP".

2. CON=1 (in SCR process variable control mode):

Upper row: Displays the measured analog input value.

In Automatic mode: Lower row displays "Output %" (synchronized with the bar graph).

In Manual mode: Lower row displays and allows setting of the manual output %.

In Stop mode: Lower row displays "StoP".

Op1: Flashes during operation output

SCR: Remains constantly lit when set to SCR mode

AT: PID auto-tuning for temperature control mode; lit during auto-tuning

AL1: AL1 relay output status

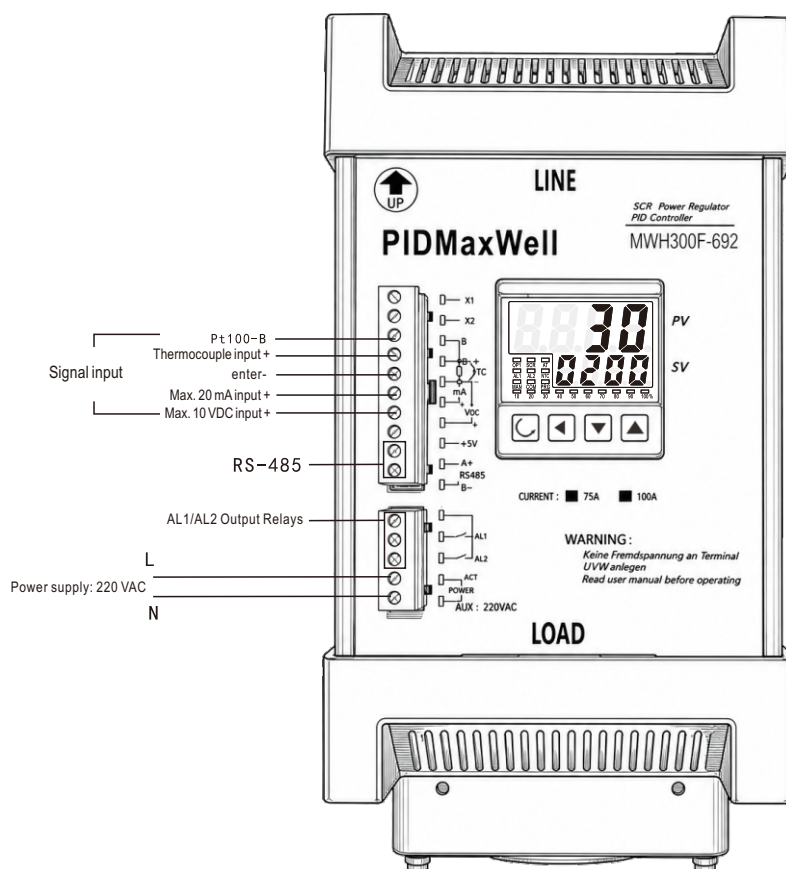
AI2: AL2 relay output status

MAN: Lit during manual mode

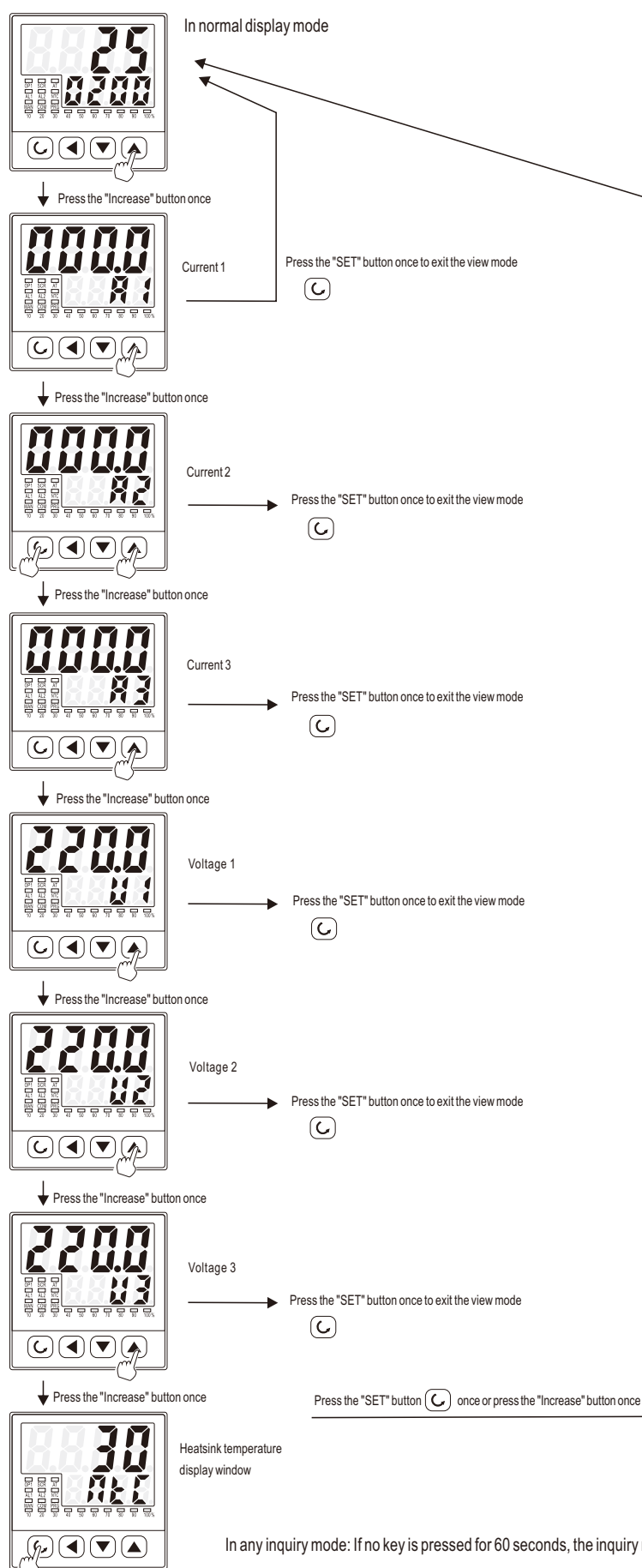
COM: Flashes upon successful communication

Bar graph: Actual manipulated variable (%)

III. Wiring Diagram



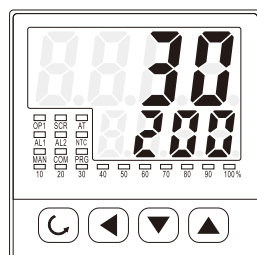
IV. 3-Phase Current / 3-Phase Voltage / Heatsink Temperature Inquiry Menu



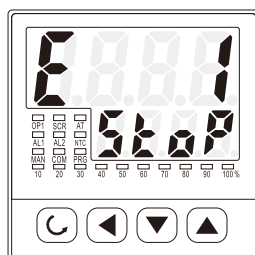
V. Explanation of ERR Fault Code Display

Alarm status is as follows:

Alarm symbol E1



Flashing



The system enters the "Stop" state when an alarm occurs.

Methods to clear the alarm:

1. Power cycle the system.
2. Perform a reset via the button.
3. Write data "0" to address 11 to reset the alarm; upon clearing, the system returns to its pre-alarm state.

Error alarms range from E1 to E61. The communication address for reading the alarm code is H006F (D11), with data values ranging from 0 to 61.

The alarm reset address is address 11 (i.e., when an alarm occurs, the value at address H000B/D11 becomes 1); writing "0" to this address resets the alarm.

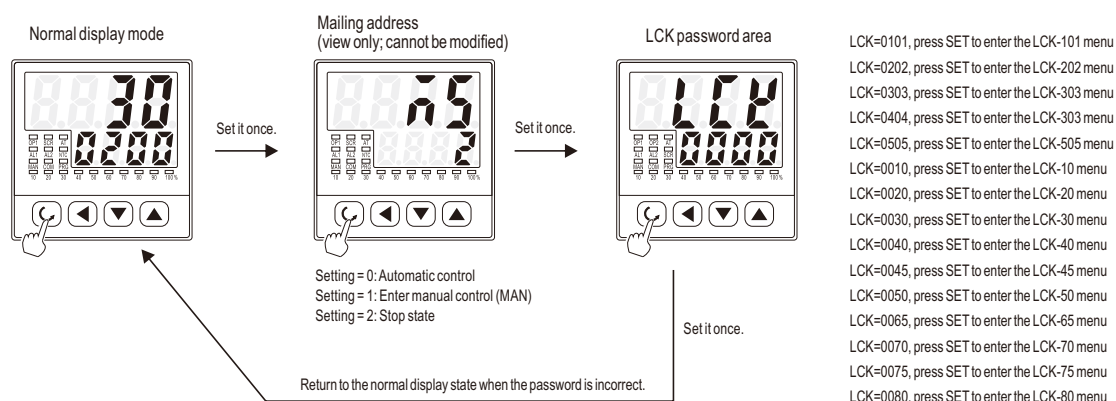
The system enters the "STOP" state when an ERR alarm occurs.

Symbol	Voltage Imbalance Alarm	Current Imbalance Alarm	HBA Alarm	LBA Alarm	EASP Overcurrent Alarm
E001	○	○	○	○	●
E004	○	○	○	●	○
E005	○	○	○	●	●
E008	○	○	●	○	○
E009	○	○	●	○	●
E012	○	○	●	●	○
E013	○	○	●	●	●
E016	○	●	○	○	○
E017	○	●	○	○	●
E020	○	●	○	●	○
E021	○	●	○	●	●
E024	○	●	●	○	○
E025	○	●	●	○	●
E028	○	●	●	●	○
E029	○	●	●	●	●

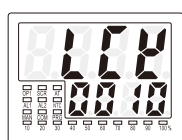
Symbol	Voltage Imbalance Alarm	Current Imbalance Alarm	HBA Alarm	LBA Alarm	EASP Overcurrent Alarm
E032	●	○	○	○	○
E033	●	○	○	○	●
E036	●	○	○	●	○
E037	●	○	○	●	●
E040	●	○	●	○	○
E041	●	○	●	○	●
E044	●	○	●	●	○
E045	●	○	●	●	●
E048	●	●	○	○	○
E049	●	●	○	○	●
E052	●	●	○	●	○
E053	●	●	○	●	●
E056	●	●	●	○	○
E057	●	●	●	○	●
E060	●	●	●	●	○
E061	●	●	●	●	●

VI. Explanation of ERR Fault Code Display

1. Password interface



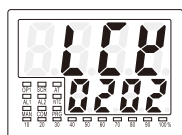
Operation Menu LCK-0010



LCK=0010, press the SET key to enter:

Symbol	Name	Range	
<i>At</i>	Auto-tuning (At)	NO or YES	At=YES: Auto-tuning starts; At=NO: Auto-tuning stops. Auto-tuning functions only when CON=0 (PID mode).
<i>AL 1</i>	Alarm Channel 1 (Al1)	-1999 to 9999	Alarm 1: Temperature alarm setpoint; Channel 1 alarm hysteresis = Ah1.
<i>AL 2</i>	Alarm Channel 2 (Al2)	-1999 to 9999	Alarm 2 is used for temperature alarm settings; the hysteresis value for Alarm 2 is Ah2.
<i>75</i>	Run/Manual/Stop		MS=0 Automatic operation MS=1 Manual operation; output is controlled based on the preset manual value MS=2 Stop operation; the bottom digital display shows "StoP"

2. Communication Parameters – LCK-202 Menu



LCK=0202; press the SET key to enter:

Symbol	Name	Range	illustrate
<i>idno</i>	Communication ID	Used to set the instrument's communication ID (0–255).	
<i>baud</i>	Communication Baud Rate	bAUd=0: 2.4K; =1: 4.8K; =2: 9.6K; =3: 19.2K	
<i>UCr</i>	Parity Check	UCr=0: No parity; =1: Odd parity; =2: Even parity.	

3. Control Mode Parameters – LCK-101 Menu



LCK=0101, press the SET key to enter:

Symbol	Name	illustrate																																																						
INP 1		<table><tr><td>Settings</td><td> E2 </td><td> E2 </td><td> J2 </td><td> n </td><td> u </td></tr><tr><td>Description</td><td>K</td><td>E</td><td>J</td><td>N</td><td>Wu3_Re25</td></tr><tr><td>Slope of Use</td><td>-15~1300 ° C 0~2372 ° F</td><td>-15~600 ° C 0~1112 ° F</td><td>-15~800 ° C 0~1472 ° F</td><td>-15~1300 ° C 0~2372 ° F</td><td>0~2000 ° C 0~3276 ° F</td></tr></table> <table><tr><td>Settings</td><td> S </td><td> t </td><td> r </td><td> b </td><td> Pt2 </td><td> 0-20 </td><td> 4-20 </td><td> 0-05 </td><td> 1-05 </td><td> 0-10 </td><td> 2-10 </td></tr><tr><td>Description</td><td>S</td><td>T</td><td>R</td><td>B</td><td>Pt100</td><td>0~20mA AD1 channel</td><td>4~20mA AD1 channel</td><td>0~5V AD2 Channel</td><td>1~5V AD2 Channel</td><td>0~10V AD2 Channel</td><td>2~10V AD2 Channel</td></tr><tr><td>Slope of Use</td><td>0~1600 ° C 0~2912 ° F</td><td>-15~400 ° C 0~752 ° F</td><td>0~1700 ° C 0~3092 ° F</td><td>1800 ° C 0~3272 ° F</td><td>-200~800 ° C</td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>	Settings	E2	E2	J2	n	u	Description	K	E	J	N	Wu3_Re25	Slope of Use	-15~1300 ° C 0~2372 ° F	-15~600 ° C 0~1112 ° F	-15~800 ° C 0~1472 ° F	-15~1300 ° C 0~2372 ° F	0~2000 ° C 0~3276 ° F	Settings	S	t	r	b	Pt2	0-20	4-20	0-05	1-05	0-10	2-10	Description	S	T	R	B	Pt100	0~20mA AD1 channel	4~20mA AD1 channel	0~5V AD2 Channel	1~5V AD2 Channel	0~10V AD2 Channel	2~10V AD2 Channel	Slope of Use	0~1600 ° C 0~2912 ° F	-15~400 ° C 0~752 ° F	0~1700 ° C 0~3092 ° F	1800 ° C 0~3272 ° F	-200~800 ° C						
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Settings	S	t	r	b	Pt2	0-20	4-20	0-05	1-05	0-10	2-10																																													
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DP	Analog Input Decimal Point Position	0: No decimal places, 1: One decimal place, 2: Two decimal places, 3: Three decimal places (Max. 1 decimal place for thermocouple/RTD inputs; 0, 1, 2, or 3 decimal places configurable for analog inputs)																																																						
LSPL	Minimum Setting Value Configuration	Limit the lower setting value for the master control setpoint; the decimal point format follows the DP setting.																																																						
USPL	Maximum Setpoint Setting	Sets the upper limit for the master setpoint; the decimal point format is determined by the DP.																																																						
UNIT	Display unit	0: Celsius, 1: Fahrenheit,																																																						
PVOS	Correction of measured values	The measured value offset correction is typically used in PID temperature control modes to adjust the current temperature reading. A proportional correction method is employed: When the raw measured value is ≤ SP1, no correction is applied (PB = 0). When the raw measured value is ≥ SP2, 100% correction based on the PVOS value is applied (PB = PVOS). When the raw measured value falls between SP1 and SP2, the correction is applied proportionally. The SP1, SP2, and PB parameters are located in the LCK-0505 menu; the PB parameter allows for monitoring the actual correction value applied after proportional adjustment.																																																						
PVFL		Digital filtering	0-30 Signal input first-stage filtering 31-60 Signal input second-stage filtering																																																					
ANL 1 ANH 1		Display value for the linear analog input at the zero point; also the lower limit for the process variable calculation. Display value for the linear analog input at the full-scale point; also the upper limit for the process variable calculation. Decimal point format determined by the DP setting. When set to SCR process variable mode (CON=1), parameters ANL1 and ANH1 are automatically configured as follows: For INP1=0-20mA input: ANL1=0 / ANH1=2000 For INP1=4-20mA input: ANL1=400 / ANH1=2000 For INP1=0-5V input: ANL1=0 / ANH1=5000 For INP1=1-5V input: ANL1=1000 / ANH1=5000 For INP1=0-10V input: ANL1=0 / ANH1=1000 For INP1=2-10V input: ANL1=200 / ANH1=1000																																																						
Con	Control Mode	CON=0: PID temperature control mode; please set the input signal to thermocouple input. 1. In this mode, the PV window displays the temperature input or analog value; the decimal point position is determined by the DP parameter. 2. In this mode:During automatic control, the SV window displays the target temperature. In manual mode, the SV window displays the manually set output percentage (format: 0.0~100.0%). In stop mode, it displays "Stop". CON=1: SCR process variable control mode; please set the input signal to analog input. 1. In this mode, the PV window displays the analog input value. 2. In this mode:During automatic control, the SV window displays the process variable as a percentage of the analog input (format: 0.0~100.0%). In manual mode, the SV window displays the manually set output percentage (format: 0.0~100.0%). In stop mode, it displays "Stop".																																																						

Turn to the next page

Continued from the previous page

Symbol	Name	illustrate
ALd1	Channel 1 (AL1) Relay Alarm Mode	Used to set the alarm mode for the first relay (AI1); range 0–16; used for temperature control alarms. Ald1= 00: Relay used for digital DO output 01: High deviation alarm with standby function 02: Low deviation alarm with standby function 03: Deviation band-out alarm with standby function 04: Deviation band-in alarm with standby function 05: Absolute high alarm with standby function 06: Absolute low alarm with standby function 10: No alarm output function 11: High deviation alarm 12: Low deviation alarm 13: Deviation band-out alarm 14: Deviation band-in alarm 15: Absolute high alarm 16: Absolute low alarm =17: Operating status alarm; the relay engages immediately upon switching from "Stop" to "Auto" or "Manual" mode, and disengages after a 3-second delay when stopped. =18: Stop status alarm; the relay disengages during operation and engages when stopped. =19: Reserved =20: Engages upon heatsink over-temperature protection activation; disengages after the condition clears. =21: Reserved =22: Reserved =23: Alarm triggered when the measured value overflows. =24: Reserved =25: Indicates the relay is used for ERR (error/fault) alarm output.
AH1	Channel 1 (AL1) Alarm Hysteresis	Hysteresis value for the first temperature alarm output (High alarm: lower hysteresis; Low alarm: upper hysteresis)
ALd2	Channel 2 (AL2) Relay Alarm Mode	Used to set the alarm mode for the second relay (AI2); range: 0–16; used for temperature control alarms. Ald1= 00: No alarm output 01: High deviation alarm (with standby function) 02: Low deviation alarm (with standby function) 03: Outside-band deviation alarm (with standby function) 04: Inside-band deviation alarm (with standby function) 05: High absolute value alarm (with standby function) 06: Low absolute value alarm (with standby function) 10: No alarm output 11: High deviation alarm 12: Low deviation alarm 13: Outside-band deviation alarm 14: Inside-band deviation alarm 15: High absolute value alarm 16: Low absolute value alarm =17: Run status alarm; the relay engages immediately upon switching from "Stop" to "Auto" or "Manual" operation, and disengages after a 3-second delay when stopped. =18: Stop status alarm; the relay disengages during operation and engages when stopped. =19: Reserved =20: Engages upon heatsink over-temperature protection activation; disengages after the condition clears. =21: Reserved =22: Reserved =23: Alarm triggered when the measured value overflows. =24: Reserved =25: Indicates the relay is used for ERR (error/fault) alarm output.
AH2	Channel 2 Alarm Hysteresis	Hysteresis of the second alarm output (high alarm: lower hysteresis, low alarm: upper hysteresis)
CLC	Open/Closed-Loop Selection	=0: Open-loop =1: Current limiting (samples the current from channel 1 and limits the maximum current based on the value in AAH) =2: AC current closed-loop
AAH	Maximum Target Current Value	Setting Mode: 0.0AWhen CLC=1 is in current limiting mode, it is used to limit the current. When CLC=2 is in current closed-loop mode, it is used to define the maximum current of the closed-loop control at 100% output.
UUH	Reserved	Reserved
ADF	Current Deadband (0.1A)	When CLC is set to 1 or 2 and current limiting or regulation is active, the current control deadband is defined as "Target Current Value ± AdF"; the setpoint is displayed with one decimal place.
UDF	Reserved	Reserved
Err	Overflow Action	=0: When PV overflows, PID is forced to shut down with an output of 0.0%; manual mode output remains normal. =1: When PV overflows, PID output remains normal; manual mode output remains normal.

Explanation of the Temperature Control Alarm Mode Table

Code	ALd□	Alarm mode description (using AL1 as an example)	
N	10 or 00	No automatic alarm; used for digital DO output when ALD=0.	
A	11	AL1 ≥ 0	
		AL1 < 0	
B	12	AL1 ≥ 0	
		AL1 < 0	
C	13		
D	14		
H	15		
J	16		
E	01	AL1 ≥ 0	
		AL1 < 0	
F	02	AL1 ≥ 0	
		AL1 < 0	
G	03		
M	04		
K	05		
L	06		

Note: The "standby function" means that if the temperature is within the alarm zone upon initial power-up, no alarm is triggered; the alarm will only activate once the temperature exits the alarm zone and subsequently re-enters it.

3. LCK-303 Menu



LCK=0303, Press the SET button to enter:

Symbol	Name	Range	Description
OLL	OLL Low-level output step; for open-loop control only.	0-90 (0-9.0%) When "Operation Volume %" < OLL%, "Operation Volume %" = OPL%	
OHH	OHH High-level output step; for open-loop control only.	0-90 (0-9.0%): When "Output %" > (100.0% - OHH%), "Output %" = OPH%.	
ot 1	Fixed parameters	ot1=1, please do not modify.	

4. PID temperature control mode regulates the heating rate (LCK-404 menu).



LCK=0404, Press the SET button to enter:

Symbol Name	Description
WAIT	When the SEP parameter is greater than 0 and the ramp rate intervention mode is enabled: if the PV rises too slowly, the internal target ramp value will pause its progression until the PV enters the WAIT range. Range: 0.0-100.0 degrees. When WAIT = 0.0, the ramp rate intervention does not wait.
SEP	SEP parameter: Used to set the SV ramp rate (degrees per minute); setting SEP to 0.0 disables this function. Range: 0-999.8 (representing 0.0-999.8 degrees). RP parameter: Used to define the setpoint range subject to ramp rate control. Range: 0-999.8 (representing 0.0-999.8 degrees).
rP	Factory default value SEP = 0.0

5. Measured value proportional correction parameter – LCK-505 menu



LCK=0505, Press the SET button to enter:

Symbol	address	Description
SP1	Proportionally adjusted low level	The measured value offset correction is typically used in PID temperature control modes to adjust the current temperature reading. A proportional correction method is employed. No correction is applied (PB=0) when the raw measured value is less than or equal to SP1. Full correction (100%, with PB=PVOS) is applied based on the PVOS value when the raw measured value is greater than or equal to SP2. Proportional correction is applied when the raw measured value falls between SP1 and Sp2. The PVOS parameter is located in the LCK-0101 menu and defines the maximum offset correction value; PB displays the actual correction value currently applied after proportional adjustment. Factory settings: SP1=0 / SP2=0.
SP2	Proportionally adjusted high level	
PB	Actual corrected observed values	

6. PID parameters for PID temperature control mode (LCK-0020 menu)



LCK=0020, Press the SET button to enter:

Symbol	Name	Range	Description
P1	Proportional band P1	0.0~200.0 degrees	Proportional band for PID control, in degrees; on/off control applies when P1 = 0.0.
i1	Integral time i1	0~3600 seconds	PID integral time: When i1 is 0, the integral function is disabled. A smaller i1 value results in a stronger integral effect, though it also makes the system prone to oscillation.
d1	Derivative time d1	0~3600 seconds	PID derivative time: when d1 is 0, the derivative action is disabled; the larger the value of d1, the stronger the derivative action, though this makes the system prone to oscillation.
AtVL	Automatic Calculation of Offset Value (AtVL)	0-199 degrees	This method applies a downward offset to the automatic calculation point relative to the setpoint, thereby preventing adverse effects on the process caused by temperature overshoot during automatic calculation.
Cyt1	PID control cycle Cyt1	0 to 999 seconds	spare
HYS1	Backlash HYS1	0.0 to 100.0	When P1 = 0.0, it operates in on-off control mode with hysteresis HYS1.
rst1	PID Proportional Reset / PID Proportional Re-setting	-30 to 30	Control parameter for suppressing overshoot in PID control (set rst1 > -P/2; lower values result in slower heating).
Ar	Point Multiplier Ar	0.0 to 100.0	Used to amplify the integral value for control purposes. The setting range is 0.0~100.0, representing a multiplier of 0.0~100.0. This is used for integral gain control in special applications; if Ar is less than 1.0, it is treated as 1.0. Example: Ar = 2.0 If the integral value (i1) is 300 after auto-tuning, the actual integral value used for PID control becomes 300 × 2.0 = 600.
OPL	Minimum output limit	0.0 to 100.0%	Used to limit the minimum output percentage. Applicable to PID mode and SCR process variable mode. No limitation in manual output mode.
OPH	Maximum output limit	0.0 to 100.0%	Used to limit maximum output (%). Applies to PID mode and SCR process variable mode. No limitation in manual output mode.
buff	OUT1 Output Buffer Amount	0.0 to 100.0%	Output buffer value (limits the maximum percentage rate of change in output per second) = 0: Calculated as 100.0% Applies to both PID mode and SCR process variable mode.

7. Cooling fan parameters, LCK-0030 menu



LCK=0030, Press the SET button to enter:

Symbol	Name	Description
Font	Fan Initialization Runtime (seconds)	Power-loss data retention (NTC temperature refers to the heatsink temperature detected by the thermistor): Upon each power-up, the fan will force an initialization sequence lasting "Font" seconds. Once initialization is complete, fan operation is automatically controlled by comparing the heatsink temperature against the FAL3 parameter. If the heatsink temperature exceeds FAL3, the fan turns on; when the heatsink temperature drops to or below (FAL3 - FAH3), the fan turns off.
FAL3	Fan activation temperature	Setting range: 0~100 degrees
FAH3	Fan start/stop hysteresis	Setting range: 0~10 degrees

8. Heatsink over-temperature protection parameters, LCK-0040 menu



LCK=0040, Press the SET button to enter:

Symbol	Name	Description
	rAPt Heatsink Over-temperature Protection Threshold 0-100°C	When rAPt > 0°C: The "heatsink over-temperature protection function" is enabled. When the heatsink temperature exceeds rAPt, "over-temperature protection" activates and the AL3 indicator lights up; the "output value (%)" is then capped at a maximum of EoP%.
	EoP Radiator Excessively High Temperature Protection Output % Limit 0.0-100.0%	When the heatsink temperature drops below rAPt - 2°C, the "heatsink over-temperature protection" is automatically deactivated, and the "output value (%)" returns to normal operation. When rAPt = 0°C: The "heatsink over-temperature protection function" is disabled.

9. Heatsink temperature correction value, LCK-0045 menu



LCK=0045, Press the SET button to enter:

Symbol	Name	Description
	Radiator temperature correction value	Apply an offset correction to the radiator temperature; factory setting = 0.

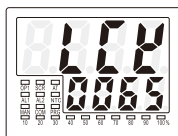
10. Initial power-up state definition, LCK-0050 menu



LCK=0050, Press the SET button to enter:

Symbol	Name	Description
	Power-on status rSr	When RSR=0, upon each power-up, MS = state prior to power-off. When RSR=1, upon each power-up, MS = 2 (Stop). When RSR=2, upon each power-up, MS = 0 (Automatic). When RSR=3, upon each power-up, MS = 1 (Manual).

11. AC Imbalance Alarm, LCK-0065 Menu



LCK=0065, Press the SET button to enter:

Symbol	Name	Description
	Current imbalance alarm deviation current value	AbL: 0.0-999.9 A, current deviation value for three-phase current unbalance alarm ***Note: Setting AbL to 0.0 disables the current unbalance alarm. VbL: 0.0-999.9 VAC, voltage deviation value for three-phase input voltage unbalance alarm **Note: Setting VbL to 0.0 disables the voltage unbalance alarm. *When an unbalance alarm occurs, an ERR alarm is triggered, the corresponding code is displayed, the alarm is latched, and the system enters the STOP state.
	Voltage Imbalance Alarm Deviation Voltage Value	

12. Overcurrent cutoff protection, LCK-0070 menu



LCK=0070, Press the SET button to enter:

Symbol	Name	Description
AA	AA Current – Overcharge Protection	Range: 0.0 to 100.0 A. When operating in current-limiting mode (CON=1) or closed-loop current control mode (CON=2), if the current exceeds the sum of AAH and AA, the output percentage is reset to zero and regulation restarts to prevent SCR damage caused by current overshoot. "AAH" represents the maximum target current value.
UU	spare	

13. Current regulation proportional parameter, LCK-0075 menu



LCK=0075, Press the SET button to enter:

Symbol	parameter	Description
APH	Current regulation proportional band	"APH" Current proportional band for current control: Range 0.0–999.9 A "ASEH" Maximum manipulated variable change (%) for current control: Range 0.0–100.0% "ASEL" Minimum manipulated variable change (%) for current control: Range 0.0–100.0% Factory settings: APH = 30.0 / ASEH = 3.0% / ASEL = 0.1%
ASEH	Maximum percentage change in output controlled by current	
ASEL	Minimum percentage change in output controlled by current	
UPH	spare	
USEH	spare	
USEL	spare	

14. Heater circuit alarm parameters, LCK-0080 menu



LCK=0080, Press the SET button to enter:

Symbol / Name	Description
 Heater Open Circuit Alarm (LBA)	Factory default = 0.0A (effectively disabling the LBA alarm). This parameter defines the minimum current threshold used to detect a heater open-circuit fault, based on the current of Channel 1. For example, if the LBA parameter is set to 5.0A: When the "Output Value" (OPH%) is reached or exceeded, if the current fails to reach the 5.0A threshold within 10 seconds, a heater open-circuit alarm is triggered, and the system enters the STOP state.
 Heater short circuit alarm HBA	Factory setting = 999.8A (effectively disabling the HBA alarm). This parameter defines the minimum current threshold used to detect a heater short-circuit, based on the current of Channel 1. For example, if the HBA parameter is set to 5.0A: when the "Manipulated Variable" (OPL%) is less than or equal to the minimum OPL% and the measured current remains above the 5.0A threshold for 10 seconds, a heater short-circuit alarm is triggered, and the system enters the STOP state.