

## Over/under voltage protector

# LMGQ-100VA Automatic Transfer Switch



### General

This intelligent ATS is DIN 35mm standard rail installation for single-phase AC220V dual-power distribution system. It monitors two independent input power sources (L1 Main Power / L2 Standby Power) in real time, automatically switches load to standby supply when main source fails (overvoltage/undervoltage/power loss), and auto-reverts to main power after main supply recovers with preset delay. Widely applied in household, monitoring, communication, retail and equipment requiring uninterrupted power supply.

### Type designation

Model	Rated current	Rated supply voltage
LMGQ	63A	AC220V
Automatic transfer switch	63A 80A 100A	AC220V AC110V

### Operating conditions

1. When installing the product, the input terminal must be connected to a circuit breaker.
2. After receiving the product, first connect only one power source to check if the display is normal.
3. The equipment must be installed by qualified professionals.
4. Before operating the device, disconnect all power supplies and do not touch any terminal when the power supply is connected.
5. Verify that terminals are properly connected.
6. Do not use the equipment in places that may be corroded by gas, strong sunlight and rain.
7. Clean equipment with a dry cloth.
8. Failure to comply with these instructions will result in serious injury or serious accident.

### Feature

1. Automatic Transfer Switch: with "priority" phase
2. Microcontroller-based
3. Digital display of working voltage, current
4. Measurement accuracy is 0.5 class
5. Key setting parameter
6. Can set the priority phase sequence
7. DIN rail mounting

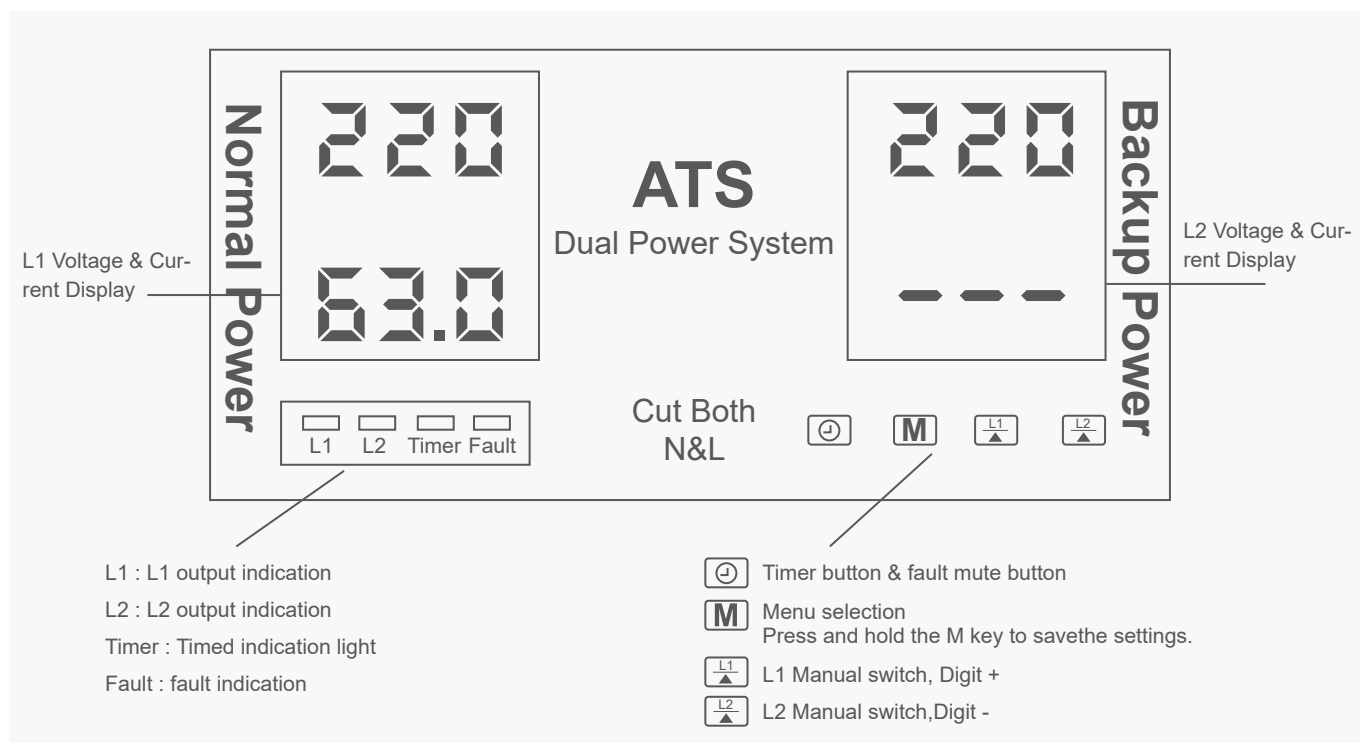
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### Technical data

Rated supply voltage	AC 2*110V/220V
Operating voltage range	AC 80-300V
Rated frequency	50/60Hz
Hysteresis	Overtoltage:5V Undervoltage:5V
Measurement accuracy	0.5 class
Rated insulation voltage	450V
Output contact	1NO
Electrical life	10 <sup>5</sup>
Switch delay to reserve phases	>0.2s
Overtoltage trip delay	0.1s; ≥350V; 0.02s
Undervoltage trip delay	0.1s; ≥350V; 0.02s
Mechanical life	10 <sup>6</sup>
Protection class	IP20
Pollution degree	3
Altitude	<2000m
Operating temperature	-5°C~40°C
Humidity	≤50% or 40°C
Storage temperature	-10°C~55°C
Product size	63A:90*96*67mm ; 80A/100A:90*103*67mm
Voltage accuracy	<1%
Rated operating current	63A/80A/100A
Max. operating current	63A/100A

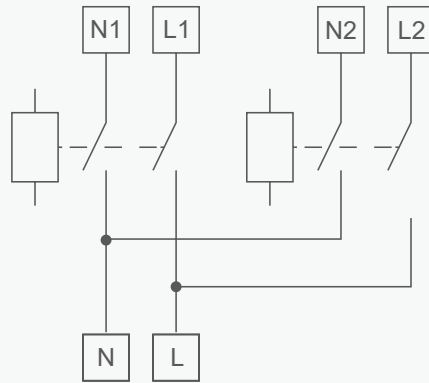
### Display panel



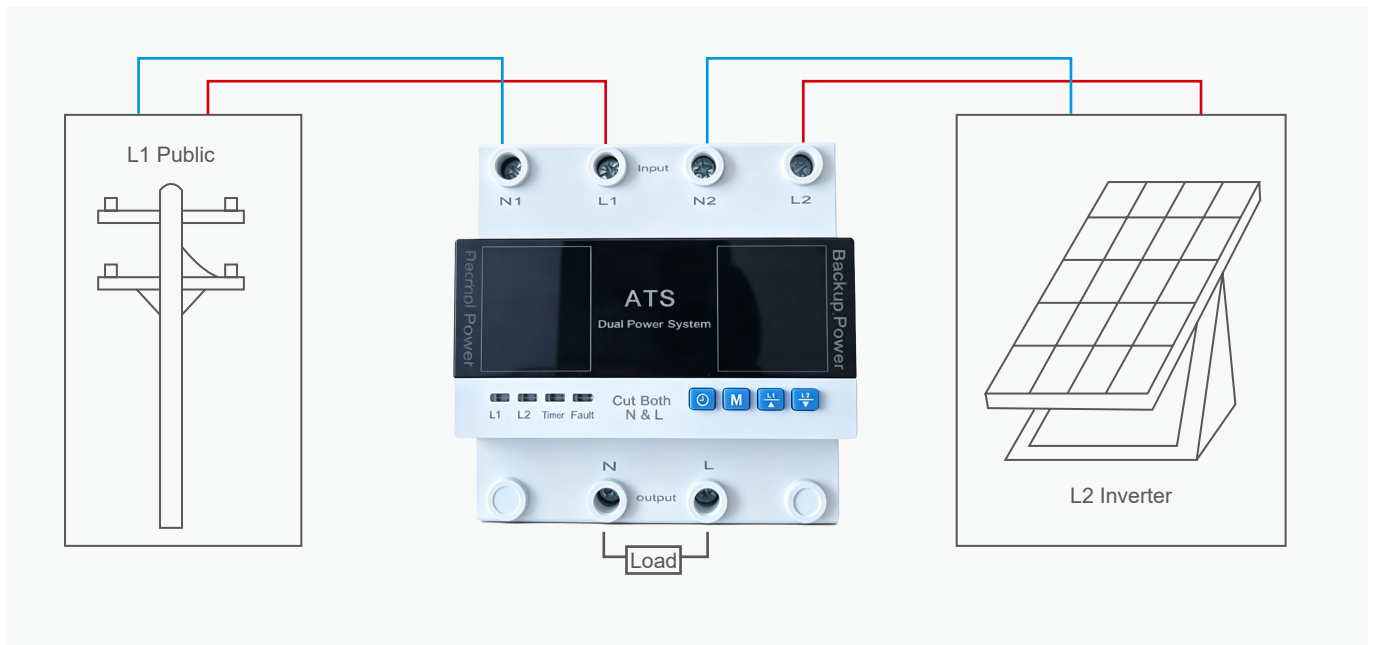
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### Electrical symbol diagram



### Wiring diagram



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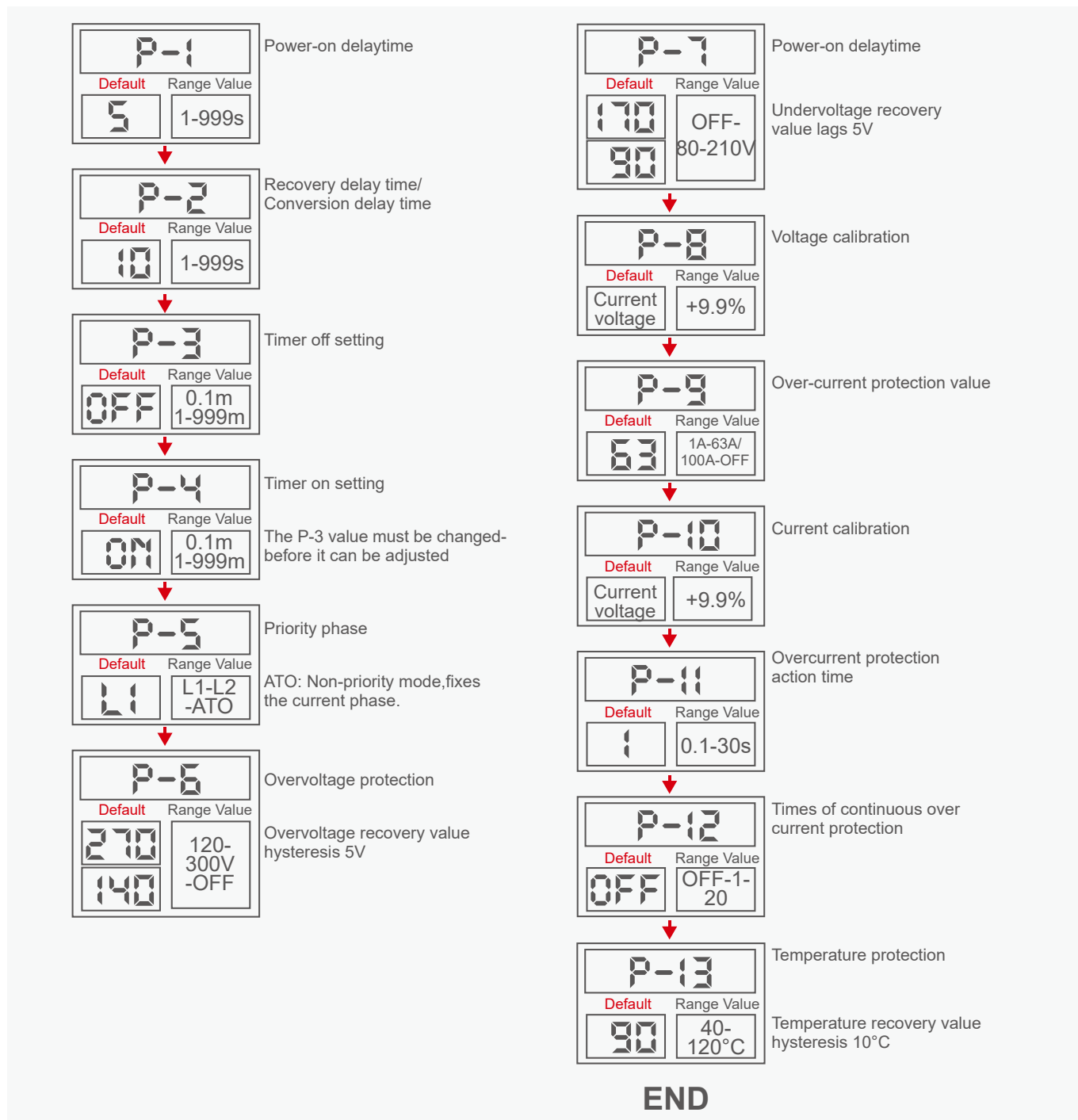
### Program description

Set character	Technical parameter	Set range	Default value	Step forward	Function description
P-1	Power-on delay time	1S-999s	5s	1s	After external power cut, the time needed for power-on when power recovery.
P-2	Recovery/Switch Time	1S-999s	10s	1s	Is the time required for the line to return to normal or switch to a working line.
P-3	Timed off	OFF-0.1m-999m	OFF	0.1m	Can be used to time off the device
P-4	Timed on	ON-0.1m-999m	ON	0.1m	The P-3 timer off parameters must be changed before the timer on parameters can be adjusted.
P-5	Input phase priority selection	L1-L2 -ATO	L1	1	Operating mode: When L1 or L2 is selected, it's a priority phase selection; ATO: Non-priority mode, fixed to the current phase.
P-6	Over-voltage protection value	120V-300V -OFF	270V 140V	1V	When the voltage of one phase is over the set value, the protector will cut off this phase and switch to the next phase according to the sequence set in P5. When all voltage is over the set value, the protector will cut off all lines.
P-7	Under-voltage protection value	OFF-80V-210V	170V 90V	1V	When the voltage of one phase is under the set value, the protector will cut off this phase and switch to the next phase according to the sequence set in P5. When all voltage is under the set value, the protector will cut off all lines.
P-8	Voltage calibration	±9.9%	0	0.10%	Correct the voltage error.
P-9	Over-current protection value	1A-63A/100A -OFF	63A 80A	1A	When the current is higher than the set value, the protector will cut off the line. When setting OFF, the protector will turn off over-current protection function.
P-10	Current calibration	±9.9%	0	0.10%	Calibrate current current value
P-11	Overcurrent protection action time	0.1S-30s	1s	0.1s	When over current, the time needed for protection action.
P-12	Times of continuous over current protection	OFF-1-20	OFF	1	When the times of continuous over-current protection exceeds the set value, the protector will cut off the line, then it needs to be opened manually.
P-13	Temperature protection	40°C-120°C	90°C	1°C	After temperature protection, the hysteresis value is restored to 10°C.

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### Setup menu



### Screen Fault Code Prompt

Display	illustrate
OC	Overcurrent
HT	high temperature
TIM	Timed

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Overall and mounting dimensions (mm)

