

1. Description:










GU301A generator MAN controller can use the key switch on panel to MAN start and stop Genset, display the running status of Genset by LED on panel. Controller has base protect function; make sure engine will not be damaged during running.

Controller adopts DIN72 standard enclosure, all connections are connected by slice shape terminal, easier and more convenient to connect, move, maintain and replace the device.



2. Controller Panel:

The Key switch has three positions:

- “” stop position: in this position, controller closes all control output.
- “” running position: in this position, the fuel relay of controller output is active.
- “” start: has auto return function, Man. rotate to “”, start relay making output, engine start, once engine ignition running, free from hand, key switch auto return to “”, start motor power off, “” position is electric interlocked in controller inner, rotating from “” to “”, one time is active.
- **Stop button** “”: whenever use this button can stop engine.

Protection and LED Indicator:



Fuel level LED: when LED on, means fuel level too low, alarm buzzer sounds, engine will not stop.



Charge Fail LED: when the DC charger on engine can not normal working, LED flash, alarm buzzer sounds, engine will not stop.



Overspeed LED: the lamp display external over speed device has been enabled, in order to enable this alarm need external signal. This protection enables a delay stop period, the audible and visual alarm and LED have been permanent enabled.




High Temperature LED: when engine coolant temp rises to reach the condition of engine T-sensor switch on, LED on. This protection enables a delay stop period, the audible and visual alarm and display LED have been permanent enabled.



Low Oil Pressure LED: after engine running and safe-on time over, the oil pressure of running engine reduced by oil, when pressure reduced to engine P-sensor switch on, LED on. This protection enables a delay stop period, the audible and visual alarm and display LED have been permanent enabled.



Running LED: When key switch stay at running position “”, LED on, fuel relay output is active.

3. Back Panel

The descriptions of 11 connecting terminals on back panel:

NO.	Code	Description	Mode	Polarity
1	(-)	battery cathode	input	cathode
2	(+)	battery anode	input	anode
3	AR	start	output	anode
4	SV	outlet overspeed	input	cathode
5	FL	fuel level	input	cathode
6	ATA	high coolant temp	input	cathode
7	BPA	low oil pressure	input	cathode
8	PD	Fuel	output	anode
9	PE	stop	output	anode
10	AL	alarm	output	anode
11	D+	excitation	input/ output	anode

4. Performance

The general information of the internal logical of GU301A controller as following:

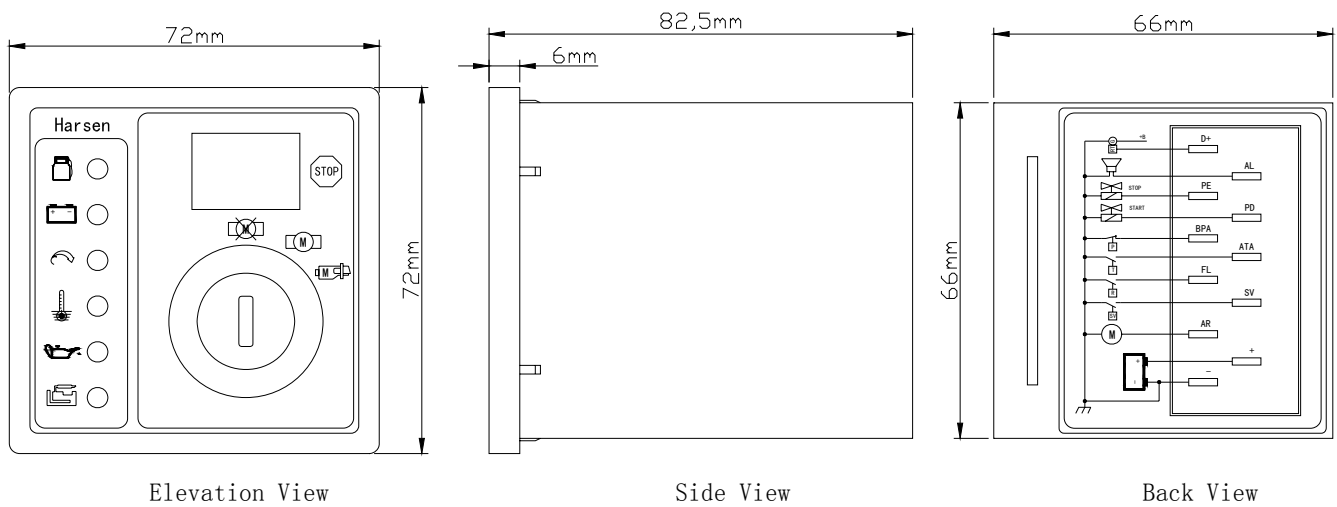
- 1) When control start, rotating key clockwise, an auto Lamp test period, alarm and an internal diagnose begins, LED indicator keeps on. If the protect functions of ATA and BPA are enabled, the LED will turn on, but alarm will not sound, turn key right will start engine, protect control stay at monitoring mode.
- 2) Engine start period is 10s, during the period, the alarm of ATA and BPA are not enabled, but the protection of overspeed is enabled and the alternator of battery charger is excited by the D+ terminal of connector, the protect functions of ATA and BPA are enabled after 10s, excitation period is finished.
- 3) If one of protect functions of BPA, ATA and or overspeed is enabled, its LED will turn on and send out alarm, and then begins stop period for 30s.
- 4) If GU301A controller already connected to power source, but engine still can not successfully start after 30s, control will enter into monitoring mode to find out possible failure.

5. Technical Characteristics

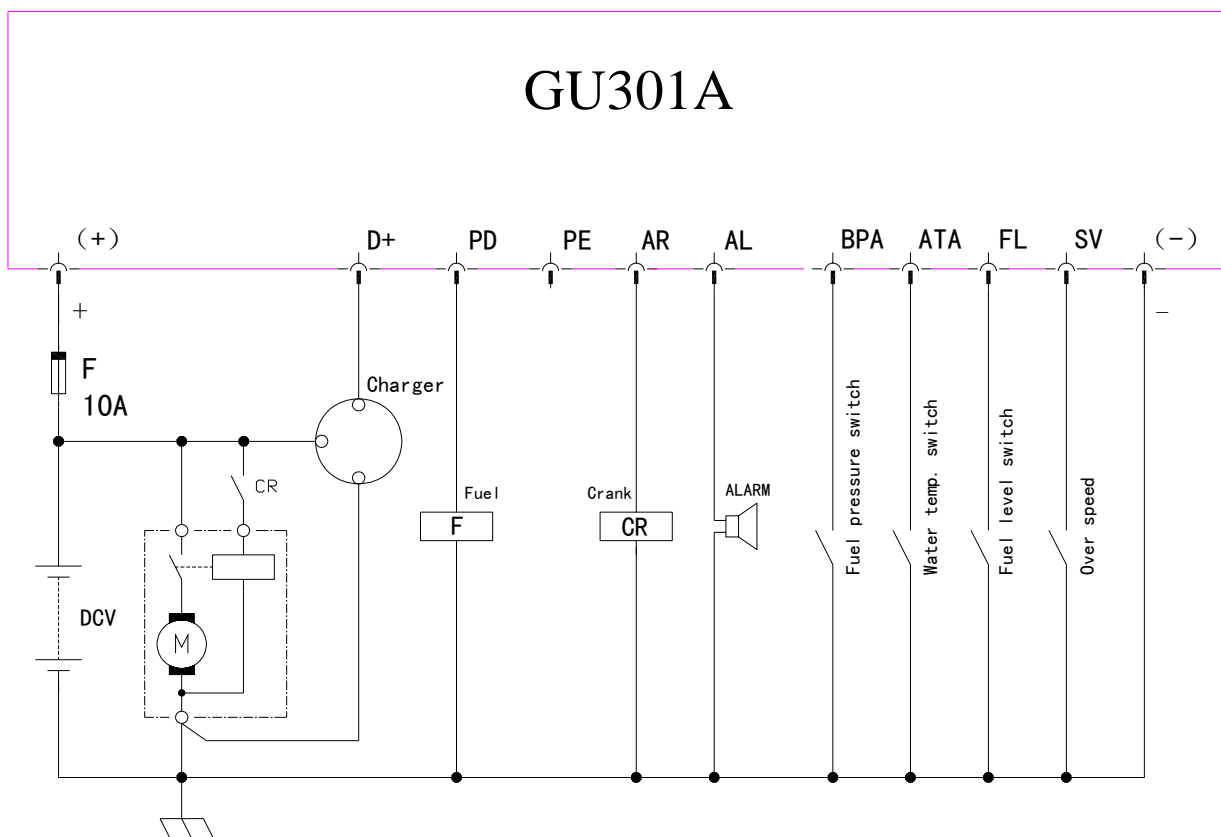
Description	Min.	Tip.	Max.	Unit
the dimension of control panel	72x72			mm
high	82.5			mm
source voltage	8		35	Vdc
the adjust range of overspeed	50		70	HZ
the range of operating temperature	-20		+50	°C
consumption (no any excitation input/ output)			30mA/30Vdc	mA
the input range of external overspeed	0		2	Vdc
the input range of fuel level	0		2	Vdc
the input range of high temperature	0		2	Vdc
the input range of low oil pressure	0		2	Vdc
The output capacity of start (relay)			16A/30Vdc	A
the output capacity of stop (relay)			16A/30Vdc	A
the output capacity of alarm (transistor)			300mA/30Vdc	mA
the output capacity of D+ (transistor)			600mA/30Vdc	mA

Items	Period	Begin from connect	Begin from start
stop period	30 S		
D+ excitation period	10 S		
overspeed delay		30 S	1 S
fuel level storage delay		1 S	
ATA delay (high coolant temp)		40 S	10 S
BPA delay (low oil pressure)		40 S	10 S
D+ delay		40 S	10 S

6. Outline Dimensional Drawing:



7. Typical Wiring Diagram:



Version: 031A090306