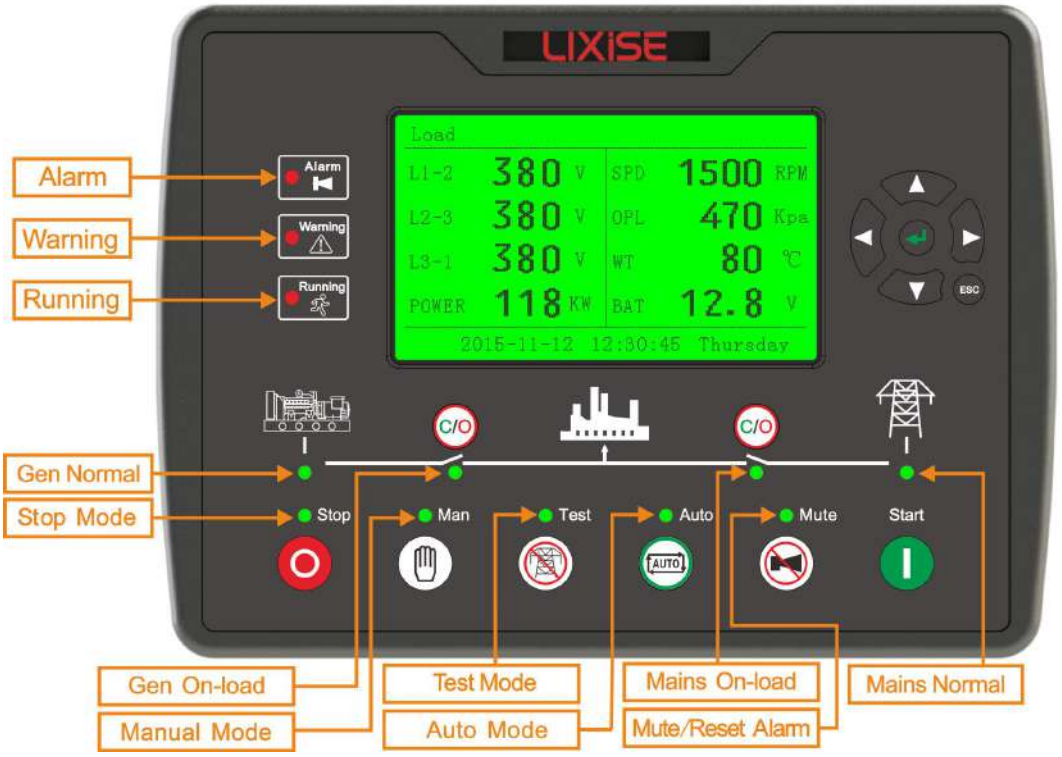
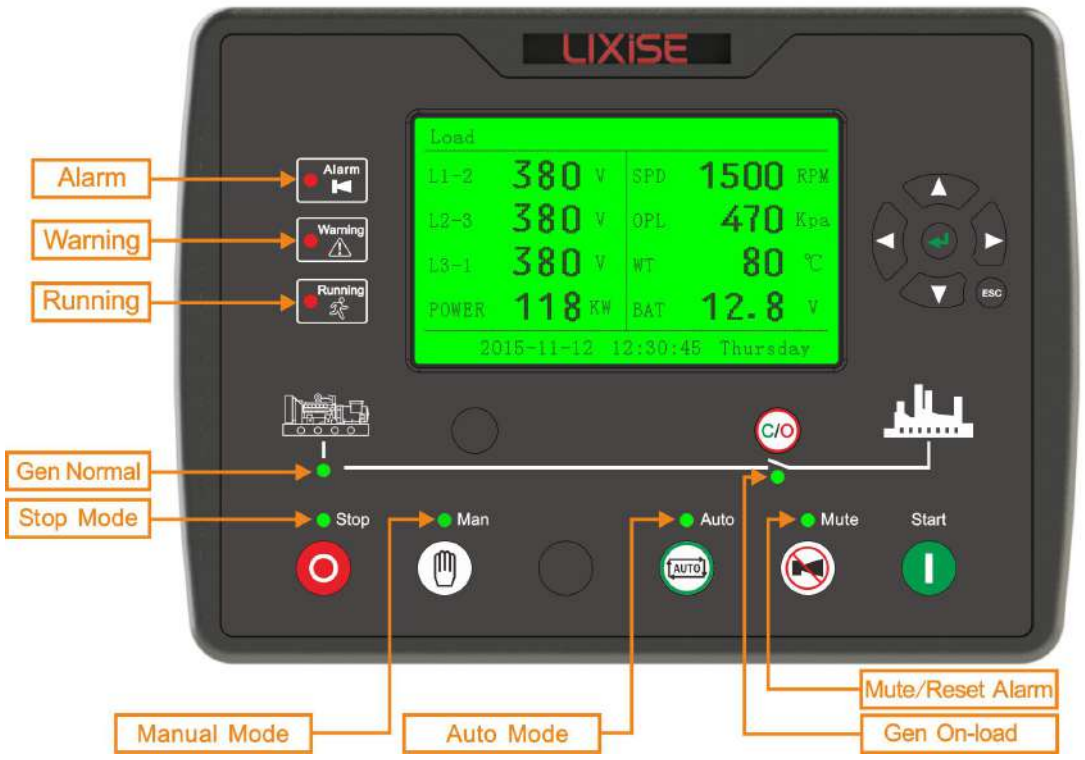
LXC66X0 SERIES GENSET CONTROLLER INSTALLATION INSTRUCTIONS Ver:1.1

1:Indicator light





2:Key functions

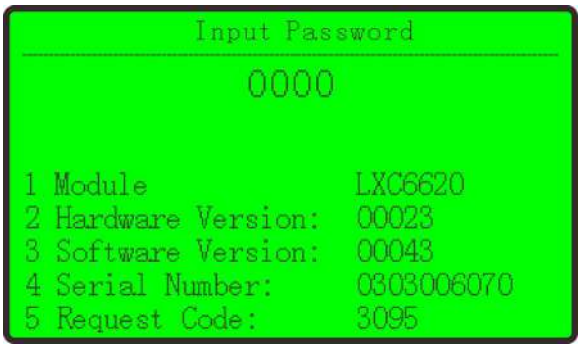
	Stop/Reset	Stop running generator in Auto/Manual mode; Reset alarm in stop mode; During stopping process, press this button again to stop generator immediately.
	Start	Start genset in Manual mode or Manual Testing mode.
	Manual Mode	Press this key and controller enters in Manual mode.
	Auto Mode	Press this key and controller enters in Auto mode.
	Running With Load	Press this key and controller enters in Manual Testing mode. (LXC6610 without)
	Mute/Reset Alarm	Alarming sound off; If there is trip alarm, pressing the button can reset this alarm. But you can't reset other alarm types
C/O	Gen Closed/Open	Can control generator to switch on or off in manual mode.
C/O	Mains Closed/Open	Can control mains to switch on or off in manual mode.(LXC6610 without)
	Confirm	1.Set parameters, press Key can set the parameters. 2.Set parameters, press the Kin can set parameters to confirm. 3.Long press the confirm key , can enter the parameter Settings.
	Up/Increase	Up cursor and increase value in setting menu.
	Down/Decrease	Down cursor and decrease value in setting menu.
	Move left	1.Screen scroll. 2.Move the cursor to the left in the set.
	Move right	1.Screen scroll. 2.Move the cursor to the right in the set.
ESC	Quit	1.When the screen displays other parameters, press this key to return to the main screen. 2.Set the parameters, press this key can cancel parameter settings. 3.Enter the parameter setting, long press this button to return to the main screen.

3:PARAMETER EDITING

3.1: Press over 3 seconds , go into “Input Password " interface , To add and subtract Numbers ， Left and right shift ， After the completion of the password ， Press If password is correct will into " Advance Configs " , Password error to exit the Settings back to the main interface . Default Password is " 0000 "

3.2:default password is 0000, user can change it in event of others change the senior parameters setting. Please closely remember it after changing If you forget your password, please contact our customer service, long press the confirm key,all the information back to the service personnel. (Example, under the figure information）

3.3: Exit the configuration interface, press at the same time can increase the contrast of LCD screen, press at the same time can reduce contrast of LCD screen.



4:ADJUSTABLE PARAMETERS

Sequence Number		Items	Range	Default	Description
The timer Settings	1	Start Delay	(0-3600)s	1	Time from mains abnormal or remote start signal is active to start genset.
	2	Stop Delay	(0-3600)s	1	Time from mains normal or remote start signal is deactivated to genset stop.
	3	Preheat Delay	(0-300)s	0	Power-on time of heater plug before starter is powered up.
	4	Cranking Time	(1-60)s	8	Power-on time of starter.
	5	Crank Rest Time	(3-60)s	10	The waiting time before second power up when engine start fail.
	6	Safety On Delay	(1-60)s	10	Alarms for low oil pressure, high temperature, under speed, under frequency/voltage, charge alt failure are inactive.
	7	Start Idle Time	(0-3600)s	0	Idle running time of genset when starting.
	8	Warming Up Time	(0-3600)s	10	Warming time between genset switch on and high speed running.
	9	Cooling Time	(3-3600)s	10	Radiating time before genset stop, after it unloads.
	10	Stop Idle	(0-3600)s	0	Idle running time when genset stop.
	11	ETS Solenoid Hold	(0-120)s	20	Stop electromagnet's power on time when genset is stopping.
	12	Fail to Stop Delay	(0-120)s	0	Time between ending of genset idle delay and stopped when "ETS time" is set as 0; Time between ending of ETS hold delay and stopped when "ETS time" is not 0.
	13	Transfer Time	(0-99.9)s	1.0	Interval time from mains switch off to generator switch on; or from generator switch off to mains switch on.
	14	Close Time	(0-100.0)s	5	Pulse width of mains/generator switch on.
Engine set	1	Rated Speed (0-6000RPM)	(0-6000RPM)	1500	Offer standard to judge over /under/ loading speed.
	2	Magnetic Pickup	Enable /Disable	Enable	
	3	Flywheel Teeth	(5-300)	118	Tooth number of the engine, for judging of starter crank disconnect conditions and inspecting of engine speed. See the installation instructions.
	4	Start number	(1-10)	3	Maximum crank times of crank number. When reach this number, controller will send start failure signal.
	5.1	Loss of Speed Signal	(0-20.0)s	5	If the set value is 0, only warning and not to shutdown the generator.
	5.2	Loss of Speed Action	Warning /Shutdown	Warning	
	5.3	Under Speed	(0-6000)RPM	1200	When engine speed has fallen below the set value for 10s, Under Speed is active. It will initiate a shutdown alarm signal.
	5.4	Over Speed	(0-6000)RPM	1710	When engine speed has exceed the set value for 2s, Over Speed is active. It will initiate a shutdown alarm signal.
	5.5	Charge Alt Failure （Warning）	(0-30)V	6	During generator is normal running, when alternator D+(WL) voltage has fallen below the set value and remains for 5s, It will initiate a shutdown alarm signal.（**Return value is 1V**）

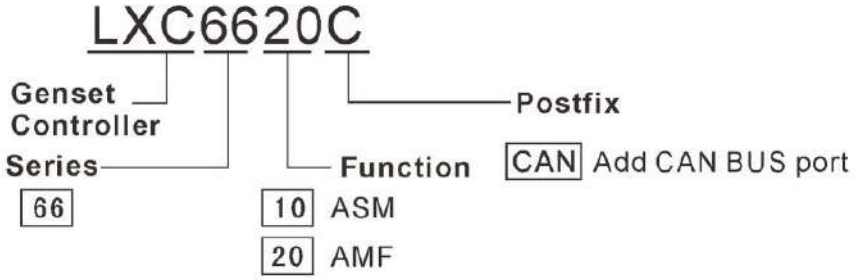
	5.6	Battery Over Voltage（Warning）	(12-40)V	33	When battery voltage has exceeds the set value and remains for 20s, It will initiate a warning alarm signal. Only warning and not to shutdown the generator.（**Return value is 1V**）
	5.7	Battery Under Voltage（Warning）	(4-30)V	8	When battery voltage has fallen below the set value and remains for 20s, It will initiate a warning alarm signal. Only warning and not to shutdown the generator.（**Return value is 1V**）
	6.1	Crank Disconnect	(0-8)	6	There are 3 conditions of disconnecting starter with engine. Each condition can be used alone and simultaneously to separating the start motor and genset as soon as possible.
	6.2	Disconnect Engine Speed	(0-3000)RPM	360	When engine speed higher than the set value, starter will be disconnected.
	6.3	Disconnect Generator Freq	(10.0-30.0)Hz	14	When generator frequency higher than the set value, starter will be disconnected.
	6.4	Disconnect Oil Pressure	(0-400)kPa	200	When generator oil pressure higher than the set value, starter will be disconnected.
	6.5	D+ Disconnect	(3.0-32.0)V	8	When generator D+ higher than the set value, starter will be disconnected.
The generator set	1	Gen Rated Volt	(30-620V)	230	Offer standards for detecting of gens' over/under voltage and loading volt.
	2	Gen Rated Freq	(10-65Hz)	50	Offer standards for detecting of over/ under /load frequency.
	3	Rated Current	(5-6000)A	500	Generator's rated current, standard of load current.
	4	Curr Transform	(6000/5A)	500	The change of external connected CT.
	5	Gen AC System	(0-3)	0	0: 3P4W; 1: 2P3W; 2: 1P2W; 3: 3P3W
	6	Gen Poles	(2-16)	4	
	7.1	Gen Volt Delay	(0-20.0)s	10	The alarm delay of generator over voltage and under voltage.
	7.2	Gen Over Volt Option	Enable /Disable	Enable	
	7.3	Gen Over Voltage Trip	(30-620)V	264	When generator voltage has exceed the set value and the “Gen abnormal delay” has expired, Gen Over Voltage is active.
	7.4	Gen Under Volt Option	Enable /Disable	Enable	
	7.5	Gen Under Voltage Trip	(30-620)V	196	When generator voltage has fallen below the set value and the “Gen abnormal delay” has expired, Gen Under Voltage is active.
	7.6	Gen Under Frequency Option	Enable /Disable	Enable	
	7.7	Gen Under Frequency Trip	(0-75.0)Hz	45	When generator frequency has fallen below the set value but Not equal to 0 for 10s, Under Frequency is active. It will initiate a shutdown alarm signal.
	7.8	Gen Over Frequency Option	Enable /Disable	Enable	
	7.9	Gen Over Frequency Trip	(0-75.0)Hz	57	When generator frequency has exceed the set value for 2s, Over Frequency is active. It will initiate a shutdown alarm signal.
	8.1	Over Current Trip	(50-130)%	120	When the load current has exceed the set value, “over current” delay is initiated.
	8.2	Over Current Delay	(0-3600)s	1296	When load current has exceed the set value and the “over current” delay has expired, over current is initiated.

	8.3	Over Current Action	Warning /Shutdown /ELETrip	Warning	
Grid set	1	Mains Rated Volt	(30-620V)	230	Offer standards for detecting of mains' over/under voltage and loading volt.
	2	Mains Normal Delay	(0-3600)s	10	The time from mains abnormal to normal or from normal to abnormal; suitable for ATS (automatic transfer switch).
	3	Mains Abnormal Delay	(0-3600)s	5	
	4	Mains Under Volt Alarm Option	Enable /Disable	Enable	
	5	Mains Under Voltage	(30-620)V	184	When mains voltage has fallen below the set value, Mains Under Voltage is active. (delay of 1 second)
	6	Mains Over Volt Alarm Option	Enable /Disable	Enable	
	7	Mains Over Voltage	(30-620)V	276	When mains voltage has exceed the set value, Mains Over Voltage is active. (delay of 1 second)
The sensor is set	1.1	Temp Sensor Curve	(0-12)	1	VDO120C
	1.2	Temperature Sensor Open	No/warning/ downtime	Warning	Indication location is displayed on LCD screen liquid level sensor is shown as "+ + +".
	1.3	High Temp Option	Can make/ban	Can make	
	1.4	High Temperature	(80-140)ºC	98	When the temperature value of the external temperature sensor exceeds the set value, high temperature signal is sent. Detecting only after safety on delay is over. (this only concerns external temperature sensor, not high temperature signal via configuration. input port).
	1.5	**High Temperature Action**	**Warning/do wntime**	**Shutdo wn**	**1: Warning; 2:Shutdown**
	2.1	Oil Pressure Sensor Curve	(0-9)	1	VDO
	2.2	Oil Pressure Sensor Open	None /Warning /Shutdown	Warning	0: Never (temperature sensor will show “+++”); 1: Warning; 2:Shutdown
	2.3	Low Oil Option	Enable/Disa ble	Enable	
	2.4	Low Oil Pressure Trip	(0-400) KPa	103	When the external pressure sensor value falls below this set value, low oil pressure signal is sent. Detecting only after safety on delay is over.
	2.5	**Low Oil Pressure Action**	**Warning /Shutdown**	**Shutdo wn**	**1：Warning 2：Shutdown.**
	3.1	Fuel Sensor Curve	(0-9)	1	VDO
	3.2	Fuel Sensor Open	None /Warning /Shutdown	Warning	Indication location is displayed on LCD screen liquid level sensor is shown as "+ + +".
	3.3	Fuel Low Option	Enable /Disable	Enable	
	3.4	Fuel Low Trip	**(0-100)%**	**10**	
	3.5	**Fuel Low Action**	**Warning /Shutdown**	**Shutdo wn**	**1：Warning 2：Shutdown.**
	3.6	Pump Turn on Trip	**(0-100)%**	25	
	3.7	Pump Turn off Trip	**(0-100)%**	80	
	4.1	Configurable sensor1			Factory default: NOT USED

	5.1	Configurable sensor2			Factory default: NOT USED
Input port Settings	1.1	Digital Input 1 Type	(0-29)		Factory default: High Temperature Input
	1.2	Digital Input 1 Active	(0-1)	0	Factory default: Close to active
	1.3	Digital Input 1 Action	(0-3)		Never/ Warning /Shutdown
	1.4	Digital Input 1 Period	(0-3)		Never/From safety on/From Crank/Away.
	1.5	Digital Input 1 Delay	(0-20.0)s		
	2.1	Digital Input 2 Type	(0-29)		Factory default: Low Oil Pressure Warning Input.
	2.2	Digital Input 2 Active	(0-1)		Factory default: Close to active.
	2.3	Digital Input 2 Action	(0-3)		
	2.4	Digital Input 2 Period	(0-3)		
	2.5	Digital Input 2Delay	(0-20.0)s		Delay output function.
	3.1	Digital Input 3 Type	(0-29)		Factory default: Remote Start.
	3.2	Digital Input 3 Active	(0-1)		Factory default: Close to active.
	3.3	Digital Input 3Action	(0-2)		
	3.4	Digital Input 3 Period	(0-3)		
	3.5	Digital Input3 Delay	(0-20.0)s		
	4.1	Digital Input 4 Type	(0-29)		Factory default:Fuel level Warning
	4.2	Digital Input 4 Active	(0-1)		Factory default: Close to active
	4.3	Digital Input 4 Action	(0-3)		
	4.4	Digital Input 4 Period	(0-3)		
	4.5	Digital Input4 Delay	(0-20.0)s		
	5.1	Digital Input 5 Type	(0-29)		Factory default:Cool Level Warning
	5.2	Digital Input 5 Active	(0-1)		Factory default: Close to active
	5.3	Digital Input 5 Action	(0-2)		
	5.4	Digital Input 5 Period	(0-3)		
	5.5	Digital Input 5 Delay	(0-20.0)s		
	6.1	Digital Input 6 Feature Selection	(0-29)		Factory default: NOT USED
	6.2	Digital Input 6 Effective logic	(0-1)		Factory default: NOT USED
	7.1	Digital Input 7 Feature Selection	(0-29)		Factory default: NOT USED
	7.2	Digital Input 7 Effective logic	(0-1)		Factory default: NOT USED

Output Settings	1	Choose 1 programmable output function	(0-30)	16	Factory defaults to: ETS Control
	2	Choose 2 programmable output function	(0-30)	13	Factory defaults to: Idle Control
	3	Choose 3 programmable output function	(0-30)	17	Factory defaults to: Close Generator
	4	Choose four programmable output function	(0-30)	20	Factory defaults to: Close Mains
	5	AUX.OUTPUT5			Factory default: NOT USED
	6	AUX.OUTPUT6			Factory default: NOT USED
Module Settings	1	The controller information	The factory information		The controller factory information
	2	Language selection	English/Chinese/Spanish/Russian	English	
	3	On choosing	(0-2)	0	Manual mode 0: stop pattern 1:2: automatic mode
	4	The controller address	(1-247)	1	The controller address
	5	Module date			Module date Users can set their own, After power failure, Time will automatically update.
	6	Module date			module time, Users can set their own, After power failure, Time will automatically update.
	7	Factory Reset	Recover	Recover	Restores the controller to the factory configuration state.
	8	WIFI Operation	(1-3)	1	1.Cloud Service Mode 2.Phone APP 3.Smart configuration mode
	9	WIFI Power On mode	(0-2)	0	0.None 1.Cloud Service Mode 2.Phone APP
	10	Technician password	(0-9999)	0000	Configuration can be viewed and modified
	11	Operator password	(0-9999)	1111	Only can view the configuration, no permission revise.

5:Order information



NOTE:

(1) It is basic model if without postfix.

(2) Please contact with our qualified personnel for more information about the postfix descriptions.

5.1 Modules comparison

Product Selection Table	LXC 6620	LXC 6610	LXC 6620C	LXC 6610C	LXC 6620CAN	LXC 6610CAN
Switch input port quantity	7	7	7	7	7	7
Relay output port quantity	8	8	8	8	8	8
Sensor quantity	5	5	5	5	5	5
Mains detection	●		●		●	
Cloud service (remote onitoring)	●	●	●	●	●	●
WIFI network communication	●	●	●	●	●	●
CAN(J1939)					●	●
USB	●	●	●	●	●	●
RS232	●	●				
RS485			●	●	●	●
Real-time Clock	●	●	●	●	●	●
History record	●	●	●	●	●	●
Fault record	●	●	●	●	●	●

NOTE:

①Two of the outputs are fixed: start output and fuel output.

②LXC6620/6610 controller analog sensors are composed by 3fixed sensors (temperature, pressure, fuel level).

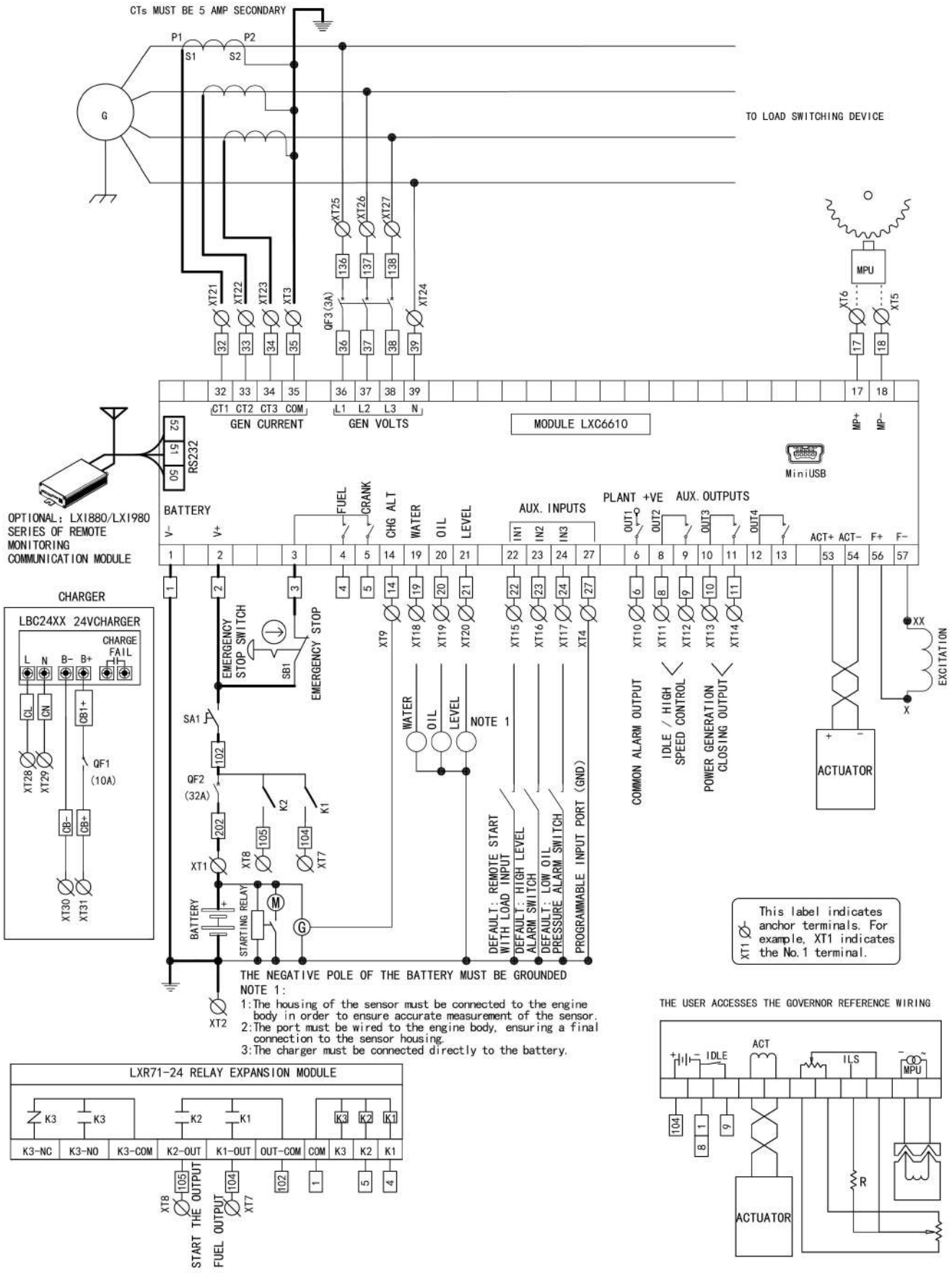
6:Installation

LXC66X0 Controller is panel built-in design; it is fixed by clips when installed. The controller's overall dimensions and cutout dimensions for panel, please refers to as following.

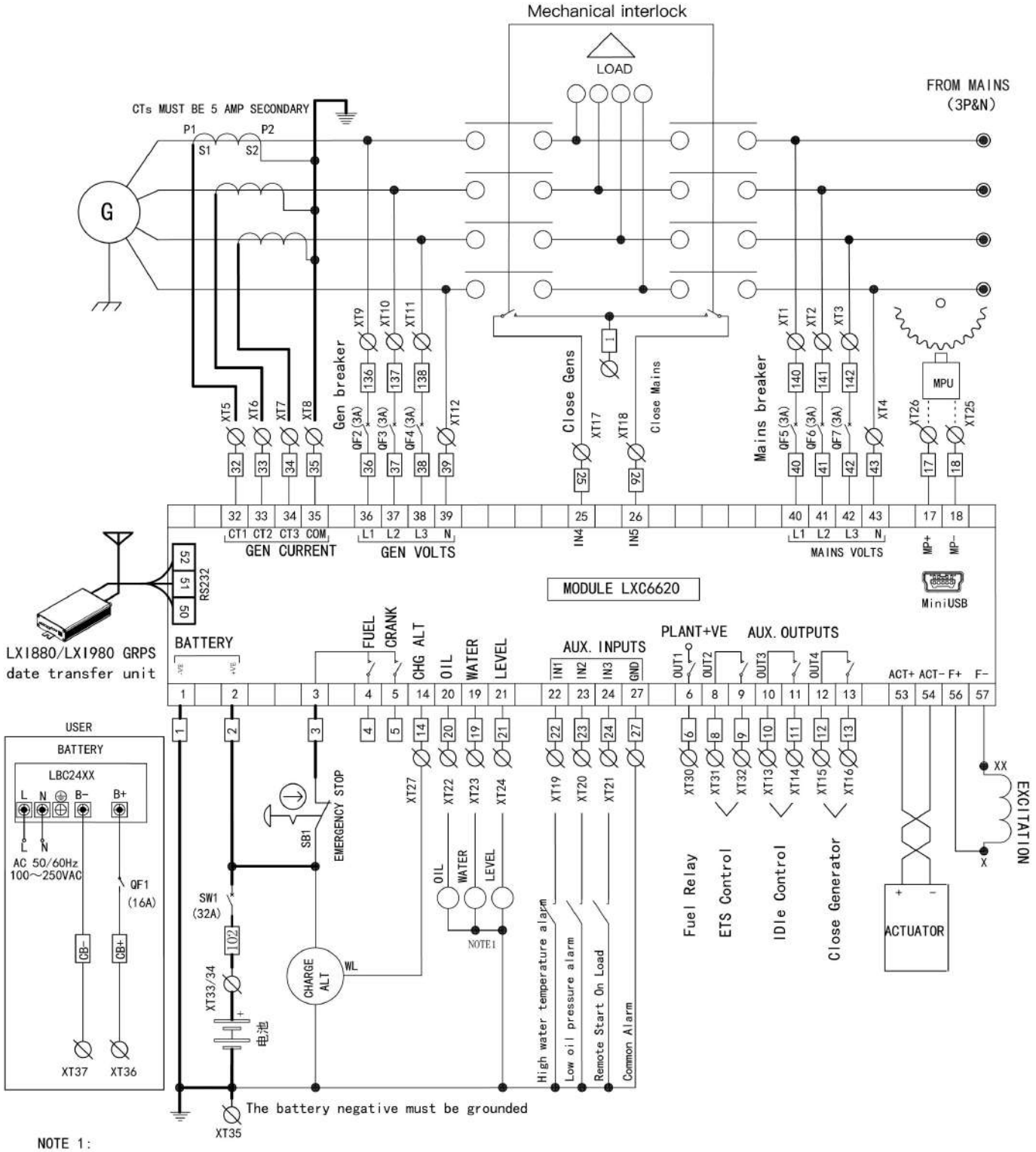
Case Dimension: 210mm x 152 mm x 46 mm

Panel Cutout: 186mm x 141mm

LXC6610 SERIES Typical application diagram



LXC6620 SERIES Typical application diagram



NOTE 1:

1:The housing of the sensor must be connected to the engine body in order to ensure accurate measurement of the sensor.
2:The port must be wired to the engine body, ensuring a final connection to the sensor housing.
3:The charger must be connected directly to the battery.

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