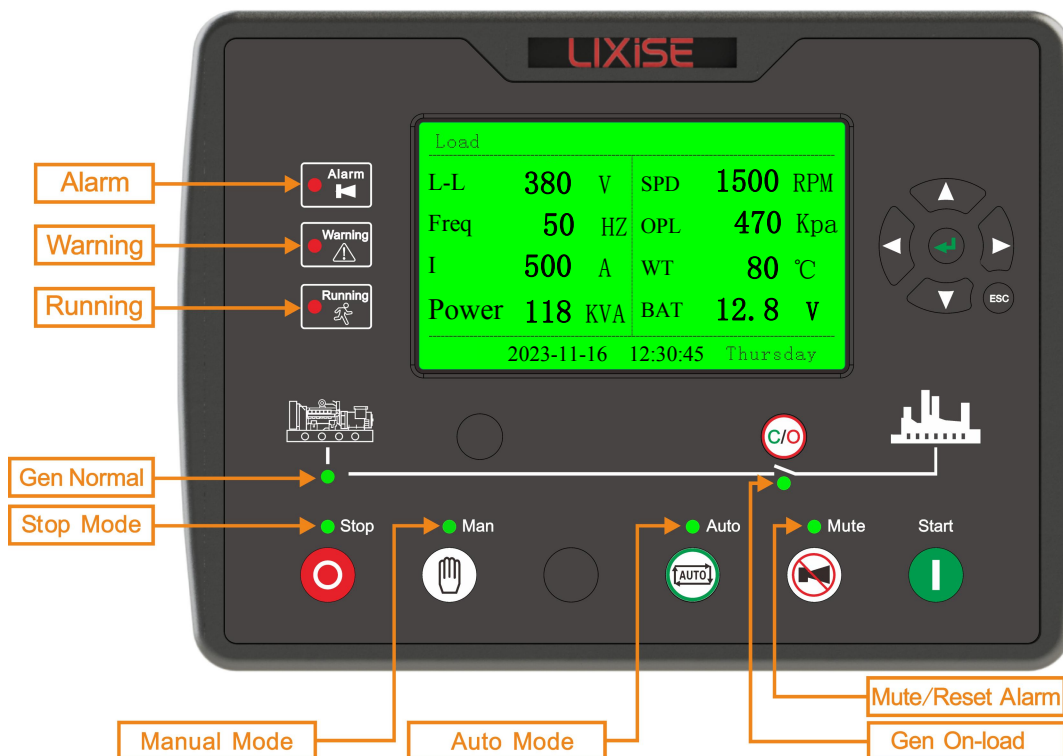
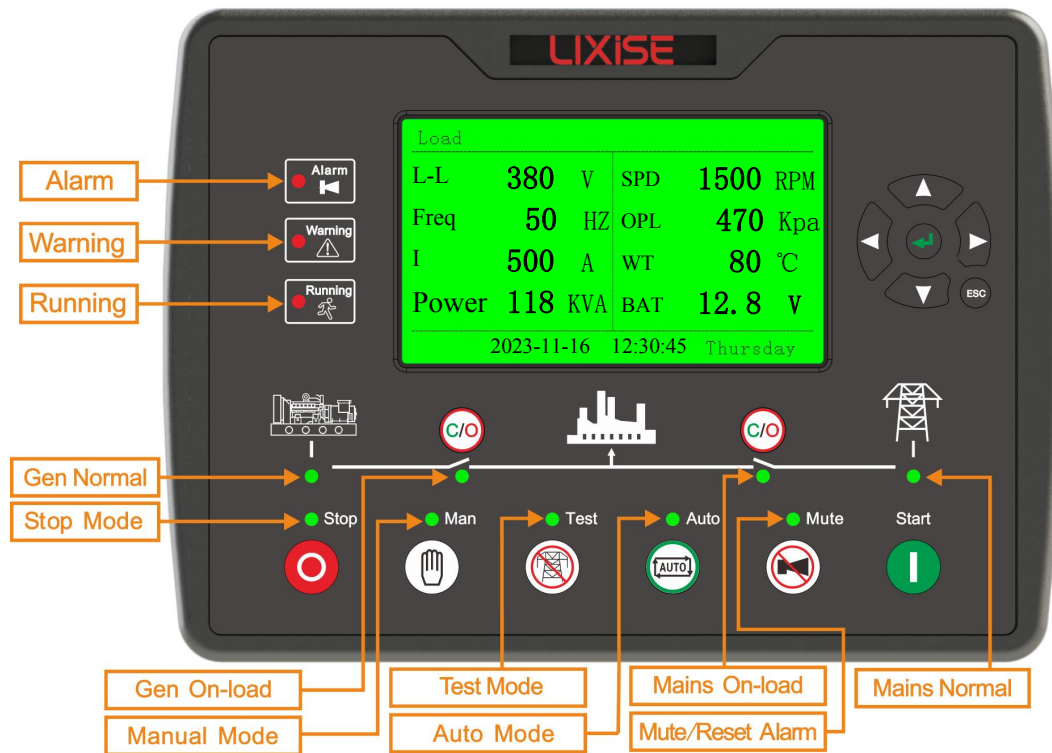
















(LXC6210/LXC6220/LXC6210C/LXC6220C/LXC6210-CAN/LXC6220-CAN)







## 1:Indicator light




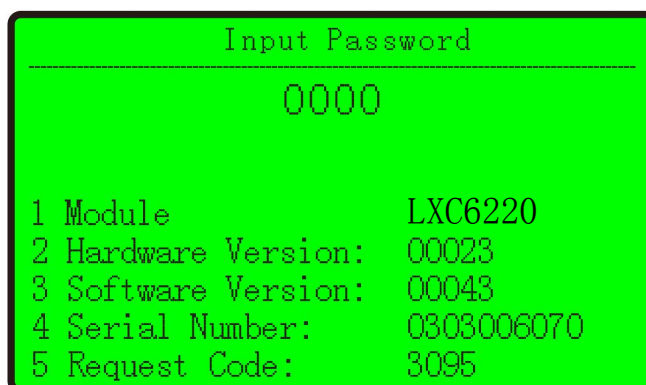
## 2:Key functions

	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. (LXC6210 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
	Gen Closed/Open	Can control generator to switch on or off in manual mode.
	Mains Closed/Open	Can control mains to switch on or off in manual mode.(LXC6210 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.
	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 )



## 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	5.0	Pulse width of mains/generator switch on.
	15	Fuel On Delay	(0-360)s	1.5	
Engine set	1	<b>Rated Speed (0-6000RPM)</b>	<b>(0-6000RPM)</b>	<b>1500</b>	Offer standard to judge over /under/ loading speed.
	2	Magnetic Pickup	Enable/Disable	Enable	
	3	<b>Flywheel Teeth</b>	<b>(10-300)</b>	<b>118</b>	Tooth number of the engine, for judging of starter crank disconnect conditions and inspecting of engine speed. See the installation instructions.
	4	Flywheel Teeth Auto Caloute			
	5	Start number	(1-10)	3	Maximum crank times of crank number. When reach this number, controller will send start failure signal.
	6	Engine Alarm Settings			
	6.1	Loss of Speed Signal	(0-20.0)s	3.0	If the set value is 0, only warning and not to shutdown the generator.
	6.2	<b>Loss of Speed Action</b>	<b>Warning/Shut down</b>	<b>Shutdown</b>	
	6.3	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.
	6.4	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.
	6.5	Charge Alt Failure (Warning)	(0-30)V	6.0	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)
	6.6	Battery Over Voltage (Warning)	(12-40)V	33.0	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)
	6.7	Battery Under Voltage (Warning)	(4-30)V	8.0	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)
	7	Crank Disconnect			
	7.1	Crank Sucess Items	(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.
	7.2	Disconnect Generator Freq	(10.0-30.0)Hz	14.0	When generator frequency higher than the set value, starter will be disconnected.
	7.3	Disconnect Engine Speed	(0-3000)RPM	360	When engine speed higher than the set value, starter will be disconnected.
	7.4	Disconnect Oil Pressure	(0-400)kPa	200	When generator oil pressure higher than the set value, starter will be disconnected.

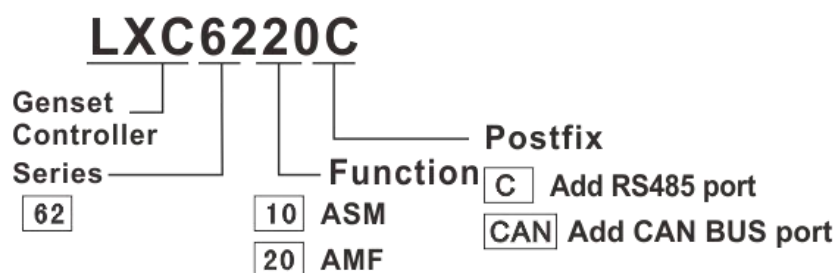
	7.5	D+ Disconnect	(3.0-32.0)V	8	When generator D+ higher than the set value, starter will be disconnected.
The generator set	1	Gen Rated Volt	(30-620V)	230	Offer standards for detecting of gens' over/under voltage and loading volt.
	2	Gen Rated Freq	(10-65Hz)	50	Offer standards for detecting of over/ under /load frequency.
	3	Rated Current	(5-6000)A	500	Generator's rated current, standard of load current.
	4	Rated KW	(1-59999)Kw	110	
	5	Curr Transform	(5-6000)/5	500	The change of external connected CT.
	6	<b>Gen AC System</b>	<b>(0-3)</b>	<b>0</b>	0: 3P4W; 1: 2P3W; 2: 1P2W; 3: 3P3W
	7	<b>Gen Poles</b>	<b>(2-16)</b>	<b>4</b>	
	8	Poles Auto Calcute			
	9	Gen Alarm			
	9.1	Gen Volt Delay	(0-20.0)s	10	The alarm delay of generator over voltage and under voltage.
	9.2	Gen Over Volt Option	Enable/Disable	Enable	
	9.3	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.
	9.4	Gen Under Volt Option	Enable/Disable	Enable	
	9.5	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.
	9.6	Gen Over Frequency Option	Enable/Disable	Enable	
	9.7	Gen Over Frequency Trip	(0-75.0)Hz	57.0	When generator frequency has exceed the set value for 2s, Over Frequency is active. It will initiate a shutdown alarm signal.
	9.8	Gen Under Frequency Option	Enable/Disable	Enable	
	9.9	Gen Under Frequency Trip	(0-75.0)Hz	45.0	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.
	10	Over Current			
	10.1	Over Current Trip	(50-130)%	100	When the load current has exceed the set value, "over current" delay is initiated.
Grid set	10.2	Over Current Action	Warning/Shutdown/ELE Trip	Shutdown	Over Current Action
	10.3	Delay Type	Fixed/Times Delay	Fixed Delay	
	10.4	<b>Over Current Delay</b>	<b>(0-3600)s</b>	<b>30</b>	When load current has exceed the set value and the "over current" delay has expired, over current is initiated.
	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 Over Volt Alarm Option	Enable/Disable	Enable	
	5	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	6	Mains Under Volt Alarm Option	Enable/Disable	Enable	
	7	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)
	8	Main Detect	Enable/Disable	Enable	
	1.1	<b>Temp Sensor Curve</b>	<b>(0-12)</b>	<b>5</b>	SGX
	1.2	<b>Temperature Sensor Open</b>	<b>No/warning/downtime</b>	<b>downtime</b>	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)°C	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	<b>High Temperature Action</b>	<b>Warning/downtime</b>	<b>Shutdown</b>	1: Warning; 2:Shutdown
	1.6	Heater Option	Enable/Disable	Disable	

	1.7	Heater On Trip	(0-300)°C	50	
	1.8	Heater Off Trip	(0-300)°C	55	
	1.9	Heater Max Period	(0-3600m)	60	
	1.10	User defined Curve			
	2.1	<b>Oil Pressure Sensor Curve</b>	<b>(0-9)</b>	<b>5</b>	SGX
	2.2	<b>Oil Pressure Sensor Open</b>	<b>None/Warning/Shutdown</b>	<b>Shutdown</b>	0: Never (temperature sensor will show “+++”); 1: Warning 2:Shutdown
	2.3	Low Oil Option	Enable/Disable	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	<b>Low Oil Pressure Action</b>	<b>Warning/Shutdown</b>	<b>Shutdown</b>	1: Warning 2: Shutdown.
	2.6	User defined Curve			
	3.1	<b>Fuel Sensor Curve</b>	<b>(0-9)</b>	<b>2</b>	SGD
	3.2	<b>Fuel Sensor Open</b>	<b>None/Warning/Shutdown</b>	<b>Warning</b>	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	<b>Fuel Low Action</b>	<b>Warning/Shutdown/EL E Trip</b>	<b>Shutdown</b>	1: Warning 2: Shutdown 3: ELE Trip
	3.6	Pump Turn on Trip	(0-100)%	25	
	3.7	Pump Turn off Trip	(0-100)%	80	
	3.8	User defined Curve			
	4	Sensor1 Sttings			
	4.1	Sensor Type	0~4	0	Factory default: Unused
	4.2	Curve Type	0~12	0	Factory default: Unused
	4.3	Open Action	None/Warning/Shutdown	Warning	
	4.4	Heater Option	Enable/Disable	Disable	
	4.5	Heater On Trip	(0-300)°C	50	
	4.6	Heater Off Trip	(0-300)°C	55	
	4.7	Heater Max Period	(0-3600m)	60	
	4.8	Shutdown Settings			
	.1	Over Option	Enable/Disable	Disable	
	.2	Over Trip	0~999	98	
	.3	Over Delay	(0-3600s)	2	
	.4	Under Option	Enable/Disable	Disable	
	.5	Under Trip	0~999	8	
	.6	Under Delay	(0-3600s)	2	
	4.9	Warning Settings			
	.1	Over Option	Enable/Disable	Disable	
	.2	Over Trip	0~999	90	
	.3	Over Return	0~999	85	
	.4	Over Delay	(0-3600s)	2	
	.5	Under Option	Enable/Disable	Disable	
	.6	Under Trip	0~999	10	
	.7	Under Return	0~999	15	
	.8	Under Delay	(0-3600s)	2	
	4.10	User defined Curve			
	5	Sensor21 Sttings			
The sensor is set	5.1	Sensor Type	0~4	0	Factory default: Unused
	5.2	Curve Type	0~12	0	Factory default: Unused
	5.3	Open Action	None/Warning/Shutdown	Warning	
	5.4	Heater Option	Enable/Disable	Disable	
	5.5	Heater On Trip	(0-300)°C	50	

	5.6	Heater Off Trip	(0-300)°C	55	
	5.7	Heater Max Period	(0-3600m)	5	
	5.8	Shutdown Settings			
	.1	Over Option	Enable/Disable	Disable	
	.2	Over Trip	0~999	98	
	.3	Over Delay	(0-3600s)	2	
	.4	Under Option	Enable/Disable	Disable	
	.5	Under Trip	0~999	8	
	.6	Under Delay	(0-3600s)	2	
	5.9	Warning Settings			
	.1	Over Option	Enable/Disable	Disable	
	.2	Over Trip	0~999	98	
	.3	Over Return	0~999	85	
	.4	Over Delay	(0-3600s)	2	
	.5	Under Option	Enable/Disable	Disable	
	.6	Under Trip	0~999	10	
	.7	Under Return	0~999	15	
	.8	Under Delay	(0-3600s)	2	
	5.10	User defined Curve			
Input port Settings	1.1	Digital Input 1 Type	(0-29)	3	Factory default: High Temperature Input
	1.2	Digital Input 1 Active	(0-1)	Close	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)	4	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 2 Delay	(0-20.0)s		Delay output function.
	3.1	Digital Input 3 Type	(0-29)	14	Factory default: Remote Start.
	3.2	Digital Input 3 Active	(0-1)		Factory default: Close to active.
	3.3	Digital Input 3 Action	(0-2)		
	3.4	Digital Input 3 Period	(0-3)		
	3.5	Digital Input 3 Delay	(0-20.0)s		
	4.1	Digital Input 4 Type	(0-29)	7	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 Input 4 Delay	(0-20.0)s		
	5.1	Digital Input 5 Type	(0-29)	9	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 Type	(0-29)	29	Not Used (LXC62X0 without)
	6.2	Digital Input 6 Active	(0-1)		Factory default: Close to active
	7.1	Digital Input 7 Type	(0-29)	29	Not Used (LXC62X0 without)
	7.2	Digital Input 7 Active	(0-1)		Factory default: Close to active
Output Settings	1	Choose 1 programmable output function	(0-31)	16	Factory defaults to: ETS Control
	2	Choose 2 programmable output function	(0-31)	13	Factory defaults to: Idle Control
	3	Choose 3 programmable output function	(0-31)	17	Factory defaults to: Close Generator
	4	Choose 4 programmable output function	(0-31)	20	Factory defaults to: Close Mains
	5	Choose 5 programmable output function	(0-31)	0	Not Used (LXC62X0 without)
	6	Choose 6 programmable output function	(0-31)	0	Not Used (LXC62X0 without)
Maintenance	1	Mainten1 Option	Enable/Disable	Disable	
	2	Mainten1 Period	(1-5000)h	10	
	3	Mainten1 Touch Action	Warn/Shutdown	Warn	

			n/ELETRip		
	4	Mainten1 Limit Option	Enable/Disable	Disable	
	5	Mainten1 LimitTime	(1-24)M	1	
	6	Mainten2 Option	Enable/Disable	Disable	
	7	Mainten2 Period	(1-5000)h	10	
	8	Mainten2 Touch Action	Warn/Shutdow n/ELETRip	Warn	
	9	Mainten2 Limit Option	Enable/Disable	Disable	
	10	Mainten2 LimitTime	(1-24)M	1	
	11	Mainten3 Option	Enable/Disable	Disable	
	12	Mainten3 Period	(1-5000)h	10	
	13	Mainten3 Touch Action	Warn/Shutdow n/ELETRip	Warn	
	14	Mainten3 Limit Option	Enable/Disable	Disable	
	15	Mainten3 LimitTime	(1-24)M	1	
	16	Schedule Option	Enable/Disable	Disable	
	17	Schedule Load	Not Onload/ Onload	Not Onload	
	18	Schedule Cycle	Daily/Weekly/M onthly	Monthly	
	19	Schedule1 Setting			
	19.1	Run Week Number	1-5st Month	1st Month	
	19.2	Run Week Number	1-7	Sunday	
	19.3	Run Clock			
	19.4	Run Time	0-30000m	0	
	20	Schedule2 Setting			
	20.1	Run Week Number	1-5st Month	1st Month	
	20.2	Run Week Number	1-7	Sunday	
	20.3	Run Clock			
	20.4	Run Time	0-30000m	0	
Module Settings	1	The controller information	The factory information		The controller factory information
	2	Language selection	English/Chines e/Spanish/Russ ian	English	
	3	Power On Mode	0-3	0	0.Stop Mode 1.Auto Mode 2.Manual Mode 3.Test On Load Mode
	4	Pump Controller	Enable/Disable	Disable	
	5	ATS Controller	Enable/Disable	Disable	
	6	Gen Detect	Enable/Disable	Enable	
	7	Forced Start	Enable/Disable	Enable	
	8	Home Page Zoom	Enable/Disable	Enable	
	9	Load Page Show	Enable/Disable	Disable	
	10	Forced Gen Close	Enable/Disable	Disable	
	11	Sensor1 Fail Start	Enable/Disable	Disable	
	12	Sensor2 Fail Start	Enable/Disable	Disable	
	13	Standby Page Show	Enable/Disable	Disable	
	14	The controller address	1-247	1	The controller address
	15	Date of the module			After the date of module, the user can set the power down time is automatically updated.
	16	The module of time			Module, users can set the time when the power is automatically updated.
	17	The Factory Settings	Recover		
	19	The technician password	(0-9999)	0000	Can view and modify configuration.
	20	The operator password	(0-9999)	1111	Can only view the configuration, without permission to modify.

## 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

Items	LXC6220	LXC6210	LXC6220C	LXC6210C	LXC6220 CAN	LXC6210 CAN
Input Port	5	5	5	5	5	5
Output port	2+4	2+4	2+4	2+4	2+4	2+4
Sensor number	3	3	3	3	3	3
AMF	●		●		●	
RS232	●	●				
RS485			●	●	●	●
CAN(J1939)					●	●
GSM SMS control	●	●	●	●	●	●
GPRS Remote monitoring	●	●	●	●	●	●
USB	●	●	●	●	●	●
Real-time clock	●	●	●	●	●	●
Event log	●	●	●	●	●	●

### NOTE:

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

②LXC6220/6210 controller analog sensors are composed by 3fixed sensors (temperature, pressure, fuel level).

## 6: Installation

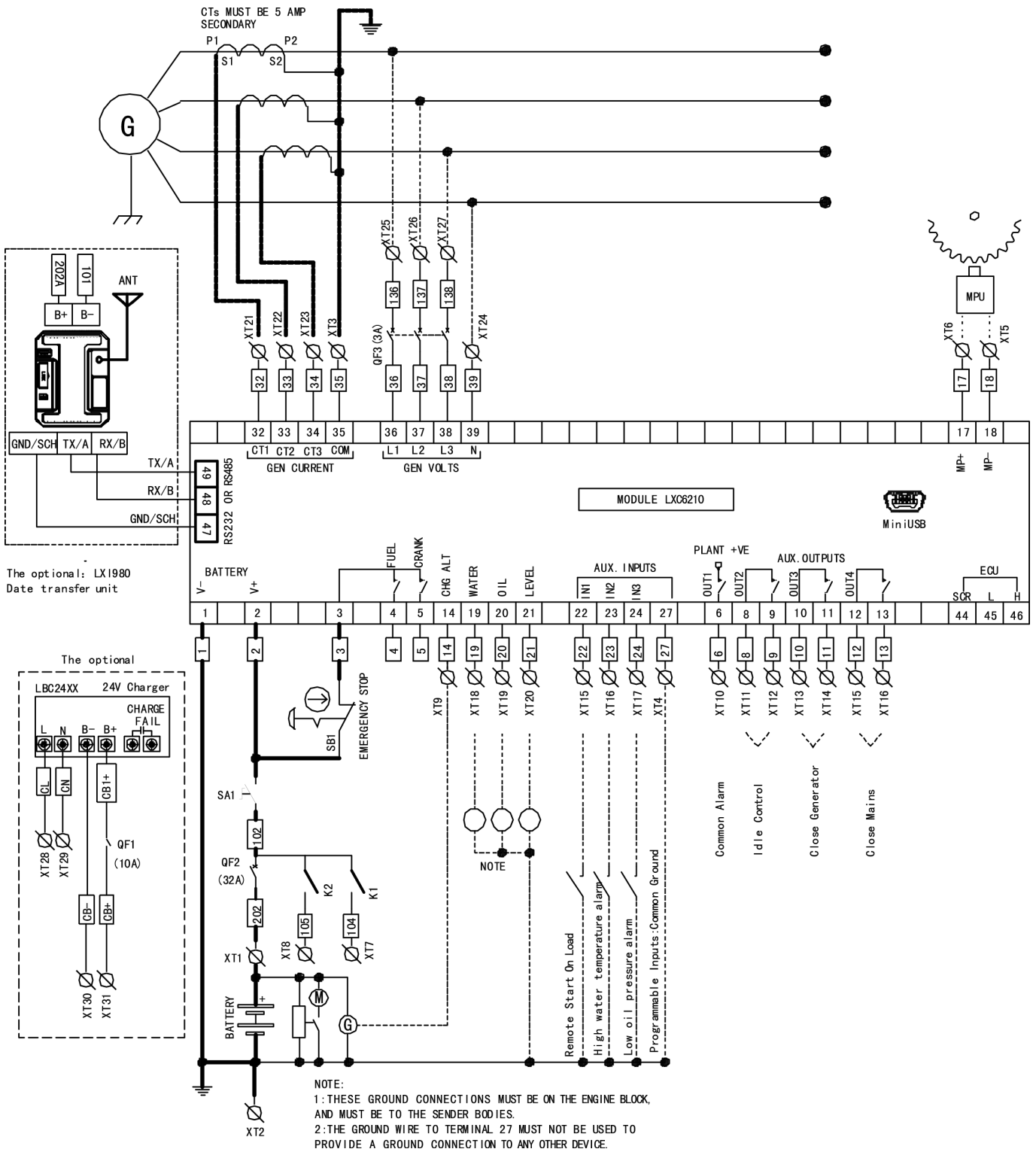
LXC62X0 Controller is panel built-in design; it is fixed by clips when installed. The controller's overall dimensions and cutout dimensions for panel, please refers to as following.

Case Dimension: 210mm x 152 mm x 46 mm

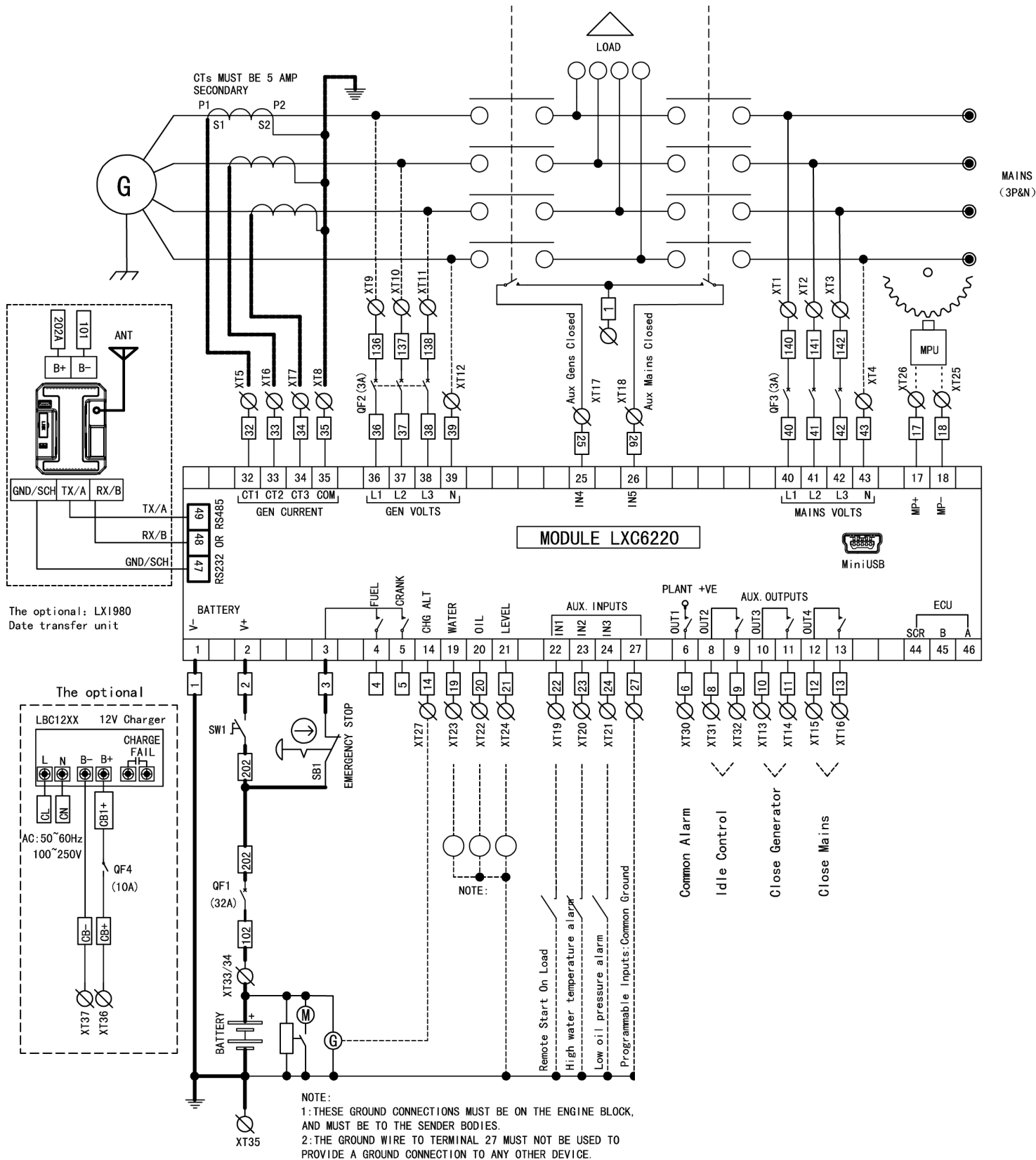
Panel Cutout: 186mm x 141mm



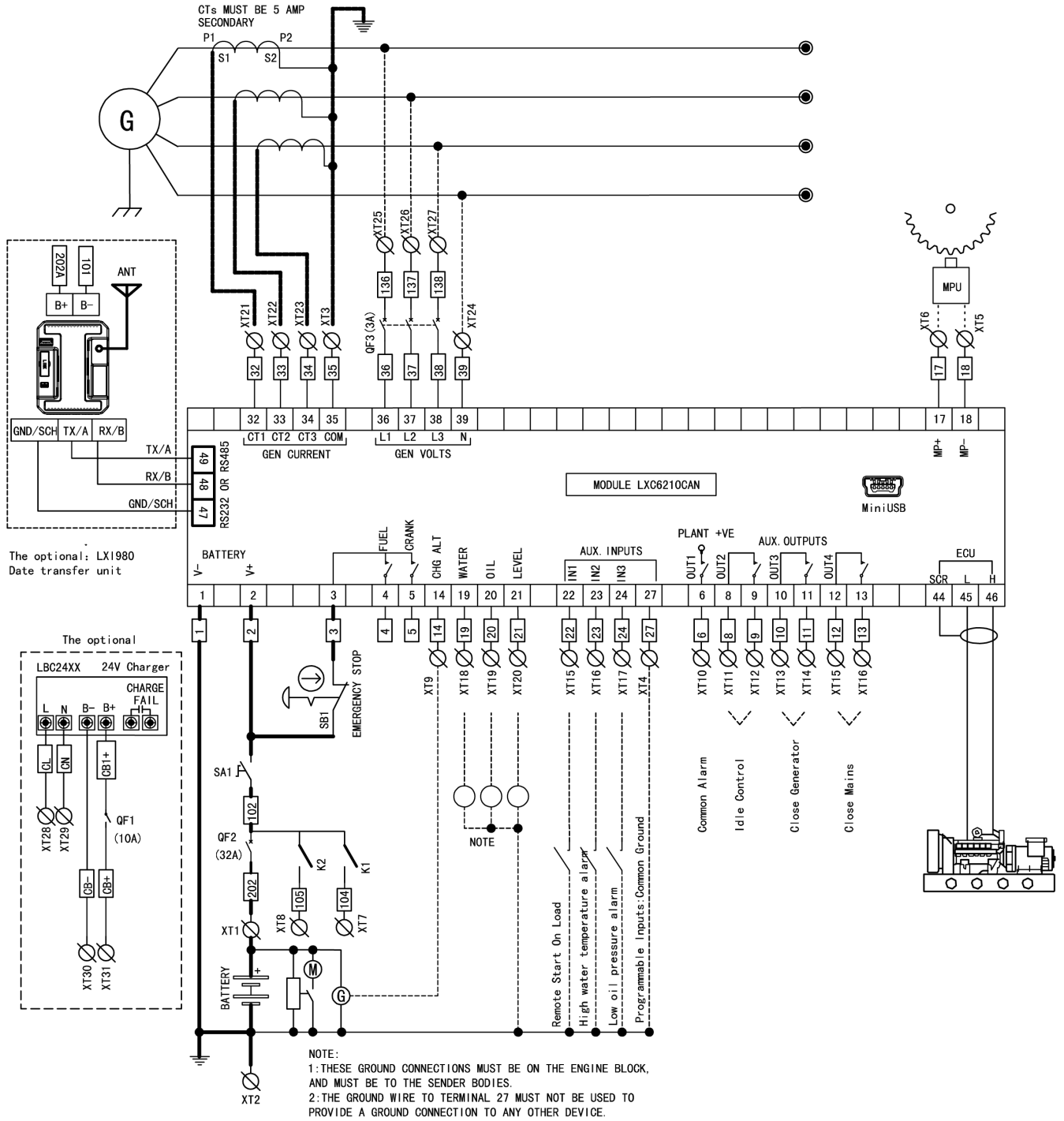
### LXC6210 SERIES Typical application diagram



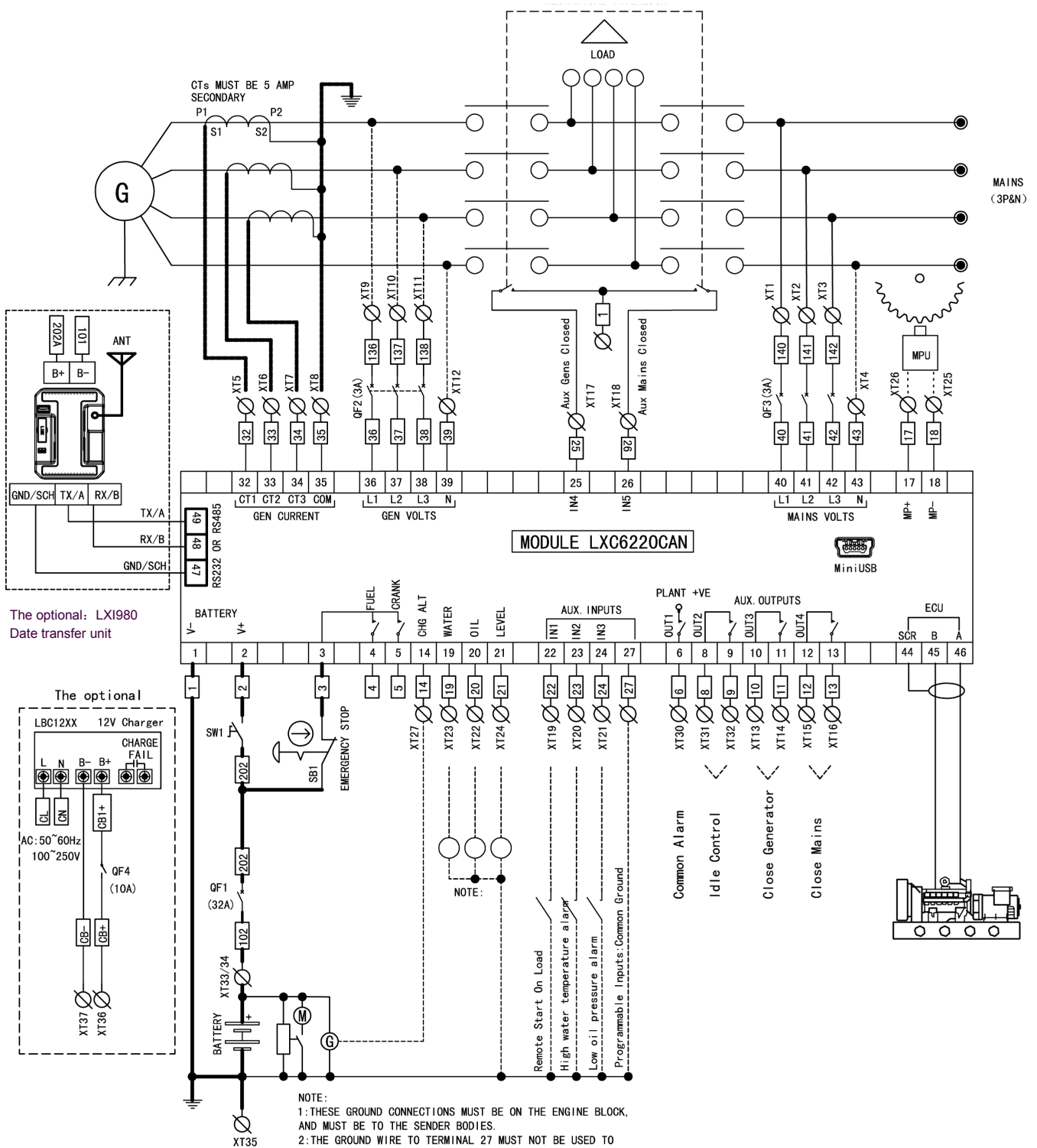
## LXC6220 SERIES Typical application diagram



## LXC6210CAN SERIES Typical application diagram



## LXC6220CAN SERIES Typical application diagram



Dongguan Tuancheng Automation Co., Ltd

Phone: 86-0769-2316 2896

Web: [www.lixis.com](http://www.lixis.com)

E-mail: [sales@smartgenset.com](mailto:sales@smartgenset.com)

Add: Wentang Road, Chashang industrial zone 18#, Dongguan, Guangdong, China