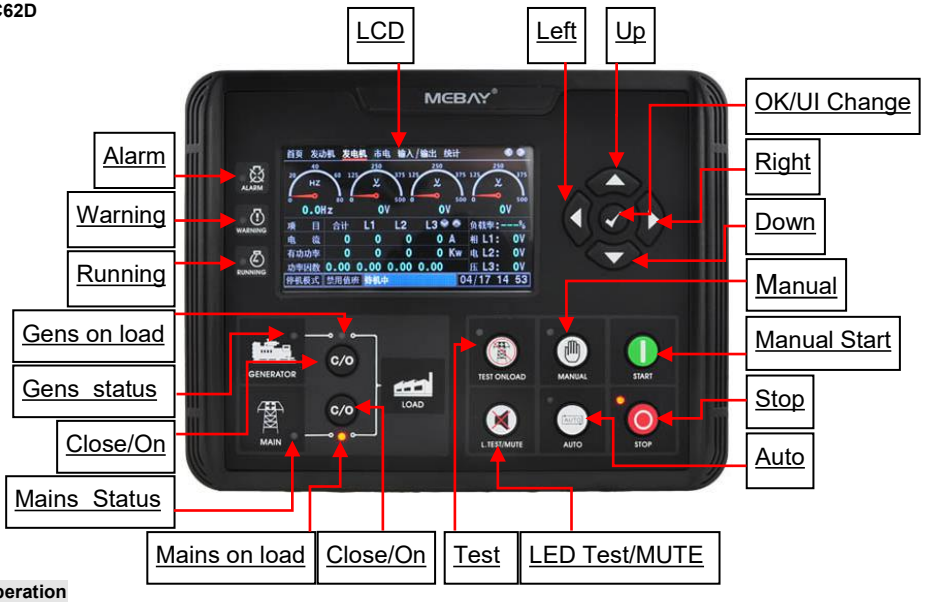
DC6xD series configuration and instructions

Ver3.0

1. Panel and display

◆DC60D

◆DC62D



2. Operation

◆Keys description

KEYS	NAME	Main Function
	Stop Reset Revert	◆Can stop generator under manual/auto mode; ◆Can reset shutdown alarm ◆During stop procession,pressing this key again can stop generator immediately. ◆Pressing this key can cancel the setting and back to upper class under edition.
	Start	◆Start the genset under manual mode. ◆Pressing this key can start the genset under manual testing mode.

	Manual	◆Pressing this key will set the module into manual mode.
	Auto	◆Pressing this key will set the module into auto mode.
	DC60D Records	◆Pressing this key to check the alarm records under stop mode.
	DC62D Test	◆Pressing this key to come into manual testing mode. ◆Under testing mode, pressing MANUAL can start the genset and transfer to normal loading after running well,which is to test if the auto start is in normal status.
	LED Test/ Warning clear	◆Test if all LED lights are ok, pressing this key to test if all lighted, all off when loosen it. ◆Under warning, pressing this key can clear warning and controller will re-check warning. ◆Under alarm, pressing this key can clear the buzzer call. ◆Pressing this key in 3 seconds can clear the buzzer call, pressing it again in 3 seconds can recover the buzzer call.
	Gens/ Mains Close/On	◆Under manual mode, pressing this key can transfer load to genset/mains.
	Left	◆Under display mode, pressing this key to turn left page. ◆Under edition mode, pressing this key to move the digit.
	Right	◆Under display mode, pressing this key to turn right page. ◆Under edition mode, pressing this key to move the digit.
	Up	◆Under display mode, parts of the page can move up. ◆Under edition mode, to move the digit or increase the numbers. ◆Under records mode, pressing this key to move the digit.
	Down	◆Under display mode, parts of the page can move down. ◆Under edition mode, to move the digit or decrease the numbers. ◆Under records mode, pressing this key to move the digit.
	OK UI Change	◆Confirm the change under edition mode. ◆Page exited under records checking mode. ◆Black UI and white UI can be switched when Pressing. ◆In standby state, press for 3 seconds to enter the parameter setting mode .
	Setting mode	◆Pressing STOP and OK simultaneously to come into setting mode
	DC62D Alarm Records checking	◆Pressing STOP and RIGHT to check the records and any buttons pressed to exit from the page.

◆Alarm records checking

DC6XD controller can save 14 groups of alarm records which contains time, gens parameter, engine parameter and so on.How to check the alarm records:

1)Enter alarm record page:

a) DC60D: under stop mode, press  to come into alarm records page;

b) DC62D: press  and  simultaneously to come into alarm records page;

2)Press  to turn upper digit and press  to turn lower digit in order to choose the record you need. Press  to confirm the record and come into history records checking page.

3)Press  to turn lower records under records checking page. Press  to turn upper records and press  to revert back to alarm history records page.

4)Exit from records page: In the history records page and checking page, press  to exit;

3. Parameter setting

◆Enter the edition page

Please set the parameters according to below steps:

1)In the stop mode, please  and  simultaneously, then loose  so that you can come to password interface, the default password is "***07623***".

2)Press  and add number 1, press  to reduce number 1, press  to turn the digit into right, press  to turn the digit into left, press  once done. Then system comes into menu after confirmation of password setting. The screen will display error if password is wrong. The correct password should be put after pressing any button.

3)Press  to turn the digit into upper position, press  to turn the digit into lower position, press  to get into parameters setting page.

4)Press  to shift up the parameters, press  to shift down the parameters, press  to get into parameter changing page.

5)Press  to add number 1, press  to reduce number 1, press  to turn the digit into right and press  to turn the digit into left, press  once done. If the parameters setting is in the valid setting range,then it can be saved, if not, it can not be saved.

6)Press  and  to save the parameters and exit from edition page.

7)Press  to revert back to last class if in any setting position.

 Revert back to default: put password "**97011**" when coming into parameters setting, then all the parameters can be set as defaults.

 ***Note: the data can not be saved if the user didn't press***  ***and***  ***to confirm the setting.***

◆Parameter setting

1) Basic setting

No	Parameter	Range ***(default)***	Notes
1	Language	*0-English* 1-***简体中文*** 2-繁体中文 3-español 4-русский	Language option.
2	Gens poles	2/4/6/8***(4)***	When the flywheel teeth is set as 0,the RPM will be resulted by frequency. Pole 2: 50Hz---3000RPM.Pole 4: 50Hz---1500RPM. Pole 6: 50Hz---1000RPM.Pole 8: 50Hz---750RPM
3	Gens AC system	Disable 1 phase 2 wire 2 phase 3 wire 3 phase 3 wire ***3 phase 4 wire***	Gens phases: No gens parameters can be displayed if setting as disable, which is applied to water pump genset.
4	CT rate	5-6000A/5A ***(500A/5A)***	Used for setting genset CT primary current, secondary rated current 5A.
5	Rated frequency	40.0-80.0Hz***(50.0Hz)***	Setting generator rated frequency to choose the meter range and calculate the alarm value.
6	Rated phase voltage	80-360V***(230V)***	Setting generator phase voltage to choose the meter range and calculate the alarm value.
7	Rated phase current	5-6000A***(500A)***	Setting generator phase current to choose the meter range and calculate the alarm value.
8	Rated total power	5-2000Kw***（276Kw）***	Set total power of generator to choose the meter range and calculate the average loading rate and alarm value.
9	Rated battery voltage	8.0-36.0V***(24.0V)***	Choose the meter range and calculate the alarm value.
10	Rated RPM	500-4500RPM***(1500)***	Choose the meter range and calculate the alarm value.
11	Flywheel teeth	0-300***(0)***	If the setting is 0, (RPM sensor Disabled), then RPM is resulted by Hz.
12	Oil pressure sensor	***1:VDO 0-10Bar*** 2:MEBAY-003B 3:SGH 4:SGD	Choose the usual oil pressure sensor, if the sensor users choose is not the 9 types, it can be User-defined.

		5:SGX 6:CURTIS 7:DATCON 10Bar 8:VOLVO-EC 9:3015237 10:User-defined 11:GENCON 0-10BAR	
13	Coolant temperature sensor	***1:VDO 40-120*** 2:MEBAY-001B 3:SGH 4:SGD 5:SGX 6:CURTIS 7:DATCON 8:VOLVO-EC 9:3015238 10:PT100 11:MEBAY-Mier 12:User-defined 13:GENCON 120℃	Choose the usual water temperature sensor, if the sensor users choose is not the 11 types, it can be User-defined.
14	Oil temperature sensor	***1:VDO 40-120*** 2:MEBAY-001B 3:SGH 4:SGD 5:SGX 6:CURTIS 7:DATCON 8:VOLVO-EC 9:3015238 10:PT100 11:MEBAY-Mier 12:User-defined 13:GENCON 120℃	Choose the usual oil temperature sensor, if the sensor users choose is not the 11 types, it can be User-defined.
15	Cylinder temperature sensor	1:MEBAY-Mier ***2:PT100*** 3:User-defined	If the sensor users choose is not the 2 types, it can be User-defined.
16	Genset box temperature sensor	1:MEBAY-Mier 2:PT100 ***3: User-defined***	If the sensor users choose is not the 2 types, it can be User-defined.
17	Fuel level sensor	1: SGH 2: SGD ***3: MEBAY 150*** 4: User-defined 5: ZP61-10 6: VDO ohm range10-180 7: VDO TUBE TYPE 90-0 8: US ohm range240-33 9: GM ohm range 0-90 10:GM ohm range 0-30 11:Ford(73-10)	If the sensor users choose is not the 3 types, it can be User-defined.
18	Action if RPM lost	Warning ***Alarm and stop***	This fault can be checked only if there is gens frequency checked as one condition of crank successfully.
19	Action if low oil pressure	Warning ***Alarm and stop***	If setting as warning,the programmable input should be set as Low oil pressure stop disabled and input is valid. When the oil pressure value is lower than the preset value or low oil pressure alarm input signal is valid, then controller only display warning but not stop.
20	Action if high water temperature	Warning ***Alarm and stop*** Alarm and stop after unloading	Alarm and stop: when the temperature is higher than preset value or high temperature signal is valid, then controller will alarm and stop after normal faults delay. If setting as warning:the programmable input should be set as high temperature stop disabled and input is valid. When the temperature value is higher than the preset value or high temperature alarm input signal is valid, then controller only display warning but not stop. If setting as alarm and stop after unloading:the programmable input should be set as high temperature stop and input is valid. When the temperature value is higher than the preset value or high temperature alarm input signal is valid, then controller shall start the unloading procession and stop with alarm.
21	Action if high oil temperature	Warning ***Alarm and stop*** Alarm and stop after unloading	
22	Action if high cylinder temperature	Warning ***Alarm and stop*** Alarm and stop after unloading	
23	Action if high	Warning	

	genset box Temperature	***Alarm and stop*** Alarm and stop after unloading	
24	Action if oil pressure sensor disconnected	Disable ***Warning*** Alarm and stop	Action if oil pressure sensor disconnected.
25	Action if water temperature sensor disconnected	Disable ***Warning*** Alarm and stop	Action if Water temperature sensor disconnected.
26	Action if oil temperature sensor disconnected	Disable ***Warning*** Alarm and stop	Action if oil temperature sensor disconnected.
27	Action if cylinder temperature sensor disconnected	Disable ***Warning*** Alarm and stop	Action if cylinder temperature sensor disconnected.
28	Action if genset box temperature sensor disconnected	Disable ***Warning*** Alarm and stop	Action if genset box temperature sensor disconnected.
29	Action if fuel Leve l sensor disconnected	Disable ***Warning*** Alarm and stop	Action if Fuel level sensor disconnected.
30	Pressure/Temperat ure unit	℃/KPA ***℃/BAR*** ℃/PSI F/KPA F/BAR F/PSI	Unit display.

2) Basic Setting 2

NO	Parameter	Range***(defaults)***	Notes
1	Primary Modes	***STOP*** Manual Auto Auto save	The primary modes on power, easy for user operation. Note: auto record function can not record the mode with load.
2	Manual crank times	1-30 ***(1 time)***	Crank times under mode and test mode.
3	Auto start crank times	1-30 ***(3 times)***	Crank times under auto mode.
4	Crank disconnet	RPM Hz Oil pressure(delay) D+ ***RPM/Frequency*** RPM/Oil Pressure RPM/ D+ Frequency/Oil Pressure Frequency / D+ Oil pressure/ D+ RPM/Frequency/Oil press. Frequency/oil Press./D+ Oil pressure/D+/RPM D+/Frequency/RPM RPM/Freq./Oil Press./D+	1.If there is no oil pressure sensor, please dont choose the type. 2.If there is no oil pressure sensor (only with low oil pressure switch),RPM, voltage, the user can choose Charge D+ as the crank condition, please choose oil pressure+Charge D+ as conditions in order to keep the engine running safely. Oil pressure switch input is not the crank condition Please check if the running status, stop condition are according with crank condition. Means either of the conditions can be acceptable as crank condition. But all of them should be meet together to regard as stop condition.
5	Frequency disconnect	0-200%***(28%)***	Rated frequency multiplying by this value is regarded as crank success condition. When the gens frequency is over the condition value, then system regards it as crank success.
6	Oil pressure disconnect	0-400kpa***(200kpa)***	When the engine oil pressure is over the condition value, then system regards it as crank success, motor escaped.
7	RPM disconnect	0-200%***(24%)***	Rated RPM multiplying by this value is regarded as crank success condition. When the RPM is over the condition value, then system regards it as crank success, motor escaped.
8	D+ disconnect	3.0-32.0V***(8.0V)***	When the engine D+ is over the condition value, then system regards it as crank success, motor escaped.
9	OP pre-supply stop	50-600kpa***(200kpa)***	When the oil pressure is over the condition value, then pre-oil supply is stopped.
10	RPM-up stop	0-200%***(90%)***	Rated RPM multiplying by this value is regarded as speed-up stop value. When the RPM is over this value, then the RPM-Up procession is stopped in time.
11	Temperature-up stop	20-200℃***(68℃)***	When the water temperature is over the preset value, then temperature-up procession is stopped in time.
12	Voltage-up stop	0-200%***(85%)***	Rated voltage multiplying by this value is regarded as voltage-up stop value. When the voltage is over this value, then the voltage-Up procession is stopped in time.

13	Fuel pump open	0-100%***(25%)***	When the fuel level is lower than preset value and remains 10S, fuel pump opened signal output
14	Fuel pump close	0-100%***(80%)***	When the fuel level is higher than preset value and remains 1S, fuel pump closed signal output.
15	Maintenance countdown	0-5000h***(800h)***	When it is set as 5000, then this function is disabled.
16	Maintenance date	***2000/01/01***-2099/12/31	When it is set as 2000/01/01, this function is disabled.
17	Maintenance expire	***Warning*** /Alarm and stop	The action after the primary maintenance expired.
18	User password	00000-65535***(07623)***	Change the password.
19	Battery charging start	8.0-30.0***(25.6V)***	When the battery voltage is lower than start value and remains 10s under non-running status, then the relay is opened. When it is higher than the close value and remains 10s, relay is closed. Once coming into running mode, there is no output.
20	Battery charging stop	10.0-36.0***(27.8V)***	
21	E.T.S. hold times	1-10***(2)***	The max E.T.S. hold on power shall be canceled once stop success under auto mode . the output interval time is " Fail to stop ".

3) Delay time setting

NO	Parameter	Range***(default)***	Notes
1	Start delay	0-6500.0s***(5.0s)***	The time during the genset starts after the mains failure or remote signal is valid.
2	Preheat time	0-6500.0s***(0.0s)***	The time needed to be preheat before the starter on power.
3	Longest pre-oil supply	0-180.0s***(0.0s)***	Under pre-oil supply, if the oil pressure is higher than setting value, then pre-oil supply stopped.
4	Cranking time	3.0-60.0s***(8.0s)***	The time when the starter is on power.
5	Crank rest time	3.0-60.0s***(10.0s)***	If crank failure, the waiting time before the second test time.
6	Oil pressure delay	0-20.0s***(0.0s)***	When the crank condition contains oil pressure, if the oil pressure is higher than the preset value and continue for few seconds, then it is regarded as crank success.
7	Safety delay	1.0-60.0s***(8.0s)***	Low oil pressure, high water temperature, under speed, under frequency, under voltage, charge failure are all invalid during this time except for emergency stop ,over speed, over freq.
8	Start idle time	0-3600.0s***(5.0s)***	Idle running time when crank successfully.
9	Longest RPM-up time	0-3600.0s***(120.0s)***	The longest speed-up time,during which time the system will exit once speed increased successfully .
10	Longest Temp.-up time	0-3600.0s***(0.0s)***	The longest warming-up time,during which time the system will exit once temperature increased successfully .
11	Longest Volt.-up time	0-3600.0s***(120.0s)***	The longest voltage-up time,during which time the system will exit once voltage increased successfully .
12	Warming-up time	0-3600.0s***(10.0s)***	The time needed for loading.
13	Back to Mains time	0-3600.0s***(10.0s)***	To avoid the switch actions if the mains unstable.If the remote start signal is invalid (DC6XD will check if the mains normal), genset will not switch immediately, after the delay time, it will transfer to mains. during the delay, if the remote start signal is valid, then genset will come into rated running.
14	Back to Gens time	0-3600.0s***(5.0s)***	There shall be loading delay from Mains to Gens if the remote start signal valid or Mains abnormal under Cooling time.
15	Cooling time	0-3600.0s***(30.0s)***	After unloading, the time of cooling down by radiator before stop. During the delay, if the remote start signal is valid, then genset will come into rated running.
16	Stop idle time	0-3600.0s***(5.0s)***	Idle-speed running time.
17	E.T.S. hold time	0-600.0s***(10.0s)***	Stop solenoid on power time.
18	Fail to stop	5-180.0s***(30.0s)***	If the RPM is 0 during the stop failure time, then the stop failure time is no needed.
19	Emergency delay	0-10.0s***(1.5s)***	Emergency and over frequency alarm delay.
20	Normal alarm delay	2.0-20.0s***(5.0s)***	The alarm delay except for emergency stop and over frequency
21	Normal warning delay	1.0-20.0s***(2.0s)***	The warning delay.
22	AC Voltage abnormal delay	2.0-20.0s***(10.0s)***	Over / under voltage delay.
23	Over current 【inverse time】	0.1-36.0***(36.0)***	This option will not take effect until the **[28-Over phase current delay]** is set to **0**. The overcurrent delay is inverse time, and the formula is **T=t/((IA/IT) -1)^2.**
24	Over power 【inverse time】	0.1-36.0***(36.0)***	This option will not take effect until the **[29-Over total power delay]** is set to **0**. The over power delay is inverse time, and the formula is **T=t/((IA/IT) -1)^2.**
25	Transfer switch delay	0-3600.0s***(1.0s)***	The time from Mains to Gens.
26	Load / unload pulse width	1.0-10.0s***(10.0s)***	Mains and Gens loading and unloading pulse width, when it is 10s, it is regarded as continuous output.
27	Choke close delay	0-200.0s***(3.0s)***	Choke close delay.

28	Over phase current delay	0-3600.0s***(1296s)***	When this parameter is set to 0, the over current delay is the inverse time; if not, the over current delay is the time set for this parameter.
29	Over total power delay	0-3600.0s***(1296s)***	When this parameter is set to 0, the over power delay is the inverse time; if not, the over current delay is the time set for this parameter.

4) Engine Alarm setting

NO	Parameter	Range ***(defaults)***	Notes
1	Over speed alarm	0-200% ***(114%)***	Rated RPM multiplying by this value is regarded as over speed alarm value.When the RPM is higher than the alarm value and comes into over speed delay but still higher(emergency faults delay), then over speed alarms if the value is set as 200, then the over speed alarm is disabled.
2	Under speed alarm	0-200% ***(80%)***	Rated RPM multiplying by this value is regarded as under speed alarm value.When the RPM is lower than the alarm value and comes into under speed delay but still lower (normal faults delay), then under speed alarms. if the value is set as 0, then the under speed alarm is disabled.
3	Low oil pressure alarm	0-999kpa ***(103kpa)***	When the oil pressure is lower than the alarm value and comes into low oil pressure delay but still lower (normal faults delay), then low oil pressure alarms. If the value is set as 0, then the under speed alarm is disabled.
4	High water temperature alarm	20-200℃ ***(98℃)***	When the water temperature is higher than the alarm value and comes into high temperature delay but still higher (normal faults delay), then high temperature alarms. If the value is set as 200, then the high temperature alarm is disabled.
5	High oil temperature alarm	20-200℃ ***(100℃)***	When the temperature is higher than the alarm value and comes into high temperature delay but still higher (normal faults delay), then high temperature alarms. If the value is set as 200, then the high temperature alarm is disabled.
6	High cylinder temperature alarm	20-200℃ ***(150℃)***	When the temperature is higher than the alarm value and comes into high temperature delay but still higher (normal faults delay), then high temperature alarms. if the value is set as 200, then the high temperature alarm is disabled.
7	High genset box temperature alarm	20-200℃ ***(85℃)***	When the temperature is higher than the alarm value and comes into high temperature delay but still higher (normal faults delay), then high temperature alarms. If the value is set as 200, then the high temperature alarm is disabled.
8	Low fuel level warning	0-100% ***(20%)***	When the fuel level is lower than the value and comes into low fuel level warning delay but still lower (normal warning delay), then low fuel level warns. If it is higher than the value then warning clears. If the value is set as 0, then the low fuel level warning is disabled.
9	Low fuel level alarm	0-100% ***(0%)***	When the fuel level is lower than the alarm value and comes into low fuel level delay but still lower (normal faults delay), then low fuel level alarms. if the value is set as 0, then the under speed alarm is disabled.
10	Over battery voltage warning	0-200% ***(135%)***	Rated battery voltage multiplying by this value is regarded as over battery voltage warning value.When the battery input is higher than the warning value and comes into over battery voltage delay but still higher (normal faults delay), then over battery voltage warns. if the value is set as 200, then the over battery voltage is disabled.
11	Under battery voltage warning	0-200% ***(100%)***	Rated battery voltage multiplying by this value is regarded as under battery voltage warn value.When the battery input is lower than the warning value and comes into under battery voltage delay but still lower (normal faults delay), then under battery voltage warns. if the value is set as 0, then the under battery voltage is disabled.
12	Charger warning	1.0-30.0V ***(30.0V)***	When the gap between D+ and B+ is over than this value, and there is charging failure but still high(normal warning delay), then charge failure warns. Once the gap is lower than the value, warns clear. If the value is set as 300, then the charge failure is disabled.

5) Generator alarm parameters

NO	Parameter	Range***(defaults)***	Notes
1	Over freq alarm	0-200%***(114%)***	Rated frequency multiplying by this value is regarded as under over frequency alarm value. When the Freq is higher than the value and comes into over freq delay but still higher (emergency faults delay), then over frequency alarms.If the value is set as 200, then the alarm is disabled.
2	Under freq alarm	0-200%***(80%)***	Rated frequency multiplying by this value is regarded as under frequency alarm value. When the Freq is lower than the value and comes into under freq delay but still lower (normal faults delay), then under frequency alarms.If the value is set as 0, then the alarm is disabled.
3	Over voltage warning	0-200%***(120%)***	Rated voltage multiplying by this value is regarded as over voltage alarm value. When the voltage is higher than the value and comes into over voltage delay but still higher (normal faults delay), then over voltage alarms.If the value is set as 200, then the alarm is disabled.
4	Under voltage alarm	0-200%***(80%)***	Rated voltage multiplying by this value is regarded as under voltage alarm value. When the voltage is lower than the value and comes into

			under voltage delay but still lower (normal faults delay), then under voltage alarms.If the value is set as 0, then the alarm is disabled.
5	Phase current over-load alarm	0-200%***(100%)***	Rated current multiplying by this value is regarded as over current alarm value. When the current is higher than the value and comes into over current delay but still higher (over current faults delay), then over current alarms.If the value is set as 200, then the alarm is disabled.
6	Non-balance current ratio warning	10-100%***(100%)***	It is valid for 2P3W or 3P4W.When the non-balance current ratio is higher than the value and comes into delay but still higher(normal warn delay), then non-balance current ratio warns.If the value is set as 100, then the warning is disabled.
7	Over total power alarm	0-200%***(100%)***	Rated power multiplying by this value is regarded as over power alarm value. When the loading power is higher than the value and comes into delay but still higher (power faults delay), then over power alarms..If the value is set as 200, then the alarm is disabled.

6) Output/input setting

NO	Parmeters	Range***(defaults)***	Notes
1	Programmable output 1	0-50 ***(18.* E.S.T. hold*)***	**0. Disable.** **1. Public warning output:** when there is any warning output. **2. Public alarm output:** when there is any alarm output, alarm locks till revert back. **3. Audio alarm:** when there is any alarm output, the Audio controls. **4. Shades control:** there is output once genset starts and stop till stable. **5. Preheat mode 1:** preheat before start. **6. Choke control:** choke will be started after crank success and off after delay. 7. **Pre-oil supply control:** Under pre-oil supply,if the oil pressure is higher than setting value or pre-oil supply time ends, then pre-oil supply stopped. **8. Fuel output:** output once gens starts and off till stable. **9. Crank output:** output once cranking, no output in other mode. **10. Genset running:** output under running,off once RPM is lower than cranking RPM. The crank success condition can be set. **11. Idle speed control 1:** used for speed controller, there is output under idle but no output under high speed. **12. Speed-up control:** The output is valid after idle delay is completed, and the output is closed after high-speed heat dissipation. **13. High speed control:** The output is valid after idle delay is completed, and the output is closed after high-speed heat dissipation. **14. Excitation output:** there is output during cranking procession and there is 2s output if there is no frequency under high speed status. **15. Gens load:** continuous or pulse type according to time setting. **16. Gens unload:** continuous or pulse type according to time setting. **17. Speed-down control:** the output time is shutdown idle delay during shutdown idle or shutdown on power procession. **18. E.S.T. hold:** shutdown output, it is used for gens with stop solenoid. when the setting value of shutdown delay is over, then it is off. **19. System in stop:** there is output under stop mode. **20. System in manual:** there is output under manual mode. **21. System in auto:** there is output under auto mode. **22. Fuel pump output:** there is output if the oil capacity is lower than start condition for 10s and shutdown if it is higher than the shutdown condition for 1s. **23. Battery charging control:** there is output if the voltage is lower than the preset value under standby status and shutdown after start and in running status. **24. Mains load:** continuous or pulse type according to time setting. Only for DC62D. **25. Mains unload:** continuous or pulse type according to time setting. Only for DC62D. **26. Idle speed control 2:** used for speed controller, there is
2	Programmable output 2	0-50 ***(11.Idle speed control)***	
3	Programmable output 3	0-50 ***(15.Gens load)***	
4	Programmable output 4	0-50 DC60D: ***(2.Public alarm output)*** DC62D: ***(24. Mains load)***	

			output under idle but no output under high speed.
6	Configurable input 1	0-40***(2.High water temperature alarm)***	**0. Disable.** **1. Low oil pressure alarm switch.** **2. High water temperature alarm switch.** **3. High oil temperature alarm switch.** **4. High cylinder temperature alarm switch.** **5. High genset box temperature alarm switch.** **6. Low water level alarm switch.** **7. Low water level alarm switch.** **8. Low fuel level warning input.** **9. Low fuel level alarm input.** **10. Charging failure warning:** output when charging failure. **11. Low oil pressure shutdown disabled:** valid if there is signal input. **12. High water temperature shutdown disabled:** valid if there is signal input. **13. High oil temperature shutdown disabled:** valid if there is signal input. **14. High cylinder temperature shutdown disabled:** valid if there is signal input **15. High genset box temperature shutdown disabled:** valid if there is signal input. **16. External instant warning input.** **17. External instant alarm input.** **18. Gens un/loading input:** connect to the gens loading switchs auxiliary point. **19. Mains un/loading input:** connect to auxiliary point of mains loading switch.(Only for DC62D). **20. Shades status input.** **21. Auto start disabled:** gens will not start if there is signal input whatever mains normal or not. **22. Auto stop disabled:** gens will not stop if there is signal input whatever mains normal or not. **23. Stop by radiator if high temperature:**The controller will shutdown the gens after high speed cooling down delay when temperature is too high if this signal is valid and gens under normal running . the controller will shutdown the gens directly if the signal is not valid. **24. Stop by radiator if high oil temperature:**The controller will shutdown the gens after high speed cooling down delay when temperature is too high if this signal is valid and gens under normal running . the controller will shutdown the gens directly if the signal is not valid. **25. Stop by radiator if high cylinder temperature:** The controller will shutdown the gens after high speed cooling down delay when temperature is too high if this signal is valid and gens under normal running . the controller will shutdown the gens directly if the signal is not valid. **26. Stop by radiator if high genset box temperature:**The controller will shutdown the gens after high speed cooling down delay when temperature is too high if this signal is valid and gens under normal running . the controller will shutdown the gens directly if the signal is not valid. **27. Remote start(with load):** the gens comes into start procession if this signal is valid and under auto mode. **28. Soundproof alarm:** audio alarm output is disabled if there is signal output. **29. Front face button disabled:** any button except for page button is disabled if there is signal output. **30. Meter mode:** all output are disabled, alarm and warns are invalid. any button except for page button is disabled. **31. Remote control mode:** any button except for page button is disabled if the input is valid, LCD will display remote mode.remote control module can start/stop and monitor parameters through front face buttons.
7	Configurable input 2	0-40***(1.Low oil pressure switch)***	
8	Configurable input 3	0-40***(27.Remote start)***	
9	Configurable input 4	0-40***(8.Low Fuel level warning input)***	
10	Configurable input 5	0-40***(6.Low water level alarm input)***	
11	Programmable sensor 1	0-6***(2.Water temperature sensor)***	**0. Disable.** **1. Oil pressure.** **2. Water temperature.** **3. Oil temperature.** **4. Cylinder temperature.** **5. Genset box temperature.**
12	Programmable sensor 2	0-6 ***(1.Oil pressure sensor)***	
13	Programmable sensor 3	0-6	

		(0.Disable)	**6. Fuel level.** ⚠***Note: every sensor input can be set as same function.(oil pressure, fuel level warns and alarm will be judged according to the lowest value. Water temperature, oil temperature, cylinder temperature, genset box temperature warns and alarm will be judged by the highest value. Either of the inputs for alarm opened.)***

7) Working plan and maintenance setting

NO	Parameter	Range***(defaults)***	Notes
1	Working plan format	***Disable*** Every month Every week	This mode must be under auto mode.Working plan is disabled once setting as disable.The working plan will be executed according the chosen date when setting as every month.The working plan will be executed according the chosen date when setting as every week.
2	Maintenance date per month	From 1st to 31st ***Default: the first day***	The date chosen for every month.
3	Maintenance date per week	Monday to Sunday ***Default: Sunday***	The date chosen for every week.
4	Maintenance with load or not	***Disabled***/with load	To choose if the genset starts with load or not.
5	Maintenance start time	00:00-23:59***(00:00)***	Maintenance start time setting.
6	Maintenance running time	1-120m***(5m)***	Maintenance running time setting.

8) Mains protection

No	Parameter	Range***(defaults)***	Notes
1	Phase	Disable 1 Phase 2 Wire 2 Phase 3 Wire 3 Phase 3 Wire ***3 Phase 4 Wire***	Choose the input, there is no display if setting as disable.
2	Mains under volt	55-330V***(184V)***	When the mains voltage is lower than the "low voltage crank threshold" and comes into mains low voltage delay(normal failure delay) but still lower, then mains becomes invalid. If the voltage become higher than "low voltage revert threshold" during normal failure delay time, then it will not alarm.
3	Revert under volt	55-330V***(207V)***	
4	Mains over volt	55-330V***(276V)***	When the mains voltage is higher than the" high voltage crank threshold" and comes into mains high voltage delay(normal failure delay) but still higher, then mains becomes invalid. If the voltage become lower than "low voltage revert threshold" during normal failure delay time, then it will not alarm.
5	Revert over volt	55-330V***(253V)***	
6	Mains normal delay	0.0-3600.0S***(10.0S)***	The time from abnormal to normal, which is used for ATS transfer.
7	Mains abnormal delay	0.0-3600.0S***(5.0S)***	

9) LCD setting

No	Parameter	Range***(defaults)***	Notes
1	Start screen display	0-20.0s***(5.0s)***	Start screen display time,0: No-display.
2	Lightness of LCD	20-100%***(50%)***	Lightness adjustment.
3	LCD comparison	20-100%***(100%)***	LCD comparison adjustment.
4	Back lightness	20-100%***(80%)***	Back lightness adjustment.
5	Saving mode	5.0-200.0s(***200.0s)***	LCD light will be closed automatically without any button pressed after delay.If setting as 200.0s, back light always lighted.
6	Homing display	5.0-600.0s***(60.0s)***	The time when the page reverts back to the home page .If setting as 600.0s:disabled.
7	LOGO delay display under standby	5.0-6000.0***(6000.0s)***	Start screen will be opened without any button pressed after delay.If setting as 6000.0s: disabled.

10) USB/RS485 PORT

No	Parameter	Range***(default)***	Notes
1	Controller adress	1-255***(16)***	The IP built by controller and PC.
2	485 baud rate	0-4800 1-9600 ***2-19200*** 3-38400 4-57600 5-115200	RS485 communication baud rate selection.
3	485 CRC setting	0-CRC L_H ***1-CRC H_L***	Sequence selection of RS485 communication protocol CRC;

11) Working plan

No	Parameter	*Range****(default)***	Notes
1	Working plan	***Disable*** Enable 1:remote start Enable 2:mains failure	Working plan must be under auto mode.During the working time, the genset start if the conditions reached and shall stop if the conditions not reached.

		Enable 3:the above 1 or 2 Enable 4:running always	The genset shall not start when out of the working time wheather the conditions reached or not.
2	Start time	00:00-23:59	The start time allowed.
3	End time	00:00-23:59	The end time allowed(the next day is valid)..
4	Dates	1-31	Multiple choices according to the reality. The longest running time is 24 hours.

12) Data/time setting

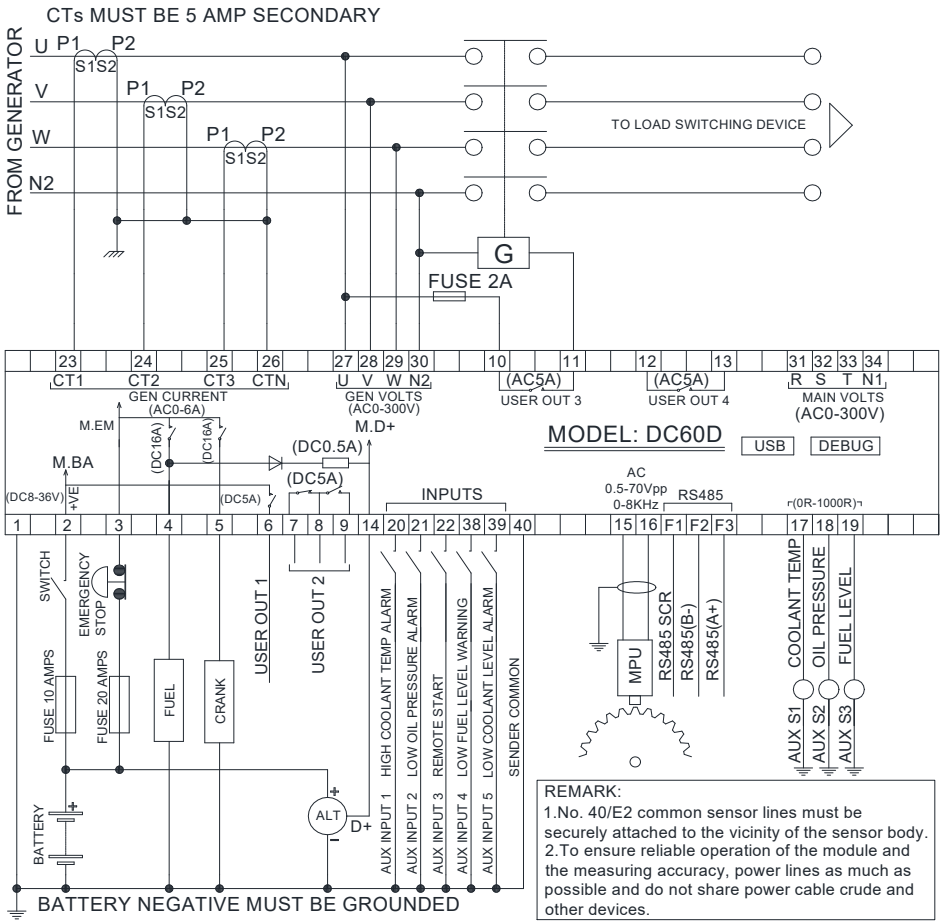
No	Parameter	Range***(defaults)***	Notes
1	Date/Time	2016/01/01-2099/12/31	Permanent calendar inside, please correct the time timely.
2	Current time	00:00:00-23:59:59	Permanent calendar inside, please correct the time timely.

13) Self-define curve

NO	Parameter	Notes
1	Self-define oil pressure curve	***Sensor curve can be User-defined by panel buttons, resistance and according value should be input,MAX 15 groups ,MIN 2 groups.***
2	Self-define water temperature curve	
3	Self-define oil temperature curve	
4	Self-define cylinder temperature curve	***Rule: resistance should be input from small to large.***
5	Self-define genset box temperature curve	
6	Self-define fuel level curve	

4. Typical diagram

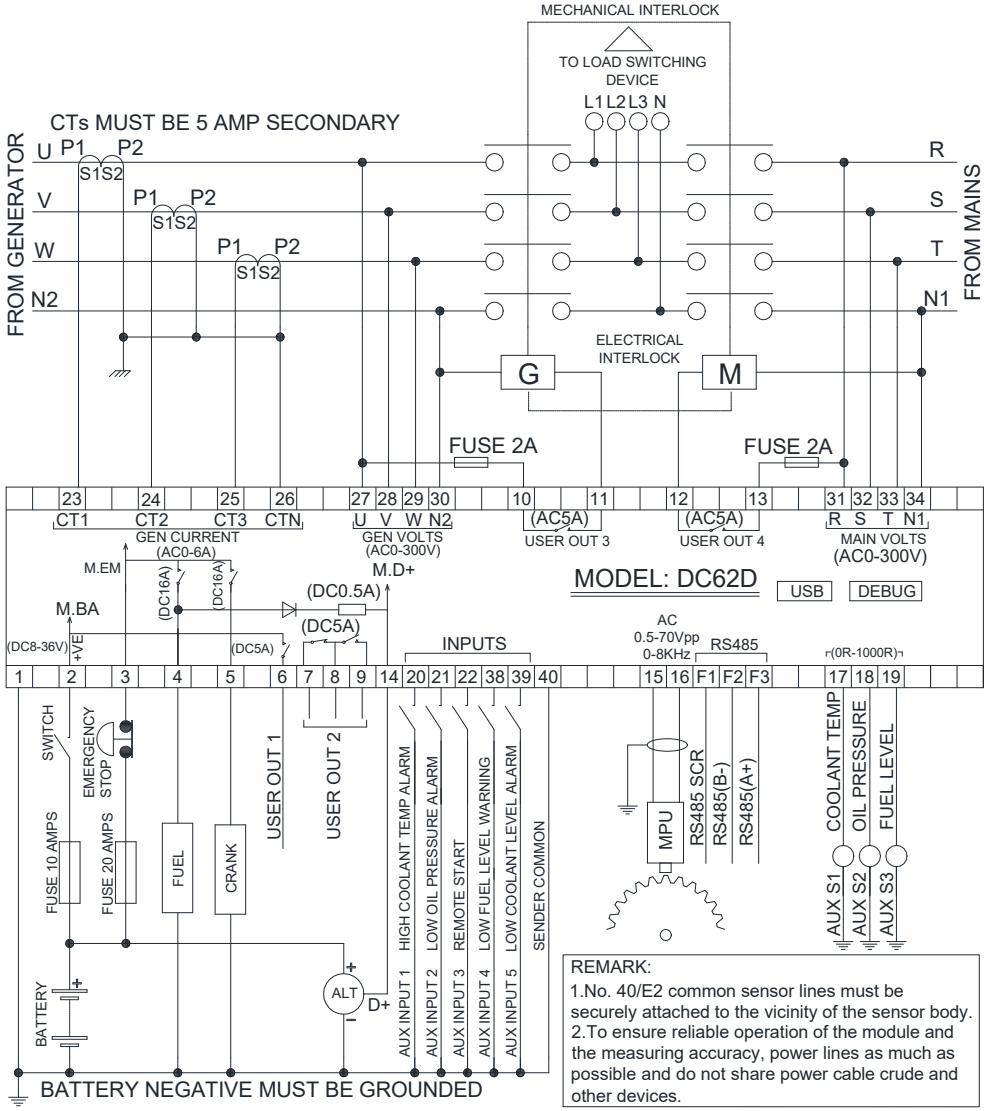
◆DC60D/DC60DR 3 phase 4 wire diagram



REMARK:
1.No. 40/E2 common sensor lines must be securely attached to the vicinity of the sensor body.
2.To ensure reliable operation of the module and the measuring accuracy, power lines as much as possible and do not share power cable crude and other devices.

DIMENSIONS	PANEL CUTOUT
210×160×50mm(8.27” ×6.3” ×1.97”)	186×142mm(7.32”×5.59”)

◆DC62D/DC62DR 3 phase 4 wire diagram



REMARK:
1.No. 40/E2 common sensor lines must be securely attached to the vicinity of the sensor body.
2.To ensure reliable operation of the module and the measuring accuracy, power lines as much as possible and do not share power cable crude and other devices.

Notes:

1.Please don't move battery during running status or it may cause the controller broken.
2.The CT public terminal ICOM should connect to public ground, on the mean time, please don't connect to Line Nero, or the controller may be burnt.

Warning: the secondary CT can not be opened under current loading, or the high voltage may cause damage and safety problem for workers.

Notes:

3.This manual is only for the quick operation, please read the specific standard manual for your reference .