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Starting and Stopping - Automatic Mode

T038040

Fig 7.

In automatic mode, the control panel constantly controls the generator set operation. In some situations, that can be programmed to supply power, the controller starts the generator set activating the generator set contactor.

The generator set can be programmed to start with the activation of contactors from the following signals:

- External start
- Start controlled by timer. (if it is included in programming timer)
- Forced start
- Maximum mains voltage alarm (CP2 only).
- Minimum mains voltage alarm (CP2 only).
- Maximum mains power supply frequency alarm (CP2 only).
- Minimum mains power supply frequency alarm (CP2 only).
- Mains sequence alarm (CP2 only).
- Mains power failure alarm (CP2 only).
- Mains contactor failure alarm (CP2 only).

The generator set can be programmed to start without the activation of contactors from the following signals:

- Engine test.

Also, automatic mode allows the management of starts using external devices, (PC, modem, or visualization modules or commutation devices).

The generator set stops with cooling down cycle after the deactivation of the command which automatically started the generator set.

Low Battery Voltage

The low battery voltage alarm of the CP1 and CP2 is triggered when the voltage obtained is lower than the programmed limits (Thresholds table parameter 17).

The low battery voltage alarm is configured (Alarms table parameter 46) to be detected: Always.

A stabilisation time can be associated to the low battery voltage alarm (Alarms table parameter 47). During this time, the voltage value detected must be under the programmed limits. (Thresholds table parameter 17).

This alarm has been initially configured (Alarms table parameter 48) to be inactive. (warning).

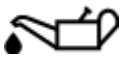
High Coolant Temperature by Sensor

The high coolant temperature by sensor alarm is associated with the coolant temperature analog input (T). The high coolant temperature by sensor alarm triggers when a temperature reading is above the programmed limits. (Thresholds table parameter 27).

The high coolant temperature by sensor alarm is configured (Alarms table parameter 49) to be detected: Always.

A stabilisation time can be associated to the high coolant temperature by sensor alarm (Alarms table parameter 50). During this time, the coolant temperature value detected must be over the programmed limits. (Thresholds table parameter 27).

This alarm has been initially configured (Alarms table parameter 51) to be inactive. (warning).



Low Oil Pressure by Sensor

The low oil pressure by sensor alarm of the CP1 and CP2 is associated with the oil pressure analog input (T). The low oil pressure by sensor alarm triggers when the pressure readings are under the programmed limits (Thresholds table parameter 26).

The low oil pressure by sensor alarm is configured (Alarms table parameter 52) to be detected: From the started engine condition.

A stabilisation time can be associated to the low oil pressure by sensor alarm (Alarms table parameter 53). During this time the pressure values must be detected under the programmed limits. (Thresholds table parameter 26).

This alarm has been initially configured (Alarms table parameter 54) to be inactive. (warning).

Low Fuel Level by Sensor

The low fuel level by sensor alarm of the CP1 and CP2 is associated with the fuel level analog input (NC = FL). The low fuel level by sensor alarm triggers when the fuel level is under the programmed limits. (Thresholds table parameter 25).

The low fuel level by sensor alarm is configured (Alarms table parameter 55) to be detected: Always.

A stabilisation time can be associated with the low fuel level by sensor alarm (Alarms table parameter 56). During this time the fuel level values must be detected under the programmed limits (Thresholds table parameter 25).

This alarm has been initially configured (Alarms table parameter 57) to be inactive. (warning).

Short Circuit

The short circuit alarm of the CP1 and CP2 is associated with real amperage value when any of the phases are over the maximum short circuit programmed limits (Thresholds table parameter 8).

The phases that are checked to detect short circuit alarm are selected depending on the configuration of the phases in the installation (Thresholds table parameter 1):

Annex I

Parameters Tables

The CP1 and CP2 device allows 3 levels of access to the configuration. To modify any parameter of the CP1 and CP2, a validation is required, by means of a password introduction. The 3 access levels are:

1 User access. Allows the setting of the level 1 parameters. (default password: 1111)

2 Maintenance access. Allows the setting of the level 1 and 2 parameters. (default password:1911)

3 Supervisor access. Allows the setting of the level 1, 2 and 3 parameters. (value resting use, manufacturer only)

Table 8.

TIMES				
Parameter	**Psw**	**Description**	**Default Value**	**Range**
1	2	Number of starts	4	1..10
2	2	**Time between starting.** Time between one starting attempt and another. All the outputs are deactivated	5''	3''..15''
3	2	**Starting delay.** Range of time between mains failure and engine starting	0''	0''..1800''
4	2	Glow plug pre-heating time	0''	0''..180''
5	2	**Starting time.** Maximum waiting time before detecting the starting condition. During this time the starting output is active.	5''	1''..30''
6	2	**Activation of load time**. Range of time from the detection of the engine starting condition to the generator set contactor activation.	3''	1''..600''
7	2	**Nominal condition time.** Range of time from the detection of the engine starting condition to the quality validation of the generated signal.	2"	2"..15"
8	2	**D+ activation time**. After this time . the DI voltage value will be checked and the D+ output will be activated in acordance with the PR regulations Parameter 3, until the engine stops.	3''	1''..10''
9	2	EJP1 delay (Rate change notice - France only)	1"	1"..1800"
11	2	Cooling time	120''	2''..1800''
12	2	Fuel stop solenoid activation time	10''	1''..30''
14	2	**Maximum time for alarm activation**. The alarm output will be activated (together with the flashing of the reset button and the buzzer on the display) when corresponds within this limited time	15"	0-Undefined 1"..1800"
15	2	Filtered from FR input	1.0''	0.0''..5.0''
16	2	Filtered from LOP input	1.0''	0.0''..5.0''
17	2	Filtered from HCT input	1.0''	0.0''..5.0''

PARAMETERS SET SELECTOR CHART				
8	2	Signal Type set 2	1	0- Three phase without neutral 1- Three phase 2- Bi-phase 3- Single phase 4- Delta w/ neutral 5- Delta without neutral 6- Bi-phase selector
9	2	Generator Set Maximum Tension Set 2	440V	
10	2	Generator Set Minimum Tension Set 2	360V	
11	2	Generator Maximum Current Set 2	1000 A	
12	2	Short-circuit detection Set 2	3000 A	
13	2	Generator Set Minimum Frequency Set 2	58Hz	
14	2	Generator Set Maximum Frequency Set 2	45Hz	

Date/Hour


```
* * *  D A T A   /  H O U R  * * *

 →H o u r :    1 1 : 0 0 : 5 5
  D a t a :    1 0 / 1 2 / 0 6  D
```

C073050

Fig 28.

Select date and accept (V), condition (v), start hour (V), minutes (V), stop hour (V), stop minutes (V). To select program 2-3-4-5 use (+)(-) and repeat the before/previous process.

Language Selection


```
* * *      L A N G U A G E      * * *
→0 . S p a n i s h
  1 . F r a n c a i s
  2 . E n g l i s h
```

```
* * *      L A N G U A J E      * * *
→1 . F r a n c a i s
▲2 . E n g l i s h
▼3 . I t a l i a n
```

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Fig 29.

To go into each menu we have to use the (+)(-) buttons and accept (v).

Visualisation Module

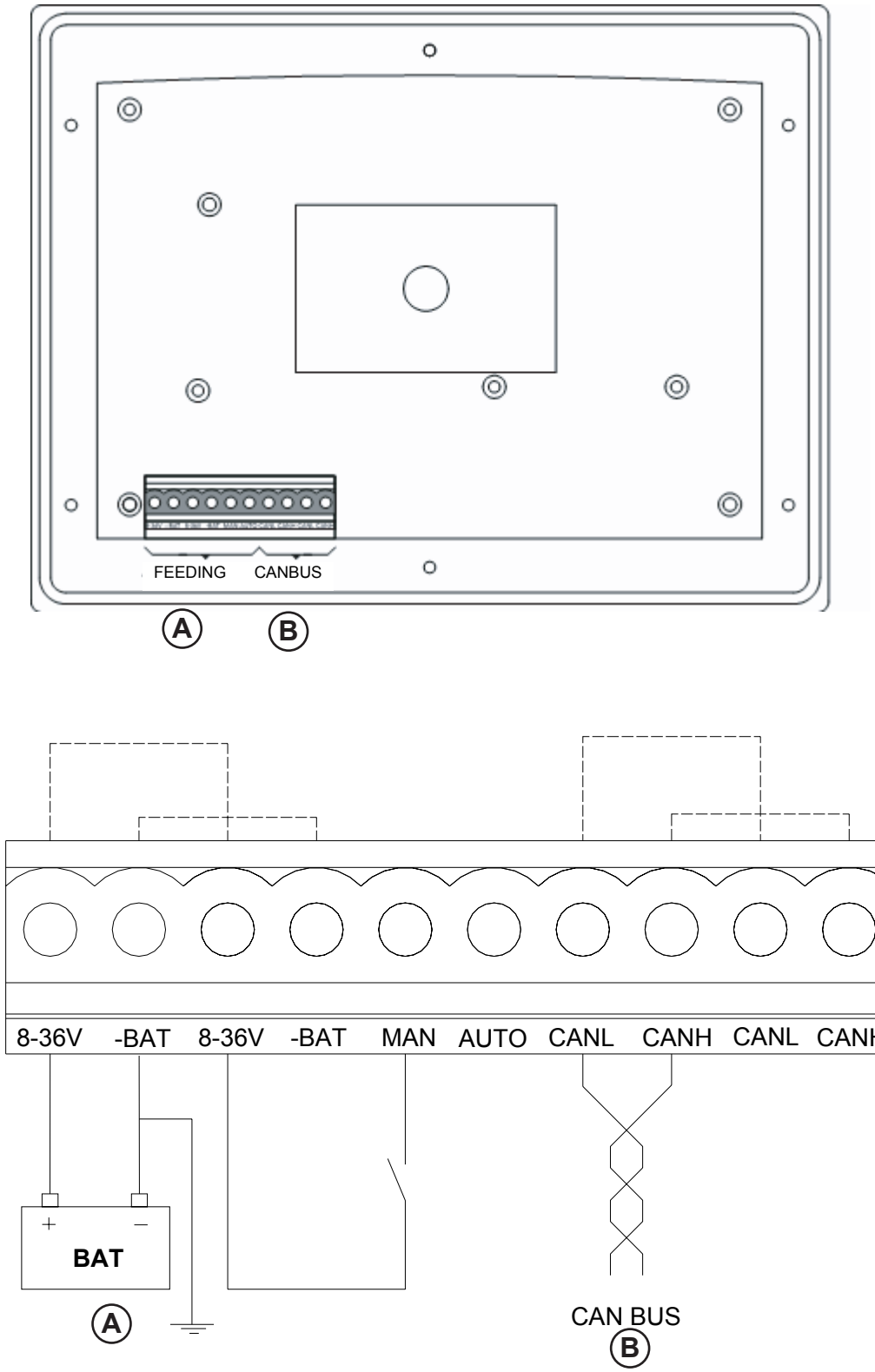
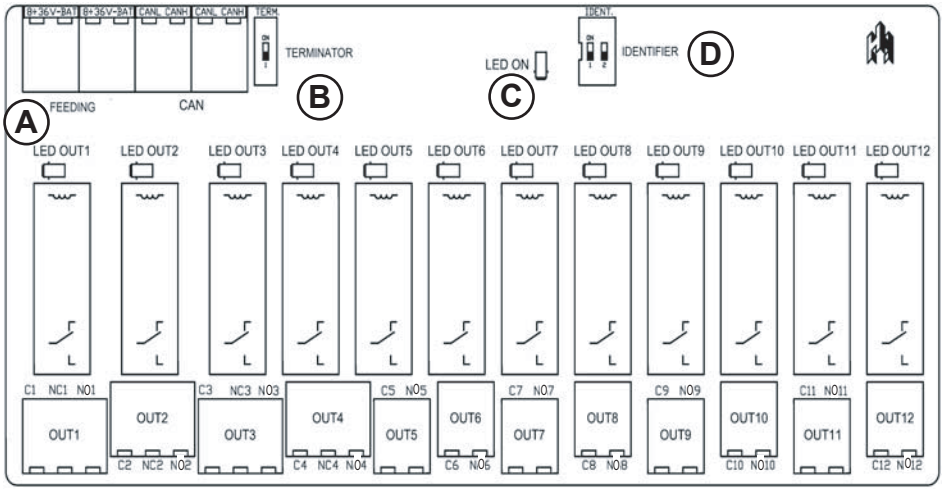


Fig 38. Visualisation Module Connections 1

It is advisable to use a cable of section 1 mm^2.



C073230

Fig 46. Telesignal Module