Instruction booklet

IREM - IRET
INVERTER



COD. 5.671.084.630 17/03/2025

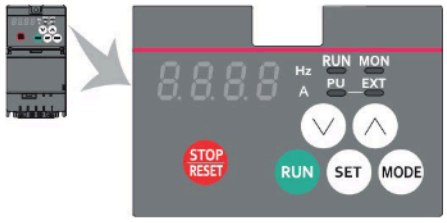
IREM/IRET

IREM/IRET CONFIGURATION

Here is the procedure to follow for typical **IREM/IRET** drive configurations

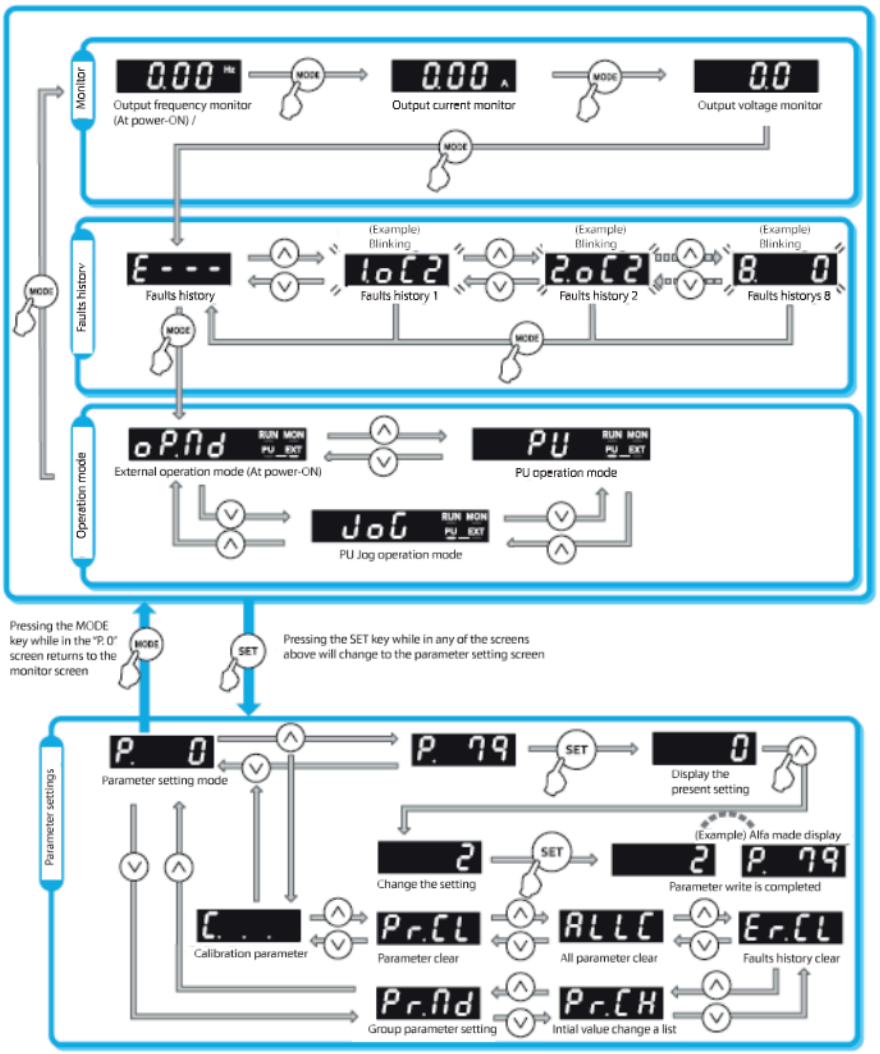
PROCESS TO CHANGE PARAMETERS:

First of all, it is convenient to know the process to move through the IREM/IRET drive menus and to be able to configure it correctly, because this series of drives presents some differences with respect to the existing ones.



SET: button that allows us to move to the parameter menu (**PRM**), enter to edit or view a parameter and set a new value.
MODE: button that allows us to return to monitoring (**MON**) when we are in the parameters menu. Once in monitoring, it allows us to see the output variables (by default the frequency, output voltage and motor consumption) and the list of errors.
RUN: run command button in **PU** mode
STOP/RESET: stop button in **PU** and reset mode.
↑ ↓**:** management buttons, we use them to move between the parameters and to modify the value they have.

BASIC OPERATION



*1 The monitor items can be changed
*2 For the details of each fault
*3 In each fault record display, "0" is displayed instead of the fault indication when no fault records exists
*4 For de details of operation modes
*5 "P. 0" will appear if the MODE key is pressed during parameter setting

PARAMETERS TO BE SET FOR PU CONTROL (PARAMETER UNIT):
In this control mode the inverter is controlled by the **RUN** and **STOP** buttons and the frequency is adjusted by the arrows on the inverter itself.

Pr.1 = Set maximum frequency (Hz)
Pr.2 = Set minimum frequency (Hz)
Pr.7 = Acceleration time (s)
Pr.8 = Deceleration time (s)
Pr.9 = Nominal current setting of the motor for its thermal protection (A)
Pr.79 = Set to 1 to indicate that the control will be done through the inverter buttons themselves.

PU CONTROL OPERATION (PARAMETER UNIT):
Once the parameterization has been carried out, the control of the inverter will be carried out by means of the **RUN** and **STOP** button.
To adjust the frequency, with the MON led on, we will adjust the setpoint frequency using the arrows on the panel itself and press the **SET** button to confirm the setpoint. Once the setpoint has been correctly given, the setpoint that has been given and an **"F"** will flash alternately on the display.

PARAMETERS TO ADJUST FOR EXT CONTROL (EXTERNAL ELEMENTS):
In this control mode the inverter is controlled by the digital and / or analog inputs of the inverter itself.

Pr.1 = Set maximum frequency (Hz)
Pr.2 = Set minimum frequency (Hz)
Pr.4 = Frequency reference associated to RH terminal
Pr.5 = Frequency reference associated to terminal RM
Pr.6 = Frequency reference associated to RL terminal
Pr.7 = Acceleration time (s)
Pr.8 = Deceleration time (s)
Pr.9 = Nominal current setting of the motor for its thermal protection (A)
Pr.79 = Set to 2 to indicate that the control will be done through external elements

ANALOG INPUT PARAMETERS:
Pr.73 = Terminal 2 input setting

0	Terminal 2 input 0 to 10V
1	Terminal 2 input 0 to 5V
10	Terminal 2 input 0 to 10V
11	Terminal 2 input 0 to 5V

Pr.125 = Frequency setpoint at maximum voltage signal (Hz)
Pr.C2 = Frequency setpoint at minimum voltage signal (Hz)

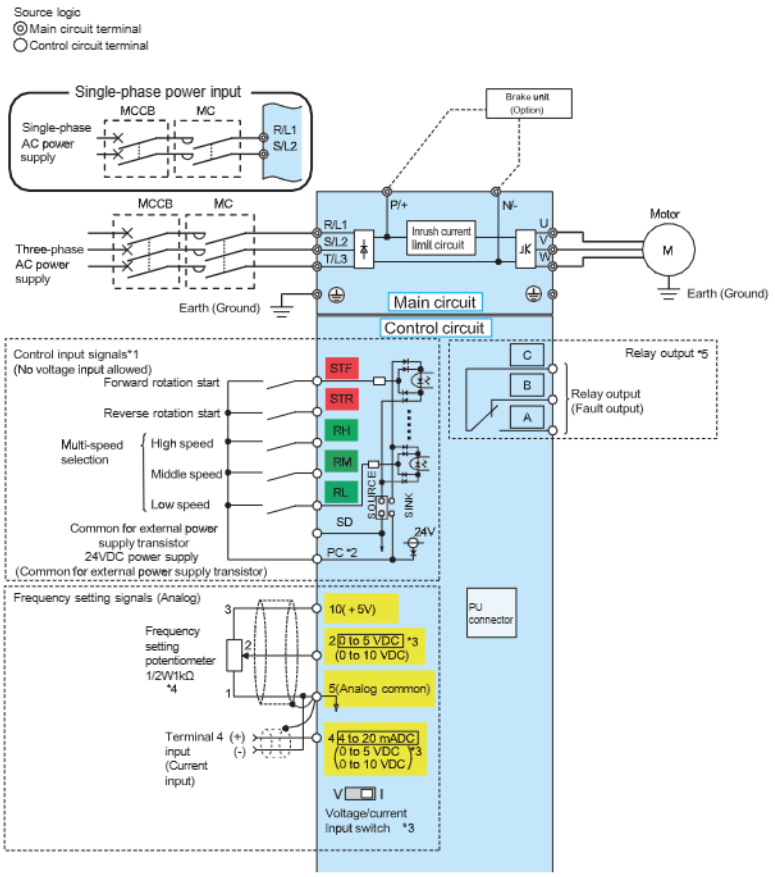
Pr.267 = Terminal 4 input setting

0		Terminal 4 input, 4 to 20 mA
1		Terminal 4 input, 0 to 5 V
2		Terminal 4 input, 0 to 10V

Pr.126 = Frequency setpoint at maximum signal (Hz)
Pr.C5 = Frequency setpoint at minimum signal (Hz)

To indicate to the inverter that the signal is given by terminal 4, we must activate the AU signal (by setting **Pr.180 =** 4, the RL terminal becomes AU).

SIGNALS AND WIRING:



- Running order (**STF** = clockwise / **STR** = anti-clockwise)
- Frequency setpoint, multi-speed (fixed speeds of RH, RM and RL)
- Frequency setpoint, analog signal.
  Terminal 10 = Internal power supply + 5V
  Terminal 5 = Common of analog inputs

By activating the running signal (**STF** or **STR**) and activating the fixed speed (**RH**, **RM** and **RL**) we make the motor work at a constant speed while these signals are activated.
In case of working with analogs, we must activate the start signal (**STF** or **STR**) and through the configuration of the commented parameters, depending on the signal it receives, it will scale for the relevant frequency setpoint.

Note: bear in mind that the drive gives priority to the fixed speeds over the analog, so if we work with analog we CANNOT activate any of the RH, RM and RL inputs, because then the drive will not pay attention to the analog command.

PARAMETERS TO ADJUST FOR COMBINED CONTROL:

As we have commented on the **PU** and **EXT** control mode, our drives allow us to exercise a combined control of these controls.

Pr.79 = 3

Adjusting this parameter in this way, we enable a type of combined control, which consists of:
- Running order **(EXT)**: Via **STF** and **STR** terminals
- Frequency reference **(PU)**: Using the arrows on the console (Parameter Unit) and confirmation with the **SET** button

Pr.79 = 4

Adjusting this parameter in this way, we enable a type of combined control, which consists of:
- Running order **(PU):** By **RUN** and **STOP** buttons
- Frequency reference **(EXT):** Through external signals, digital inputs (**RH**, **RM**, **RL**) or analog (terminal 2 or 4)