

How to set parameters for the VFD

- Parameters should be adjusted only while the Power+ is not running
- Drive model number is on the left side of the drive. These instructions apply only to the ACS-355

How to select a parameter and change its value

Step	Action	Display
1.	Go to the Main menu by pressing  if you are in the Output mode, otherwise by pressing repeatedly  until you get to the Main menu.	LOC ▾ MAIN MENU — 1 PARAMETERS ASSISTANTS CHANGED PAR EXIT 00:00 ENTER
2.	Go to the Parameters mode by selecting PARAMETERS on the menu with keys  and  , and pressing  .	LOC ▾ PAR GROUPS — 01 01 OPERATING DATA 03 FB ACTUAL SIGNALS 04 FAULT HISTORY 10 START/STOP/DIR 11 REFERENCE SELECT EXIT 00:00 SEL
3.	Select the appropriate parameter group with keys  and  .	LOC ▾ PAR GROUPS — 99 99 START-UP DATA 01 OPERATING DATA 03 FB ACTUAL SIGNALS 04 FAULT HISTORY 10 START/STOP/DIR EXIT 00:00 SEL
	Press  .	LOC ▾ PARAMETERS — 9901 LANGUAGE ENGLISH 9902 APPLIC MACRO 9903 MOTOR TYPE 9904 MOTOR CTRL MODE EXIT 00:00 EDIT
4.	Select the appropriate parameter with keys  and  . The current value of the parameter is shown below the selected parameter.	LOC ▾ PARAMETERS — 9901 LANGUAGE 9902 APPLIC MACRO ABB STANDARD 9903 MOTOR TYPE 9904 MOTOR CTRL MODE EXIT 00:00 EDIT
	Press  .	LOC ▾ PAR EDIT — 9902 APPLIC MACRO ABB STANDARD [1] CANCEL 00:00 SAVE
5.	Specify a new value for the parameter with keys  and  . Pressing the key once increments or decrements the value. Holding the key down changes the value faster. Pressing the keys simultaneously replaces the displayed value with the default value.	LOC ▾ PAR EDIT — 9902 APPLIC MACRO 3-WIRE [2] CANCEL 00:00 SAVE
6.	- To save the new value, press . - To cancel the new value and keep the original, press .	LOC ▾ PARAMETERS — 9901 LANGUAGE 9902 APPLIC MACRO 3-WIRE 9903 MOTOR TYPE 9904 MOTOR CTRL MODE EXIT 00:00 EDIT

Select parameters based on Power+ model, pump motor, and grid specification.

Power+ Series 4000

Parameters specific to the Series 4000. See common parameters after the Series 6000 table.

Parameter	Parameter Name	460 V / 60 Hz		400 V / 50 Hz	
		Baldor Motor	Grundfos Motor	Baldor Motor	Grundfos Motor
9905	MOTOR NOM VOLTAGE	460	460	400	400
9906	MOTOR NOM CURR	11.9	12.4	13.6	14.2
9907	MOTOR NOM FREQ	60.0	60.0	50.0	50.0
9908	MOTOR NOM SPEED	3525	3500	2916	2920
9909	MOTOR NOM POWER	10.0 hp (7.5 kW)	10.0 hp (7.5 kW)	10.0 hp (7.5 kW)	10.0 hp (7.5 kW)
1501	AO1 CONTENT SELECT	POWER	POWER	POWER	POWER
1502	AO1 CONTENT MIN	0.0	0.0	0.0	0.0
1503	AO1 CONTENT MAX	9.0	9.0	9.0	9.0
1504	MINIMUM AO1	4.0	4.0	4.0	4.0
1505	MAXIMUM AO1	20.0	20.0	20.0	20.0
2003	MAX CURRENT	13.3	14.3	15.0	15.6

Power+ Series 6000

Parameters specific to the Series 6000. See common parameters below.

Parameter	Parameter Name	460 V / 60 Hz		400 V / 50 Hz	
		Baldor Motor	Grundfos Motor	Baldor Motor	Grundfos Motor
9905	MOTOR NOM VOLTAGE	460	460	400	400
9906	MOTOR NOM CURR	22.0	23.0	25.3	27.0

9907	MOTOR NOM FREQ	60.0	60.0	50.0	50.0
9908	MOTOR NOM SPEED	3540	3530	2938	2940
9909	MOTOR NOM POWER	20.0 hp (14.7 kW)	20.0 hp (14.7 kW)	20.0 hp (14.7 kW)	20.0 hp (14.7 kW)
2003	MAX CURRENT	25.0	26.5	27.8	29.6

Common Parameters

Parameter settings for all Power+ VFDs. Be sure to set the machine-specific parameters listed above.

Parameter	Parameter Name	Parameter Value
1001	EXT1 COMMANDS	DI1
1003	DIRECTION	FORWARD
1105	REF1 MAX	60.0
1301	MINIMUM AI1	20.0
1401	RELAY OUTPUT 1	FAULT(-1)
1601	RUN ENABLE	DI1
1604	FAULT RESET SEL	COMM
1611	PARAMETER VIEW	DEFAULT
2002	MAXIMUM SPEED	3000
2008	MAXIMUM FREQUENCY	60.0
2202	ACCELER TIME 1	0.5
2203	DECELER TIME 1	0.5
3501	SENSOR TYPE	THERM(0)
3502	INPUT SELECTION	DI2

Ethernet Adapter Parameters

Power+ Generators equipped for Modbus communications require additional parameters. Parameters 5105 to 5113 set the network address, and will likely need to be adjusted to match the site network. The values below are the ElectraTherm default configuration.

Parameter	Parameter Name	Parameter Value
5101	FBA TYPE	ETHERNET
5105 ¹	FBA PAR 05	192
5106 ¹	FBA PAR 06	168
5107 ¹	FBA PAR 07	7
5108 ¹	FBA PAR 08	9
5109 ²	FBA PAR 09	24
5110 ³	FBA PAR 10	192
5111 ³	FBA PAR 11	168
5112 ³	FBA PAR 12	7
5113 ³	FBA PAR 13	1
5120	FBA PAR 20	20
5122	FBA PAR 22	1
9801	COMM PROT SEL	EXT FBA

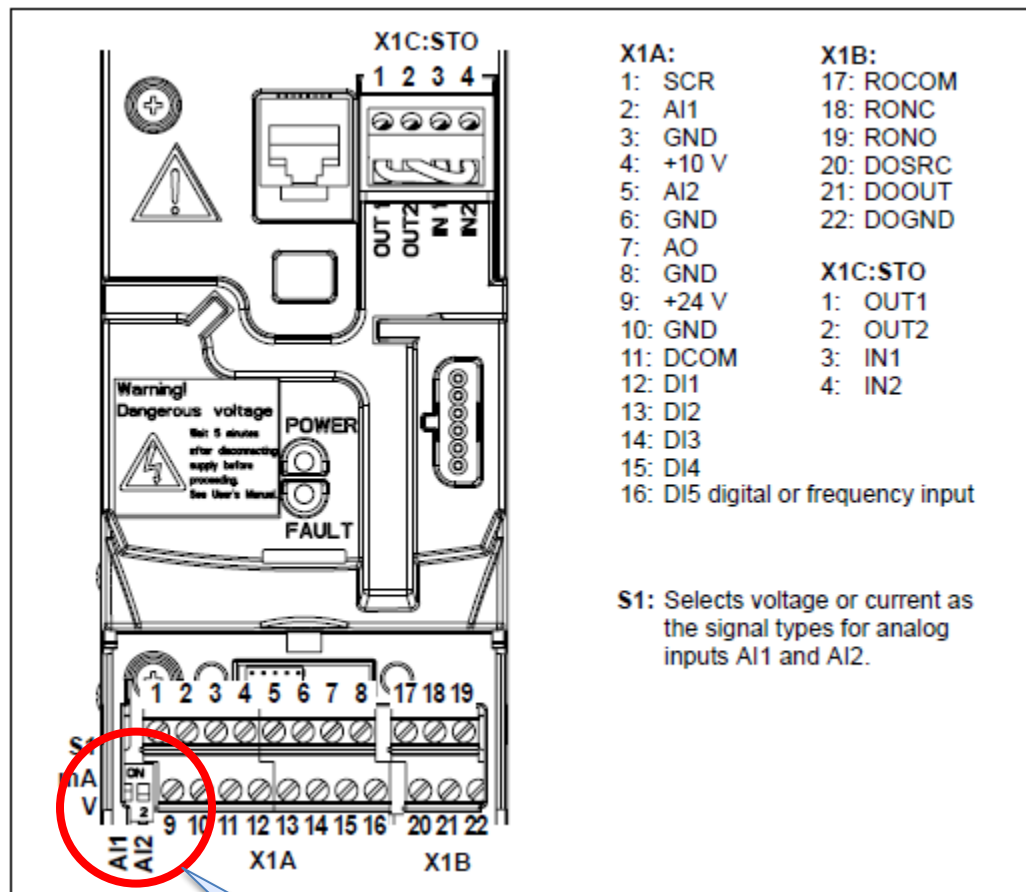
¹5105 to 5108 set the device IP address

²5109 sets the Subnet Mask

³5110 to 5113 set the Default Gateway

After IP address and gateway are set, change parameter 5127 from DONE to REFRESH. This reboots the Ethernet adapter and saves the IP settings.

- When the programming is complete, go back and verify that all Parameter Values were saved correctly
- Verify that both analogue input signal selectors are set for I (current) – the two DIP switches on the lower left of the VFD unit must both be ON (up)
- From the Power+ HMI, set the VFD to a 10 Hz test run. Verify that the rotation direction is correct, and verify that the VFD is at 10 Hz (± 0.2 Hz) as shown on the control panel.



Turn both DIP
switches ON
(up)