

SENLAN SB200 - VARIABLE SPEED DRIVE PARAMETER SETUP FOR ADVANCED SLEEP/WAKE PID PRESSURE CONTROL

F0-02	Command Execution Channel Options	0: Control Panel (EXT Extinguished) 1: Terminal (EXT Illuminated) 2: Communication Control (EXT Flashing)	0	x	1	0	2	Set this to 0 if you are using the control panel or 1 if you are using the terminals FWD and GND
F0-08	Lower Frequency Limit	0.00Hz ~ F0-07 "Upper Frequency Limit"	0.00Hz	x	0.00Hz			
F0-09	Direction Lock	0: Both clockwise and anti-clockwise direction is applicable 1: Clockwise direction lock 2: Anti-clockwise direction lock	0	o	1	0	2	
F2-13	Max. Output Voltage	150 ~ 500V	380V	x	400V	150	500	Set this according to the voltage on the motors plate
F3-00	Rated Power	0.40 ~ 500.00kW	Depends on inverter	x	Depends on inverter model No.	0.4	500	Set all these parameters according to the motors plate
F3-01	Number of Poles	2 ~ 48	4.00%	x	4.00%	2	48	
F3-02	Rated Current	0.5 ~ 1200.0A	Depends on inverter	x	Depends on inverter model No.	0.5	1200	
F3-03	Rated Frequency	1.00 ~ 650.00Hz	50.0Hz%	x	50.0Hz%	1	650	
F3-04	Rated Rotation Speed	125 ~ 40000r/min	Depends on inverter	x	Depends on inverter model No.	125	40000	
F5-02	Output Functions of Relay Output T1	0 ~ 59 ; refer to the following table of definitions of digital output functions	6	x	1	0	59	Set this to activate an external cooling fan
F5-03	Output Functions of Relay Output T2	0 ~ 59 ; refer to the following table of definitions of digital output functions	24	x	6	0	59	Set this to activate a fault output
F7-00	PID control function options	0: PID control is not selected 1: PID control is selected 2: PID is selected for frequency settings modification 3: PID control is selected for frequency settings of constant pressure water supply	0	x	3	0	3	Set this to 1 in the beginning and until you have the system running properly and have determined the lowest frequency against a closed system. Then change to 3 once all settings have been made in F8 group
F7-01	Channel Setting Options	0: F7-04 1: AI1 2: AI2 3: AI3 4: UP/DOWN adjustment 5: PFI 6: Communication Settings 7: AI-AI2 8: AI1 + AI2 9: Panel potentiometer	0	x	1	0	9	Set this to 0 if you are using F7-04 as your reference. Set this to 1 if you are using an external POT
F7-02	Feedback Channel Option	0: AI1 1: AI2 2: AI3 3: AI1 - AI2 4: AI1 + AI2 5: VAI1 6: VAI2 7: VAI1-AI2 8: VAI1 + VAI2 9 PFI 10: MAX (AI1~AI3) 11: MIN(AI1~AI3)	0	x	1	0	11	
F7-03	PID Reference Value	0.00 ~ 100.00 (transducer measurement range)	10	o	100	0	100	
F7-04	PID Digital Settings	-F7-03 ~ F7-03	5	o	40			Set this to the system pressure you require
F7-06	Integral Time 1	0.01 ~ 10.00s	20.00s	o	0.5s	0	10	
F7-29	Analogue Input Feedback Abnormality	0 = Nothing 1 = Alarm (only) [AL.FBL1 for analogue input 1, AL.FBL2 for analogue input 2, AL.FBL3 for analogue input 3] 2 = Error and deceleration shutdown and alarm AL.FBL [Er.FBL1 for analogue input 1, Er.FBL2 for analogue input 2, Er.FBL3for analogue input 3] 3 = Error and free shutdown [Er.FBL1 for analogue input 1, Er.FBL2 for analogue input 2, Er.FBL3for analogue input 3]	0	o	2			
F7-30	Analogue Input Feedback Abnormality Level (%)	0.00 ~ 100.00% (0.00% = Ignore)	50%	o	1%			Set the minimum pressure the system must always have when running. Dry run protection.
F7-31	Analogue Input Feedback Abnormality Time (s)	Set in seconds from 0 to 3600	60	o	45			
F8-00	Water Supply Mode Options	0: Water supply function is not selected 1: Common PI-regulated constant-pressure water supply 2: Water level control 3: Pumps are started by one in the sequence base on water pump capacity 4: Firefighting water supply	0	x	1	0	4	
F8-01	Water Pump Settings and Sleeping Options	Units Digit: No. of variable-frequency cyclic switchover pumps 1 ~ 5 Tens Digit: No. of auxiliary pumps : 0 ~ 4 Hundreds Digit 0: Direct startup 1: Startup by soft starter Thousands Digit: Sleeping and sleeping pump options 0: The sleep pump is not selected 1: The sleeping pump works at a variable frequency 2: The sleeping pump works at a line frequency 3: The main pump is in sleeping mode Ten thousand Digit: Drainage pump Options 0: Drainage pump not under control 1: Drainage pump under control	00001	x	03001			

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F8-20	Sleeping Frequency	1.00 ~ 50.00Hz	40.00Hz	o	40.00Hz	1	50	Set this frequency 0.5Hz above the lowest frequency you read when the system is working against a closed system
F8-21	Sleeping Latency time	1.0 ~ 1800.0s	60.0s	o	60.0s	1	1800	Set this time before the system will go to sleep once pressure is equal to the reference value and the frequency is below F8-21 above
F8-22	Wakeup deviation settings	-F7-03 ~ F7-03	-0.20	o	-0.20			Try this with the factory default
F8-23	Wake Up Time delay	0.1 ~ 300.0s	30.0s	o	30.0s	0.1	300	
FC-02	Monitoring Parameter Option 1	-1 ~ 50; -1 means void; 0 ~ 50 mean FU-00 ~ FU-50	1	o	01	-1	50	Working Frequency
FC-03	Monitoring Parameter Option 2	-1 ~ 50; -1 means void; 0 ~ 50 mean FU-00 ~ FU-50	-1	o	02	-1	50	Frequency Setting (Reference)
FC-04	Monitoring Parameter Option 3	-1 ~ 50; -1 means void; 0 ~ 50 mean FU-00 ~ FU-50	-1	o	04	-1	50	DC Bus Voltage
FC-05	Monitoring Parameter Option 4	-1 ~ 50; -1 means void; 0 ~ 50 mean FU-00 ~ FU-50	-1	o	05	-1	50	AC Output Voltage
FC-06	Monitoring Parameter Option 5	-1 ~ 50; -1 means void; 0 ~ 50 mean FU-00 ~ FU-50	-1	o	07	-1	50	Output Current
FC-07	Monitoring Parameter Option 6	-1 ~ 50; -1 means void; 0 ~ 50 mean FU-00 ~ FU-50	-1	o	13	-1	50	Rotational Speed
FC-08	Monitoring Parameter Option 7	-1 ~ 50; -1 means void; 0 ~ 50 mean FU-00 ~ FU-50	-1	o	14	-1	50	AI1 Reading (Potentiometer)
FC-09	Operation Monitoring Parameter Option 1	-1 ~ 50; -1 means void; 0 ~ 50 mean FU-00 ~ FU-50	0	o	08	-1	50	AI2 Reading (Transducer)
FC-10	Operation Monitoring Parameter Option 2	-1 ~ 50; -1 means void; 0 ~ 50 mean FU-00 ~ FU-50	2	o	00	-1	50	Nothing
FC-11	Operation Monitoring Parameter Option 3	-1 ~ 50; -1 means void; 0 ~ 50 mean FU-00 ~ FU-50	4	o	-1	-1	50	Nothing
FC-12	Operation Monitoring Parameter Option 4	-1 ~ 50; -1 means void; 0 ~ 50 mean FU-00 ~ FU-50	-1	o	-1	-1	50	Nothing
FC-15	Units of PID Settings and Feedback Values	0: Hz 1: A 2: V 3: % 4: kW 5: s 6: rpm 7: mps 8: m 9: mA 10: mV 11: Pa 12:kPa 13: °C 14: kg/cm ² 15: mmH ₂ O 16: Mpa	14	o	14	0	16	Optional