XSY-AT1 [1 phase input, 3 phase output]

GREEN	= setting up to motor and drive parameters (needed to get the motor operating)
BLUE	= optional tuning parameters -not required initially but allow some customization
PURPLE	= describes how a physical signal input/output to the VFD is managed
WHITE	= other parameter for specific requirements / advanced users
GREY	= not defined / not required

I am not a professional electrician. These are the notes I made for setting up my motor. Use at your own risk. If in doubt, consulate a qualified electrician.

	Parameter	Meaning	Factory Default	Setting for my 3-phase motor	Notes:
Getting started	P000	Maximum voltage [0–230 V] or [0–380 V] **(motor plate)**	220 or 380 V	220 V	
	P001	Reference Frequency [0–400 Hz] **(motor plate)**	50 Hz	50 Hz	= at this freq. motor runs at plate speed - e.g. 4 pole 1400 rpm. 2 pole 2800 rpm
	P002	Intermediate voltage [0–230 V] or [0–380 V]	110 or 190 V	110 V	mid point voltage profile
	P003	Intermediate frequency [0–400 Hz]	25 Hz	25 Hz	mid point frequency profile
	P004	Minimum voltage [0–230] or [0–380 V]	0 V	0 V	
	P005	Minimum frequency [0–400 Hz]	0 Hz	0 Hz	
	P006	Maximum operating frequency [0–400 Hz]	100 Hz	120 Hz	= Max motor speed for motor control calculations
	P007	Minimum operating frequency [0–400 Hz]	0 Hz	10 Hz	= Care- low speed cooling !
	P008	Actual hidden password (display will show 0000)	31313		
	P009	Operator entered password	0		
Speed control	P010	Working Frequency source (speed control) 0 = Panel keyboard 1 = Panel potentiometer 2 = External analog signal 3 = RS485	1	2	= VFD panel ctrl = VFD panel ctrl = Remote box or 8ckli control = Modbus serial control
Start / Stop	P011	Start / stop control source (start/stop motor) 0 = Panel keyboard 1 = RS485 2 = External port	0	2	= VFD panel ctrl = Modbus serial control = Remote box or 8ckli control (check jumpers)
	P012	Stopping mode 0 = inertial stop 1 = deceleration stop 2 = brake stop 3 = emergency brake	1	2	= Freewheel = Mild electrical brake = External brake resistor
	P013	Braking time [0–2.5]	0.5 seconds		= Care - overload
	P014	Braked voltage [0–140V]	20		= Care - overload
	P015	N/A			
	P016	N/A			
	P017	N/A			
	P018	Operating arrival [0–100]	50 Hz		
	P019				not documented
	P020	Over temp protection [1–80]	80		
	P021	Reduction Ratio [1–100]	1		= RPM calculation - adjust to account for pulley ratios
	P022	Carrier setting [1–10]	10		= kHz - higher smoother, but more EMC
	P023	Frequency adjustme step size [0–100]	5 (x0.1 Hz)	5 (x0.1 Hz)	= Frequency steps for user control
	P024	Overload protection buffer time [0.1 – 60]	3 seconds	3 seconds	
	P025	no. of poles [0 = 2 poles, 1 = 4 poles, 2 = 6 poles]	0	1	set to match number of poles on motor
	P026	Maximum frequency (speed control range)	50 Hz	120 Hz	= Max speed you will be running the motor - check OK with supplier !
	P027	Section 1 speed setting (running at set speed)	45 Hz	default	Controlled by shorting input K1 & COM
	P028	Section 2 speed setting	40 Hz	default	Controlled by shorting input K2 & COM
	P029	Section 3 speed setting	35 Hz	default	Controlled by shorting input K3 & COM
	P030	Section 4 speed setting	30 Hz	default	
	P031	Section 5 speed setting	25 Hz	default	
	P032	Section 6 speed setting	20 Hz	default	
	P033	Section 7 speed setting	15 Hz	default	
	P034	Jobs rising velocity [1–1000]	50 Hz / s	50 Hz / s	= Acceleration rate of motor
	P035	1st rising velocity [1–1000]	50 Hz / s		
	P036	2nd rising velocity [1–1000]	50 Hz / s		
	P037	3rd rising velocity [1–1000]	50 Hz / s		
	P038	4th rising velocity [1–1000]	50 Hz / s		
	P039	5th rising velocity [1–1000]	50 Hz / s		
	P040	6th rising velocity [1–1000]	50 Hz / s		
	P041	7th rising velocity [1–1000]	50 Hz / s		
	P042	Main decending velocity [1–1000]	25 Hz/s	25 Hz/s	= Deceleration rate of motor
	P043	Job decending velocity [1–1000]	50 Hz / s		
	P044	2nd decending velocity [1–1000]	50 Hz / s		
	P045	3rd decending velocity [1–1000]	50 Hz / s		
	P046	4th decending velocity [1–1000]	50 Hz / s		
	P047	5th decending velocity [1–1000]	50 Hz / s		
	P048	6th decending velocity [1–1000]	50 Hz / s		
	P049	7th decending velocity [1–1000]	50 Hz / s		

	Parameter	Meaning	Factory Default	Setting for my 3-phase motor	
	P050	**Multi function input 1 (K1 input)** 0 = Invalid (unused input) 1 = 3-wire control stop (self-latching) 2 = keying stop (momentary) 3 = keying operation 4 = stop keying 5 = wire forward operation (self-latching) 6 = wire reverse operation (self-latching) 7 = reservation (reserved) 8 = error reset signal 9 = wire reversing switch 10 = keying forward switching (momentary) 11 = keying forward switching (momentary) 12 = reverse switch keying (momentary) 13 = section speed input 1 (see P027) 14 = section speed input 2 (see P028) 15 = section speed input 3 (see P029) 16 = external error signal	13	13	short to COM to operate short to COM to operate short to COM to operate short to COM to operate short to COM to operate short to COM to operate short to COM to operate short to COM to operate short to COM to operate short to COM to operate short to COM to operate short to COM to operate short to COM to operate short to COM to operate short to COM to operate short to COM to operate
(=stop) (speed 2) (FOR) (REV)	P051	**X2 input (options 0 - 16 as P050)**	14	2 7	short to COM to operate
	P052	**X3 input (options 0 - 16 as P050)**	15		short to COM to operate
	P053	**X4 input (options 0 - 16 as P050)**	5	5 or 10	short to COM to operate
	P054	**X5 input (options 0 - 16 as P050)**	6	6 or 17 7	short to COM to operate
	P055	**X6 input (options 0 - 16 as P050)**	9	9	short to COM to operate
	P056				not documented
	P057				not documented
	P058	**Multi function input (SP1)** 0 = invalid, no output 1 = operating instructions 2 = set arrival instructions 3 = fault indication 4 = timer time cut-out		0	(open collector 1)
	P059				not documented
	P060	**Multi function input (SP2)** relay output 0 = invalid, no output 1 = operating instructions 2 = set arrival instructions 3 = fault indication 4 = timer time cut-out		0	(open collector 2)
	P061	N/A			
VFM & display	P062	Display options 0 = setting frequency 1 = operating frequency 2 = rpm 3 = current 4 = temperature 5 = time	0	2	 speed in Hz rpm (check pulley setting) useful for showing spindle load temperature inside VFD
	P063				not documented
	P064				not documented
Power on options	P065	Power On Options 0 = normal power on 1 = reset error with start when powered on 2 = power on forward 3 = power on reverse	0	0	
	P066	Input stabilization time [0–65535]	20	default	
	P067	Voltage coefficient [0–65535]	32500	default	
	P068	Under Voltage Setting [0–220 / 380 V]	160 or 270 V	160 V	
	P069	Over Voltage Setting [230 - 400 / 680 V]	360 or 560 V	360 V	

	Parameter	Meaning	Factory Default	Setting for my 3-phase motor	
	P070	Torque Compensation Options			Tuning for
		0 = Use P72 as compensation amount	0	0	more
		1 = Multiple P72 by P71 - input voltage)			torque at
	P071	Torque Compensation Voltage [100–309V]	0		low
	P072	Torque Compensation Setting [0–100]	10		speeds /
	P073	Max external analogue	0		
	P074	Min external analogue	61440		
	P075	Zero current compensation value	4096		
Max Current	P076	Current coefficient [0–65535]	9500 mA		max current in mA (check motor plate rating)
	P077	Parameter reset (Factory reset when = 54321)	0	0	
	P078				not documented
	P079				not documented
	P080				not documented
	P081				not documented
	P082				not documented
	P083				not documented
	P084				not documented
	P085				not documented
Jogging options	P086	Jog Forward Frequency	20 Hz	20 Hz	
	P087	Jog Reverse Frequency	20 Hz	20 Hz	
	P088	Jog noise velocity	50 Hz/s	50 Hz/s	Jog accel
	P089	Jog descent velocity	50 Hz/s	50 Hz/s	Jog decel
	P090	Jog Stopping Modes 0 = inertia stop 1 = decel stop 2= brake stop 3 = emergency brake	1	1	
	P091	Jog Braking Time	0.1 seconds	0.1 seconds	
	P092				not documented
	P093				not documented
	P094				not documented
	P095				not documented
	P096				not documented
	P097				not documented
	P098				not documented
	P099				not documented
	P100	N/A			
	P101				not documented
	P102				not documented
	P103				not documented
	P104				not documented
	P105	N/A			
	P106	N/A			
	P107	N/A			
	P108				not documented
	P109				not documented
	P110				not documented
	P111				not documented
	P112				not documented
	P113				not documented
	P114	N/A			
	P115	N/A			
	P116	N/A			
	P117				not documented
	P118				not documented
	P119				not documented
	P120				not documented
	P121				not documented
	P122				not documented
	P123				not documented
	P124				not documented
	P125				not documented
	P126				not documented
	P127	Remaining hours	65535	65535	VFD time