

Suggested PID setup parameters for IMO Jaguar VXR "Torque Vector"

VXR Functions Group	Nr.	Description General	Factory Setting	Suggested Setting	Actual Setting	Suggested Setting Description			
1. F	F 01	Freq Command 1	0			PID Command ref eg: 0=up/down keys on keypad, 1=Pot or 0-10V control			
	F 02	Control Method	2	1		2 = Control from Keypad RUN (forwards) & STOP, 1=Control by terminals FWD & REV.			
	F 03	Max Frequency	50Hz			Sets maximum output speed (Hz) for 10V or 20mA ref input			
	F 07	Accel Time 1	6.00s			Time taken from zero to max frequency			
	F 08	Decel Time 1	6.00s			Time taken from max freq to zero speed			
	F 11	Overload Level	Default for motor			Normal overload setting - usually nameplate motor Amps			
	F 14	Restart	0	5		Ignores power down, no trip, powers up after interrupt to become available			
	F 15	High limit	70Hz			Sets high speed limitation - ensure this doesn't impede max freq unless needed			
	F 16	Lo Limit	0Hz			Sets Low speed limitation, this becomes 'sleep' speed when H63 selects this function			
	F 26	Motor sound	15	4		Reduces heat in panel unless super quiet motor essential			
	F 37	Load Selection	1	2		0 = energy saving, 1=CT (set F 09), 2 = AUTO (poss best setting if Vector Control (F42=1) & P02,P03 set)			
	F 42	Vector Select	0	1		Selects Vector mode (NB ensure motor info is correct, tune if possible)			
1. E	E 01	X1 terms function	0	0		Programs X1 terminal as preset speed 1 (Value in C05)			
	E 02	X2 terminal	1	20		PID Cancel input	ss3 (X3)	ss4 (X4)	Preset SV
	E 03	X3	2	2		See Table re lookup for PID multi SV's when in PID	1	0	C08
	E 04	X4	7	3			0	1	C12
	E 05	X5				As required	1	1	C16
	E 20, 27	Y terms function	0, 99			Programs Y1,Y2E, 30ABC relay as req'd e.g. RUN, TRIP, PID alarm, At Speed etc			
	E 40	PID Coeff A	100			Sets the scaling for PID display range (e.g. 4-20mA feedback transmitter = 0 - 4bar, prog E 40=4.00, E41 = 0.00)			
	E 41	PID Coeff B	0						
	E 43	LED Montr Select	0	10		Selects PID command (SV) as default display and use of up/down keys in RUN mode			
	E 52	Menu Display	0	2		2 = Opens all menus			
	E 61	Analogue Input t.12	0			Sets analogue input as PID command (0-10V = 3) or feedback (0-10V feedback = 5)			
	E 62	t. C1	0	5		Set to 5 if 4 - 20mA is process transmitter feedback, this is most popular selection			
1. C	C 05-20	Preset speeds	0.00Hz			PID SV's set as 0-Max Hz = 0-100% eg F 03 - 50Hz, 20.00Hz is 40% PID SV			
1. P	P 02	Motor Capacity	Motor kW			Motor size relative to Jag rating helps motor map model			
	P 03	Motor rated Amps	Default for motor			Vector information for optimum motor control - use default if close			
	P 04	Tuning	0	1		1' for static motor tune, 'RUN' to start			
	P 06	No load Amps	Default for motor			Vector info - if N/A, contact IMO or use default setting if looks OK			
1. H	H 06	Fan Stop	0	1		On/off control of fan with temperature may lengthen fan bearing life			
	H 07	ACC PTN	0			0 = normal linear ramp, 1 = S ramp (weak), 2 = S (strong), 3 = curvilinear (fan)			
	H 11	Dec Mode	0			0 = Ramp to stop, 1 = Freewheel / coast to stop			
	H 63	Low Limiter Funct	0	1		Sets 'Sleep' or limit at which the output goes ramps to zero			
1. J	J 01	PID Control	0	1		0 = Inactive, 1 = Positive (forward, 'heating') mode, 2 = inverse (reverse, 'cooling')			
	J 02	Process Command	0			0 = Keypad, 1 = Process Command 1(see E60,E61,E62), 4= by communications			
	J 03	P Gain	0.100	0.50-1.00		Proportional gain (increase for more response)			
	J 04	I time (s)	0.0	2 - 3s		Integration time (decrease for more response)			
	J 05	D time (s)	0.00			derivative time (increase for more response)			