



# Easy Altivar ATV310 complete parameters list

ENGLISH

EAV9613605

Reference menu	<b>Reference mode</b>
	F002 External reference value
	F003 Analog input virtual
	F001 Speed reference
	59,11 Internal PID reference
	806 PID reference value
Monitoring parameter	<b>Monitoring mode</b>
	F002 External reference value
	F003 Analog input virtual
	F001 Speed reference
	802 Output frequency
	803 Motor current
	804 PID error
	805 PID Feedback
	806 PID reference
	807 Main voltage
	808 Motor thermal state
	809 Drive thermal state
	810 Output power
	<b>Product status</b>
	[00] Drive ready
	[01] Drive running
	[02] Acceleration
	[03] Deceleration
	[04] DC injection braking in progress
	[05] Current limitation state
	[06] Freewheel stop control or freewheel state
	[07] Auto-adated deceleration
	[08] Controlled stop on mains phase loss
	[09] Auto-tuning in progress
	[10] Fast stop state
	[11] No line power state
	[12] Drive in back state
	[13] Remote control mode
	[14] Local control mode
Drive status	<b>MAINTENANCE MENU</b>
	901 State of logic inputs L11 to L14
	902 State of the logic output LO1 and relay R1
	903 Display of high speed value
	<b>Drive Power rating</b>
	037
	075
	U15
	U22
	U30
	U40
	U55
	U75
	D11
Maintenance menu	<b>Drive voltage rating</b>
	N4
	906 Specific Product Number
	Card 1 Software Version
	Card 2 Software Version
	909 Run elapsed time display
	910 Power On time display
	911 Fan time display
	912 Process Elapsed time
	913 Modbus communication status
	914 Last fault 1
	915 State of drive at fault 1
	916 Last fault 2
	917 State of drive at fault 2
	918 Last fault 3
	919 State of drive at fault 3
	920 Last fault 4
	921 State of drive at fault 4
	999 HMI Password
	<b>F000 Fault menu</b>
	F002 Precharge
	F002 Unknown drive rating
	F003 Unknown or incompatible power board
	F004 Internal serial link
	F005 Invalid industrialization zone
	F006 Current measurement circuit

Detected fault codes	F007 Internal thermal sensor fault	I/O menu (cont.)	217 Speed Template	Control menu (cont.)
	F008 Internal CPU		[00]* Standard	[03] Remote display
	F009 Overbraking		[02] DeadBand	[10] Modbus
	F010 Overcurrent		300- MOTOR CONTROL MENU	<b>Forced local assignment</b>
	F011 Drive overheat		301 Standard motor frequency	[00]* No: Function inactive
	F012 Process overload		[00]* 50Hz	[L1H] L1 active High
	F013 Motor overload		[01] 60Hz	[L2H] L2 active High
	F014 1 Output phase loss		302 Rated motor power	[L3H] L3 active High
	F015 3 Output phases loss		Drive power (-5 to +2) depending on drive rating	[L4H] L4 active High
	F016 Main overvoltage		303 Rated motor cos phi	[LUH] LIU active High
	F017 Input phase loss		0.5 to 1 (depending on drive rating)	
	F018 Motor short-circuit		304 Rated motor voltage	
	F019 Ground short-circuit		360 to 460V (380V*)	
	F020 IGBT short circuit		305 Rated motor current	
	F021 Load short circuit		0.25 to 1.5n (depending on drive rating)	
	F022 Modbus interruption		306 Rated motor frequency	0.0 to 999.9s (3.0s*)
	F024 HMI communication		307 Rated motor speed	0.0 to 24000rPM (depending on drive rating)
	F025 Overspeed		308 Maximum frequency	10 to 400Hz (60Hz*)
	F026 PI feedback fault		309 Motor control type	
	F027 IGBT overheat		[00] Performance: Vector control	
	F028 Autotuning fault		[03] Standard: U/F 2 points	
	F029 Process underload		[06] Pump: U <sup>2</sup> /F	
	F030 Undervoltage		310 IR compensation	
	F031 Incorrect configuration		25 to 200% (100%)	
	F032 Invalid configuration		311 Slip compensation	
	F034 Download invalid configuration		0 to 150% (100%)	
	F035 Pre-charge resistor protection fault		312 Frequency loop stability	
Short menu	<b>Configuration mode</b>		0 to 100% (20%)	
	301 Standard motor frequency		313 Frequency loop gain	0 to 100% (20%)
	[00] 50Hz IEC		314 Flux Profil	0 to 100% (20%)
	[01] 60Hz NEMA		315 Switching frequency	2 to 12kHz (4kHz*)
	401 Reference channel 1		317 Motor noise reduction	
	[01] Terminal		[00]* No	
	[163] Remote display		[01] Yes	
	[164] Modbus		318 Auto-tuning	
	[183] Integrated display with Jog dial		[00]* No: When factory parameters of standard motors	
	501.0 Acceleration		[01] Yes: Launches auto-tuning	
	0.0 s to 999.9s (3.0s*)		[02] Done: If auto-tuning has already been performed	
	501.1 Deceleration		319 Motor parameter choice	
	0.0 s to 999.9s (3.0s*)		[00]* Nominal motor power	
	512.0 Low speed		[01] Nominal motor cos phi	
	0.0Hz to High speed (0Hz*)		320 Vector control 2 points	
	512.2 High speed		[00]* No	
	Low speed to max. frequency (mot. frequency*)		[01] Yes	
	302 Rated Motor Power		321 Max voltage of constant power	360 to 460V (380V*)
	NCV -5 to NCV +2 (according to drive rating*)		322 Max frequency of constant power	50 to 200Hz (50Hz*)
	305 Rated motor current		400- CONTROL MENU	
	(0.25-1.5ln) (ln*)		401 Reference channel 1	
	204.0 A11 type		[01] Terminal	
	[50]* Voltage: 0-5Vdc		[163] Remote display	
	[10U] Voltage: 0-10Vdc		[164] Modbus	
	[0A] x-y mA		[183] Integrated display with Jog dial	
	[LUU] Logic inputs		External reference value	-400 to 400Hz
	101 Store customer parameter set		403 Analog input virtual	0 to 100%
	[00]* Disabled		404 Reverse inhibition	
	[01] Stores current configuration		[00]* No	
	102 Factory / recall customer parameter set		[01] Yes	
	[00]* Disabled		405 Stop key priority	
	[02] Customer configuration		[00] No: Stop inactive	
	[64] Factory set configuration		[01] Yes: Stop active	
	<b>COMPLETE MENU</b>		406 Channel configuration	
	100 Macro-configuration		[01]* Not separate mode	
	[00] Start/stop		[02] Separate mode	
	[04] PID regulation		407 Command channel 1	
	[09] Speed		[01]* Terminals	
	200- I/O MENU		[02] Local	
	201 Type of control		504- AUTO DC INJECTION MENU	
	[00]* 2-wire control			
	[01] 3-wire control			
	202 2-wire type control			
	[00] level			
	[01]* transition			
	[02] Forward priority			
	203 Logic inputs type			
	[00]* positive			

The (\*) indicates a parameter factory setting.

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Jump frequency	Maintenance menu	504.0 Automatic DC injection	504.0 Automatic DC injection					
		[00] Function inactive, no DC injected current.	[01]* Time limited DC injection	[02] Continuous DC injection				
Motor potentiometer function	Jog function	504.1 Automatic DC injection current	0 to 120% of nominal motor current (70%*)					
		504.2 Automatic DC injection time	0.1 to 30s (0.5s*)					
PID Control function	PID / Pump management function	505 Jog assignment	Jog assignment					
		[00]* Not assigned	[L1H] L1 active High	[L2H] L2 active High	[L3H] L3 active High	[L4H] L4 active High	[LUH] LIU active High	
PID Control function	PID / Pump management function	506 Speed up and down	Speed up and down					
		[00]* Not assigned	[L1H] L1 active High	[L2H] L2 active High	[L3H] L3 active High	[L4H] L4 active High	[LUH] LIU active High	
PID Control function	PID / Pump management function	506.0 Up speed command	Up speed command					
		[00]* Not assigned	[L1H] L1 active High	[L2H] L2 active High	[L3H] L3 active High	[L4H] L4 active High	[LUH] LIU active High	
PID Control function	PID / Pump management function	506.1 Down speed command	Down speed command					
		[00]* Not assigned	[L1H] L1 active High	[L2H] L2 active High	[L3H] L3 active High	[L4H] L4 active High	[LUH] LIU active High	
PID Control function	PID / Pump management function	506.2 Store	Store					
		[00]* No	[01] RAM	[02] ROM				
PID Control function	PID / Pump management function	506.3 Clear the function	Clear the function					
		[00]* Not assigned	[L1H] L1 active High	[L2H] L2 active High	[L3H] L3 active High	[L4H] L4 active High	[LUH] LIU active High	
PID Control function	PID / Pump management function	506.4 Reactivity of +/- speed around ref.	Reactivity of +/- speed around ref.					
		0 to 100% (0%*)						
PID Control function	PID / Pump management function	507 PRESET SPEED MENU	PRESET SPEED MENU					
		507.0 2 Preset speeds	2 Preset speeds					
PID Control function	PID / Pump management function	507.1 4 Preset speeds	same as 2 Preset speeds					
		507.2 8 Preset speeds	same as 2 Preset speeds					
PID Control function	PID / Pump management function	507.3 Preset speed 2	0 to 400Hz (10Hz*)					
		507.4 Preset speed 3	0 to 400Hz (15Hz*)					
PID Control function	PID / Pump management function	507.5 Preset speed 4	0 to 400Hz (20Hz*)					
		507.6 Preset speed 5	0 to 400Hz (25Hz*)					
PID Control function	PID / Pump management function	507.7 Preset speed 6	0 to 400Hz (30Hz*)					
		507.8 Preset speed 7	0 to 400Hz (35Hz*)					
PID Control function	PID / Pump management function	507.9 Preset speed 8	0 to 400Hz (40Hz*)					
		508 Skip frequency	0 to 400Hz (0Hz*)					
PID / Pump management function	PID / Pump management function	59. PID MENU	PID MENU					
		59.00 PID feedback assignment	PID feedback assignment					
PID / Pump management function	PID / Pump management function	59.01 PID proportional gain	Not assigned					
		[00] Terminal	[01] Not assigned	[02] Free wheel	[03] Fallback speed			
PID / Pump management function	PID / Pump management function	59.02 PID integral gain	0.01 to 100 (1*)					
		59.03 PID derivative gain	0.00 to 100.0 (0*)					
PID / Pump management function	PID / Pump management function	59.04 PID feedback scale factor	0.1 to 100.0 (1.0*)					
		59.05 Activation internal PID reference	[00]* No					
PID / Pump management function	PID / Pump management function	59.06 2 preset PID assignment	[01] Yes					
		[00]* Not assigned	[L1H] L1 active High	[L2H] L2 active High	[L3H] L3 active High	[L4H] L4 active High	[LUH] LIU active High	
PID / Pump management function	PID / Pump management function	59.07 4 preset PID assignment	[00]* Not assigned					
		[L1H] L1 active High	[L2H] L2 active High	[L3H] L3 active High	[L4H] L4 active High	[LUH] LIU active High		
PID / Pump management function	PID / Pump management function	59.08 2 preset PID reference	[00]* 0 to 100% (25%*)					
		59.09 3 preset PID reference	0 to 100% (50%*)					
PID / Pump management function	PID / Pump management function	59.10 4 preset PID reference	0 to 100% (75%*)					
		59.11 Internal PID reference	0 to 100% (0%*)					
PID / Pump management function	PID / Pump management function	59.12 PID reference ramp	0 to 100% (0%*)					
		59.13 PID min value reference	0 to 100% (0%*)					
PID / Pump management function	PID / Pump management function	59.14 PID max value reference	0 to 100% (100%*)					
		59.15 PID predictive speed	0.1 to 400Hz (0.0*)					
PID / Pump management function	PID / Pump management function	501.4 Acceleration 2	0.0 to 999.9s (5s*)					
		59.16 PID correction reverse	[00]* No, no negative speed					
PID / Pump management function	PID / Pump management function	59.17 PID auto/manual assignment	[01] Yes, no negative speed					
		[02] No, allow negative speed	[03] Yes, allow negative speed					
PID / Pump management function	PID / Pump management function	59.18 PID manual reference	[00]* No					
		[01] Yes	[183] Integrated jog dial					
PID / Pump management function	PID / Pump management function	512.1 Low speed operating time	0.1 to 999.9s (0s*)					
		59.19 PID: wake up level	0 to 100% (0%*)					
PID / Pump management function	PID / Pump management function	59.20 PID: Wake up threshold	0 to 100% (0%*)					
		59.21 Sleep offset threshold	0 to High speed (0Hz*)					
PID / Pump management function	PID / Pump management function	59.22 PID feedback supervision threshold	0 to 100% (0%*)					
		59.23 PID supervision function time delay	0 to 300s (0s*)					
Speed limitation function	Speed limitation function	59.24 Maximum frequency detection Hysteresis	0 to 50 Hz (0Hz*)					
		59.25 PID feedback supervision	[00]* Not assigned					
Speed limitation function	Speed limitation function	59.26 Fallback speed	[01] Not assigned					
		[L1H] L1 active High	[L2H] L2 active High	[L3H] L3 active High	[L4H] L4 active High	[LUH] LIU active High		
Speed limitation function	Speed limitation function	510 PUMP SUB-MENU	0 to 100 (1*)					
		207 Overload time delay	0 to 100 s (0 s*)					
Speed limitation function	Speed limitation function	208 Overload threshold	0 to 150% of nominal motor current (90%*)					
		209 Overload fault duration	0 to 6 min (0 min*)					
Speed limitation function	Speed limitation function	210 Underload time delay	0 to 100 s (0 s*)					
		211 Underload threshold	20 to 120% of nominal motor current (60%*)					
Speed limitation function	Speed limitation function	212 Underload fault duration	0 to 6min (0min*)					
		510.0 Selecting operating mode	[00]* Single frequency conversion mode					
Speed limitation function	Speed limitation function	510.1 Starting frequency of the auxiliary pump	[00]* 0 to 60Hz (50Hz*)					
		510.2 Time delay before starting auxiliary pump	0 to 999.9s (2s*)					
Speed limitation function	Speed limitation function	510.3 Auxiliary pump ramp reaching	0 to 999.9s (2s*)					
		510.4 Auxiliary pump stop frequency	0 to 60Hz (0Hz*)					
Speed limitation function	Speed limitation function	510.5 Auxiliary pump stop time delay	0 to 999.9s (2s*)					
		510.6 Auxiliary pump stop ramp	0 to 999.9s (2s*)					
Speed limitation function	Speed limitation function	510.7 Zero flow detection period	0 to 20min (0min*)					
		510.8 Zero flow detection activation threshold	0 to 400Hz (0Hz*)					
Speed limitation function	Speed limitation function	510.9 Zero flow detection offset	0 to 400Hz (0Hz*)					
		511 CURRENT LIMITATION MENU	[00]* Not activated					
Speed limitation function	Speed limitation function	511.0 2nd current limitation commutation	[L1H] L1 active High					
		[L2H] L2 active High	[L3H] L3 active High	[L4H] L4 active High	[LUH] LIU active High			
Speed limitation function	Speed limitation function	511.1 Current limitation	0.25 to 1.5in (1.5in*)					
		511.2 Current limitation 2	0.25 to 1.5in (1.5in*)					
Speed limitation function	Speed limitation function	512 SPEED LIMIT MENU	[00]* Low speed					
		512.0 Low speed	0Hz to high speed (0Hz*)					
Speed limitation function	Speed limitation function	512.1 Low speed operating time	0.1 to 999.9s (0s*)					
		512.2 High speed	Low speed to maximum frequency (50 or 60Hz according to standard motor frequency*)					
Speed limitation function	Speed limitation function	512.3 2 High speed assignment	[00]* Not assigned					
		[L1H] L1 active High	[L2H] L2 active High	[L3H] L3 active High	[L4H] L4 active High	[LUH] LIU active High		
Speed limitation function	Speed limitation function	512.4 4 High speed assignment	[00]* Not assigned					
		[L1H] L1 active High	[L2H] L2 active High	[L3H] L3 active High	[L4H] L4 active High	[LUH] LIU active High		
Speed limitation function	Speed limitation function	512.5 High speed 2	0 to 50 Hz (0Hz*)					
		512.6 High speed 3	Low speed to Max frequency (50 or 60Hz*)					
Speed limitation function	Speed limitation function	512.7 High speed 4	Low speed to Max frequency (50 or 60Hz*)					
		513 Cooling fan control	Fan runs when drive runs					
Speed limitation function	Speed limitation function	600 FAULT DETECTION MANAGEMENT MENU	Fan runs when drive runs					
		601 Detected fault reset assignment	[00]* Not assigned					