

VF-AS3 Start Up Check Sheet

Startup Technician		
Name	Telephone #	
Company Name	Email	

Job Site Information		
Company Name	Telephone #	
Contact Name	Email	
Address (Street, City, State, Zip)	Startup Date	
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Application Information			
Equipment Name		Application	
Load Type	CT 🗆 VT 🗆		

Motor Data		
Manufacturer	Model	
Serial #	HP/kW	
Voltage	Hz	
RPM	FLA	

Drive Information		
Supplier Name	Supplier Contact	
Type-Form	Duty rating HD D ND D	
CPU 1 version	CPU 2 version	
Serial #	Region setting	

TOSHIBA

- □ **Visual Inspection** No foreign materials (metal shavings, hardware)
- Input and Output Wiring Input leads are not wired to output terminals Input, output and control wires are in separate conduit Motor leads do not share conduit with any other motor leads Verify input and output wire tightness and condition (continuity, frayed wires, loose connections, pinched insulation) On Frame A7 and A8 connect the DC reactor and verify wire tightness and condition
- □ **Motor Terminal Box** Verify no power factor correction capacitors are installed, remove if found Verify wire tightness and condition (continuity, frayed wires, loose connections, pinched insulation)
- Drive to Motor Ground Connection (ASD chassis to motor chassis) Verify wire tightness and condition (continuity, frayed wires, loose connections, pinched insulation)
- □ **Record the Electrical Distribution System, if known** (i.e. Delta/Wye with Grounded Wye—Delta/Wye with Ungrounded Neutral—Delta/Delta with Grounded Midpoint—Delta/Wye with High Impedance Grounding)

	Grounding Capacitor – Enabled Disabled This should be DISABLED on Ungrounded, Corner Grounded or High Impedance Grounding Systems otherwise it could result in a VFD failure – Refer to section 2.3.4 of the AS3 Instruction Manual for more de	etails		
	Voltage – Line voltage = ±10% of drive rating – DC bus = line voltage * 1.414 – Control voltage = 24 VDC			
	L1 – L2 L1 – L3 L2 – L3 DC Bus (PA/+ – PC/-)			
	L1 – GND L2 – GND L3 – GND Control Voltage (P24 – CC)			
	SW1 Switch – Sink D PLC Source – Move to Sink or Source, otherwise PrA will blink on the keypa	ad		
	Motor Rotation – Run the drive at 5 Hz with the keypad in HAND mode (change parameter F750 = 2) – Verify the correct motor rotation – If incorrect, swap two of the OUTPUT leads (T1, T2 or T3) and retest rotation			
	Blower/Cooling Fan(s) Check – Fans operate and air flows in correct direction			
	Real Time Clock – Set the correct date and time in the Date/Time settings option from the Screen menu			
	Inputs and Outputs – Check and verify used inputs and outputs in the monitor mode			
	Digital Inputs – Refer to F110 to F128 and F140 to F158 – Changes:			
	□+SU □ RES □ F □ R □ S1 □ S2 □ S3 □ S4 □ S5 □ STOA □ STOB			
	Analog Inputs – Verify polarity and record scaling (4-20 mA / 0-60 Hz) – Refer to F201 to F221			
	II (4-20mA) RR (0-10VDC) RX (-10 to +10VDC)			
	Digital Outputs – Refer to F130 to F139 – Changes:			
	□ FL □ R1 □ R2 □ FP			
Analog Outputs – Verify polarity and record scaling (4-20 mA / 0-60 Hz) – Refer to FM, FMSL and F670 to F69				
	FM (0-10V or 0-20mA) AM (0-10V or 0-20mA)			



Parameter Settings				
Title	Name	Value	Notes	
AUL	Multi-rating select		HD (150%) or ND (120%) overload rating	
CMOd	Run command select		Location of start/stop command	
FMOd	Frequency command select 1		Location of speed command	
Pt	V/f Pattern		Motor control pattern	
vL	Base frequency 1		Motor nameplate Hz	
vLv	Base frequency voltage 1		Motor nameplate voltage	
FH	Maximum frequency		Maximum allowed output frequency	
UL	Upper limit frequency		Highest allowed user frequency	
LL	Lower limit frequency		Lowest allowed user frequency	
ACC	Acceleration time 1		Time to accelerate from 0 Hz to FH	
dEC	Deceleration time 1		Time to decelerate from FH to 0 Hz	
Fr	Panel Fwd/Rev run select		Enables FWD/REV keypad button	
tHrA	Motor overload protection		Motor nameplate amps	
F301	Auto-restart		Value = 4: Enables catch on the fly (flying starts)	
F303	Retry		Number of times to attempt a restart after a trip	
F701	Current, voltage units select		Changes units from % to amps and volts	
F750	EASY key function		Value = 2: Enables HAND/AUTO keypad button	

Additional Comments:

□ **Complete Functional Check** – Connect all customer controls and verify proper operation – All controls are functioning according to the customers expected specifications and ALL safety interlocks are operating properly

End User / Contractor Acceptance Signature

Startup Technician Signature

Date