

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 ____ / ____ / ____

Application Information	
Equipment Name	Application
Load Type CT <input type="checkbox"/> VT <input type="checkbox"/>	

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

Drive Information	
Supplier Name	Supplier Contact
Type-Form	Duty rating HD <input type="checkbox"/> ND <input type="checkbox"/>
CPU 1 version	CPU 2 version
Serial #	Region setting

- 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 details

Voltage – Line voltage = $\pm 10\%$ 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 PLC Source – Move to Sink or Source, otherwise PrA will blink on the keypad
- 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 F690

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 current		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

Date

Startup Technician Signature

Date