

NOTE: VFD SUPPLIER MUST SET ALL CARRIER DEFAULT PARAMETERS

VFD Parameter	Description	Setting	Type	Comments
P.000	Control Source	rE	CD	Remote control source
P.001	Accel time 1 (ramp1) (Seconds)	8	CD	
P.002	Decel Time 2 (Ramp1) (Seconds)	20	CD	
P.003	Minimum Speed	0.5	CD	
P.004	Maximum Speed	JS	VAR	Job Sheet; 60 for 60hz and 50 for 50 Hz
P.005	Current Limit (%)	110	CD	% of parameter H.002
P.006	Second Menu password	107	RD	Password to access remaining screen
P.007	Terminal Strip Digital Input	0	RD	NA
P.008	Terminal Strip Speed Reference Source	0	RD	Analog reference, terminals 14 & 15
P.009	Terminal Strip Analog Input Offset	0.000	CD	"Tune per
P.010	Terminal Strip Analog Input Gain	FOR 64LR406X 1.000	CD	Z-421 for
		FOR 50LR406X 1.000	CD	proper operation"
		FOR 41LR406X 1.000	CD	
P.011	Terminal Strip Analog Input Configure	4	CD	4 to 20 mA
P.012	Terminal Strip Analog output source	0	RD	Speed control signal
P.013	Output Relay Configure	2	CD	1M Relay, Closes when drive is running
P.014	Trim Reference Source	0	RD	NA
P.015	Trim Gain Percentage	0	RD	NA
P.016	Draw Gain Percentage	0	RD	NA
P.017	Accel Time 2 (Ramp 2)	20	RD	NA
P.018	Decel Time 2 (Ramp2)	20	RD	NA
P.019	S-Curve Enable	ON	RD	Linear Start & Stop.
P.020	Jog Speed Reference	50	RD	NA
P.021	Jog Ramp Accel Time	20	RD	NA
P.022	Jog Ramp Decel Time	20	RD	NA
P.023	MOP Accel/Decel Time	20	RD	NA
P.024	MOP Reset Configuration	0	RD	NA
P.025	Stop Type	0	RD	Coast to rest stop.
P.026	Function Loss Response	0	RD	Generate a fault (IET) and coast to rest
P.027	Forward/Reverse Configuration	1	CD	Reverse disabled
P.028	Speed display Scaling	JS	VAR	Job Sheet; 60 = 60hz and 50 = 50 Hz
P.029	Elapsed Time Meter	Read Only	RD	
P.030	Elapsed Time Meter Reset	OFF	RD	
P.031	Preset Speed 1	5	RD	NA
P.032	Preset Speed 2	5	RD	NA
P.033	Preset Speed 3	5	RD	NA
P.034	Preset Speed 4	5	RD	NA
P.035	Preset Speed 5	5	RD	NA
P.036	Preset Speed 6	5	RD	NA
P.037	Preset Speed 7	5	RD	NA
P.038	Preset Speed 8	5	RD	NA
P.039	Encoder Loss Disable	OFF	RD	Disable encoder loss diagnostics
P.040	Motor Overload Enable	ON	RD	Enable motor thermal overload function
P.041	Motor Overload Type	FC	RD	Forced cooled motor.
P.042	Line Dip Ride through time	5	RD	NA due to vector regulation.
P.043	Fault auto reset attempts	10	CD	Fault Auto Reset Attempts
P.044	Fault auto reset time	30	CD	Fault Auto Reset Time
P.045	Output Phase loss enable	ON	RD	Enable output phase loss diagnostic
P.047	Carrier Frequency (kHz)	2	RD	2000 hertz carrier frequency.
P.048	Volts/hertz or Vector Regulation	U-H	RD	V/Hz Control
P.049	Counter Detail	USA	RD	
P.050	Restore Defaults	OFF	RD	
P.051	Programming Disable	0	RD	Programming enabled. 26 disables programming
P.052	Auto/Man Key Disable	ON	CD	Disables local speed control
P.053	Manual Reference Preset Enable	OFF	RD	
P.054	Level Sense Start Enable	OFF	RD	
P.055	Stop/Reset Key Disable	OFF	RD	
P.060	Network Drop Number	1	RD	NA
P.061	Network Connection Type	0	RD	NA
P.062	Option Port; Communication Loss Response	0	RD	NA
P.063	Option Port; Network Reference	0	RD	NA
P.064	Option Port; Network Trim Reference Source	0	RD	NA
P.065	Option Port; Type & Version	Read Only	RD	NA
P.066	Network Output Register Source 1-4	0	RD	NA
P.067	Network Output Register Source 1-4	0	RD	NA
P.068	Network Output Register Source 1-4	0	RD	NA
P.069	Network Output Register Source 1-4	0	RD	NA
P.090	Diagnostics Source	0	RD	Potential Service Tool
P.091	Diagnostics Display	Read Only	RD	Per selection of parameter P.090
P.095	Power Module Maximum Output Amps	Read Only	RD	Drive Amp rating
P.097	Custom Software #	Read Only	RD	
P.098	Software Version #	Read Only	RD	
P.099	Power Module Type	Read Only	RD	

VFD Parameter	Description	Setting	Type	Comments
H.000	Motor Nameplate Voltage	JS	VAR	Selected line voltage
H.001	Motor Nameplate Base Frequency	JS	VAR	60hz = 60, 50hz = 50
H.002	Motor Nameplate Amps	JS	VAR	Set to 1.08 x Motor Nameplate Amps
H.003	Torque Boost Voltage	0.5	RD	% of nominal inverter voltage
H.004	Slip Compensation	0	RD	% of base frequency
H.005	DC Braking Enable	OFF	RD	Disable brake
H.006	DC Brake Start Frequency	1	RD	NA, Hz
H.007	DC Braking Current	10	RD	NA, Amps
H.008	DC Braking Time	3	RD	NA, Seconds
H.009	Avoidance Frequency Enable	OFF	RD	NA, Disabled avoidance
H.010	Avoidance Frequency Midpoint	0	RD	NA, Midpoint of avoided frequency
H.011	Avoidance Frequency Band	2	RD	NA, Frequency band
H.012	Avoidance Frequency Midpoint	0	RD	NA, Midpoint of avoided frequency
H.013	Avoidance Frequency Band	2	RD	NA, Frequency band
H.014	Avoidance Frequency Midpoint	0	RD	NA, Midpoint of avoided frequency
H.015	Avoidance Frequency Band	2	RD	NA, Frequency band
H.016	Sync Direction	OFF	RD	NA
H.017	Input Power/Snuffer Configuration	0	RD	NA
H.018	Volts/Hertz Curve Type	0	RD	Linear relationship
H.019	Identification Result	Read Only		
H.020	Identification Request	OFF	RD	NA
H.021	AC Line Voltage	JS	VAR	Selected line voltage
H.022	Over Frequency Limit	JS	VAR	60hz = 69, 50hz = 57
r.001	Analog Output 1 Source	4	CD	Speed Feedback signal.
r.002	Analog Output 1 Offset	For 41LR406X 135	CD	Feedback to PIC II "May need
		For 50LR406X 60	CD	to be
		For 64LR406X 60	CD	tuned
r.003	Analog Output 1 Gain	For 41LR406X 0.503	CD	Feedback to PIC II for
		For 50LR406X 0.505	CD	proper
		For 64LR406X 0.505	CD	operation"
r.035	Relay - 1 Configuration	5	CD	NO, close at minimum speed. Speed
r.036	Relay - 2 Configuration	2	CD	NC, Open at VFD Fault. Term 54,55
r.037	Relay - 3 Configuration	1	CD	NO, closes at VFD Running. Fan
r.044	Relay - 1 Time Delay	-1.0	CD	1 Second Off Delay
r.045	Relay - 2 Time Delay	0	RD	No Delay
r.046	Relay - 3 Time Delay	for 41LR406X 0	CD	Relay not used for fan control
		For 50LR406X and 64LR406X -999	CD	Off delay for fan
r.050	Speed Detection Level 1	35	CD	Minimum Speed detection



VFD CONSOLIDATOR SHALL SET THE JOBSHEET (JS) PARAMETERS TO THE FOLLOWING FOR FINAL TEST AND SHIPMENT TO CARRIER.

VFD PARAMETER	DESCRIPTION	SETTING
P.004	MAXIMUM SPEED	60
P.028	SPEED DISPLAY SCALING	60
H.000	MOTOR NAMEPLATE VOLTAGE	460
H.001	MOTOR NAMEPLATE BASE FREQUENCY	60
H.002	SET TO 108% OF COMPRESSOR NAMEPLATE RATED LOAD AMPS	141.1
H.021	AC LINE VOLTAGE	460
H.022	OVER FREQUENCY LIMIT	69

ANALOG INPUT JUMPER J4 PIN 1-2

CD - CARRIER DEFAULT  
RD - STANDARD ROCKWELL DEFAULT PROGRAM

REV	REVISION RECORD	DATE	BY	CHK'D	APP'D	NPCA NO.
5.0	SETTING FOR P009 - 0.000 WAS -10, SETTING FOR P010 - 1.000 WAS 0.99, 1.000 WAS 0.99 AND 1.000 WAS 1.030	10/26/04	MP-I	TC	PJ	194373D
4.0	CHANGED SETTING r.046. ADDED A NEGATIVE SIGN TO 999 VALUE FOR r.044 WAS 0. ADDED COMMENT FOR H.002	04-10-02	MAW	SM	PAJ	192264D

DRAWING RELEASE LEVEL: <b>PRODUCTION</b>		 <b>Carrier</b> A United Technologies Company	
THIRD ANGLE PROJECTION 	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON: 1 DEC 2 DEC 3 DEC ANG ±0.0 ±0.12 ±0.0 ±1.0°		
MATERIAL	AUTHORIZATION NUMBER 194373D		
ENGINEERING REQUIREMENTS	ENGINEERING PJ 03/17/05	MANUFACTURING MM 03/21/05	TITLE <b>CONFIGURATION</b> VFD
WEIGHT: -	DRAFTER MP-I 10/26/04	CHECKER TC 10/26/04	SIZE D
SURFACE FINISH	CAD MODEL (INTERNAL USE ONLY) 19XV05006101 5.0		DRAWING NUMBER 19XV05006101
MFG/PURCH	NEXT DRAWING		REV 5.0
	SCALE N/A		DISTRIBUTION

8

7

6

5

4

3

2

1



### ISM CONFIGURATION TABLE

DESCRIPTION	RANGE	UNITS	DEFAULTS	VALUE
STARTER TYPE 0 = FULL VOLTAGE, 1 = REDUCED				
VOLTAGE, 2 = SS; 3 = VFD				
MOTOR RATED LINE VOLTAGE	200 TO 13200	VOLTS	460	JS
VOLT TRANSFORMER	1 TO 33		1	DEFAULT
OVERVOLTAGE THRESHOLD	105 TO 115	%	115	DEFAULT
UNDERVOLTAGE THRESHOLD	85 TO 95	%	85	DEFAULT
OVER/UNDER VOLT TIME	1 TO 10	SEC	5	DEFAULT
VOLTAGE % IMBALANCE	1 TO 10	%	5	DEFAULT
VOLTAGE IMBALANCE TIME	1 TO 10	SEC	5	DEFAULT
MOTOR RATED LOAD AMPS	10 TO 5000	AMPS	200	JS
MOTOR LOCKED ROTOR TRIP	100 TO 60000	AMPS	1000	JS
LOCKED ROTOR START DELAY	1 TO 10	CYCLES	5	DEFAULT
STARTER LRA RATING	100 TO 60000	AMPS	2000	1000
MOTOR CURRENT CT RATIO:1	10 TO 1000		100	120
CURRENT % IMBALANCE	5 TO 40	%	40	DEFAULT
CURRENT IMBALANCE TIME	1 TO 10	SEC	10	DEFAULT
3 GRND FAULT CT? (1=NO)	0/1	NO/YES	YES	NO
GROUND FAULT CT RATIO: 1	150		150	DEFAULT
GROUND FAULT CURRENT	1 TO 25	AMPS	15	DEFAULT
GROUND FAULT START DELAY	1 TO 20	CYCLES	10	DEFAULT
GROUND FAULT PERSISTANCE	1 TO 10	CYCLES	5	DEFAULT
SINGLE CYCLE DROPOUT	0/1	DSABLE/ENABLE	DSABLE	DEFAULT
FREQUENCY-60HZ (NO=50)	0/1	NO/YES	YES	JS
LINE FREQUENCY FAULTING	0/1	DSABLE/ENABLE	DSABLE	DEFAULT

VFD CONSOLIDATOR SHALL SET THE JOBSHEET (JS) ISM PARAMETERS TO THE FOLLOWING FOR FINAL TEST AND SHIPMENT TO CARRIER.

DESCRIPTION	SETTING
MOTOR RATED LINE VOLTAGE	460
MOTOR RATED LOAD AMPS	100
MOTOR LOCKED ROTOR TRIP	200
FREQUENCY-60HZ	1

REV	DESCRIPTION	DATE	BY	CHK'D	APP'D	NPCA NO.
5.0	NO CHANGE TO THIS SHEET.	10/26/04	MP-I	TC	PJ	194373D
4.0	NO CHANGE TO THIS SHEET	04-10-02	MAW	SM	PAJ	192264D
	REVISION RECORD					

DRAWING RELEASE LEVEL: <b>PRODUCTION</b>		 <b>Carrier</b> A United Technologies Company	
THIRD ANGLE PROJECTION 	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON: 1 DEC ±0.0    2 DEC ±0.12    3 DEC ±0.0    ANG ±1.0°		
MATERIAL	AUTHORIZATION NUMBER		TITLE
-	194373D		CONFIGURATION VFD
ENGINEERING REQUIREMENTS	ENGINEERING	MANUFACTURING	SIZE
-	PJ 03/17/05	MM 03/21/05	D
WEIGHT: -	DRAFTER	CHECKER	DRAWING NUMBER
	MP-I 10/26/04	TC 10/26/04	19XV05006101
SURFACE FINISH	CAD MODEL (INTERNAL USE ONLY)		REV
-	19XV05006101 5.0		5.0
MFG/PURCH	NEXT DRAWING	SCALE	DISTRIBUTION
-	-	N/A	-

UNCONTROLLED WHEN PRINTED