

APPENDIX 'E' – VARIABLE FREQUENCY DRIVE SETTINGS



SETTINGS SHEET VARIABLE FREQUENCY DRIVE

Page 1 of 2

ID: 0178L-VFD-L01



THE CITY OF WINNIPEG WATER AND WASTE DEPARTMENT

Engineer's Seal

RIVERBEND LIFT PUMPING STATION
2023 UPGRADES
VARIABLE FREQUENCY DRIVE SETTING LETTER
LIFT PUMP
P-L01



City Document Number 5-0178L-E0001-001

Project 22-3229 Riverbend Lift Pumping Station 2023 Upgrades

Rev.	Description	Date	Created By	Checked By	Approved By
00	Issued For Tender	2023/07/14	C. Lange	C. Lange	C. Lange

VFD Data	Control Schematics: 1-0178L-E0008-001, 1-0178L-E0009-001				
	Size:	40 HP	Voltage:	600 VAC	Nominal Output Current: 40 A
	Manufacturer:	Schneider Electric	Model:	ATV630D30S6	Nominal Efficiency: 98 %

Motor Data	Power:	40 HP	Voltage:	575 VAC	Speed:	1190	
	Manufacturer:	Nidec Motor Corporation	Model:	VSS Normal Thrust TEFC Config.	Pump Rating:	CSA Category 1	
	FLA:	37.0 A	Code:	G	Power Factor:	0.86	Service Factor:

Param. No.	Description	Set Point	Note	Rev.
BFR	[Motor Standard]	60 Hz [NEMA]		00
APPT	[Application Selection]	GPMP		00
NPR	[Nominal Motor Power]	40.0 HP	1	00
UNS	[Nominal Motor Voltage]	600 VAC	1	00
NCR	[Nominal Motor Current]	1.0 In	1	00
FRS	[Nominal Motor Freq]	60 Hz [NEMA]		00
NSP	[Nominal Motor Speed]	1190 rpm	1	00
MPC	[Motor param choice]	NPR		00
ITH	[Motor Th Current]	1.0 In	1	00
TCC	[2/3-Wire Control]	2C		00
TFR	[Max Frequency]	72 Hz		00
TUN	[Autotuning]	No		00
ACC	[Acceleration]	10.0 s		00
DEC	[Deceleration]	10.0 s		00
BRA	[Dec. Ramp Adapt]	Yes		00
LSP	[Low Speed]	0.0 Hz		00



**SETTINGS SHEET
VARIABLE FREQUENCY DRIVE**

Page 2 of 2

ID: 0178L-VFD-L01

Param. No.	Description	Set Point	Note	Rev.
HSP	[High Speed]	60.0 Hz		00
CTT	[Motor control type]	UFQ	1	00
AI1T	[AI1 Type]	10U		00
UIL1	[AI1 Min. Value]	0.0 Vdc		00
UIH1	[AI1 Max Value]	10.0 Vdc		00
AI2T	[AI2 Type]	0A	1	00
CRL2	[AI2 Min. Value]	4.0 mA	1	00
CRH2	[AI2 Max Value]	20.0 mA		00
AO1	[AQ1 Assignment]	OFR		00
AO1T	[AQ1 Type]	0A		00
AOL1	[AQ1 Min. Output]	0.0 mA		00
AOH1	[AQ1 Max Output]	20.0 mA		00
R1	[R1 Assignment]	FLT	1	00
R2	[R2 Assignment]	MRRS	1	00
R3	[R3 Assignment]	MFRD	1	00
ATR	[Auto Fault Reset]	No		00
FR1	[Ref Freq 1 Config]	AI2	1	00
FR1B	[Ref. 1B Channel]	AI1	1	00
RCB	[Ref 1B Switching]	LI3	1	00
RIN	[Reverse Disable]	No	1	00
FRD	[Forward]	LI1		00
RRS	[Reverse]	LI2	1	00

Notes

- The values listed here differ from the Factory Settings.
- The installer is responsible for ensuring proper parameter values are utilized. Dillon Consulting assumes no responsibility for incorrect parameter values that result in equipment damage.



SETTINGS SHEET VARIABLE FREQUENCY DRIVE

Page 2 of 2

ID: 0178L-VFD-L02

Param. No.	Description	Set Point	Note	Rev.
HSP	[High Speed]	60.0 Hz		00
CTT	[Motor control type]	UFQ	1	00
AI1T	[AI1 Type]	10U		00
UI1L	[AI1 Min. Value]	0.0 Vdc		00
UI1H	[AI1 Max Value]	10.0 Vdc		00
AI2T	[AI2 Type]	0A	1	00
CRL2	[AI2 Min. Value]	4.0 mA	1	00
CRH2	[AI2 Max Value]	20.0 mA		00
AO1	[AQ1 Assignment]	OFR		00
AO1T	[AQ1 Type]	0A		00
AOL1	[AQ1 Min. Output]	0.0 mA		00
AOH1	[AQ1 Max Output]	20.0 mA		00
R1	[R1 Assignment]	FLT	1	00
R2	[R2 Assignment]	MRRS	1	00
R3	[R3 Assignment]	MFRD	1	00
ATR	[Auto Fault Reset]	No		00
FR1	[Ref Freq 1 Config]	AI2	1	00
FR1B	[Ref. 1B Channel]	AI1	1	00
RCB	[Ref 1B Switching]	LI3	1	00
RIN	[Reverse Disable]	No	1	00
FRD	[Forward]	LI1		00
RRS	[Reverse]	LI2	1	00

Notes

1. The values listed here differ from the Factory Settings.
2. The installer is responsible for ensuring proper parameter values are utilized. Dillon Consulting assumes no responsibility for incorrect parameter values that result in equipment damage.