

# LSIS VFD Quick Start Guide

## C100, S100, H100, and iS7

### 1. C100 Basic Setup Parameters

The basic drive and motor parameters are shown in Table 1. Set the parameters according to your application.

Table 1. C100 Basic Setup Parameters

C100					
7 Segment		Description	Default	Set Options	Notes
Group	No				
Drive	0.00	Command Freq	0.00	0 - Max Freq	
Drive	ACC	Acc Time	20	0 - 6000	
Drive	dEC	Decel Time	30	1 - 6000	
Drive	drV	Run Command	1 Fx/Rx-1	0: Keypad 1: Fx/Rx-1 2: Fx/Rx-2 3: Comm RS485	Start/Stop FW or REV wired separate (P1 = FW, P2 = Rev) 2 Wire Start/Stop (P1 = FW, P2 = Rev)
Drive	Frq	Freq Command	0 Keypad-1	0: Keypad-1 1: Keypad-2 2: Panel Pot V2 (0-5V) 3: Terminal A1 (0-10V) 4: Terminal A1 (4-20mA) 5: Panel Pot + Terminal A1 (4-20mA) 6: Panel Pot + Terminal A1 (0-10V) 7: Comm RS485 8: Up/Down	Press ENTER to save values Value Changes immediately Set J1 to V Set J1 to I Set J1 to I Set J1 to V
F	39	Motor Voltage	Depends on drive	40 - 110%	Set as a percentage from the default (220V & 380V)
F	67	Input Voltage (200V)	220	170 - 240V	
F	68	Input Voltage (400V)	380	320 - 480V	
H	30	Motor Capacity	Depends on drive	Depends on drive	
H	31	Poles	4	2 - 12	
H	32	Slip	Depends on drive	0 - 10 Hz	If not given then: Rated Freq - ((rpm x poles)/120)
H	33	Motor Rated Current	Depends on drive	Depends on drive	
H	34	No Load Current	Depends on drive	0.0 - 1000A	
H	36	Motor Eff %	72	70 - 100%	

*Note: Many applications will not require changes to the basic setup parameters from their default values.*

#### 1.1 C100 Recommended Additional Parameter Changes

The C100 has some default settings the user may want to change to obtain better protection of the drive/motor and the application. These changes are recommended, but not needed for all applications.

##### Auto Reset:

- Program H21 (Reset/Restart after a fault) to “1”
- Program H26 (Number of Retries) to a number between 0 -10.

##### Start on Power Loss

- Program H20 (Power on Start) to “1”.

##### Phase Loss

- Program H19 (Phase Loss) to the correct bit to the high state for output, input, or both phase loss recognition.

*This parameter is in the form of 2 bits. Left bit is 2 (Input), Right bit is bit 1 (Output). It is represented is in the form of one section of the 7 segment display, ie. | | = low, low; | | = High, High. High represents On state, Low represents Off state.*

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### 2. S100/H100/iS7 Basic Setup Parameters

The basic drive and motor parameters are shown in Table 2. Set the parameters according to your application.

Table 2. iS7/H100/S100 Basic Setup Parameters

S100/H100/iS7							
7 Segment		LCD Keypad		Description	Default	Set Options (Use # for 7 Seg)	Notes
Group	No	Group	No				
Operation	0.00	DRV	1	Command Freq	0.00	0 - Max Freq	
Operation	ACC	DRV	3	Acc Time	20	0 - 6000	
Operation	dEC	DRV	4	Decel Time	30	1 - 6000	
Operation	drV	DRV	6	Run Command	1	Fx/Rx-1 0: Keypad 1: Fx/Rx-1 2: Fx/Rx-2 3: Comm RS485 4: Field Bus	Start/Stop FW or REV wired separate (P1 = FW, P2 = Rev) 2 Wire Start/Stop (P1 = FW, P2 = Rev)
Operation	Frq	DRV	7	Freq Command	0	Keypad-1 0: Keypad-1 1: Keypad-2 2: V1 4: V2 5: I2 6: Comm RS485 8: Field Bus 12: Pulse	Value Changes immediately
dr		DRV	14	Motor Capacity	Depends on drive	Depends on drive	
bA		BAS	11	Poles	4	2 - 12	
bA		BAS	12	Slip	Depends on drive	0 - 3000 RPM	If not given then: Rated Freq - ((rpm x poles)/120)
bA		BAS	13	Motor Rated Current	Depends on drive	Depends on drive	
bA		BAS	14	No Load Current	Depends on drive	0.0 - 1000A	
bA		BAS	15	Motor Voltage	Depends on drive	Depends on drive	
bA		BAS	16	Motor Eff %	72	70 - 100%	
bA		BAS	19	Input Voltage	220/380	170 - 480V	

Note: Many applications will not require changes to the basic setup parameters from their default values.

#### 2.1 S100/H100/iS7 Recommended Additional Parameter Changes

The S100, H100, and iS7 have some default settings the user may want to change to obtain better protection of the drive/motor and the application. These changes are recommended, but not needed for all applications.

##### Auto Reset:

- Program CON 71 bit 3 to High State (0100).
- Program PRT 08 (Reset/Restart after a fault) to "1" (Yes).
- Program PRT 09 (Number of Retries) to a number between 0 -10.

##### Start on Power Loss:

- Program ADV 10 (Power on Start) to "1" (Yes).

##### Phase Loss:

- Program PRT 05 (Phase Loss) to the correct bit to the high state for output, input, or both phase loss recognition. May need to adjust PRT 06 (IPO Band) for input phase loss recognition.

S100 7 segment display: This parameter is in the form of 2 bits. Left bit is 2 (Input), Right bit is bit 1 (Output). It is represented in the form of one section of the 7 segment display, ie.  $\bar{1}$  = low, low;  $1$  = High, igh. High represents On state, Low represents Off state. H100 and iS7 are shown as dip switches to represent bits.

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### 3. HP to kW Conversion Table

Use the following conversion table to enter the motor HP. Select the closet size the drive allows in kW (motor power is in kW on most LSIS drives)..

Table 3. HP to kW Conversion

<b>HP</b>	1/4	1/2	1	1.5	2	3	5	7	10	15	20	25	30	40	50	60	75	100	125	150	200	225	250	300	350	400	500	600
<b>kW</b>	0.2	0.4	0.75	1.1	1.5	2.2	3.7	5.5	7.5	11.0	15.0	18.5	22.0	30.0	37.0	45.0	55.0	75	90	110	132	160	185	220	280	315	375	450

### 4. RPM Entry

Table 4. Poles to RPM

<b>RPM</b>	3600	1800	1200
<b>Poles</b>	2	4	6

Example:

Actual motor RPM = 3450

Enter Poles = 2

Enter Slip RPM = 150 RPM