



F700 Variable Frequency Drives

THE NEW ENERGY
SAVING INVERTER



OVERVIEW

The F700 inverter delivers exceptional energy saving motor control and application scalability in a stand alone VFD. Simultaneous installation of two I/O cards within the inverter, coupled with the built-in PLC transforms the inverter itself into a versatile controller without the added expense of a bypass package. The optimum excitation control function dynamically modifies the V/Hz curve during acceleration and deceleration for maximum energy savings. The F700 is equally adept at sequencing pumps, managing HVAC applications, or driving any variable torque load from 1 to 1000 hp.

KEY FEATURES

- Single Phase Input – Up to 300Hp
- Windmill Start – Control a forward or reverse coasting load quickly and smoothly
- UL Type 1 Plenum Rated Enclosure (NEMA 1)
- Built-in communication interfaces, I/O, positioning, and data logging functionalities

F700 VARIABLE FREQUENCY DRIVES

Single or 3-Phase Supply with UL/cUL Rating

200hp Single Phase, 1000hp 3-Phase

Flexible installation conditions extend inverter application to remote locations.

Wide Range of Communications Options

BACnet MS/TP, Metasys N2, Siemens FLN, Modbus RTU are built-in. CC-Link, LonWorks, Profibus DP, DeviceNet, BACnet/IP, EtherNet/IP, Modbus TCP, PROFINET IO are optional.

Easy integration into new or existing systems with full control and remote diagnostic capabilities.

Optimum Excitation Control

Modulating the excitation current boosts efficiency.

Power consumption is reduced by 45% compared to conventional V/F control at 20Hz.

Built-in PLC

4k steps of program memory.

Control external devices directly from the drive without additional hardware complexity.

Expandable Onboard I/O

Relay, Analog, and Digital I/O

Interface with common external controls. I/O can be used with the PLC or as Remote I/O over the Network.

Advanced PID Mode

Includes 'Sleep Mode' as well as pump scheduling to allow intelligent control of up to 4 motors at once. Pre-charge function ensures consistent fill.

OPTION CARDS

		Model No.
Function	Relay Output	FR-A7AR
	12 Bit Digital Input	FR-A7AX
	Digital Output	FR-A7AY
	Ext. Analog Output	
	BiPolar Analog Input	FR-A7AZ
	High Res Analog Input	
	Motor Thermistor	
Communication	CC-Link	FR-A7NC
	DeviceNet	FR-A7ND
	LonWorks	FR-A7NL
	Profibus DP	FR-A7NP

BUILDING MANAGEMENT OPTIONS

Network Type / Model		FR-A7N-ETH (*1,*2)	FR-A7N-XLT (*1,*2)	ETH-1000 (*3,*4)	XLTR-1000 (*3,*4)
Gateway Communication	BACnet/IP	X	-	X	-
	EtherNet/IP	X	-	X	-
	Modbus TCP	X	-	X	-
	PROFINET IO	X	-	X	-
	BACnet MS/TP (*5)	-	X	X	X
	Metasys N2	-	X	X	X
	Siemens FLN	-	X	-	-

Notes:

For additional information, visit www.iccdesigns.com

1. Physically mounts within VFD and powered by VFD
2. FR-E7TR option recommended. (PU connector not available for use)
3. Communication to multiple VFD's is possible
4. Mounted and powered external to VFD
5. BACnet MS/TP is built in to F700. Gateway required for pre August 2010 production.



Use your smartphone QR Reader application for more information.

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Printed with soy inks.
L-VH-04057 • May, 2011
Specifications subject to change without notice.
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