

PACKAGED DRIVE SOLUTIONS



**Empowering
Industries**

 **MITSUBISHI ELECTRIC
AUTOMATION, INC.**

MITSUBISHI PACKAGED SOLUTIONS

Manufactured to the highest standards in UL approved facilities, the Packaged Solutions program takes Mitsubishi's high performance control products and engineers them into ready-to-use form.

Standard Packaged Solutions

Based on many years of practical industry experience, Standard Packaged Solutions are pre-engineered to meet the needs of a wide range of different applications within industrial, agricultural and commercial sectors, ensuring low cost and quick delivery.

Custom Packaged Solutions

Mitsubishi designs and constructs fully customized Packaged Solutions that meet the most exacting specifications. A Custom Packaged Solution could be anything from a single enclosure to a complete shipping container full of pre-commissioned control equipment, and can be made to US requirements or to meet the standards of any other country around the world

Every Package is supplied with full documentation and is backed up with a comprehensive 2 year warranty.

Custom Packaged Solutions Offer:

- Competitive and innovative designs
- Solutions built to your exact specifications
- Integrated VFD panels from 1/8th HP to 1000 HP
- Support from factory trained engineers
- Help with interpreting specifications
- Global standards compliance - UL, cUL, CSA, CE
- Full documentation including AutoCAD drawings
- Designs archived for future reference or repeat orders
- Field installation and start-up services
- A full range of Mitsubishi Electric equipment integrated with 3rd party products
- Technical support and advice from beginning to end
- Complete solutions covered by 2 year warranty



Custom Packaged Solutions offer the performance and reliability of Mitsubishi products in packages tailored to your exact specification.

A3IP AGRICULTURAL PUMP DRIVE SOLUTIONS

A3IP is a dedicated controller for agricultural pumping systems. These 230VAC (up to 150 HP) and 460VAC (up to 600 HP) drives, LD rated at 120% overload for one minute, are available in a non-bypass configuration only in NEMA 3R Wall mounted cabinets. A door mounted HMI communicates (transmit/ receives) data to the drive and operator.

Base System Includes:

- NEMA 3R outdoor duty construction
- RAL 7035 light gray paint
- A700-NA5 (PLC) drive
- Door mounted display and control terminal
- Bottom inlet and exhaust vents
- Fused control circuit transformer
- Thermostatically controlled cabinet space heater
- DU07 keypad / display with speed setting dial
- DC Link Choke is included as standard
- AC line circuit breaker with rotary handle
- Terminal blocks for control connections
- RS-485, Modbus RTU communication standard, EMI / RFI filter standard
- AutoCAD documentation packet
- Instruction manuals for VFD and controller
- UL / cUL 508A
- Hardware options: Input reactor, (3% or 5%), PU07 keypad / display door mounted
- Communications Options: BACnet® MS/TP, Metasys® N2, LonWorks®, Siemens® FLN(P1), Ethernet/IP™, BACnet® IP, Modbus® TCP/IP, PROFINET
- 2 year warranty

A3IP C ☐ ☐ ☐ ☐ ☐

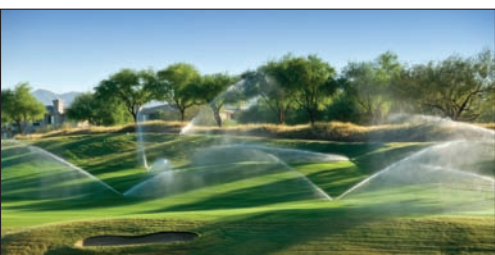
Symbol	Input Voltage
2V	208 - 240V
4V	380 - 480V
Symbol	Disconnect Type
C	Circuit Breaker
Symbol	Solution
A3IP	Mitsubishi NEMA 3R Irrigation Pump Drive A700-NA5 PLC non-bypass

Symbol	Choke/Reactor Type
D	DC Link Choke
3	3% Input Reactor (option)
5	5% Input Reactor (option)

Symbol	Horsepower Rating
001	1HP
002	2HP
003	3HP
005	5HP
007	7.5HP
010	10HP
015	15HP
020	20HP
025	25HP
030	30HP
(motor frame sizes up to 600HP)	
600	600HP

Symbol	Options
S4	Alphanumeric keypad
Symbol	Network Type
RS	Enhanced RS-485 Capability (BACnet, Siemens FLN, Metasys N2) Modbus RTU is standard
LN	Lonworks
ET	Ethernet Communications (Ethernet IP, Modbus TCP/IP, BACnet IP, Profinet)

Select one option if required.



F8 TYPE 18 PULSE CONTROLLERS

F8 controllers are intended for the control of pumps and fans. 18 pulse technology is used to ensure that the quality of the site power supply is maintained. These 460VAC Drives (10-800 HP) are LD rated at 120% overload for one minute, available in both bypass and non-bypass configurations in NEMA 12 Ventilated Floor mounted cabinets. UL508A rated to meet IEEE519-1992 standards.



Base System Includes:

- NEMA 12 ventilated construction
- Standard Hoffman ANSI 61 gray paint
- 18 Pulse Clean Power Design Technology
- 3 contactor bypass with TEST mode
- Choice of bypass or non-bypass units
- Catch a spinning load / windmill start activated
- Adjustable overload relay, class 20 equivalent
- Programming / display keypad and speed setting dial
- Choice of fused disconnect or circuit breaker (standard)
- Control transformer, fused primary and secondary
- Terminal blocks for control connections
- RS-485, Modbus RTU Communication standard, EMI / RFI filter standard
- AutoCAD documentation packet
- Instruction manuals for VFD and controller
- UL / cUL 508A
- Hardware options: Damper vane actuator relay, extended analog output, hand-off autoswitch with potentiometer, PU07 keypad / display door mounted
- Communications Options: BACnet® MS/TP, Metasys® N2, LonWorks®, Siemens® FLN(P1), Ethernet/IP™, BACnet® IP, Modbus® TCP/IP, PROFINET
- 2 year warranty

F 8 ☐ **4V** ☐ ☐ ☐ ☐

Symbol	Horsepower Rating
010	10HP
015	15HP
020	20HP
025	25HP
030	30HP
040	40HP
(motor frame sizes up to 800HP)	
800	800HP

Symbol	Input Voltage
4V	380 - 480V

Symbol	Disconnect Type
C	UL 489 circuit breaker
F	Fused disconnect (100kA) (option)

Symbol	Solution
F8	18 Pulse NEMA 12V

Symbol	Network Type
RS	Enhanced RS-485 capability (BACnet, Siemens FLN, Metasys N2) Modbus RTU is standard
LN	Lonworks
ET	Ethernet Communications (Ethernet IP, Modbus TCP/IP, BACnet IP, Profinet)

Select one option if required.

Symbol	Bypass Type
B	Manual 3 contactor bypass
N	3 contactor non-bypass (option)

Symbol	Options
S1	Damper vane actuator relay fitted
S2	Hand Off autoswitch with potentiometer
S3	Extended analog output
S4	Alphanumeric keypad
S5	Drive trip/run relay (non-bypass only)

Up to 3 options may be selected.



TYPE C CONVEYOR DRIVES

These Constant Torque Conveyor Drives are specifically designed to meet the needs of the Material Handling Industry. Both 230VAC and 460VAC drives (1-20 HP) are ND rated at 150% overload for one minute. Options include circuit breaker or disconnect switch with a lockable handle and a solid state brake relay.

Base System Includes:

- Hang down frame construction
- Conveniently mounts beneath the conveyor
- Protective roof and sides around the drive
- D700 / E700 controller with LCD keypad / display
- ND Rated 150% overload for one minute
- AutoCAD documentation package
- Instruction manuals for VFD and controller
- Hardware options: Input circuit breaker or disconnect switch and a solid state brake relay
- 5 year warranty



C ☐ ☐ ☐ ☐

Symbol	Input/Output Voltage
2V	3/60/208 (230/240)VAC
4V	3/60/460 (480)VAC

Symbol	Drive Type
D	D700 Drive
E	E700 Drive

Symbol	Solution
C	Conveyor Drive

Symbol	Horsepower Rating
001	1HP
002	2HP
003	3HP
005	5HP
007	7.5HP
010	10HP
015	15HP
020	20HP

Symbol	Options
S1	Circuit Breaker and Handle
S2	Disconnect Switch and Handle
S3	Brake Relay

Up to 3 options may be selected.

TYPE CK CONDUIT MOUNTING KITS

The CK range of Type 1 Conduit Mounting Kits is intended for use with D700 and E700 Series VFDs. This kit allows the drive to be mounted outside of a normal enclosure.

Main Features

- Available for all 3 phase D700 and E700 VFDs
- Provides conduit holes on both sides and bottom
- Knockout conduits provided
- Supplied as a kit to be installed in the field
- Units available from stock
- 7 frame sizes
- Drive mounting screws provided
- Ample box area for easy wiring with generous wire bend radius
- Suitable for 208/230V and 460/480V drives

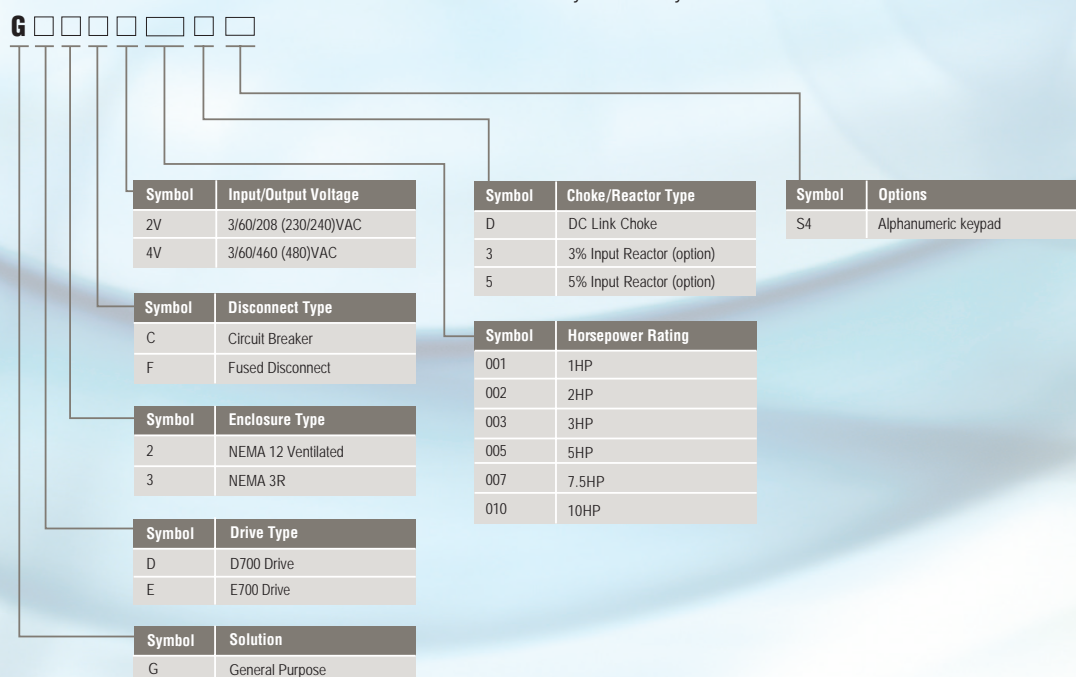


Conduit Kit Selection Chart

D700 Series VFD	Kit Ref.	E700 Series VFD	Kit Ref.
FR-D720-008-NA	CKDE1	FR-E720-008	CKDE1
FR-D720-025-NA		FR-E720-015	
FR-D720-042-NA		FR-E720-030	
FR-D720-070-NA		FR-E720-050	
FR-D720-100-NA	CKDE3	FR-E720-080	CKDE3
FR-D720-165-NA		FR-E720-110	
FR-D720-238-NA	CKDE4	FR-E720-175	CKDE3
FR-D720-318-NA		FR-E720-240	
FR-D740-012-NA	CKDE1	FR-E720-330	CKDE5
FR-D740-022-NA		FR-E720-470	
FR-D740-036-NA		FR-E720-600	
FR-D740-050-NA		FR-E740-016	
FR-D740-080-NA	CKDE4	FR-E740-026	CKDE2
FR-D740-120-NA		FR-E740-040	
FR-D740-160-NA		FR-E740-060	
		FR-E740-095	
		FR-E740-120	CKDE4
		FR-E740-170	
		FR-E740-230	CKDE5
		FR-E740-300	

Base System Includes:

- NEMA 3R ventilated construction outdoor duty
- RAL 7035 light gray paint
- Bottom mounted inlet and exhaust vents
- D700 controller with LCD keypad / display
- Rated 150% overload for one minute, 200% for 3 seconds
- DC Link Choke included as standard
- Thermostatically controlled space heater
- Choice of fused disconnect or UL 489 circuit breaker (standard)
- Modbus RTU Communication standard
- AutoCAD documentation package
- VFD instruction manual
- UL / cUL 508
- Hardware options: Input reactor, (3% or 5%), door mounted PU07 keypad / display
- 2 year warranty





- NEMA 12 ventilated construction
- RAL 7035 light gray paint
- Bottom mounted inlet and exhaust vents
- F700 controller with LCD keypad / display
- LD Rated 120% overload for one minute
- DC Link Choke included as standard
- Choice of fused disconnect or UL 489 circuit breaker (standard)
- RS-485, Modbus RTU Communication standard, EMI/RFI filter standard
- AutoCAD documentation package
- Instruction manuals for VFD and controller
- UL / cUL 508
- Hardware options: Input reactor, (3% or 5%), PU07 keypad / display
- Communications Options: BACnet® MS/TP, Metasys® N2, LonWorks®, Siemens® FLN(P1), Ethernet/IP™, BACnet® IP, Modbus® TCP/IP, CC-Link®, DeviceNet™, PROFIBUS-DP
- 2 year warranty

Symbol **Input/Output Voltage**

2V	3/60/208 (230/240)VAC
4V	3/60/460 (480)VAC

Symbol **Disconnect Type**

C	Circuit Breaker
F	Fused Disconnect

Symbol **Enclosure Type**

2	NEMA 12 Ventilated
3	NEMA 3R

Symbol **Drive Type**

A	A700 Drive
F	F700 Drive

Symbol **Solution**

G	General Purpose
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Symbol **Choke/Reactor Type**

D	DC Link Choke
3	3% Input Reactor (option)
5	5% Input Reactor (option)

Symbol **Horsepower Rating**

001	1HP
002	2HP
003	3HP
005	5HP
007	7.5HP
101	10HP
015	15HP
020	20HP
025	25HP
030	30HP
(motor frame sizes up to 700HP)	
700	700HP

Symbol **Options**

S4	Alphanumeric keypad
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Symbol **Network Type**

LN	Lonworks (FR-A7NL)
ET	Ethernet (FR-A7NE)
RS	RS485 (FR-A7N-XLT)
CC	CC-Link (FR-A7NC)
DN	DeviceNet (FR-A7ND)
DP	Profibus (FR-A7NP)



Mitsubishi Electric Automation, Inc.
500 Corporate Woods Parkway
Vernon Hills, IL 60061
Phn: (847) 478-2100
Fax: (847) 478-2253

Mitsubishi Electric Automation, Inc.
4299 14th Avenue
Markham, Ontario L3R 0J2
Phn: (905) 475-8989
Fax: (905) 475-7935

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