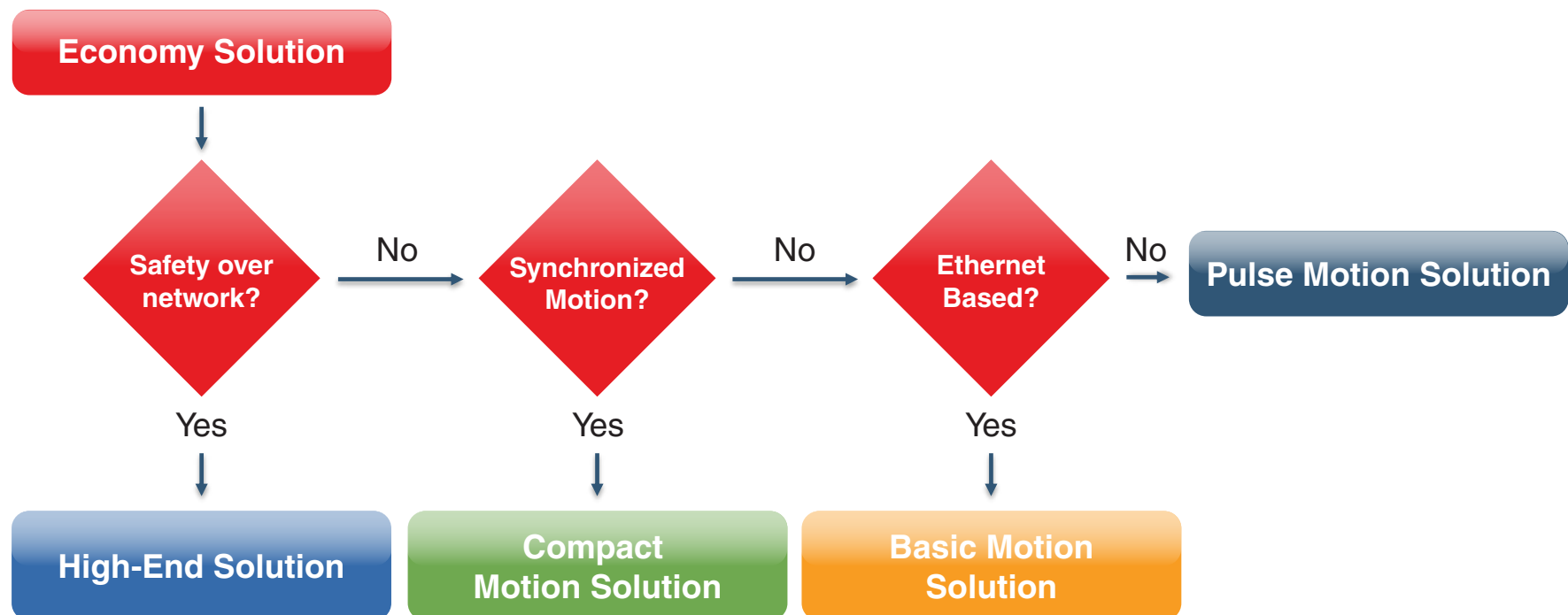MITSUBISHI ELECTRIC
Changes for the Better

Economy Motion Solutions

Building budget-friendly machines with advanced
motion control and IoT technology

How do you select an economy solution?

```
Economy Solution
      │
      ▼
 ◆ Safety over network? ◆ ──No──▶ ◆ Synchronized Motion? ◆ ──No──▶ ◆ Ethernet Based? ◆ ──No──▶ Pulse Motion Solution
      │                              │                               │
     Yes                            Yes                             Yes
      │                              │                               │
      ▼                              ▼                               ▼
 High-End Solution            Compact Motion Solution        Basic Motion Solution
```

Compact Solution

If your application requires:

Cutting-edge Synchronized Motion with IoT capability

SOLUTION HIGHLIGHTS

- The only compact PLC in the market with synchronized motion

- Up to 8 axes of synchronized motion per module (up to 4 modules can be used)

- IoT solution with remote access

- PLC backup/restore via GOT

- Web server (default or customized) displays machine information

- Motion function: P/S/T loop control, mark detection, cam

- Pre-defined GOT screens

- Pre-engineered function blocks for various cam

- One software programming

- VFD/Inverter connection on one network

Ethernet

FX5UC + FX5-40SSC-S
(PLC & TSN Motion Module)

CC-Link IE TSN

CC-Link **IE TSN**

MR-J5-G and MR-JET-G

Basic Solution

If your application requires:

Ethernet-based connection indexing or Standalone Motion

SOLUTION HIGHLIGHTS

- IoT capability enabled by ethernet-based network

- Up to 16 axes (up to 32 axes with option module)

- Web server page displays machine information

- No motion module needed

- Pre-engineered function block for profile mode

- Super-compact size (FX5UC)
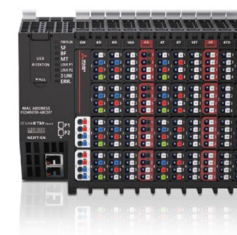
- VFD connection on the same network

Ethernet

CC-Link IE Field Basic

MR-J5-G Servo

MR-JET-G Servo

FR-E800 VFD

Pulse Solution

If your application prefers:

Pulse train

SOLUTION HIGHLIGHTS

- Pulse train option is available with iQ-F PLC or other controllers
- iQ-F PLC offers the following function and benefits:
  - Push-in wiring
  - Positioning table in PLC
  - Interrupt start/stop
  - Dynamic target speed/position change
- MR-J5-A Servo offers the following function and benefits:
  - 26-bit encoder resolution
  - One-touch tuning
  - Vibration suppression
  - Point table in servo
  - Simple cam

PULSE TRAIN MOTION

iQ-F PLC

Pulse Train

MR-J5-A

iQ-F Series PLC

	FX5UJ	FX5U	FX5UC-TS
Built-In Ethernet			
CC-Link IE Basic Stations	8	16	16
Simple PLC Communication Stations	8	16	16
Web Server / System Web Pages	•	•	•
Web Server / Custom Web Pages		•	•
Built-In High-Speed I/O			
Axes of Pulse/Direction Control	3	4	4
Terminal Type			
Screw	•	•	
Spring Clamp			•
Body Style			
Standard	•	•	
Super-Compact			•

The iQ-F Series is Mitsubishi Electric's compact control platform. The high functionality FX5U, FX5UC models and mid-range FX5UJ models provide a cost effective solution that boasts ease of use, functionality, and high performance in a small panel footprint. Ideal for small to medium machines, the iQ-F controllers enable faster decision making with access to real time data and improved machine accuracy and throughput. The iQ-F controllers are keys to a more profitable manufacturing environment.

MITSUBISHI ELECTRIC

Changes for the Better

APPENDIX

MR-J5/JET Servo Amplifiers

	MR-J5-G	MR-J5-A	MR-JET-G
Major Communication Interface	CC-Link IE TSN CC-Link IE Field Basic	Pulse Train (Modbus, Analog)	CC-Link IE TSN CC-Link IE Field Basic
Ethernet-Based Network	•		•
Modbus RTU/TCP			
Safe Torque Off	•	•	
Built-in Point Table	•		•
Simple Cam Function	•		
Fully Closed Loop (Encoder Following)	•	•	
CiA 402 Profile Mode	•	•	•
One Touch Tuning	•	•	•
Vibration Suppression	•	•	•
Drive Recorder	•	•	•
ABS Position Detection	•	•	•

MR-J5 200VAC Servo Amplifiers are available in up to 7.0kW and offer a network amplifier compatible with CC-Link IE TSN, CC-Link IE Field and Modbus or general purpose interface which accepts pulse train and analog interfaces. The MR-JET is a flexible and reliable servo solution designed to make startup and adjustment simple with advanced ease of use functionality.

Please contact your local Mitsubishi Electric sales office for 100V and 400V options.

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