

## FLEXI PRO DRIVE TYPE

|            |        |                                      |                   |              |                       |
|------------|--------|--------------------------------------|-------------------|--------------|-----------------------|
| FPRO       | 006    | 2A                                   | AP                | 1            | XXX                   |
| Drive Name | Rating | AC and Controller input Power Supply | Interface Options | Analog Input | Special Specification |
|            | 1      | 2                                    | 3                 | 4            | 5                     |



1

| Rating |               |              |
|--------|---------------|--------------|
|        | 120/240 VAC   |              |
|        | Cont. [A rms] | Peak [A rms] |
| 1D5    | 1.5           | 4.5          |
| 003    | 3             | 9            |
| 4D5    | 4.5           | 18           |
| 006    | 6             | 18           |
| 008    | 8             | 28           |
| 010    | 10            | 28           |
| 013    | 13            | 28           |
| 020    | 20            | 48           |
| 024    | 24            | 48           |

| Rating |               |              |
|--------|---------------|--------------|
|        | 400/480 VAC   |              |
|        | Cont. [A rms] | Peak [A rms] |
| 003    | 3             | 9            |
| 006    | 6             | 18           |
| 012    | 12            | 24           |
| 024    | 24            | 72           |
| 030    | 30            | 90           |

2

| AC and Controller Input Power Supply |  |  |
|--------------------------------------|--|--|
| 2A                                   | Input Single Phase 120L - L VAC +10% -15% 50/60Hz      |  |
|                                      | Input Single Phase 240L - L VAC +10% -15% 50/60Hz      |  |
|                                      | Input Three Phase 120 - 240L - L VAC +10% -15% 50/60Hz |  |
|                                      |  |  |
| 4D                                   | AC Input Power Supply:                                 |  |
|                                      | - Input Three Phase 400L - L VAC +10% -15% 50/60Hz     |  |
|                                      | - Input Three Phase 480L - L VAC +10% -15% 50/60Hz     |  |
|                                      | 24VDC input for control board power supply             |  |
|                                      |  |  |

3

Interface Options

AF - Analog Voltage/Pulse Train Ref & CANopen® & USB & RS 232  
 EC - EtherCAT, USB, RS232  
 EB - EtherCAT, USB (two analog inputs only)

4

Analog Input

1 - One Analog input, 16 bit  
 2 - Two Analog inputs, 14 bit each

# FLEXI PRO

# SERVO DRIVE

The FLEXI PRO series features a high-performance digital servo drive offering advanced functionality, high power density and seamless commissioning in a superior package. The innovative hardware design and software algorithms boast outstanding performance in one of the smallest footprints in the market.

## FEATURES

- > MULTIFEEDBACK
- > DIGITAL I/O: 11 DIGITAL INPUT AND 6 OUTPUT CUSTOMIZABLE WITH SEVERAL BUILT-IN FUNCTIONS AND INTERNAL SCRIPT
- > CONTROL: HD ADVANCED CONTROL LOOP WITH ADAPTIVE GAINS
- > SERVO MODES: TORQUE, VELOCITY AND POSITION WITH S-CURVE PROFILE
- > STO SIL 2
- > INTEGRATED SUPPORT FOR EXTERNAL BRAKING RESISTOR
- > COMPLETE MOTOR DATABASE

## BENEFITS

- > INTELLIGENT AUTO-TUNING - MINIMIZES POSITION ERROR AND SETTLING TIME TO ALMOST ZERO

Engineering experience and expertise has been implemented in a sophisticated Auto-Tuning function that performs optimal configurations for a difference-making performance

- > NEW CURRENT LOOP DESIGN - ACHIEVES AN INDUSTRY-LEADING FREQUENCY RESPONSE OF UP TO 3.0 KHZ

Rapid control loop sample rates and flexible filtering options provide a faster response, and ensure maximum machine accuracy and throughput

- > INNOVATIVE ANTI-VIBRATION ALGORITHM - ELIMINATES MECHANICAL RESONANCE

An active-non-linear algorithm eliminates vibration in highly flexible resonant systems. Commissioning is easy since only few gain parameters are required



## INTERFACE

- > USB WITH DAISY CHAIN CAPABILITY
- > PULSE & DIRECTION
- > ANALOG VELOCITY AND TORQUE COMMAND  $\pm 10V$

CANopen

EtherCAT®

# FLEXIBLE AND COMPREHENSIVE

## PRODUCT DATA

| FEATURE                       | UNITS    | FPRO 1D5                        | FPRO 003 | FPRO 4D5                      | FPRO 006 | FPRO 008   | FPRO 010 | FPRO 013                | FPRO 020    | FPRO 024               | FPRO 003           | FPRO 006 | FPRO 012             | FPRO 024 | FPRO 030 |  |
|-------------------------------|----------|---------------------------------|----------|-------------------------------|----------|------------|----------|-------------------------|-------------|------------------------|--------------------|----------|----------------------|----------|----------|--|
| Input Voltage                 | VAC      | 120/240 VAC Single Phase        |          | 240 VAC Single or Three Phase |          |            |          | 120/240 VAC Three Phase |             | 400/480 VAC Tree Phase |                    |          |                      |          |          |  |
| Max Continuos power output    | W        | 350                             | 700      | 1000                          | 1400     | 1800       | 2300     | 3000                    | 4500        | 5500                   | 1100               | 2200     | 4400                 | 9000     | 11000    |  |
| Efficiency at rated Power     | %        |                                 |          |                               |          |            |          |                         |             |                        | > 90               |          |                      |          |          |  |
| Auxiliary Supply Voltage      |          | 120 .. 240 Vac                  |          |                               |          |            |          |                         |             |                        |                    | 24 Vdc   |                      |          |          |  |
| Continuous current rms        | A rms    | 1,5                             | 3        | 4,5                           | 6        | 8          | 10       | 13                      | 20          | 24                     | 3                  | 6        | 12                   | 24       | 30       |  |
| Peak current                  | A rms    | 4,5                             | 9        | 18                            | 18       | 28         | 28       | 28                      | 48          | 48                     | 9                  | 18       | 24                   | 72       | 90       |  |
| Ambient Operating Temperature | °C       |                                 |          |                               |          |            |          |                         |             |                        | 0 to + 45          |          |                      |          |          |  |
| Maximum Humidity              | %        |                                 |          |                               |          |            |          |                         |             |                        | 90% not condensing |          |                      |          |          |  |
| Vibration                     |          |                                 |          |                               |          |            |          |                         |             |                        | 0.6G 10-60 Hz      |          |                      |          |          |  |
| Shock                         |          |                                 |          |                               |          |            |          |                         |             |                        | 1 G                |          |                      |          |          |  |
| Mounting Method               |          | Wall Mount                      |          |                               |          |            |          |                         |             |                        |                    |          |                      |          |          |  |
| Dimensions                    | WxDxH mm | 43x144x150                      |          | 55x167x150                    |          | 62x182x170 |          |                         | 117x194x234 |                        | 110x193x163        |          | FPRO 012 117x194x234 |          |          |  |
|                               |          | FPRO 024 - FPRO 030 147x209x353 |          |                               |          |            |          |                         |             |                        |                    |          |                      |          |          |  |
| Weight                        | Kg       | 0,7                             | 0,75     | 0,97                          | 0,97     | 1,15       | 1,15     | 1,15                    | 3,2         | 3,2                    | 2,1                | 2,1      | 3,2                  | 10,5     | 10,5     |  |

## FLEXI PRO SUITE

### > SIMPLIFIES SETUP, TESTING AND TUNING

User-friendly FLEXI SUITE software provides step-by-step guidance through the setup and tuning process. Setup and testing are intuitive thanks to auto-tuning functions and graphic representations of control loops

