

## PRODUCT DATASHEET

# ES-SD-C21-S003-V007

## Industrial Motion Controller

Medium Power Servo Drives | Medium-Power Servo Drive Series - ES-SD-C21-S003

### Product Overview

Industrial Motion Controller with logic Supply Voltage 1PH 200VAC-240VAC $\pm$ 10%50/60Hz $\pm$ 3Hz, peak Output Current A / 28.29 A and communication Protocol RS232; EtherCAT; CoE CiA 402; Pulse train.

### Key Specifications

| PARAMETER                     | VALUE                                                         | UNIT |
|-------------------------------|---------------------------------------------------------------|------|
| Logic Supply Voltage          | 1PH 200VAC-240VAC $\pm$ 10%50/60Hz $\pm$ 3Hz                  |      |
| Peak Output Current           | A / 28.29                                                     | A    |
| Communication Protocol        | RS232; EtherCAT; CoE CiA 402; Pulse train                     |      |
| Weight                        | kg / 2.1                                                      | kg   |
| Cooling Method                | Forced-air cooling                                            |      |
| Braking Resistor              | Integrated braking resistor, 50 $\Omega$ , 80 W limited power |      |
| Rated Output Power            | W / 2000                                                      | W    |
| Servo Drive AC Supply Voltage | 3-phase 200-240 VAC $\pm$ 10%, 50/60 Hz $\pm$ 3 Hz            |      |
| Atmospheric Pressure          | 86-106 kPa                                                    |      |

## Technical Specifications

| PARAMETER                        | SPECIFICATION                                                                                                         | UNIT |
|----------------------------------|-----------------------------------------------------------------------------------------------------------------------|------|
| <b>ELECTRICAL</b>                |                                                                                                                       |      |
| Logic Supply Voltage             | 1PH 200VAC-240VAC $\pm$ 10%50/60Hz $\pm$ 3Hz                                                                          |      |
| Peak Output Current              | A / 28.29                                                                                                             | A    |
| Braking Resistor                 | Integrated braking resistor, 50 $\Omega$ , 80 W limited power                                                         |      |
| Servo Drive AC Supply Voltage    | 3-phase 200-240 VAC $\pm$ 10%, 50/60 Hz $\pm$ 3 Hz                                                                    |      |
| Protection Functions             | Overvoltage, undervoltage, motor I <sup>2</sup> T overtemperature, short-circuit and drive overtemperature protection |      |
| Rated Output Power               | W / 2000                                                                                                              | W    |
| Overvoltage Alarm Voltage        | 400 $\pm$ 5                                                                                                           | V DC |
| Undervoltage Alarm Voltage       | 200 $\pm$ 5                                                                                                           | V DC |
| Braking Absorption Voltage       | 380 $\pm$ 5                                                                                                           | V DC |
| <b>MECHANICAL</b>                |                                                                                                                       |      |
| Weight                           | kg / 2.1                                                                                                              | kg   |
| <b>INTERFACES</b>                |                                                                                                                       |      |
| Communication Protocol           | RS232; EtherCAT; CoE CiA 402; Pulse train                                                                             |      |
| Position-loop sampling frequency | 8                                                                                                                     | kHz  |

## Technical Specifications

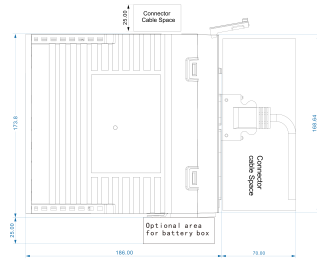
| PARAMETER                       | SPECIFICATION                             | UNIT |
|---------------------------------|-------------------------------------------|------|
| INTERFACES                      |                                           |      |
| Speed-loop sampling frequency   | 16                                        | kHz  |
| Current-loop sampling frequency | 16                                        | kHz  |
| ENVIRONMENTAL                   |                                           |      |
| Cooling Method                  | Forced-air cooling                        |      |
| Atmospheric Pressure            | 86-106 kPa                                |      |
| Operating Temperature           | 0-40                                      | °C   |
| Relative humidity               | 5-95                                      | % RH |
| Storage Temperature             | -10 °C-70 °C                              |      |
| SAFETY                          |                                           |      |
| STO Support                     | No / false                                |      |
| ADDITIONAL SPECIFICATIONS       |                                           |      |
| Continuous output current       | 10                                        | A    |
| Protection rating               | IP20 enclosure; connection terminals IP00 |      |
| Supply voltage                  | 3-phase 200-240 VAC ±10%, 50/60 Hz ±3 Hz  |      |

## Dimensional & Integration Overview

### Mechanical Overview

| PARAMETER | VALUE    | UNIT |
|-----------|----------|------|
| Weight    | kg / 2.1 | kg   |

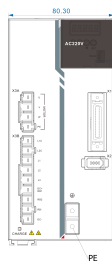
### Dimensional Drawings



Mechanical View 1



Mechanical View 2



Mechanical View 3



Mechanical View 4



Mechanical View 5

## 2D Drawing Dimensions & Callouts

| VIEW              | FIELD                                             | VALUE                                                   |
|-------------------|---------------------------------------------------|---------------------------------------------------------|
| Mechanical View 1 | Main body height                                  | 173.8 mm                                                |
|                   | Right-side assembly height                        | 168.64 mm                                               |
|                   | Optional battery box area                         | Optional area for battery box                           |
|                   | Optional battery box area height                  | 25.00 mm                                                |
|                   | Main body length                                  | 186.00 mm                                               |
| Mechanical View 2 | Fixation hole diameter and quantity               | 2 holes, diameter $\Phi 5.35$                           |
|                   | Top hole center offset from right edge            | 5.15 from right edge to top hole center                 |
|                   | Top hole center offset from top edge              | 4.15 from top edge to top hole center                   |
|                   | Vertical center distance between fixation holes   | 162.00 vertical center distance between fixation holes  |
|                   | Bottom hole center offset from left edge          | 5.35 from left edge to bottom hole center               |
|                   | Horizontal center distance between fixation holes | 75.15 horizontal center distance between fixation holes |
|                   | Region label                                      | Hole position for fixation                              |
| Mechanical View 3 | Front panel width                                 | Width 80.30 mm                                          |

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**01** Specifications are subject to change without notice. Verify the current product configuration before final design release.

**02** 2D drawings, CAD files and integration documentation are controlled documents and are supplied separately on request.