



## DSD6

### AC-Servocontroller

- Highly dynamical servo-controller in 6 RU form factor
- High peak currents (up to 60A) for dynamical accelerations
- Digital controller - all functions and servo loops are digital
- All adjustments via PC-software DSD-link
- Data storage on maintenance free EEPROM
- Set value with analog voltage +/- 10V DC
- Inkremental encoder output (Encodersimulation)
- Status indication through 7-segment display and status outputs
- Integrated temperature protection
- Direct positioning of up to 7 positions without external controller feasible.

**Not recommended  
for new projects!**



Order data:

DSD6-xyyy/zzz

xx = Continious current 02, 04, 06, 10, 16, 22, 30  
yy = Peak current 04, 08, 12, 20, 32, 44, 60  
zzz = 600 at 565 V DC (400V AC)  
- at 325 V DC (230V AC)

**esitron-electronic GmbH**

Ernst-Zimmermann-Str. 18  
D-88045 Friedrichshafen  
Internet: [www.esitron.de](http://www.esitron.de)

Tel. +49(0)7541-6000-0  
Fax +49(0)7541-6000-11  
E-Mail: [info@esitron.de](mailto:info@esitron.de)

# Digital AC Servocontroller DSD6

The DSD6 is highly dynamical servocontroller for current and rpm control of AC-servo-motors with resolver.

An optional SinCos - interface (HIPERFACE®) can be implemented.

There is a choice of various 230V and 400V types.

The unit is used as a module in a rack (6RU) or built into our compact system. Suitable power supply modules are available for rack mounting.

The PC-software DSD-link provides comfortable adjustment of all necessary parameters.

The set value is defined by an analog +/- 10V DC signal.

Incremental outputs simulate an encoder with an adjustable number of 64 to 4096 steps per revolution.

Data storage is realized with a maintenance free EEPROM without battery.

Status indication is done with a 7-segment display and additional status outputs.

The motor is protected from excessive temperature through configurable current limitation or shut down.

## Overview

| Type <sup>1)</sup> | Width (HP) | $I_{N \text{ Continuous}}$<br>$A_{RMS}$ | $I_{max}^{2)}$<br>$A_{RMS}$ | Motor inductance<br>min [mH] | suitable<br>rack |
|--------------------|------------|---|-----------------------------|------------------------------|------------------|
| DSD6-0204          | 8          | 2,0                                     | 4,0                         | 6,0                          | CR614            |
| DSD6-0408          | 8          | 4,0                                     | 8,0                         | 3,0                          | CR614            |
| DSD6-0612          | 8          | 6,0                                     | 12,0                        | 2,0                          | CR614            |
| DSD6-0612/600      | 8          | 6,0                                     | 12,0                        | 4,0                          | CR614/600        |
| DSD6-1020          | 8          | 10,0                                    | 20,0                        | 1,2                          | CR614            |
| DSD6-1020/600      | 8          | 10,0                                    | 20,0                        | 2,4                          | CR614/600        |
| DSD6-1632/600      | 16         | 16,0                                    | 32,0                        | 2,0                          | CR620/600        |
| DSD6-2244/600      | 16         | 22,0                                    | 44,0                        | 1,1                          | CR620/600        |
| DSD6-3060/600      | 16         | 30,0                                    | 60,0                        | 0,8                          | CR620/600        |

<sup>1)</sup>All controllers are as 230V or 400V - type (DSD6-.../600) available.

<sup>2)</sup> Maximum-currents can be drawn for minimal 5 seconds.

## Compact racks

| Type      | Width (HP) | $I_{N \text{ Continuous}}$<br>$A_{RMS}$ | Ballast-circuit | Integrated ballast resistor | DC link-voltage on terminal | Art.-Nr.    |
|-----------|------------|---|-----------------|-----------------------------|-----------------------------|-------------|
| CR614     | 14         | 10                                      | yes             | 30W                         | no                          | 695.01141-0 |
| CR614/600 | 14         | 10                                      | yes             | 30W                         | no                          | 695.01142-0 |
| CR620/600 | 20         | 16                                      | yes             | no                          | no                          | 695.01143-0 |
| CR620/600 | 20         | 30                                      | yes             | no                          | no                          | 695.01144-0 |
| CR620/600 | 20         | 30                                      | yes             | no                          | yes                         | 695.01145-0 |

Power supply and fan are integrated in the compact rack.

## Technical Data

### General:

|                      |  |
|----------------------|--|
| Ambient temperature: | 0 ... +40°C at nominal power   |
| Derating:            | 2%/K at temperatures >40° ... 50°C   |
| Humidity:            | 5 - 85%, non condensing  |
| Cooling:             | Convection up to 2A continuous current; > 2A fan is required                                   |
| Dimensions:          | Circuit board: 220x233mm; Front panel: 6RU x 8HP (262x40,2mm)<br>16HP (80,4mm) from DSD6-1632. |
| Connection:          | H15-edge connector DIN41612; Sub-D connector.  |

### Power element:

|                              |  |
|------------------------------|--|
|                              | Complete galvanic insulation from controller acc. VDE 0160, specification according to UL508C; short-circuit and short-circuit to ground proof for ≤ 2000 incidents. |
| Frequency:                   | 4,75 kHz   |
| Frequency of current ripple: | 9,5 kHz  |

### Controller:

|                 |                                  |
|-----------------|----------------------------------|
| Supply voltage: | 24V DC, unregulated (+20%, -10%) |
| Consumption:    | ca. 20 W                         |
| Inrush current: | $I_{max} = 6A$ for 0,8ms         |