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.

DSD6... with CR614 DSD6... with CR620

Order data:

DSD6-xxyy/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 Tel. +49(0)7541-6000-0
D-88045 Friedrichshafen Fax +49(0)7541-6000-11
Internet: www.esitron.de E-Mail: info@esitron.de

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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[1)]	Width (HP)	$I_{N\ Continious}$ A_{RMS}	I_{max}[2)] A_{RMS}	Motor inductance min [mH]	suitable 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

[1)] All controllers are as 230V or 400V - type (DSD6-..../600) available.
[2)] Maximum-currents can be drawn for minimal 5 seconds.

Compact racks

Type	Width (HP)	$I_{N\ Continious}$ 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 continious current; > 2A fan is required
Dimensions:	Circuit board: 220x233mm; Front panel: 6RU x 8HP (262x40,2mm) 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: Complete galvanic insulation from power element, see above.

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