DCS Thyristor Power Converter

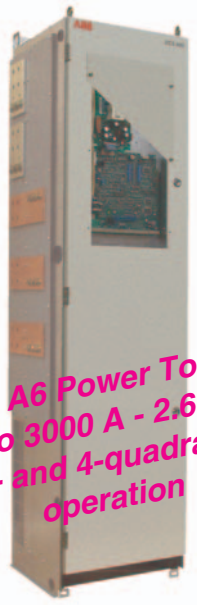
for DC Drive Systems
25 to 5200 A DC

DCS 600 MultiDrive

Modern Design *Demanding Applications* *Process Focused*

Standard Features

- Design and commissioning tools
- Monitoring functions
- Wide variety of communication
- HMI (Human-Machine Interface)
- Plain text display
- Master follower via optical link
- 12-Pulse via optical link
- FOR HIGH POWER APPLICATIONS



New A6 Power Tower
up to 3000 A - 2.6 MW
2- and 4-quadrant operation

Power range of DCS 600 MultiDrive Converters

DCS 601 non-regenerative Converters (2-Q)

Continuous Armature Current I_{DC} [A]	at supply Voltage [V AC]						Frame Size
	400	500	600	690	790	1000	
25	●	●					C1
50	●	●	●				
75	●	●					
100	●	●	●				
125	●	●					
180	●	●					C2
225	●	●					
245			●				
315	●	●					
405	●	●	●				
470	●	●					
610	●	●					C2b
740	●	●					
900	●	●					
900			●	●			A5
1200	●	●					
1500	●	●	●	●			
2000	●	●	●	●			
1900					●		A6
2050		●	●	●			
2500	●	●	●	●	●		
3000	●	●	●	●	●		
2050						●	A7
2600						●	
3300	●	●	●	●	●	●	
4000	●	●	●	●	●	●	
4800			●	●	●		
5200	●	●					

DCS 602 regenerative Converters (4-Q)

Continuous Armature Current I_{DC} [A]	at supply Voltage [V AC]						Frame Size
	400	500	600	690	790	1000	
25	●	●					C1
50	●	●	●				
75	●	●					
100	●	●					
110			●				
140	●	●					
200	●	●					C2
250	●	●					
270			●				
350	●	●					
450	●	●	●				
520	●	●					
680	●	●					C2b
820	●	●					
1000	●	●					
900			●	●			A5
1200	●	●					
1500	●	●	●	●			
2000	●	●					
1900					●		A6
2050		●	●	●			
2500	●	●	●	●	●		
3000	●	●	●	●	●		
2050						●	A7
2600						●	
3300	●	●	●	●	●	●	
4000	●	●	●	●	●	●	
4800			●	●	●		
5200	●	●					

Technical Data of DCS 600 MultiDrive Converters

Converter Ratings

Rated supply voltage:	230 to 1000 V AC ±10%, 3-ph
Rated frequency:	50 Hz or 60 Hz
Dyn. frequency range:	50 Hz: ±5 Hz; 60 Hz: ± 5 Hz
DC current range:	25...5200 A DC

Operating Conditions

Ambient temperature:	0 to +40°C (32...104°F)
Storage temperature:	-40 to +55°C (-40...130°F)
Relative humidity (at 5...40°C):	5 to 95%, no condensation
Relative humidity (at 0...5°C):	5 to 50%, no condensation
Degree of protection:	IP 00

Dimensions							Module frame size
mm			inches			kg	
h	w	d	h	w	d		
420	273	195	16.54	10.75	7.67	8	**C1** (25...75 A)
469	273	228	18.46	10.75	8.97	12	**C1** (100...140A)
505	273	361	19.88	10.75	14.21	29	**C2**
652	273	384	25.66	10.75	15.11	42	**C2b**
1050	510	410	41.34	20.07	16.14	110	**A5**
1750	460	410	68.90	18.11	16.14	180	**A6**
1750	760	570	68.90	29.92	22.44	315	**A7**

Field supply

- up to 16 A in the drive module (not for A6 and A7-converters)
- 25...520 A external

I/O- connections

- 8 Digital Inputs
- 8 Digital Outputs
- 4 Analogue Inputs
- 3 Analogue Outputs
- 1 Tachogenerator input
- 1 Encoder input
- ±10 V Ref. voltage
- All major fieldbuses available

Protection

- Speed feedback error
- Overtemperature
- Overload
- Overspeed
- Zero speed
- Armature overcurrent
- Armature ripple
- Armature overvoltage
- Minimum field current
- Field overcurrent
- Motor stalled
- Mains over- and undervoltage
- Auxiliary undervoltage
- Incorrect mains phase sequence

Tools

CDP 312 Panel

Removable control and display panel with plain text display for:

- Drive control
- Signals
- Parameter setting
- Fault detection
- Parameter upload and download
- Local operation

Overriding Control

The DCS 600 MultiDrive can be easily connected via optical link with ABB automation products such as AC 800M, AC 80 and FCI.

DriveWindow

PC program for commissioning and maintenance under Window® for:

- Parameter setting
- Fault detection
- Trending
- Data logger
- Fault logger
- Local operation (Drives Panel)

DCS 600 MultiDrive converters are available as modules or in cabinets as DCA 600 Enclosed Converters.

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