

Technical data

Chapter overview

The technical data contain the technical specifications of the converter, e.g. the ratings, sizes and technical requirements, provisions for fulfilling the requirements for CE and other markings and warranty policy.

Environmental Conditions

System connections

Voltage, 3-phase:	230 to ≤ 1000 V acc. to IEC 60038
Voltage deviation:	±10 % continuous; ±15% short-time *
Rated frequency:	50 Hz or 60 Hz
Static frequency deviation:	50 Hz ± 2 %; 60 Hz ± 2 %
Dynamic: frequency range:	50 Hz ± 5 Hz; 60 Hz ± 5 Hz
df/dt:	17 % / s

* = 0.5 to 30 cycles

Please note: Special consideration must be taken for voltage deviation in regenerative mode.

Degree of protection

Converter module and options (line chokes, fuse holder, field exciter, etc.):	IP 00
Enclosed converters:	IP 20/21/31/41

Paint finish

Converter module:	RAL 9002
Enclosed converter:	light grey RAL 7035

Environmental limit values

Permissible cooling air temp.	
- at converter module air inlet:	0 to +55°C
with rated DC current:	0 to +40°C
with different DC current:	+30 to +55°C
- Options:	0 to +40°C
Relative humidity (at 5...+40°C):	5 to 95 %, no condensation
Relative humidity (at 0...+5°C):	5 to 50 %, no condensation
Change of the ambient temp.:	< 0.5°C / minute
Storage temperature:	-40 to +55°C
Transport temperature:	-40 to +70°C
Pollution degree (IEC 60664-1, IEC 60439-1):	2
Site elevation	
< 1000 m above M.S.L.:	100 %, without current reduction
> 1000 m above M.S.L.:	with current reduction

Sound pressure level

Size	Sound pressure level L _p (1 m distance)		Vibration
	as module	enclosed conv.	as module
D1	55 dBA	68 dBA	0.5 g, 5 - 55 Hz
D2	55 dBA	72 dBA	
D3	60 dBA	78 dBA	
D4	66 - 70 dBA, depending on fan	77 dBA	
D4+	75 dBA	77 dBA	1 mm, 2 - 9 Hz
D5	70 dBA	78 dBA	
D6	69 dBA	67 dBA	0.3 mm, 2 - 9 Hz
D7	82 dBA	80 dBA	

Short circuit withstand rating

Size	The DCS800 is suitable for use in a circuit capable of delivering not more than:
	as module
D1	65 kA rms symmetrical amps at maximum 600 V _{AC}
D2	
D3	
D4	
D4+	100 kA rms symmetrical amps at maximum 600 V _{AC}
D5	
D6	
D7	

North American Standards

In North America the system components fulfil the requirements of the table below.

Rated supply voltage	Standards	
	Converter module	Enclosed converter
to 600 V	UL 508 C Power Conversion Equipment CSA C 22.2 No. 14-95 Industrial Control Equipment, Industrial Products Available for converter modules including field exciter units. Types with UL mark: • see UL Listing www.ul.com/ certificate no. E196914 • or on request	UL/CSA types: on request