

DC DRIVES

ABB general purpose drives

DCS580 Catalog



—

**For OEM machine
manufacturing.
DCS580 series.**

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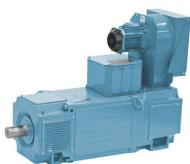
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Creating a smarter environment without compromising productivity

The OEM machine manufacturing market places high demands on modern DC drives. With its compact dimensions and robust technology, the DCS580 is an ideal drive solution for this market - both in new installations or as a replacement for older DC drives.

DC drives

The DCS580 drives are customized to meet the precise needs of applications such as wire drawing machines, coating lines, printing machines, presses, tools machines main drives, food processing machines, woodworking (wooden products and MDF industry), retrofit of older DC-technology, etc.



DC motor control

ABB's motor control technology provides precise speed and torque control for all applications.



Adaptive Programming

The Adaptive Program is ideal for creating simple control programs for various applications. It does not require expertise in programming and is offered as a standard.



Removable memory unit

Stores the firmware and parameter configurations in an easily replaceable and simple-to-install module.



All OEM machine configurations

The DCS580 standard firmware supports all OEM machine configurations.



**Intuitive human-machine interface**

User-friendly, high-contrast and high-resolution display enabling easy navigation in multiple languages. Allows USB and Bluetooth connection.

**Startup and maintenance tool**

The Drive Composer PC tool for drive startup, configuration, daily use and process tuning. The PC tool is connected to the drive either via Ethernet or USB interface.

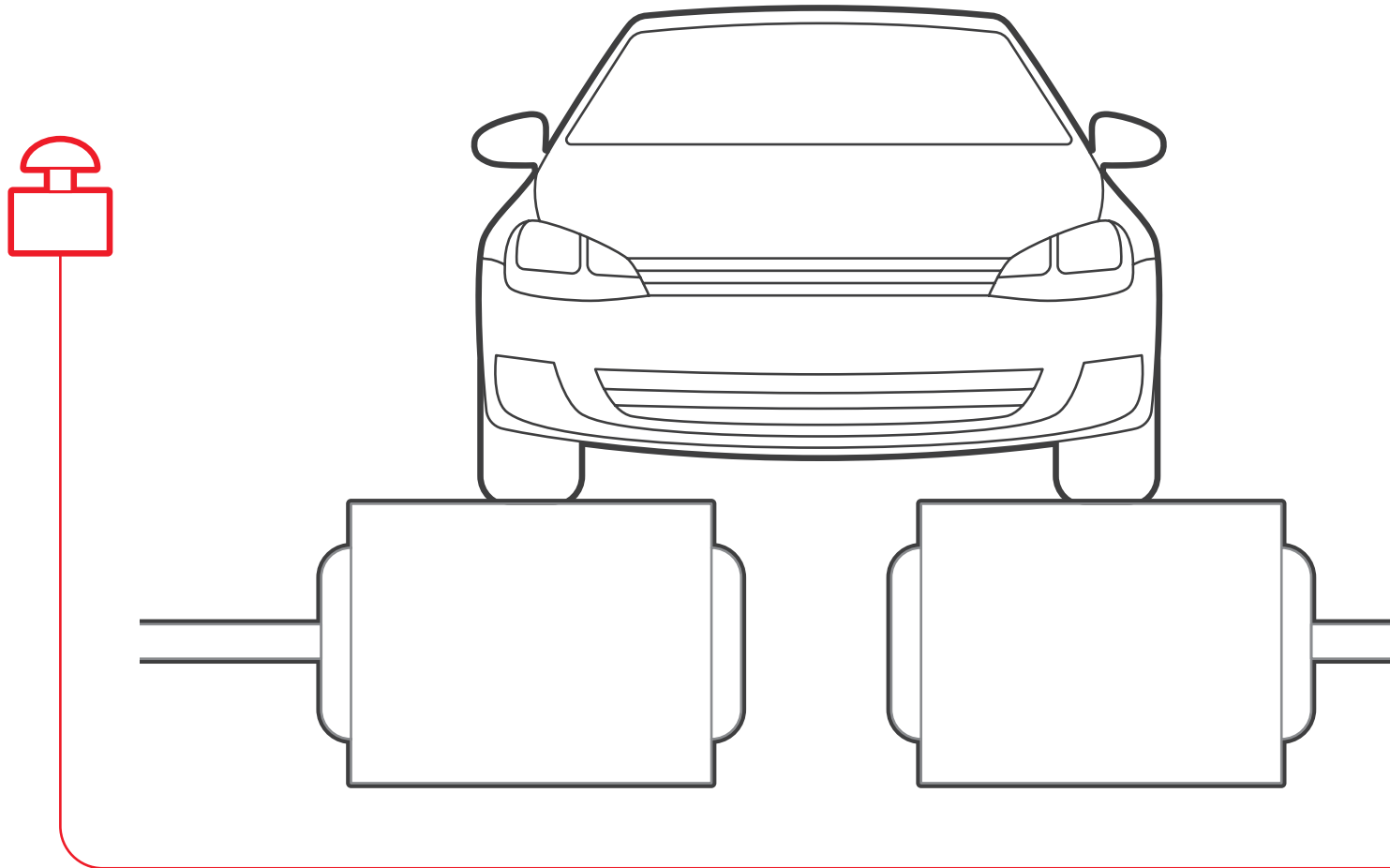
**Communication with automation networks**

Fieldbus adapters for EtherNet/IP, Modbus/TCP, PROFINET IO and PROFIBUS DP-Vx are available.

**Extended connectivity**

In addition to the standard I/Os the drive has three built-in slots for up to three I/O extension modules.

What does all-compatible mean for you?



Business all-compatible

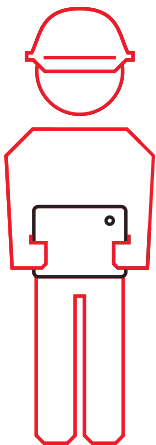
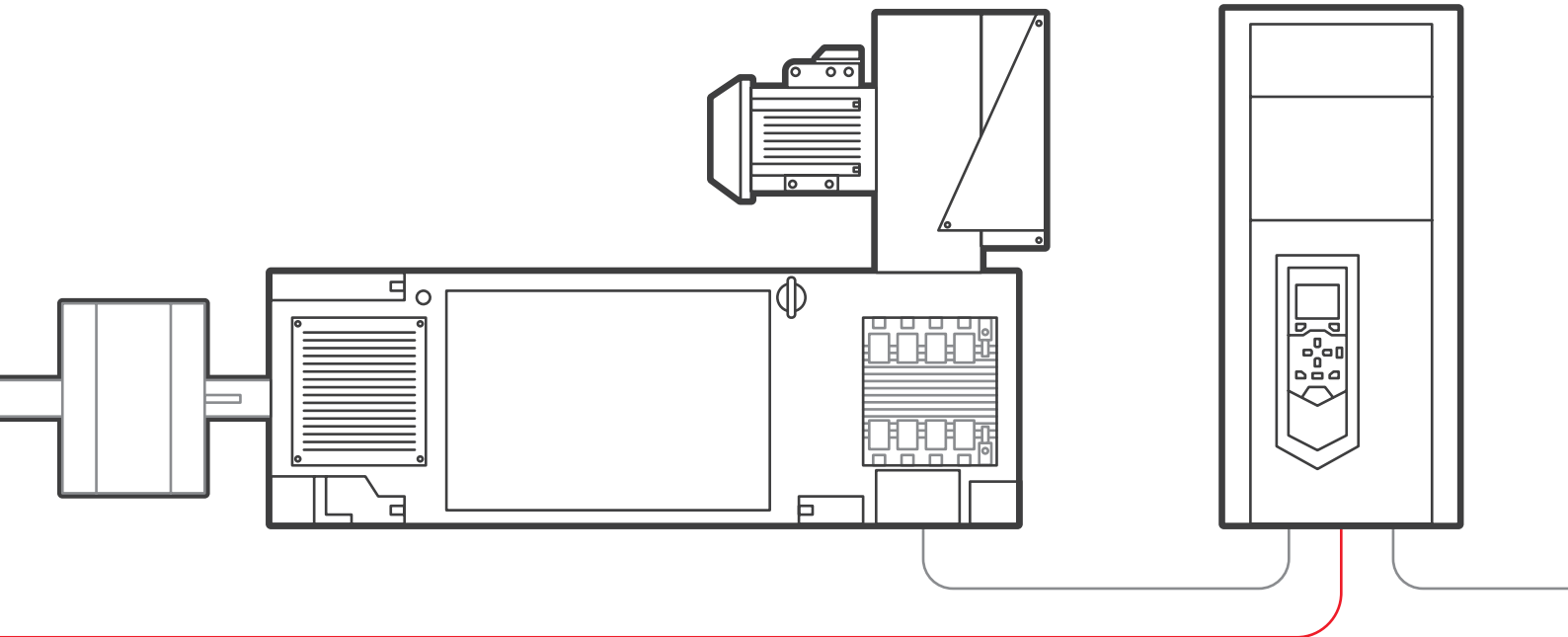
The all-compatible drives are not just equipment – they are part of your business strategy. Providing better control over your processes, our drives mean lower energy consumption, improved productivity, flexibility and ease of use. In addition to drives, we offer a wide range of products and services to support your business. With offices in over 90 countries and a global technical partner network, we are in a good position to offer technical advice and local support, worldwide.

Process all-compatible

The drives are compatible with all OEM machine manufacturing processes. They control virtually any type of DC motor, provide extensive input/output connectivity and support fieldbus protocols. The drives cover a wide power range. The control performance is scalable from basic to demanding applications.

Environment all-compatible

There is increased demand for industries to reduce their impact on the environment. Our drives can help you reduce energy consumption in a wide range of applications. Keeping and upgrading existing equipment reduces the impact a modernization of a production line would have in terms of use of materials and energy for production and transport of new equipment.

**Human all-compatible**

All our drives share easy-to-use interfaces, saving you time during drive commissioning and maintenance. When you have learned it once, you can use it with all the drives in our all-compatible drives portfolio.

The control panel supports multiple different languages. With the PC tool, you get extensive drive monitoring capabilities and quick access to the drive settings.

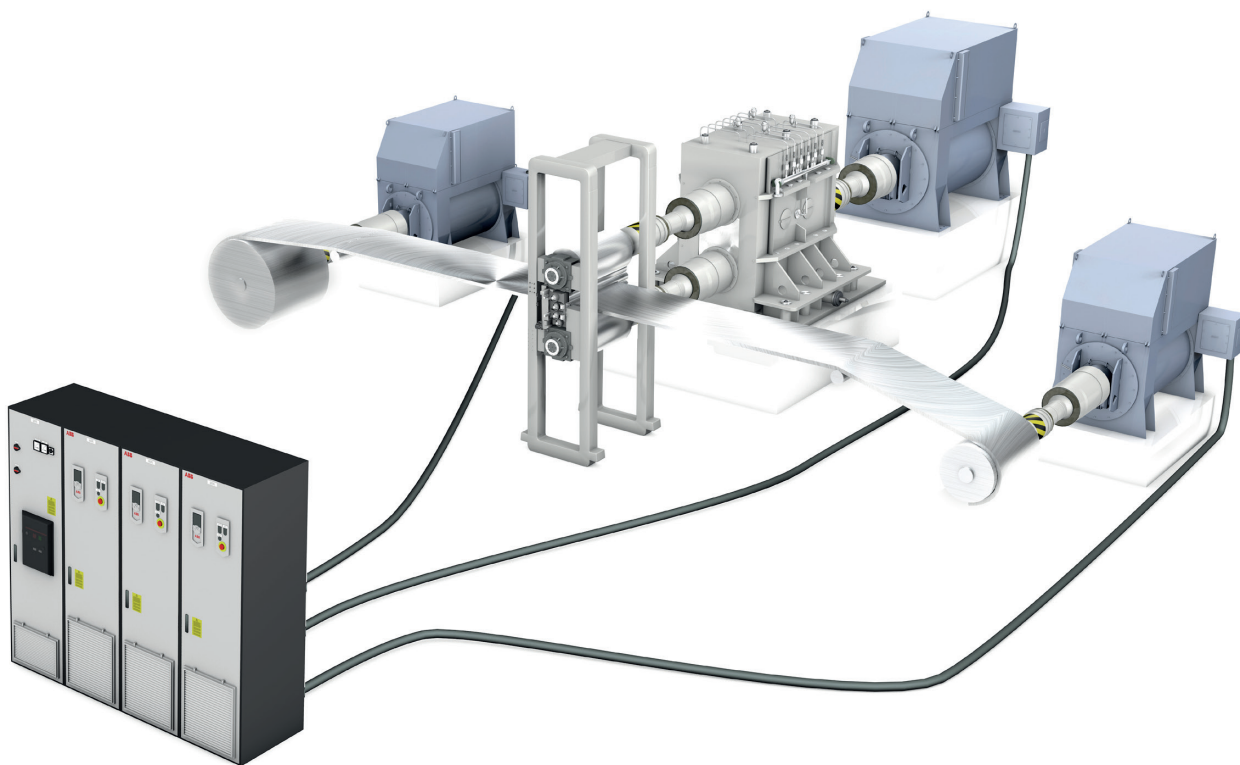
To further improve the user experience, we have developed mobile apps that can be utilized to interact with the drive. These apps give you an easy graphical interface for management, maintenance and service of your drives.

Flexibility to serve OEM machine configurations with drive-based Adaptive Program

The Adaptive Program of the DCS580 provides you a possibility to customize the drive for your application without the cost of extra hardware.

Adaptive Program

The Adaptive Program is ideal for creating simple control programs for various applications. By graphical drag and drop programming it does not require expertise in programming and is offered as standard.



Type code



Type code:

DCS580 - S01 - 0680 - 05 X 0

Product family

DCS580 = Product family

Product type

S0 = Standard converter module

Bridge type

1 = Single bridge (2-Q)

2 = 2 anti-parallel bridges (4-Q)

Module type

0680 = Rated DC current (IP00)

Rated AC voltage

05 = 230 V_{AC} ... 525 V_{AC} (IEC)

Power connection (H8)

X = Standard K1 ... K4

Revision Code

0 = 1st generation

Environmental conditions

System connection	
Voltage, 3-phase:	230 ... 525 V acc. to IEC 60038
Voltage deviation:	IEC: -10 % +15 % continuous; ±20 % short-time (0.5 to 30 cycles)
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
Please note: Special consideration must be taken for voltage deviation in regenerative mode.	
Degree of protection	
Converter module and options (line chokes, fuse holder, etc.):	IEC: IP 00; acc. to IEC/EN
Paint finish	
Converter module:	Body: Metal (no color); Cover RAL 9002

Sound pressure level and vibration

Size	Sound pressure level L _p (1 m distance)	Vibrations
K1	55 dBA	
K2	55 dBA	
K3	60 dBA	3 mm, 2 ... 9 Hz
K4	66 ... 70 dBA, depending on fan	1 g, 9 ... 200 Hz

Environmental limit values	
Permissible cooling air temp.	
• at converter module air inlet:	0 ... +55°C
• with rated DC current:	0 ... +40°C
• with different DC current:	+30 ... +55°C (depending on altitude/cooling air temp.)
• Options:	0 ... +40°C
Relative humidity (at 5 ... +40°C):	5 ... 95 %, no condensation
Relative humidity (at 0 ... +5°C):	5 ... 50 %, no condensation
Change of the ambient temp.:	0.5°C/minute
Storage temperature:	-40 ... +55°C
Transport temperature:	-40 ... +70°C
Pollution degree (IEC/EN 61800-5-1):	2
The drive must be installed in clean air according to enclosure classification. Cooling air must be clean, free from corrosive materials and electrically conductive dust.	
Site elevation	
<1000 m above M.S.L.:	100 %, without current reduction
>1000 m above M.S.L.:	With current reduction

Regulatory compliance

The converter modules are designed for use in industrial environments. In EEA countries, the components fulfil the requirements of the EU directives, see table below.

European union directive	Manufacturer's assurance	Harmonized standards Converter module
Machinery Directive		
2006/42/EU	Declaration of Incorporation	[IEC 60204-1]
Low Voltage Directive		
2014/35/EU	Declaration of Conformity	EN 61800-1 [IEC 61800-1] EN 60204-1 [IEC 60204-1] EN 61800-5-1 [IEC 61800-5-1]
EMC Directive		
2014/30/EU	Declaration of Conformity (If all installation instructions concerning cable selection, cabling and EMC filters or dedicated transformer are followed.)	EN 61800-3 [IEC 61800-3] in accordance with 3ADW000032

DCS580 drives

General

The DCS580 drives have the protection class IP00 and are to be mounted in a cubicle or finger protected area. There are different sizes (K1 ... K4), graduated in terms of current ranges.

All drives are equipped with a control panel. It can be snapped into place on the drive or installed in the switchgear cubicle door by means of a mounting kit.

Accessories such as external fuses, line reactors etc. are also available, to complete the drive system.

All drive modules up to 525 V and 1000 A (K1 ... K4) are equipped with field exciters.

The power section of the drives is available as single (2-Q) bridge or double (4-Q) bridge. 4-Q drives are required for regenerative breaking.

The bridge type has an influence on the maximum output voltage of the drive. See table below.

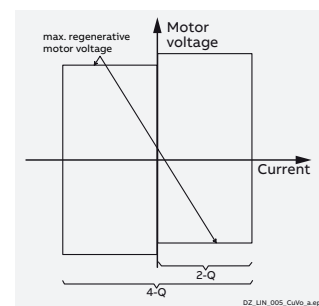
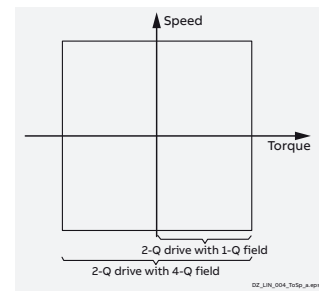
Reference variables

The voltage characteristics are shown in the table below. The DC voltage characteristics have been calculated using the following assumptions:

- U_{VN} = rated input terminal voltage, 3-phase
- Voltage tolerance $\pm 10\%$
- Internal voltage drop approx. 1 %
- If a deviation or a voltage drop has to be taken into consideration in compliance with IEC and VDE standards, the output voltage or the output current must be reduced by the actual factor according to the table below.

If armature voltages higher than recommended are requested, please check carefully, whether your system is still working under safe conditions. The maximum output voltage of a 4-Q drive can be increased up to the level of $U_{dmax\ 2-Q}$. Thus, the torque reversal from motoring mode to generating mode increases up to 300 ms. This lowers the dynamics of the drive and is only recommended for non-dynamic applications.

System connection voltage	DC voltage (recommended)		Ideal DC voltage without load	DCS580 voltage class
U_{VN} [V]	$U_{dmax\ 2-Q}$ [V]	$U_{dmax\ 4-Q}$ [V]	U_{d10} [V]	
230	265	240	310	05
380	440	395	510	05
400	465	415	540	05
415	480	430	560	05
440	510	455	590	05
460	530	480	620	05
480	555	500	640	05
525	610	545	700	05



Ratings, types and voltages

Current ratings, dimensions and weights

Drive size	2-Q rated current DCS580-S01 I_{DC} [A]	4-Q rated current DCS580-S02 I_{DC} [A]	Mains voltage 525 [V _{AC}]	Internal field current [A]	Weight [kg]	Dimensions h x w x d [mm]
K1	20	25	●	1 ... 12	11	370.4 x 270 x 215.8
	45	50	●	1 ... 12		
	65	75	●	1 ... 12		
	90	100	●	1 ... 12		
K2	135	150	●	1 ... 18	16	370.4 x 270 x 270.8
	180	200	●	1 ... 18		
	225	250	●	1 ... 18		
	270	300	●	1 ... 18		
K3	315	350	●	2 ... 25	25	458.9 x 270 x 312.4
	405	450	●	2 ... 25		
	470	520	●	2 ... 25		
K4	610	680	●	2 ... 35	38	643.8 x 270 x 347.4
	740	820	●	2 ... 35		
	900	1000	●	2 ... 35		



K1, K2

K3

K4

Current ratings

The current ratings for the DCS580 with 50 Hz and 60 Hz supplies are given below. The characteristics are based on an ambient temperature of max. 40°C and an elevation of maximum 1000 m above mean sea level:

2-Q drives

Drive type 2-Q drives	I _{DC} I	P _{out}	Internal field current	Fan voltage	Air volume	P _{Loss}	Frame size
	[A]	[kW]	[A]	[V _{AC}]	[m³/h]	[kW]	
525 V	500 V						
DCS580-S01-0020-05	20	12	12	without fan		0.11	K1
DCS580-S01-0045-05	45	26	12	internal	57	0.17	
DCS580-S01-0065-05	65	38	12		57	0.22	
DCS580-S01-0090-05	90	52	12	internal	57	0.28	
DCS580-S01-0135-05	135	78	18		170	0.38	K2
DCS580-S01-0180-05	180	104	18		170	0.56	
DCS580-S01-0225-05	225	133	18		170	0.73	
DCS580-S01-0270-05	270	159	18		170	0.82	
DCS580-S01-0315-05	315	183	25	internal	170	0.91	K3
DCS580-S01-0405-05	405	235	25		170	1.12	
DCS580-S01-0470-05	470	280	25	230; 1-ph	255	1.32	K4
DCS580-S01-0610-05	610	354	35		388	1.76	
DCS580-S01-0740-05	740	429	35		388	2.14	
DCS580-S01-0900-05	900	522	35		425	2.68	

4-Q drives

Drive type 4-Q drives	I _{DC} I	P _{out}	Internal field current	Fan voltage	Air volume	P _{Loss}	Frame size
	[A]	[kW]	[A]	[V _{AC}]	[m³/h]	[kW]	
525 V	500 V						
DCS580-S02-0025-05	25	13	12	without fan		0.11	K1
DCS580-S02-0050-05	50	26	12	internal	57	0.17	
DCS580-S02-0075-05	75	39	12		57	0.22	
DCS580-S02-0100-05	100	52	12	internal	57	0.28	
DCS580-S02-0150-05	150	78	18		170	0.38	K2
DCS580-S02-0200-05	200	104	18		170	0.56	
DCS580-S02-0250-05	250	131	18		170	0.73	
DCS580-S02-0300-05	300	157	18	internal	170	0.82	K3
DCS580-S02-0350-05	350	182	25		170	0.91	
DCS580-S02-0450-05	450	234	25		170	1.12	
DCS580-S02-0520-05	520	276	25		255	1.32	K4
DCS580-S02-0680-05	680	354	35	230; 1-ph	388	1.76	
DCS580-S02-0820-05	820	426	35		388	2.14	
DCS580-S02-1000-05	1000	520	35		425	2.68	

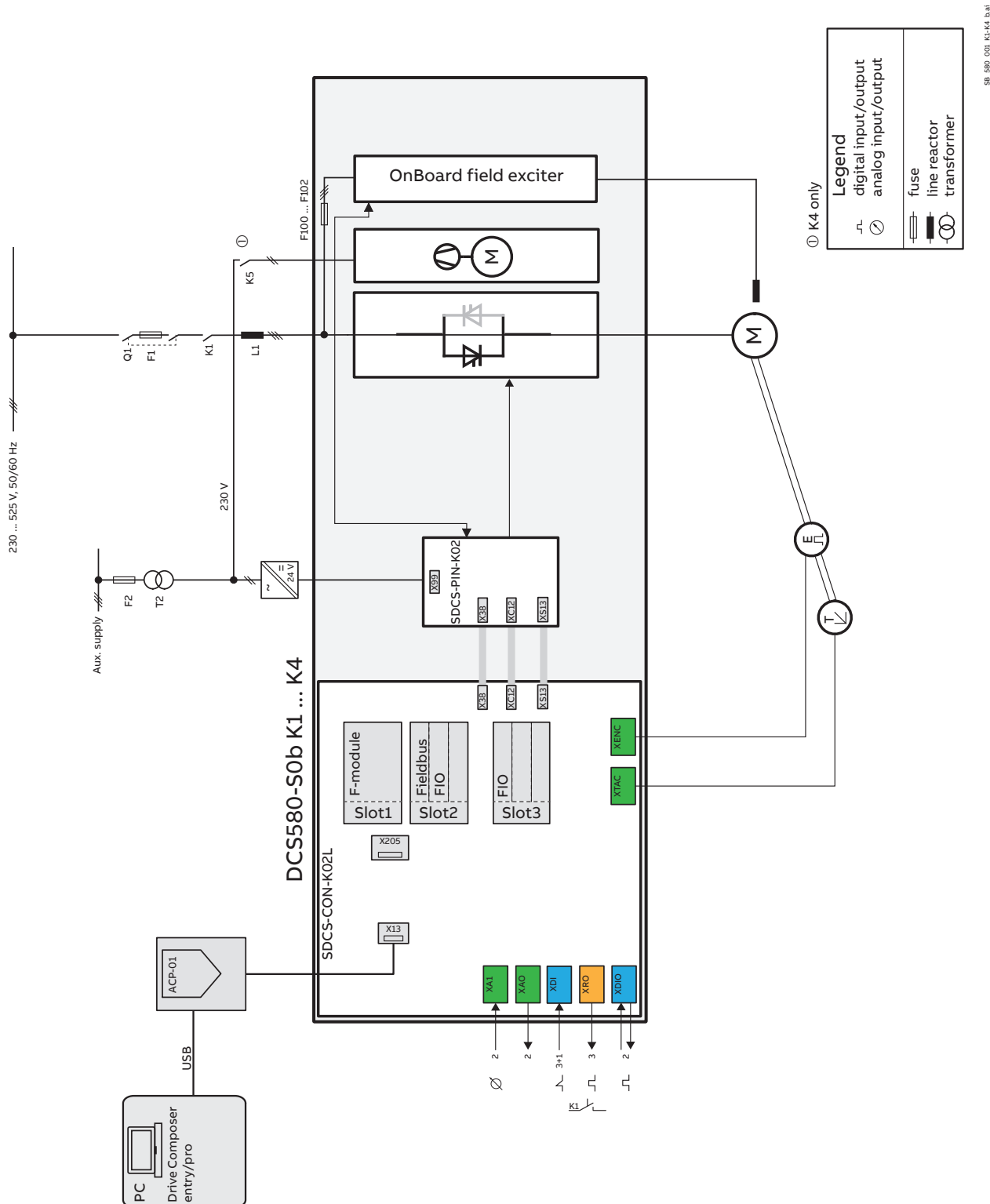
Notes:

AC current $I_{AC} = 0.82 \times I_{DC}$.

The ratings apply at ambient temperature of 40°C.

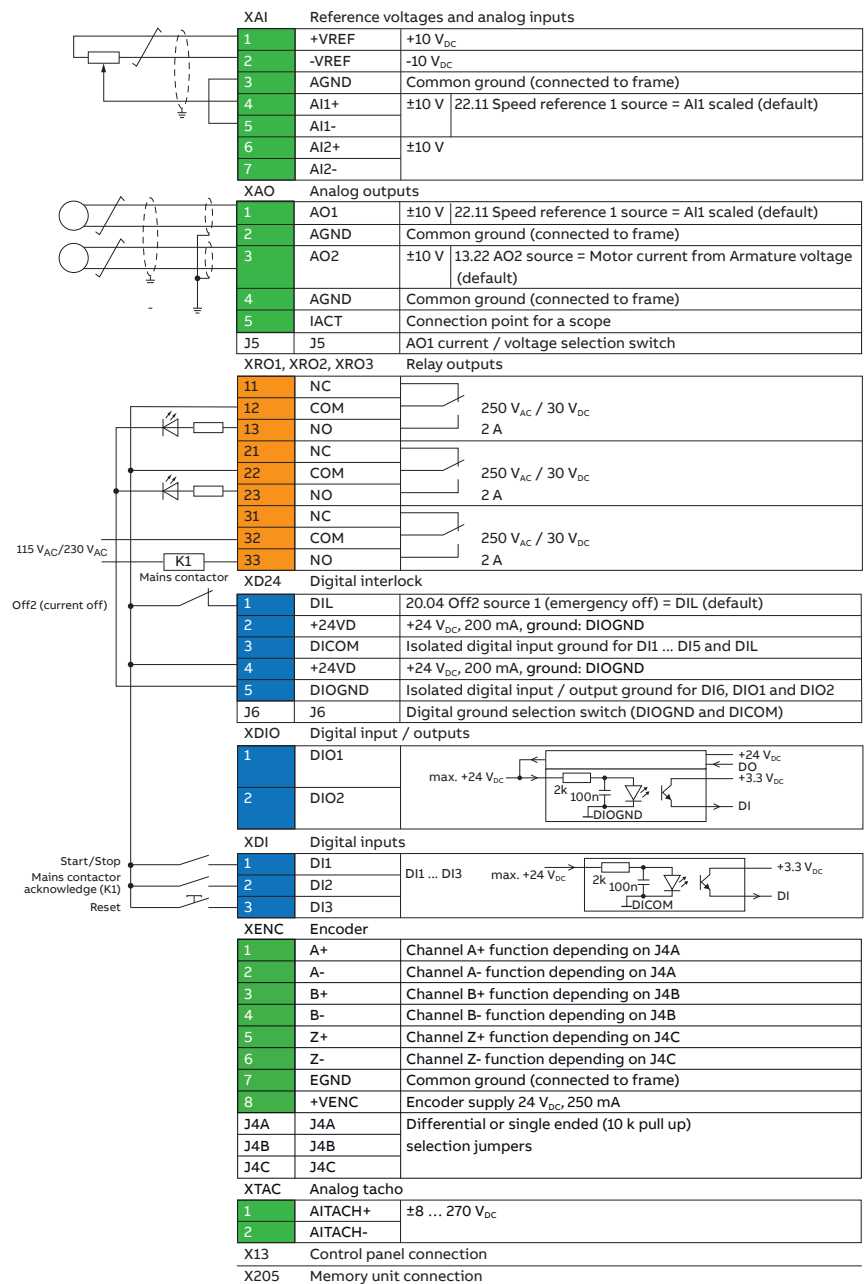
Component overview of the drives

Sizes K1 ... K4



Standard interface and I/O extensions for comprehensive connectivity

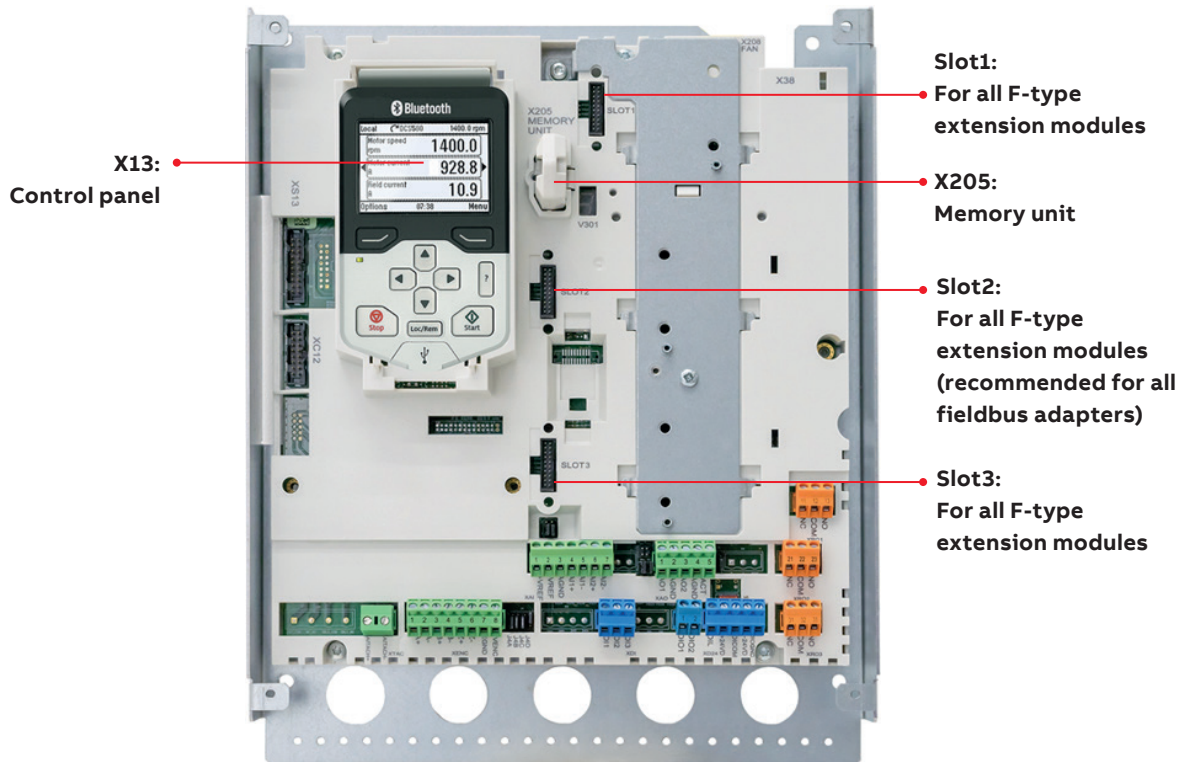
Example of a typical single drives input/output connection diagram.



Control unit
SDCS-CON-K02L

The DCS580 single drives offer a wide range of standard interfaces. In addition, the drive has one option slot that can be used for a fieldbus adapter module.

Standard interface	Description
2 analog inputs (XAI)	Voltage input: -10 ... 10 V, Resolution: 11 bit + sign bit
2 analog outputs (XAO)	AO1: 0 ... 20 mA, -10 ... 10 V, AO2: -10 ... 10 V
3 digital inputs (XDI)	Input type: Source/Sink (DI1 ... DI3)
2 relay outputs (XRO1, XRO2)	250 V _{AC} / 30 V _{DC} , 2 A
Control panel	Connector: RJ-45
PC tool connection	USB via control panel
Encoder	24 V _{DC} , Differential or single ended
Tacho	±8 ... 270 V _{DC}



I/O extension modules
Standard I/Os can be extended by using up to three optional analog and digital I/O extension modules. The modules are easily installed in the extension slots located on the control unit.

Analog and digital I/O extension modules
Option **Connections**
FIO-01 adds 4 DIO and 2 RO.
FIO-11 adds 2 DIO, 3 AI and 1 AO.

Connectivity

to automation networks

F-type fieldbus adapters

Fieldbus adapter modules for EtherNet/IP, Modbus/TCP, PROFINET IO and PROFIBUS DP-Vx enable communication between drives, systems, devices and software.

The plug-in fieldbus adapter module can easily be mounted inside the drive. Other benefits include reduced wiring costs when compared with traditional input/output connections. Fieldbus systems are also less complex than conventional systems, resulting in less overall maintenance.

Drive monitoring

A set of drive parameters and/or actual signals, such as torque, speed, current, etc., can be selected for cyclic data transfer, providing fast data access.

Drive diagnostics

Accurate and reliable diagnostic information can be obtained through the warning, limit and fault words.

Drive parameter handling

The Ethernet fieldbus adapter modules allow users to build an Ethernet network for drive monitoring and diagnostic and parameter handling purposes.

Cabling

Substituting the large amount of conventional drive control cabling and wiring with a single cable reduces costs and increases system reliability and flexibility.

Design

The use of fieldbus control reduces engineering time at installation due to the modular structure of the hardware and firmware and the simplicity of the connections to the drives.

Commissioning and assembly

The modular machine configuration allows pre-commissioning of single machine sections and provides easy and fast assembly of the complete installation.

Universal communication with ABB fieldbus adapters

The DCS580 supports the following fieldbus protocols:

Fieldbus adapter modules

Option	Fieldbus protocol
FEIP-21	Two-Port EtherNet/IP
FMBT-21	Two-Port Modbus/TCP
FPNO-21	Two-Port PROFINET IO
FPBA-01	PROFIBUS DP-Vx



Common features

throughout the whole DCS580 product family



Standard DCS580 features

DCS580 basic firmware

DCS580 firmware includes the basic function of speed control, armature current, field current and motor voltage. The flexible design for command location enables fieldbus control or control from hardware signals as well as a mixed structure. The design of drive logic enables a drive reaction defined by Profibus standard but can also be configured to adapt classic command structures.

Extensive I/O connections

- The DCS580 features extensive I/O connections for flexible configuration in various applications
- Colored terminals for easy configuration

Control panel and primary settings

- USB interface for PC and tool connection
- Help button for problem-solving

Commissioning Assistants

DCS580 includes an assistant to set up the drive. The assistant is available via control panel and Drive Composer pro PC-tool.

Following commissioning steps are covered:

- Name plate data
- Standard I/O
- Field current controller with auto tuning
- Armature current controller with auto tuning
- First time motor spinning
- Speed feedback selection with auto-detection of the speed feedback device
- Speed controller with auto tuning
- Field weakening assistant with auto tuning



Shared features of the ABB all-compatible drives portfolio

Adaptive Program

- DCS580 firmware includes an easy-to-use and visual Adaptive Program feature
- The Adaptive Program can be used to add logical functions and conditions for process fine-tuning

Same PC tools for ABB all-compatible drives

- Free [Drive Composer entry](#) available
- Same parameter structure makes the all-compatible platform easy to use

Removable memory unit

The removable memory unit stores the firmware that includes user settings, parameter settings and motor data. Situated on the control unit, the memory unit can easily be removed for maintenance, update or replacement purposes.

Connectivity

- The DCS580 supports F-series fieldbus adapters used in the ABB all-compatible platform
- Mobile phone connectivity via the optional Bluetooth control panel

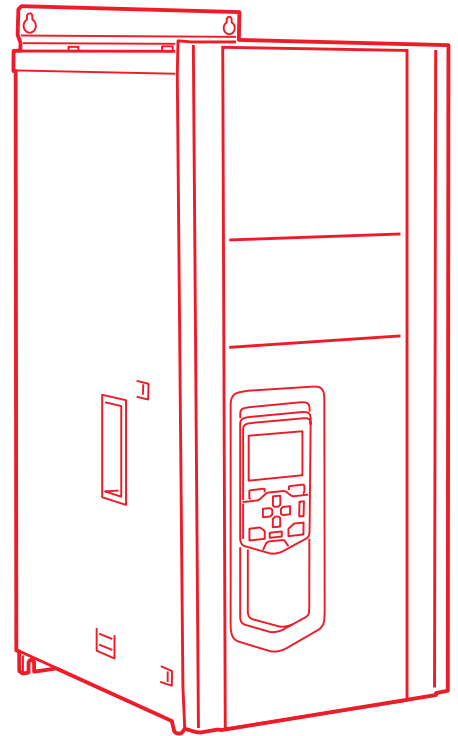
Standard DCS580 drives firmware

Save commissioning and learning time with the control panel's clear and intuitive user interface and different assistants.

Scale up and customize the drive to your application's requirements with flexible parameter pointers or the Adaptive Program .

Protect and supervise your motor by powerful supervision functions such as stall protection, thermistor motor protection, armature current ripple, minimum field current and many more.

Analyze and resolve issues with the control panel's diagnostics menu. You can quickly analyze why the drive is performing as it is; running, stopped or running at the present speed.



The OEM machine manufacturing DCS580 series

The first choice for OEM machine manufacturing applications

OEM machine manufacturing

The DCS580 drives are customized to meet the precise needs of applications such as wire drawing machines, coating lines, printing machines, presses, tools machines main drives, food processing machines, woodworking (wooden products and MDF industry), retrofit of older DC-technology, etc.

Replacement of existing DC drives

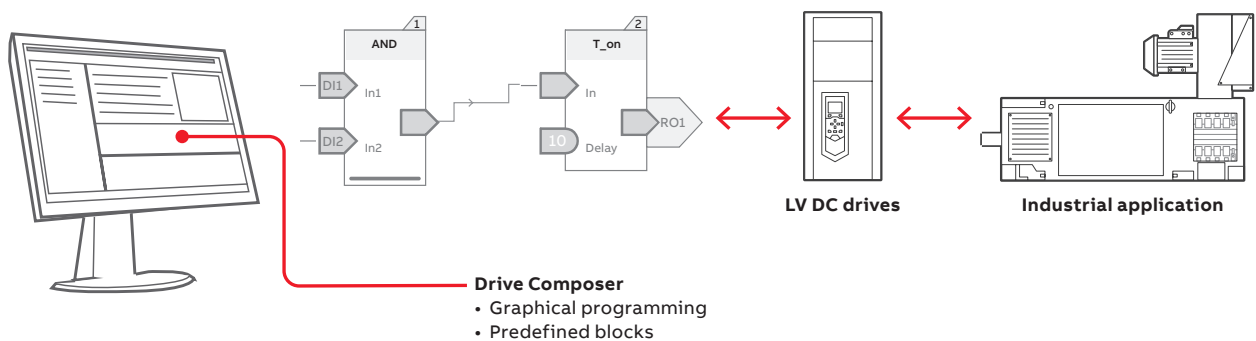
In many installations DC drives are in reliable operation since decades. While the DC motors can often be operated for many more years, the DC drive however might experience lack of support and spare parts and maybe even reliability.

A replacement of the old DC drive with a DCS580 can extend the lifetime of the equipment by some more decades at very low costs.

Adaptive Program

The Adaptive Program is used to customize the operation of a drive if the drive parameter setting is not sufficient. The Adaptive Program is built

with standard function blocks included in the Drive Composer PC-tool.



Drivetune mobile application for wireless access

User-friendly experience with Bluetooth connectivity.

Drivetune mobile app is a powerful tool for performing basic drive startup and troubleshooting tasks. It is possible to connect with drives and access data available in the Internet at the same time. The wireless Bluetooth

connectivity means that users won't need to enter hazardous or difficult-to-reach work areas to access information necessary to help them commission and tune the drive.



Startup, commission and tune your drive and application with full parameter access

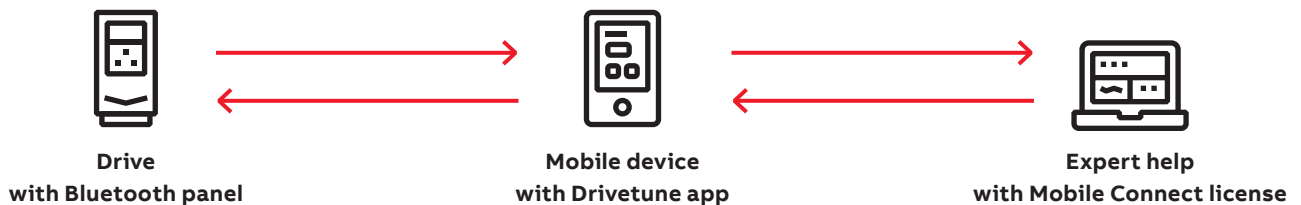
Optimize performance via drive troubleshooting features

Create and share backups and support packages

Keep track of drives installed base

ABB Ability™ Mobile Connect for drives is a module in the Drivetune app. It gives you the access to the technical support for fast problem solving. Mobile Connect makes all the necessary data instantly available to the expert, providing support.

Remote and rapid access to ABB's drive experts can save you and your team considerable time, money and headaches. Check Mobile Connect availability in your country.



Download Drivetune



Drivetune for commissioning and managing drives

Intuitive human-machine interface



The control panel features intuitive use and easy navigation. The high resolution display enables visual guidance. The panel reduces commissioning and training time by means of different assistants, making the drive simple to set up and use.

With the panel's text editor, users can also add information, customize text and label the drive. Powerful backup and restore functions are supported as well as different language versions. The help key provides context sensitive guidance. Faults or warnings can be resolved quickly since the help key provides troubleshooting instructions.

The PC tool can be easily connected to the drive through the USB connector on the control panel. There are also control panel mounting platforms, DPMP-01 and DPMP-02, available for cabinet door mounting with IP55 or IP65 protection class.

Control panel

Option	Comment	Description
ACS-AP-I	standard	built-in
ACS-AP-W	optional	Bluetooth panel

Option	Description	Ordering code
DPMP-01	Panel flush mounting kit	3AUA0000108878
DPMP-02	+Panel surface mounting kit	3AXD50000009374



PC tool for easy startup and maintenance

The Drive Composer PC tool offers a fast and harmonized setup, commissioning and monitoring for the whole drives portfolio. The free version of the tool provides startup, maintenance capabilities and the Adaptive Program. The professional version provides additional features such as custom parameter windows, control diagrams of the drive's firmware.

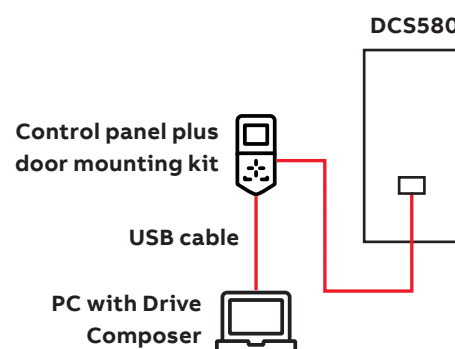
The Drive Composer tool is connected to the drive using an Ethernet connection or through the USB connection on the Control panel. All drive information such as parameters, loggers, faults, backups and event lists are gathered into a support diagnostics file with a single mouse click. This provides faster fault tracking, shortens the downtime and minimizes operational and maintenance costs.

Drive Composer pro

Drive Composer pro provides all basic functionality, including parameter settings, parameter search, downloading and uploading files. Advanced features such as graphical control diagrams and various displays are also available. The control diagrams save users from browsing long lists of parameters and help to set the drive's logic quickly and easily. The tool has fast monitoring capabilities of multiple signals from several drives in a PC tool network. Full backup and restore functions are also included.



Item	Description	Ordering code
Drive Composer entry	free of charge	link
Drive Composer pro tool	single license	3AUA0000108087
Drive Composer pro tool	10 user licenses	3AUA0000145150
Drive Composer pro tool	20 user licenses	3AUA0000145151
USB cable	1.8 m USB A – USB Mini B	3ADT693714P0001



Fuse connections

Recommended fuse connections see table below.

Semiconductor type F1 fuses and fuse holders for AC and DC power lines (DCS580-S01/DCS580-S02)

Units size K1, K2, K3 and K4 with rated currents up to 1000 A require external line fuses.

The table assigns the AC fuse types to the drive types. In case the drive should be equipped with DC fuses use the same type of fuse as used on the AC side in the plus and minus line. Blade type fuses are used for all drives of construction type K1 ... K4 except for drives 610 A, 680 A, 740 A, 820 A, 900 A and 1000 A.

Drive type	Type	Fuse holder	Design fig.
2-Q drives	4-Q drives		
DCS580-S01-0020-05	DCS580-S02-0025-05	50 A 660 V UR	OFAZ 00 S3L 1
DCS580-S01-0045-05	DCS580-S02-0050-05	80 A 660 V UR	OFAZ 00 S3L 1
DCS580-S01-0065-05	DCS580-S02-0075-05	125 A 660 V UR	OFAZ 00 S3L 1
DCS580-S01-0090-05	DCS580-S02-0100-05	125 A 660 V UR	OFAZ 00 S3L 1
DCS580-S01-0135-05	DCS580-S02-0150-05	200 A 660 V UR	OFAZ 1 S3 2
DCS580-S01-0180-05	DCS580-S02-0200-05	250 A 660 V UR	OFAZ 1 S3 2
DCS580-S01-0225-05	DCS580-S02-0250-05	315 A 660 V UR	OFAZ 2 S3 3
DCS580-S01-0270-05	DCS580-S02-0300-05	500 A 660 V UR	OFAZ 3 S3 4
DCS580-S01-0315-05	DCS580-S02-0350-05	500 A 660 V UR	OFAZ 3 S3 4
DCS580-S01-0405-05	DCS580-S02-0450-05	700 A 660 V UR	OFAZ 3 S3 4
DCS580-S01-0470-05	DCS580-S02-0520-05	700 A 660 V UR	OFAZ 3 S3 4
DCS580-S01-0610-05	DCS580-S02-0680-05	900 A 660 V UR	3 x 170H 3006 5
DCS580-S01-0740-05	DCS580-S02-0820-05	900 A 660 V UR	3 x 170H 3006 5
DCS580-S01-0900-05	DCS580-S02-1000-05	1250 A 660 V UR	3 x 170H 3006 5

Fuses and fuse holders (details see [DCS580 Hardware manual](#))

Note: UR = Ultra Rapid

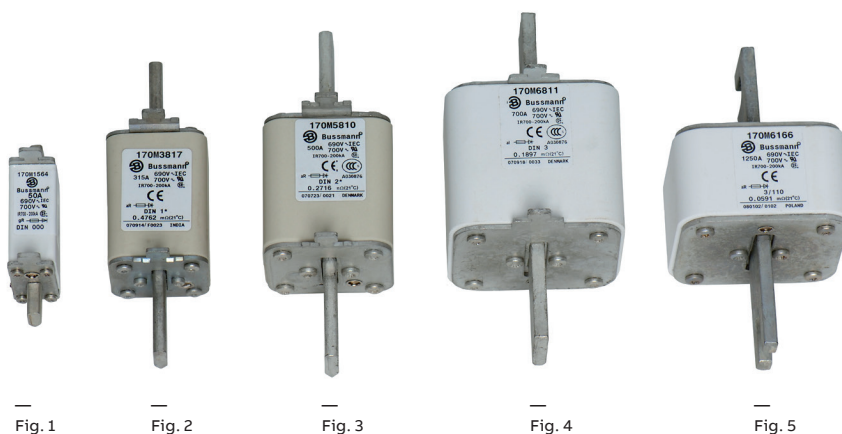


Fig. 1

Fig. 2

Fig. 3

Fig. 4

Fig. 5

Line reactors L1

Drive type 525 V 50/60 Hz		Line reactor 1 % relative voltage drop	Design fig.	Line reactor 4 % relative voltage drop	Design fig.
2-Q drives	4-Q drives				
DCS580-S01-0020-05	DCS580-S02-0025-05	ND01	1	ND401	4
DCS580-S01-0045-05	DCS580-S02-0050-05	ND02	1	ND402	4
DCS580-S01-0065-05	DCS580-S02-0075-05	ND04	1	ND403	5
DCS580-S01-0090-05	DCS580-S02-0100-05	ND06	1	ND404	5
DCS580-S01-0135-05	DCS580-S02-0150-05	ND06	1	ND405	5
DCS580-S01-0180-05	DCS580-S02-0200-05	ND07	2	ND406	5
DCS580-S01-0225-05	DCS580-S02-0250-05	ND07	2	ND407	5
DCS580-S01-0270-05	DCS580-S02-0300-05	ND09	2	ND408	5
DCS580-S01-0315-05	DCS580-S02-0350-05	ND09	2	ND408	5
DCS580-S01-0405-05	DCS580-S02-0450-05	ND10	2	ND409	5
DCS580-S01-0470-05	DCS580-S02-0520-05	ND10	2	ND410	5
DCS580-S01-0610-05	DCS580-S02-0680-05	ND12	2	ND411	5
DCS580-S01-0740-05	DCS580-S02-0820-05	ND13	3	ND412	5
DCS580-S01-0900-05	DCS580-S02-1000-05	ND13	3	ND413	5

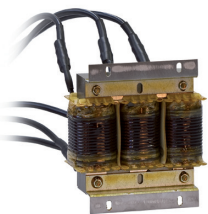


Fig. 1



Fig. 2



Fig. 3

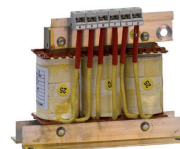


Fig. 4



Fig. 5

Services to match your needs

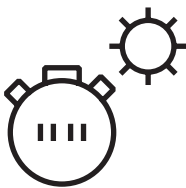
Your service needs depend on the operation, life cycle of the equipment and the business priorities. We have identified our customers' four most common needs and defined service options to satisfy them. What is your choice to keep your drives at peak performance?

Is uptime your priority?

Keep your drives running with precisely planned and executed maintenance.

Example services include:

- Life cycle assessment
- Installation and commissioning
- Spare parts
- Preventive maintenance
- ABB Motion OneCare agreement
- Drive exchange



Operational efficiency

Is rapid response a key consideration?

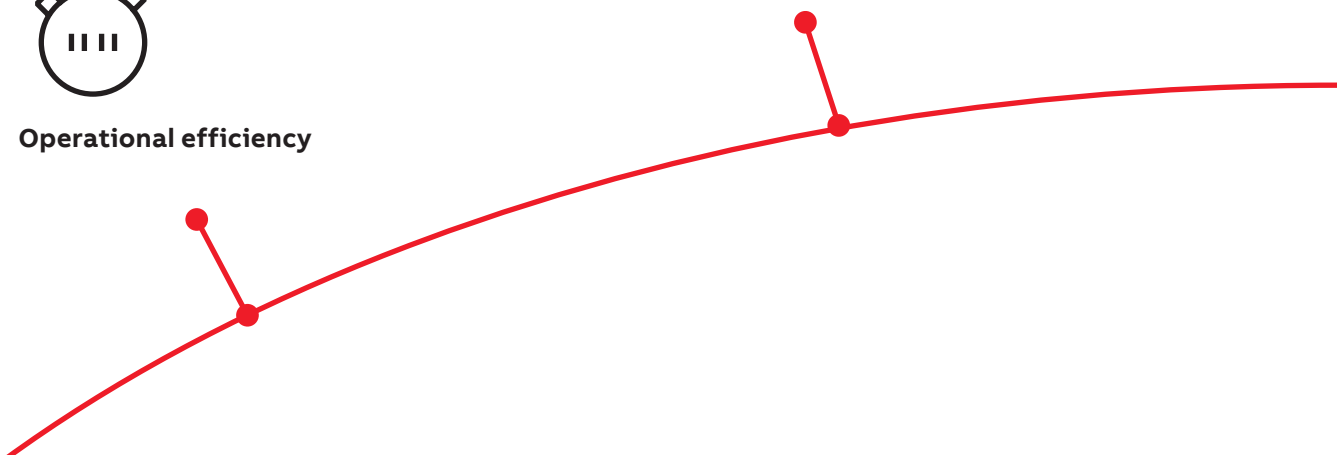
If your drives require immediate action, our global network is at your service.

Example services include:

- Technical support
- On-site repair
- Remote support
- Response time agreements
- Training



Rapid response



Drives service

Your choice, your future

The future of your drives depends on the service you choose.

Whatever you choose, it should be a well-informed decision. No guesswork. We have the expertise and experience to help you find and implement the right service for your drives. You can start by asking yourself these two critical questions:

- Why should my drive be serviced?
- What would my optimal service options be?

From here, you have our guidance and full support along the course you take, throughout the entire lifetime of your drives.

Your choice, your business efficiency

ABB Motion OneCare agreement lets you focus on your core business. A selection of predefined service options matching your needs provides optimal, more reliable performance, extended drive lifetime and improved cost control. So you can reduce the risk of unplanned downtime and find it easier to budget for maintenance.

We can help you more by knowing where you are!

Register your drive at www.abb.com/drivereg for extended warranty options and other benefits.

Need to extend your assets' lifetime?

Maximize your drive's lifetime with our services.

Example services include:

- Life cycle assessment
- Upgrades, retrofits and modernization
- Replacement, disposal and recycling



Life cycle management

Is performance most critical to your operation?

Get optimal performance out of your machinery and systems.

Example services include:

- Advanced services
- Engineering and consulting
- Inspection and diagnostics
- Upgrades, retrofits and modernization
- Workshop repair
- Tailored services



Performance improvement

A lifetime of peak performance

You are in control of every life cycle phase of your drives. At the heart of drive services is a four-phase product life cycle management model. This model defines the services recommended and available throughout drives lifespan.

Now it is easy for you to see the exact service and maintenance available for your drives.

ABB drives life cycle phases explained:

	Active	Classic	Limited	Obsolete
	Full range of life cycle services and support		Limited range of life cycle services and support	Replacement and end-of-life services
Product	The product is in active sales and manufacturing phase.	Serial production has ceased. The product may be available for plant extensions, as a spare part or for installed base renewal.	The product is no longer available.	The product is no longer available.
Services	Full range of life cycle services is available.	Full range of life cycle services is available. Product enhancements may be available through upgrade and retrofit solutions.	Limited range of life cycle services is available. Spare parts availability is limited to available stock.	Replacement and end-of-life services are available.

Keeping you informed

We notify you every step of the way using life cycle status statements and announcements.

Your benefit is clear information about your drives' status and precise services available. It helps you plan the preferred service actions ahead of time and make sure that continuous support is always available.

Step 1

Life Cycle Status Announcement

Provides early information about the upcoming life cycle phase change and how it affects the availability of services.

Step 2

Life Cycle Status Statement

Provides information about the drive's current life cycle status, availability of product and services, life cycle plan and recommended actions.

ABB Automation solutions



DCS880

Our DCS880 industrial drives are customized to meet the precise needs of industries such as oil and gas, mining, metals, cement, non-motoric, material handling, pulp and paper, rubber and plastics, marine, water and wastewater, food and beverage and automotive. They control a wide range of applications such as cranes, extruders, winches, winders, conveyors, mixers, mill stands, centrifuges, test benches, elevators, electrolysis, kiln.



DCT880

ABB's DCT880 offers their customers a thyristor power controller for the accurate control of ohmic or inductive heating elements and infrared radiators in glass, plastic, annealing, drying, melting or heating applications. DCT880 controllers are available in eight compact sizes, ranging from 20 A ... 4,200 A per leg.

The integrated three-phase current measurement allows for implementing all load configurations from star, delta, single- and two-phase all the way to reactive-power optimized transformer control.



AC500

ABB's powerful flagship PLC offering provides a wide range of performance levels and scalability within a single simple concept where most competitors require multiple product ranges to deliver similar functionality.



Programmability

The Drive Application Builder is the engineering and maintenance tool for drive application programming. It complies with the IEC 61131-3 standard offering all five IEC programming languages. The Drive Automation Builder supports a number of languages and comes with new libraries, FTP functions, SMTP, SNMP, smart diagnostics and debugging capabilities.

DCS880-R

The DCS880-R Rebuild Kit replaces the control electronics of an existing DC drive. All power components, including the thyristors, are retained. The DCS880-R Rebuild Kit is suitable for almost all existing drives from different manufacturers. In addition, ABB has developed specifically tailored solutions for some existing types of converter: This is a cost-efficient option for DC drive revamping.



All-compatible drives portfolio

The all-compatible drives share the same architecture, firmware platform, tools, user interfaces and options. Yet, there is an optimal drive from the smallest water pump to the biggest cement kiln and everything in the between. When you have learned to use one drive it is easy use the other drives in the portfolio.



Safety products

ABB safety products are helping machine builders to create production-friendly and safe work environments for operators. We deliver machine safety solutions for single machines or entire production lines. Our long experience of helping customers making solutions for demanding environments has made us experts in combining production demands with safety demands for production-friendly solutions.



Additional information

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