
TECHNICAL CATALOG

Low voltage AC drives

ABB general purpose drives
ACS580, 1 to 700 HP



ACS580 series.
Easy to use.
Reliable.
Scalable.

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The all-compatible ACS580 series

Effortless energy efficiency

ABB's ACS580 drives, offered in both wall-mount and cabinet-built options, provide the quality, reliability, and energy savings you expect from ABB drives. New features, such as Bluetooth connectivity and a new primary settings menu, make the drives easier to use and safer to maintain.

With offices in over 90 countries and a network of global technical partners, you can rely on ABB for technical assistance and local support worldwide.



Save time and money

The ACS580 drive is simple to install, commission, use, expand, and even upgrade, when the time comes. A compact design makes handling the units easy and with all the essential features built-in, commissioning and setup time is greatly reduced by leveraging the Primary Settings menus and assistants. The assistant control panel, which provides 16 different language options, can be upgraded to an optional Bluetooth control panel to enable wireless commissioning and monitoring.

Keep your system running smoothly

ACS580 drives are designed for customers who value reliability, high quality, and robustness in their applications. Product features, such as coated boards and compact UL Type 12 (IP55) enclosure, make the ACS580 suitable for harsh conditions.

Additionally, all ACS580 drives and their protective functions are thoroughly tested for performance at maximum temperature with nominal loads.

Improve system efficiency while reducing costs

When you think of VFDs, you likely think of energy savings – and rightly so. Energy savings alone can justify the cost of a VFD, even in small applications that traditionally use softstarters. By upgrading from constant to variable speed, you can create energy savings of up to 50%. The ability to track the savings, in both energy and dollars, allows you to evaluate the effectiveness and adjust accordingly to generate additional savings.

When your processes run more efficiently, you can achieve energy savings as well as minimize wear and tear on your mechanical equipment, and improve overall process efficiencies.

The ACS580 design helps to contain costs. The amount of equipment that needs to be installed, commissioned and maintained is reduced because all the essential features, including Safe Torque Off (STO), are integrated into the drive.

As one of ABB's all-compatible products, fieldbus adapters, flange mounting kits, and PC tools are consistent with other product families, to simplify commissioning and minimize your need for training.

Partner with ABB to achieve success

We encourage you to collaborate with ABB's factory and local VFD experts who are available throughout the lifecycle of your system. You have access to this team of experts to assist with developing functional, cost-effective, and easy-to-maintain systems, improving designs to meet specific project requirements, ensuring that you include the latest technologies, and training your staff on appropriate topics. Our goal is to ensure your success.

We also offer preventive maintenance to keep your system in tip-top shape and service plans in the event a machine does go down. You can also count on our free, 24/7/365 technical support to assist whenever you need help.

Switch on simplicity without trading off efficiency

The ACS580 general purpose drive is equipped with built-in features that simplify ordering and delivery, and reduce commissioning costs. Everything is provided in a single, compact and ready-to-use package.



Start-up and maintenance tool

Drive composer PC tool for start-up, configuration, monitoring and process tuning. The PC tool is connected to the drive's control panel via a USB interface.

Simple to select, install and use

Built-in features such as an EMC filter, choke, a Modbus RTU fieldbus interface and safe torque off functionality simplify drive selection, installation and use.



Control at your fingertips

The control panel's straightforward primary settings menu with assistants help you set up the drive quickly and effectively.

Scalable performance

The ACS580 is a perfect match not only for simple applications, but also for applications where sophisticated speed and torque control are needed.



—
 ACS580 drives are designed for maximum reliability.



Communication with all major automation networks
 Optional fieldbus adapters enable connectivity with all major industrial automation networks.



Adaptive programming
 Adaptive programming is ideal for creating custom programs for various applications. It does not require expertise in programming.

Designed for maximum reliability
 Design features like coated circuit boards, minimized airflow through the control board section, earth fault protection and design for 40 °C ambient temperature make the ACS580 an easy choice.

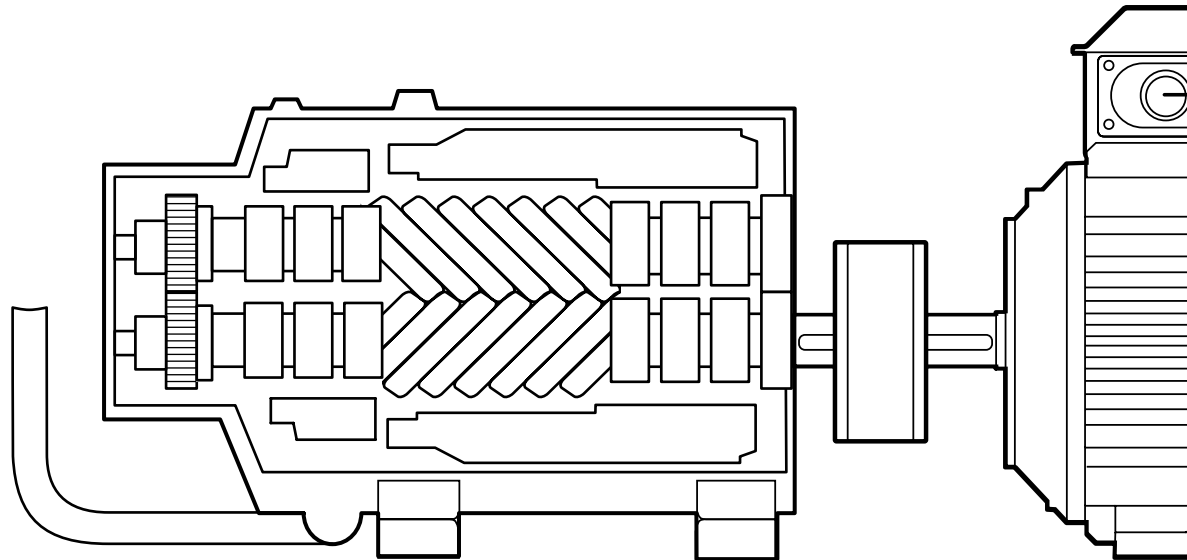


Remote monitoring
 With a built-in web server and stand-alone datalogger, NETA-21 module enables worldwide and secure access to your drives.

What does all-compatible mean for your application?

Business all-compatible

The all-compatible drives are not just equipment – they are part of your business strategy. Whether your target is to optimize the productivity of your business or scale it from local to global, all-compatible is there for you. Shared elements throughout the product offering make the transition from one product to another easy. With offices in over 90 countries and a global network of technical partners, we are in a good position to offer technical advice and local support, worldwide.



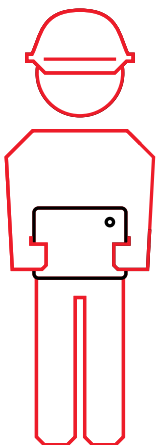
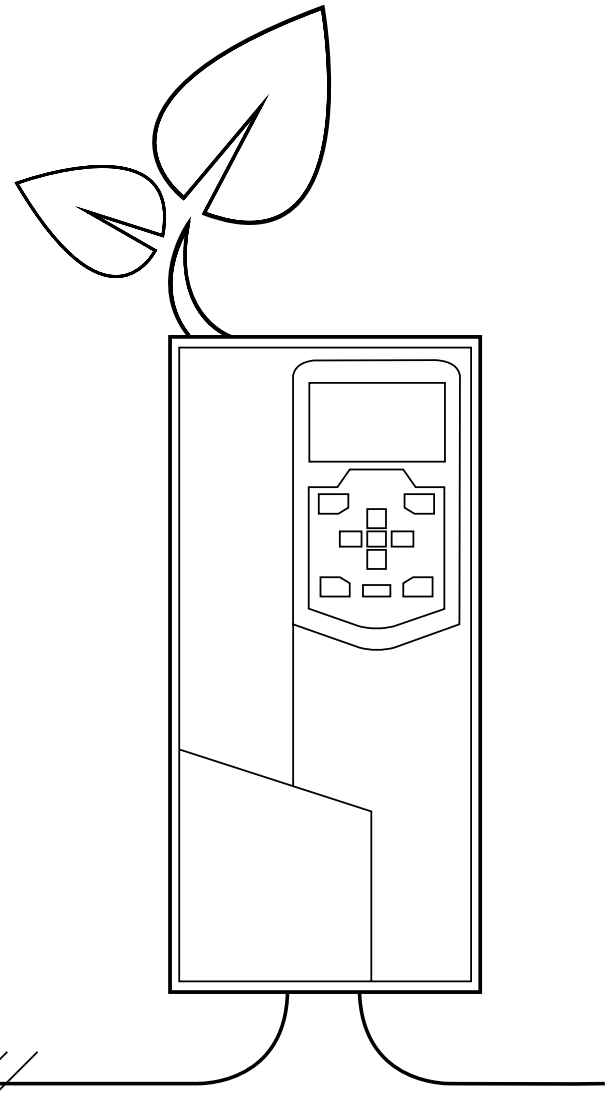
Process all-compatible

The drives are compatible with various processes. They can control virtually any type of AC motor, provide extensive input/output connectivity and support all major fieldbus protocols. The drives cover a wide voltage and power range, and have the flexibility and scalability to enable one drive platform to control almost any application or process, making your drive selection easy.

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. The energy optimizer feature ensures maximum torque per ampere, reducing energy drawn from the supply. The built-in energy efficiency calculators help you to analyze and optimize your processes. By leveraging our energy appraisals, you can investigate the energy-saving potential of selected applications.

Our wall-mounted ACS580 general purpose drives fulfill the highest energy efficiency class, further reducing environmental impact. In addition, all ACS580 general purpose drives are compatible with high-efficiency and SynRM motors.

**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.

With the PC tool, you get extensive drive monitoring capabilities and quick access to the drive settings. Integrated and certified safety features provide safety for machine operators. To further improve the user experience, we have developed mobile apps that can be utilized in interacting with the drive. These apps give you an easy graphical interface for management, maintenance and servicing of your drives.

The control panel supports 16 languages.

Typical applications

ACS580 drives improve process performance, increase productivity and ensure machine and personnel safety

Pumps

Standard features

- Power range up to 700HP available in different enclosure versions
- Motor cables up to 1,000 ft (300 m)
- Built-in choke in all ACS580 devices for harmonic mitigation in partial loads

Industry: Food and beverage, agriculture, automotive, rubber and plastics



Fans

Standard features

- Compact UL Type 12 devices with coated PCBs for stand-alone installation
- EMC level C2 for installation in the 1st environment
- Support for high efficiency, PM and SynRM motors

Industry: Food and beverage, agriculture, automotive, textile



Compressors

Standard features

- Broad support for different fieldbus protocols
- STO for machinery safety
- Power range up to 350HP

Industry: Food and beverage, printing, textile



Conveyors

Standard features

- Integrated braking chopper up to 30HP
- Compact UL Type 12 enclosure
- STO for machinery safety
- External +24 V supply (optional on R1-R5 frame) to maintain communication when the mains supply is disconnected.

Industry: Material handling, sawmill, textile, automotive, food and beverage



Mixers

Standard features

- Vector control ensures high starting torque at low speeds
- STO for personnel / machinery safety
- Connectivity: Control panels / IO / Fieldbus options
- Coated control boards

Industry: Food and beverage



Compact solutions for wall-mounted, cabinet-built and packaged ACS580 drives

No matter the frame size or power range, all ACS580 drives bring you ease of use, scalability, quality and proper protection in a variety of environments.

- 01 Wall-mounted ACS580 UL Type 1 drive
- 02 Wall-mounted ACS580 UL Type 12 drive
- 03 Packaged ACS580 UL Type 3R drive

UL Type 1 drives

Wall-mounted UL Type 1 drives are available in a power range of 1 to 350HP at 480V, 1 to 100HP at 230V and 2 to 250HP at 575V. Packaged UL Type 1 drives are available in a power range of 1 to 200HP at 480V, 1 to 100HP at 230V and 2 to 150HP at 575V. Side-by-side mounting and horizontal mounting are available for all wall-mounted and packaged ACS580 drives. Flange mounting is available on all wall-mounted drives excluding packaged drives.



01

UL Type 12 drives

Both wall-mounted and packaged UL Type 12 drives are available in the same power ranges and voltages offered with the UL Type 1 drives. UL Type 12 cabinet drives are available in 200-700HP. The UL Type 12 drive is designed for applications exposed to dust, moisture, vibrations and other harsh environments. It is similar in size to the compact UL Type 1 drives, which provides significant savings in space, maintenance, engineering, and material costs, as well as in setup and commissioning time.



02

UL Type 3R drives

Packaged UL Type 3R drives are available in a power range of 1 to 60HP at 480V, 1 to 25HP at 230V and 2 to 30HP at 575V. The UL Type 3R drive is equipped for outdoor use and features a space heater within the enclosure. These enclosures provide protection against outdoor elements such as dirt, rain, sleet and snow. The UL Type 3R drives are not designed to protect against dust.

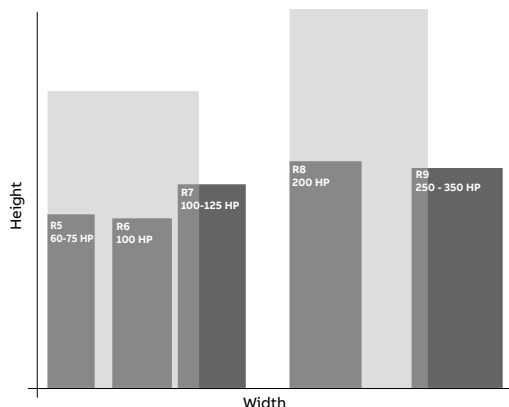


03

Competitive advantage

The footprint of the ACS580 wall-mounted drive is significantly smaller when compared to similar horsepower ratings of the competition.

■ ABB ACS580
■ Competition



Common features throughout the whole ACS580 product family



Standard ACS580 features

Choke and EMC

- Built-in choke with 5% equivalent impedance for harmonic mitigation
- Fulfills the EN61000-3-12 standard
- EMC C2 filter allows installation in first environment

Scalar and vector control for process control

- Scalar control for effortless process control
- Open-loop vector control for accurate and energy-efficient speed and torque control in demanding applications
- Support for induction, permanent magnet and synchronous reluctance motors (SynRM)

Extensive I/O connections

- The ACS580 features extensive I/O connections for flexible configuration in various applications
- Colored terminals for easy configuration
- Assistant control panel and primary settings
- The ACS-AP-S assistant control panel speaks 16 different languages
- USB interface for PC and tool connection
- Help button for problem-solving

Integrated safe torque off (STO)

- Safe Torque Off for implementing safe machinery
- SIL 3, PL e

Brake control

- Braking control is integrated into ACS580 drives. A brake chopper is built-in as standard for ACS580 frames R1 to R3

Performance

- The ACS580 is suitable not only for variable torque applications but also for basic constant torque applications



Shared features of the ABB all-compatible drives portfolio

Adaptive programming

- ACS580 firmware includes an easy-to-use and visual adaptive programming feature.
- Adaptive programming 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 at www.abb.com.
- Same parameter structure makes the all-compatible platform easy to use.

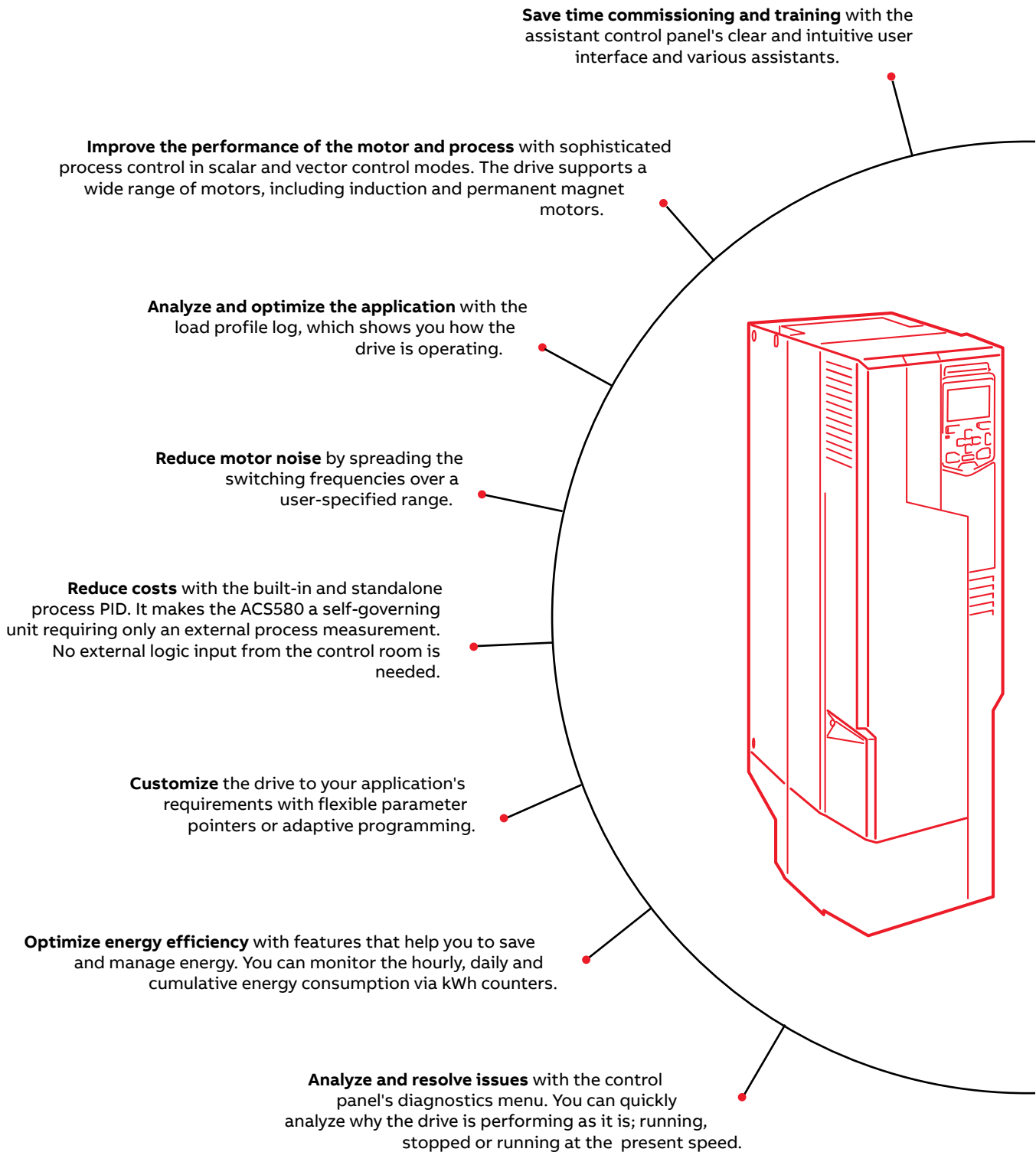
ATEX-certified PTC thermistor support

- The ACS580 can be equipped with an optional CPTC-02 ATEX-certified PTC sensor.
- The safety integrity level for the CPTC-02 module is SIL 2/PL c.

Connectivity

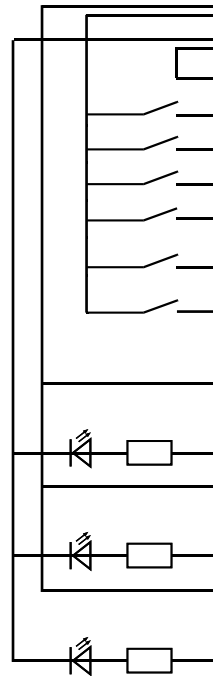
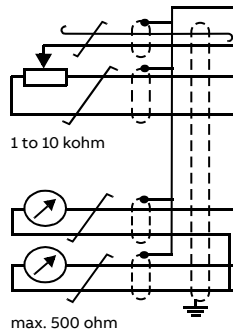
- The ACS580 supports F-series fieldbus adapters used in the ABB all-compatible platform.
- Mobile phone connectivity via the optional Bluetooth assistant control panel.
- Fieldbus settings are made easy with the redesigned simple settings menu.

Standard ACS580 drives software with versatile features



Standard interface and extensions for plug-in connectivity

ACS580 drives offer a wide range of standard interfaces. In addition, the drive has two option slots that can be used for extensions, including fieldbus adapters and input/output extension modules that allow an external +24 V supply for frame sizes R1 to R5. For further information, please see the ACS580 user manual.



Default factory I/O connection diagram

Terminal	Meaning	Default macro connections
X1 Reference voltage and analog inputs and outputs		
1	SCR	Signal cable shield (screen)
2	AI1	External frequency reference 1: 0 to 10 V
3	AGND	Analog input circuit common
4	+10 V	Output reference voltage 10 V DC
5	AI2	Not used
6	AGND	Analog input circuit common
7	AO1	Output frequency: 0 to 20 mA
8	AO2	Output current: 0 to 20 mA
9	AGND	Analog output circuit common
X2 & X3 Aux. voltage output and programmable digital inputs		
10	+24 V	Auxiliary voltage output +24 V DC
11	DGND	Auxiliary voltage output common
12	DCOM	Digital input common for all DI
13	DI1	Start/Stop: Activate to start
14	DI2	Fwd/Rev: Activate to reverse rotation direction
15	DI3	Constant speed selection
16	DI4	Constant speed selection
17	DI5	Ramp pair selection: Activate to select second pair
18	DI6	Not used
X6, X7, X8 Relay outputs		
19	RO1C	Ready
20	RO1A	
21	RO1B	250 V AC/30 V DC 2 A
22	RO2C	
23	RO2A	Running
24	RO2B	
25	RO3C	Fault (-1)
26	RO3A	
27	RO3B	250 V AC/30 V DC 2 A
X5 EIA-485 Modbus RTU		
29	B+	Built-in Modbus RTU fieldbus interface
30	A-	
31	DGND	
X4 Safe torque off		
34	OUT1	Safe torque off. Both circuits must be closed for the drive to start. The circuits are closed with jumper wires in the standard delivery.
35	OUT2	
36	SGND	
37	IN1	
38	IN2	
X10* 24 V AC/DC		
40	24 V	AC/DC-in. Ext. 24 V AC/DC input to power up the control unit when the main supply is disconnected
41	24 V	AC/DC+in.

* The terminals 40-41 are integrated in the frame sizes R6-R11. For the frame sizes R1-R5 I/O options (+L5xx) are needed.

Technical data

Mains connection	
Voltage range/ tolerance	3-phase, U_N 200 to 240V, 380 to 480V, 500 to 600V +10%/-15%
Horsepower	ACS580-01: 1 to 350HP ACS580-07: 200 to 700HP ACS580-0P: 1 to 200HP
Frequency	from 48 to 63 Hz
Power factor	$\cos\phi = 0.98$
Efficiency (at nominal power)	98%
Motor connection	
Voltage	0 to U_N , 3-phase
Frequency	0 to 500 Hz
Motor control	Scalar and vector control
Torque control	Torque step rise time: <10 ms with nominal torque Non-linearity: $\pm 5\%$ with nominal torque
Speed control	Static accuracy: 20% of motor nominal slip Dynamic accuracy: 1% seconds with 100% torque step
Product compliance	
CE Low Voltage Directive 2006/95/EC, EN 61800-5-1: 2007 Machinery Directive 2006/42/EC, EN 61800-5-2: 2007 EMC Directive 2004/108/EC, EN 61800-3: 2004 + A1: 2012 RoHS directive 2011/65/EU Quality assurance system ISO 9001 and Environmental system ISO 14001 Waste electrical and electronic equipment directive (WEEE) 2002/96/EC RoHS directive 2011/65/EU UL, EAC, RCM, UL, cUL, CSA	

EMC according to EN 61800-3: 2004 + A1: 2012	
Frames R1 to R9 with built-in C2 category filter as standard Frames R10 and R11 with preconfigured built-in C3 category filter option	
Environmental limits	
Ambient temperature	
Transport Storage	-40 to +70 °C -40 to +70 °C
Operation area	ACS580-01: -15 °C to +50 °C. No frost allowed R1 to R9 from 40 °C to 50 °C with derating ACS580-07: 0 °C to 40 °C. No frost allowed R6 to R11 from 40 °C to 50 °C with derating ACS580-0P: 0 °C to 40 °C. No frost allowed R1 to R8 from 40 °C to 50 °C with derating
Cooling method	
Air-cooled	Dry clean air
Altitude	
0 to 1,000 m	Without derating
1,000 to 4,000 m	With derating of 1%/100 m
Relative humidity	5 to 95%, no condensation allowed
Degree of protection	
	ACS580-01: UL Type 1 (IP21) as standard UL Type 12 (IP55) as option (frames R1 to R9) ACS580-07: Cabinet-built frames R6 to R9 UL Type 1 (IP21) as standard IP42 and UL Type 12 (IP55) as options Cabinet-built frames R10 to R11 IP42 as standard UL Type 12 (IP55) as option ACS580-0P: UL Type 1 (IP21) as standard UL Type 12 (IP55) and UL Type 3R** as options
Functional safety	Safe torque off (STO according EN 61800-5-2) IEC 61508 ed2: SIL 3. IEC 61511: SIL 3. IEC 62061: SIL CL 3. EN ISO 13849-1: PL e
Contamination levels	No conductive dust allowed
Storage	IEC 60721-3-1. Class 1C2 (chemical gases). Class 1S2 (solid particles)*
Operation	IEC 60721-3-3. Class 3C2 (chemical gases). Class 3S2 (solid particles)*
Transportation	IEC 60721-3-2. Class 2C2 (chemical gases) Class 2S2 (solid particles)*

*C = chemically active substances

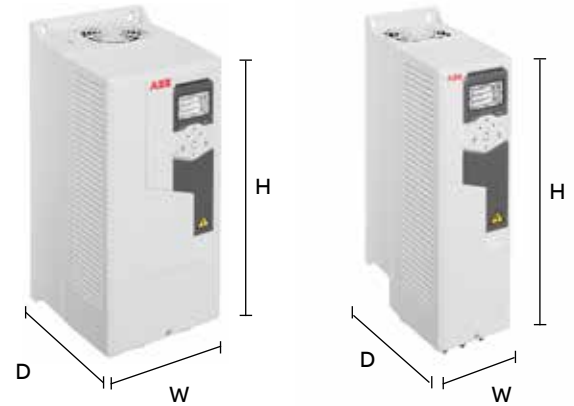
S = mechanically active substances

** ACS580-0P is not available in all horsepower ranges in the UL (NEMA) Type 3R enclosure.

Dimensions

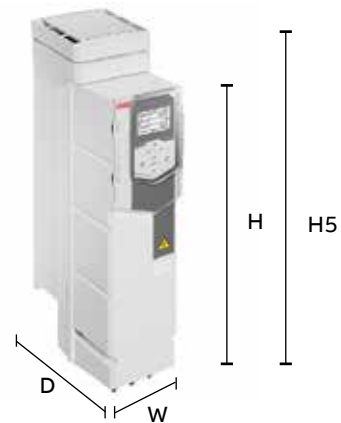
ACS580-01, wall-mounted UL (NEMA) Type 1

Dim Ref	Height (H)		Width (W)		Depth (D)		Weight	
	in	mm	in	mm	in	mm	lb	kg
R1	14.69	373	4.92	125	8.78	223	10.1	4.6
R2	18.62	473	4.92	125	9.00	229	14.6	6.6
R3	19.29	490	7.99	203	9.02	229	26.0	11.8
R4	25.04	636	7.99	203	10.12	257	41.9	19.0
R5	28.82	732	7.99	203	11.61	295	62.4	28.3
R6	28.62	727	9.92	252	14.53	369	93.5	42.4
R7	34.65	880	11.18	284	14.57	370	119.1	54.0
R8	37.99	965	11.81	300	15.47	393	152.2	69.0
R9	37.60	955	14.96	380	16.46	418	213.9	97.0



ACS580-01, wall-mounted UL (NEMA) Type 12 (option +B056)

Dim Ref	Height		Height (H5)		Width (W)		Width (HW)		Depth (D)		Weight	
	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
R1	15.87	403	17.78	452	5.04	128	5.09	129	9.17	233	10.6	4.8
R2	19.80	503	21.49	546	5.04	128	5.10	130	9.41	239	15.0	6.8
R3	19.29	490	20.93	532	8.11	206	8.16	207	9.33	237	28.7	13.0
R4	25.04	636	27.03	686	7.99	203	8.59	218	10.43	265	44.1	20.0
R5	28.82	732	32.01	813	7.99	203	8.58	218	12.60	320	64.0	29.0
R6	28.62	727	34.81	884	9.92	252	11.46	291	14.96	380	94.8	43.0
R7	34.65	880	40.86	1038	11.18	284	13.00	330	15.00	381	123.5	56.0
R8	37.99	965	44.23	1123	11.81	300	13.80	351	17.80	452	169.8	77.0
R9	37.60	955	46.75	1188	14.96	380	16.95	431	18.78	477	227.1	103.0



Dimensions



ACS580-07, cabinet-build UL (NEMA) Type 12

Frame size	Height		Width		Depth		Weight	
	in	mm	in	mm	in	mm	lb	kg
R8	84.5	2145	25.4	643	26.5	673	565	255
R9	84.5	2145	25.4	643	26.5	673	605	275
R10	91.2	2315	38.2	968	27.5	698	905	410
R11	91.2	2315	38.2	968	27.5	698	970	440

Dimensions



ACS580-OP, packaged drive with disconnect means, UL (NEMA) Type 1

Frame size	Height (H1)		Height (H2)		Width (W1)		Width (W2)		Depth (D)		Weight	
	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
R1	24.60	625	12.48	317	6.34	161	3.86	98	12.42	316	18.1	8.2
R2	28.49	725	16.42	417	6.34	161	3.86	98	12.63	321	22.0	10.0
R3	34.86	885	18.75	476	8.39	213	6.30	160	13.22	336	39.0	17.7
R4	40.61	1032	24.49	622	8.39	213	6.30	160	14.26	362	60.0	27.2
R5-R8	47.72	1212	46.26	1175	28.24	717	6.34	600	19.04	484	359.0	163.0

H1 - Height
 H2 - Mounting Height
 W1 - Width
 W2 - Mounting Width



ACS580-OP, packaged drive with disconnect means, UL (NEMA) Type 12

Frame size	Height (H1)		Height (H2)		Width (W1)		Width (W2)		Depth		Weight	
	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
R1	26.50	673	12.48	317	6.50	164	3.86	98	12.40	316	18.1	8.2
R2	30.22	768	16.42	417	6.50	164	3.86	98	12.64	321	22.0	10.0
R3	36.51	927	18.75	476	8.39	213	6.30	160	13.22	336	39.0	17.7
R4	42.54	1081	24.49	622	8.39	213	6.30	160	14.26	362	60.0	27.2
R5-R8	48.07	1221	46.26	1175	28.24	717	23.62	600	19.04	484	359.0	163.0

H1 - Height
 H2 - Mounting Height
 W1 - Width
 W2 - Mounting Width



ACS580-OP, packaged drive with disconnect means, UL (NEMA) Type 3R

Frame size	Height (H1)		Height (H2)		Width (W1)		Width (W2)		Depth		Weight	
	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
R1-R2	33.35	847	31.90	810	17.7	449	12.60	320	13.98	355	77.0	35.0
R3-R4	40.71	1034	39.30	998	20.71	526	15.70	400	15.40	392	176.0	79.8

H1 - Height
 H2 - Mounting Height
 W1 - Width
 W2 - Mounting Width

Ratings, types and voltages

Wall-mounted drives, ACS580-01						
Type code	Max. output current	Nominal Ratings				Base Drive Frame
		Light Duty (10% overload for 1 min)		Heavy Duty (50% overload for 1 min)		
	I_{max} (A)	I_{Ld} (A)	P_{Ld} (HP)	I_{Hd} (A)	P_{Hd} (HP)	
3-phase, $U_N = 240$ V (range 208 to 240V)						
ACS580-01-04A6-2	6.3	4.6	1	3.5	0.75	R1
ACS580-01-06A6-2	8.9	6.6	1.5	4.6	1	R1
ACS580-01-07A5-2	11.9	7.5	2	6.6	1.5	R1
ACS580-01-10A6-2	14.3	10.6	3	7.5	2	R1
ACS580-01-017A-2	22.6	16.7	5	10.6	3	R1
ACS580-01-024A-2	32.7	24.2	7.5	16.7	5	R2
ACS580-01-031A-2	43.6	30.8	10	24.2	7.5	R2
ACS580-01-046A-2	62.4	46.2	15	30.8	10	R3
ACS580-01-059A-2	83.2	59.4	20	46.2	15	R3
ACS580-01-075A-2	107	74.8	25	59.4	20	R4
ACS580-01-088A-2	135	88	30	74.8	25	R5
ACS580-01-114A-2	158	114	40	88	30	R5
ACS580-01-143A-2	205	143	50	114	40	R6
ACS580-01-169A-2	257	169	60	143	50	R7
ACS580-01-211A-2	304	211	75	169	60	R7
ACS580-01-273A-2	380	273	100	211	75	R8
3-phase, $U_N = 480$ V (range 380 to 480 V)						
ACS580-01-02A1-4	2.9	2.1	1	1.6	0.75	R1
ACS580-01-03A0-4	3.8	3	1.5	2.1	1	R1
ACS580-01-03A5-4	5.4	3.5	2	3	1.5	R1
ACS580-01-04A8-4	6.1	4.8	3	3.4	2	R1
ACS580-01-06A0-4	7.2	6	3	4	3	R1
ACS580-01-07A6-4	8.6	7.6	5	4.8	3	R1
ACS580-01-012A-4	11.4	12	7.5	7.6	5	R1
ACS580-01-014A-4	19.8	14	10	11	7.5	R2
ACS580-01-023A-4	25.2	23	15	14	10	R2
ACS580-01-027A-4	37.8	27	20	21	15	R3
ACS580-01-034A-4	48.6	34	25	27	20	R3
ACS580-01-044A-4	61.2	44	30	34	25	R3
ACS580-01-052A-4	76	52	40	40	30	R4
ACS580-01-065A-4	104	65	50	52	40	R4
ACS580-01-077A-4	122	77	60	65	50	R4
ACS580-01-078A-4	122	77	60	65	50	R5
ACS580-01-096A-4	148	96	75	77	60	R5
ACS580-01-124A-4	178	124	100	96	75	R6
ACS580-01-156A-4	247	156	125	124	100	R7
ACS580-01-180A-4	287	180	150	156	125	R7
ACS580-01-240A-4	350	240	200	180	150	R8
ACS580-01-260A-4	418	260	200	240*	150	R8
ACS580-01-302A-4	468	302	250	260	200	R9
ACS580-01-361A-4	542	361	300	302	250	R9
ACS580-01-414A-4	542	414	350	361**	300	R9

*See notes and definitions on page 21.

Ratings, types and voltage

Wall-mounted drives, ACS580-01						
Type code	Max. output current	Nominal Ratings				Base Drive Frame
		Light Duty (10% overload for 1 min)		Heavy Duty (50% overload for 1 min)		
	I_{max} (A)	I_{Ld} (A)	P_{Ld} (HP)	I_{Hd} (A)	P_{Hd} (HP)	
3-phase, $U_N = 600$ V (range 500 to 600 V)						
ACS580-01-02A7-6	4.3	2.7	2	2.4	1.5	R2
ACS580-01-03A9-6	5.3	3.9	3	2.7	2	R2
ACS580-01-06A1-6	8.2	6.1	5	3.9	3	R2
ACS580-01-09A0-6	12.2	9	7.5	6.1	5	R2
ACS580-01-011A-6	16.2	11	10	9	7.5	R2
ACS580-01-017A-6	23	17	15	11	10	R2
ACS580-01-022A-6	30.6	22	20	17	15	R3
ACS580-01-027A-6	39.6	27	25	22	20	R3
ACS580-01-032A-6	48.6	32	30	27	25	R3
ACS580-01-041A-6	58	41	40	32	30	R5
ACS580-01-052A-6	74	52	50	41	40	R5
ACS580-01-062A-6	94	62	60	52	50	R5
ACS580-01-077A-6	112	77	75	62	60	R5
ACS580-01-099A-6	139	99	100	77	75	R7
ACS580-01-125A-6	178	125	125	99	100	R7
ACS580-01-144A-6	225	144	150	125	125	R8
ACS580-01-192A-6	259	192	200	144	150	R9
ACS580-01-242A-6	346	242	250	192	200	R9
ACS580-01-271A-6	411	271	250	210	200	R9

Notes:

- Ratings apply at an ambient temperature of 40°C (104°F).
- To achieve the rated motor power given in the table, the rated current of the drive must be higher than or equal to the rated motor current.

Definitions:

- I_{LD} Continuous rms output current allowing 10% overload for 1 minute every 5 minutes.
- P_{LD} Typical motor power in light-overload use.
- I_{HD} Continuous rms output current allowing 50% overload for 1 minute every 5 minutes.
- P_{HD} Typical motor power in heavy-duty use.

Ratings, types and voltages

Cabinet-built single drives, ACS580-07						
Type Code	Max. output current	Nominal Ratings				Base Drive Frame
		Light Duty (10% overload for 1 min)		Heavy Duty (50% overload for 1 min)		
		I_{MAX} (A)	I_{LD} (A)	P_{LD} (HP)	I_{HD} (A)	
$U_N = 500$ V (range 380 to 500 V)						
ACS580-07-0246A-4+B055+C129+H351+H353+H358	350	240	200	180	150	R8
ACS580-07-0363A-4+B055+C129+H351+H353+H358	498	361	300	302	250	R9
ACS580-07-0430A-4+B055+C129+H351+H353+H358	542	414	350	361*	300	R9
ACS580-07-0505A-4+B055+C129+H351+H353+H358	560	483	400	361	300	R10
ACS580-07-0585A-4+B055+C129+H351+H353+H358	730	573	450	414	350	R10
ACS580-07-0650A-4+B055+C129+H351+H353+H358	730	623	500	477	400	R10
ACS580-07-0725A-4+B055+C129+H351+H353+H358	850	705	600	566	450	R11
ACS580-07-0820A-4+B055+C129+H351+H353+H358	1020	807	700	625	500	R11

Notes:

* Continuous current allowing 25% overload for 1 minute every 10 minutes at 40°C.

- Ratings apply at an ambient temperature of 40°C (104°F).

- To achieve the rated motor power given in the table, the rated current of the drive must be higher than or equal to the rated motor current.

Definitions:

I_{LD} Continuous rms output current allowing 10% overload for 1 minute every 5 minutes.

P_{LD} Typical motor power in light-overload use.

I_{HD} Continuous rms output current allowing 50% overload for 1 minute every 5 minutes.

P_{HD} Typical motor power in heavy-duty use.

Ratings, types and voltages

Packaged drive with disconnect means						
Type Code	Max output current	Nominal Ratings				Base Drive Frame
		Light Duty (10% overload for 1 min)		Heavy Duty (50% overload for 1 min)		
	I_{MAX} (A)	I_{Ld} (A)	P_{Ld} (HP)	I_{Hd} (A)	P_{Hd} (HP)	
$U_N = 230\text{ V}$ (range 208 to 240V)						
ACS580-0P-04A6-2	6.3	4.6	1	3.5	0.75	R1
ACS580-0P-06A6-2	8.9	6.6	1.5	4.6	1	R1
ACS580-0P-07A5-2	11.9	7.5	2	6.6	1.5	R1
ACS580-0P-10A6-2	14.3	10.6	3	7.5	2	R1
ACS580-0P-017A-2	22.6	16.7	5	10.6	3	R1
ACS580-0P-024A-2	32.7	24.2	7.5	16.7	5	R2
ACS580-0P-031A-2	43.6	30.8	10	24.2	7.5	R2
ACS580-0P-046A-2	62.4	46.2	15	30.8	10	R3
ACS580-0P-059A-2	83.2	59.4	20	46.2	15	R3
ACS580-0P-075A-2	107	74.8	25	59.4	20	R4
ACS580-0P-088A-2	135	88	30	74.8	25	R5
ACS580-0P-114A-2	158	114	40	88	30	R5
ACS580-0P-143A-2	205	143	50	114	40	R6
ACS580-0P-169A-2	257	169	60	143	50	R7
ACS580-0P-211A-2	304	211	75	169	60	R7
ACS580-0P-248A-2	380	248	100	192	75	R8
$U_N = 480\text{ V}$ (range 380 to 500 V)						
ACS580-0P-02A1-4	3.8	2.1	1	1.6	0.75	R1
ACS580-0P-03A0-4	5.4	3	1.5	2.1	1	R1
ACS580-0P-03A5-4	6.1	3.5	2	3	1.5	R1
ACS580-0P-04A8-4	7.2	4.8	3	3.4	2	R1
ACS580-0P-07A6-4	8.6	7.6	5	4.8	3	R1
ACS580-0P-012A-4	11.4	12	7.5	7.6	5	R1
ACS580-0P-014A-4	19.8	14	10	11	7.5	R2
ACS580-0P-023A-4	25.2	23	15	14	10	R2
ACS580-0P-027A-4	37.8	27	20	21	15	R3
ACS580-0P-034A-4	48.6	34	25	27	20	R3
ACS580-0P-044A-4	61.2	44	30	34	25	R3
ACS580-0P-052A-4	76	52	40	40	30	R4
ACS580-0P-065A-4	104	65	50	52	40	R4
ACS580-0P-077A-4	122	77	60	65	50	R4
ACS580-0P-096A-4	122	96	75	77	60	R5
ACS580-0P-124A-4	178	124	100	96	75	R6
ACS580-0P-156A-4	247	156	125	124	100	R7
ACS580-0P-180A-4	287	180	150	156	125	R7
ACS580-0P-240A-4	350	240*	200	180	150	R8

*See notes and definitions on page 24.

Ratings, types and voltages

Packaged drive with disconnect means						
Type Code	Max output current	Nominal Ratings				Base Drive Frame
		Light Duty (10% overload for 1 min)		Heavy Duty (50% overload for 1 min)		
		I_{MAX} (A)	I_{Ld} (A)	P_{Ld} (HP)	I_{Hd} (A)	
$U_N = 600$ V (range 500 to 600V)						
ACS580-0P-02A7-6	4.3	2	2.7	1.5	2.4	R2
ACS580-0P-03A9-6	5.3	3	3.9	2	2.7	R2
ACS580-0P-06A1-6	8.2	5	6.1	3	3.9	R2
ACS580-0P-09A0-6	12.2	7.5	9	5	6.1	R2
ACS580-0P-011A-6	16.2	10	11	7.5	9	R2
ACS580-0P-017A-6	23	15	17	10	11	R2
ACS580-0P-022A-6	30.6	20	22	15	17	R3
ACS580-0P-027A-6	39.6	25	27	20	22	R3
ACS580-0P-032A-6	48.6	30	32	25	27	R3
ACS580-0P-041A-6	58	40	41	30	32	R5
ACS580-0P-052A-6	74	50	52	40	41	R5
ACS580-0P-062A-6	94	60	62	50	52	R5
ACS580-0P-077A-6	112	75	77	60	62	R5
ACS580-0P-099A-6	139	100	99	75	77	R7
ACS580-0P-125A-6	178	125	125	100	99	R7
ACS580-0P-144A-6	225	150	144	125	125	R8

Notes:

- Ratings apply at an ambient temperature of 40°C (104°F).

- To achieve the rated motor power given in the table, the rated current of the drive must be higher than or equal to the rated motor current.

Definitions:

I_{LD} Continuous rms output current allowing 10% overload for 1 minute every 5 minutes.

P_{LD} Typical motor power in light-overload use.

I_{HD} Continuous rms output current allowing 50% overload for 1 minute every 5 minutes.

P_{HD} Typical motor power in heavy-duty use.

Control panel options

—
01 Assistant control panel is included as standard.

—
02 Optional Bluetooth panel. USB connection as standard.

—
03 By using the CDPI-01 panel adapter, the assistant control panel is able to manage up to 32 drives.

Assistant control panel

Set up the drive using the assistant control panel delivered as standard with all ACS580 drives. There is no need to know any drive parameters, as the control panel helps to set up the essential settings quickly and get the drive into action.

- Drive setup with the primary settings menu including embedded assistants
- Process monitoring with one glance at the control panel's editable home view showing you the status of the drive and process
- Drive maintenance with the help function providing context-sensitive guidance and troubleshooting instructions
- Drive diagnostics under the diagnostics menu informing the user of the root cause.

Bluetooth panel

The optional Bluetooth panel enables connection with the Drivetune mobile app. The app is available for free on the Google Play and the Apple App store.

Some of the Drivetune features are: commissioning, troubleshooting, monitoring and controlling the drive. Drivetune also has full parameter access.



Control panel options

Assistant control panel ACS-AP-S is included as standard in the delivery. ACS-AP-S (+J400) can be replaced by +J options below.

Option code	Description	Type designation
+J400	Assistant control panel (+J400 option automatically included)	ACS-AP-S
+J425	Industrial Assistant control panel*	ACS-AP-I
+J429	Control panel with Bluetooth interface*	ACS-AP-W
+J424	Blank control panel cover (no control panel delivered)	CDUM-01
3AXD5000004419	Panel bus adapter	CDPI-01
3AUA0000108878	Control panel mounting platform (flush mounted, requires also panel bus adapter on the drive)	DPMP-01
3AXD50000010763	Door mounting kit for the panel, surface mounted (for one drive, contains both DPMP-02 and CDPI-01)	DPMP-EXT

* Also compatible with ACS880 drives

Additional options

04 Cold configuration adapter CCA-01

05 Remote monitoring tool NETA-21

06 Drive composer PC tool

Safe configuration for unpowered drives

The CCA-01 cold configuration adapter provides a serial communication interface for unpowered ACS580 drives. With the adapter, safety isolation of both serial communication and control board power supply is possible. The power supply is taken from a PC USB port.

Remote monitoring access worldwide

The NETA-21 remote monitoring tool gives easy access to the drive via the Internet or local Ethernet network. NETA-21 comes with a built-in web server. Compatible with standard web browsers, it ensures easy access to a web-based user interface. Through the web interface, the user can configure drive parameters, and monitor drive log data, load levels, runtime, energy consumption, I/O data and bearing temperatures of the motor connected to the drive.

PC tools

The Drive composer PC tool offers fast and harmonized setup, commissioning and monitoring for all-compatible drives. The free version of the tool provides start-up and maintenance capabilities and gathers all drive information, such as parameter loggers, faults, backups and lists, into a support diagnostics file. Drive composer pro provides additional features such as custom parameter windows, graphical control diagrams of the drive's configuration, and improved monitoring and diagnostics.



Ordering code	Description	Type designation
3AXD50000019865	Cold configurator adapter, packed kit	CCA-01

Remote monitoring option

Ordering code	Description	Type designation
3AUA0000094517	2 x panel bus interface 2 x 32 = max. 64 drives 2 x Ethernet interface SD memory card USB port for WLAN/3G	NETA-21

Connectivity options

—
07 ACS580 is compatible with many fieldbus protocols
—
08 Input/output extension modules

Fieldbus adapter modules

The ACS580 general purpose drives are compatible with a wide range of fieldbus protocols. The drive comes with Modbus RTU fieldbus interface as standard. Fieldbus communication reduces wiring costs when compared to traditional hard-wired input/output connections.



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07

Fieldbus adapters

Option code	Fieldbus protocol	Adapter
+K451	DeviceNet™	FDNA-01
+K454	PROFIBUS DP, DPV0/DPV1	FPBA-01
+K457	CANopen®	FCAN-01
+K458	Modbus RTU	FSCA-01
+K462	ControlNet	FCNA-01
+K469	EtherCAT®	FECA-01
+K470	POWERLINK	FEPL-02
+K473	EtherNet/IP™, Modbus TCP, PROFINET IO	FENA-11
+K475	Two port EtherNet/IP™, Modbus TCP, PROFINET IO	FENA-21
+K490	Two port Ethernet/IP (TM)	FEIP-21
+K491	Two port Modbus/TCP	FMBT-21
+K492	Two port PROFINET IO	FPNO-21

Input/output extension modules

Standard input and output can be extended by using optional analog and digital input/output extension modules. The modules are easily installed in the extension slots located on the drive.



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08

I/O options

Option code	Description	Type designation
+L500	Bipolar Analog IO Extension	CBAI-01
+L501	External 24 V AC and DC 2 x RO and 1 x DO	CMOD-01
+L523	External 24 V and isolated PTC interface	CMOD-02
+L512	115/230 V digital input 6 x DI and 2 x RO	CHDI-01
+L537	ATEX certified PTC interface and external 24V	CPTC-02

EMC – electromagnetic compatibility

Every ACS580 drive is equipped with a built-in filter to reduce high-frequency emissions. EMC product standard (EN 61800-3) category C2 is fulfilled in wall-mounted drives and cabinet-built drives (frames R10 and R11) with no external filters.

EMC standards

The EMC product standard (EN 61800-3) covers the specific EMC requirements stated for drives (tested with motor and motor cable) within the EU. EMC standards such as EN 55011 or EN 61000-6-3/4 are applicable to industrial and domestic equipment and systems, including the components inside the drive. Drive units complying with the requirements of EN 61800-3 are compliant with comparable categories in EN 55011 and EN

61000-6-3/4 but not necessarily vice versa. EN 55011 and EN 61000-6-3/4 do not specify cable length or require a motor to be connected as a load. The emission limits are comparable to EMC standards according to the table below.

Domestic environments versus public low voltage networks

The first environment includes domestic premises. It also includes establishments directly connected without an intermediate transformer to a low voltage power supply network that supplies buildings used for domestic purposes. The second environment includes all establishments directly connected to public low voltage power supply networks.

Comparison of EMC standards				
EMC according to EN 61800-3 product standard	EN 61800-3 product standard	EN 55011. product family standard for industrial, scientific and medical (ISM) equipment	EN 61000-6-4, generic emission standard for industrial environments	EN 61000-6-3, generic emission standard for residential, commercial and light-industrial environment
1 st environment, unrestricted distribution	Category C1	Group 1. Class B	Not applicable	Applicable
1 st environment, restricted distribution	Category C2	Group 1. Class A	Applicable	Not applicable
2 nd environment, unrestricted distribution	Category C3	Group 2. Class A	Not applicable	Not applicable
2 nd environment, restricted distribution	Category C4	Not applicable	Not applicable	Not applicable

EMC compliance and maximum cable length of ACS580-01/07 units*					
Type	Voltage	Frame sizes	1 st environment, restricted distribution, C2, grounded network (TN)	2 nd environment, unrestricted distribution, C3, grounded network (TN)	2 nd environment, unrestricted distribution, C3, ungrounded network (IT)
ACS580-01/07	380 - 480 V	R1 - R5	Standard device, cable length 100 m	Standard device, cable length 100 m	-
ACS580-01/07	380 - 480 V	R6 - R9	Standard device, cable length 150 m	Standard device, cable length 150 m	-

* Motor cable operational functionality up to 300 m. See ACS580 hardware manuals 3AXD50000018826, 3AXD50000015497, 3AXD50000045815 and 3AXD50000032622 for frame specific information.

Cooling and fuses

Cooling

ACS580 drives are fitted with variable-speed cooling air fans. The cooling air must be free from corrosive materials and not exceed the maximum ambient temperature of 40°C for frames R1 to R9 (50°C with derating). The speed-controlled fans cool the drive only when needed, which reduces overall noise level and energy consumption.

Fuse connections

Standard fuses can be used with ABB general purpose drives. For input fuses, see the table below.

Wall-mounted drives, ACS580-01

Cooling air flow and recommended input protection fuses for 200 to 240 V units										
Type designation	Frame size	Cooling Air Flow 200 to 240 V units					Recommended UL Input Protection fuses			
		Heat dissipation*		Air flow		Max. noise level**	I _N	Voltage rating	Bussmann type***	UL class
		W	BTU/Hr	m3/h	ft3/min					
ACS580-01-04A6-2	R1	45	155	43	25	59	15	600	KTK-R-15, JKS-15, DFJ-15, FCF15RN or JJS-15	CC, CF, J or T
ACS580-01-06A6-2	R1	55	187	43	25	59	15	600	KTK-R-15, JKS-15, DFJ-15, FCF15RN or JJS-15	CC, CF, J or T
ACS580-01-07A5-2	R1	66	224	43	25	59	15	600	KTK-R-15, JKS-15, DFJ-15, FCF15RN or JJS-15	CC, CF, J or T
ACS580-01-10A6-2	R1	84	288	43	25	59	15	600	KTK-R-15, JKS-15, DFJ-15, FCF15RN or JJS-15	CC, CF, J or T
ACS580-01-017A-2	R1	133	454	43	25	59	30	600	KTK-R-30, JKS-30, DFJ-30, FCF30RN or JJS-30	CC, CF, J or T
ACS580-01-024A-2	R2	174	593	101	59	64	40	600	JSK-40, DFJ-40, FCF40RN or JJS-40	CF, J or T
ACS580-01-031A-2	R2	228	777	101	59	64	40	600	JSK-40, DFJ-40, FCF40RN or JJS-40	CF, J or T
ACS580-01-046A-2	R3	322	1100	179	105	76	80	600	JSK-80, DFJ-80, FCF80RN or JJS-80	CF, J or T
ACS580-01-059A-2	R3	430	1469	179	105	76	80	600	JSK-80, DFJ-80, FCF80RN or JJS-80	CF, J or T
ACS580-01-075A-2	R4	525	1791	288	170	69	100	600	JSK-100, DFJ-100, FCF100RN or JJS-100	CF, J or T
ACS580-01-088A-2	R5	619	2114	139	82	63	150	600	JSK-150, DFJ-150 or JJS-150	J or T
ACS580-01-114A-2	R5	835	2852	139	82	63	150	600	JSK-150, DFJ-150 or JJS-150	J or T
ACS580-01-143A-2	R6	1035	3535	435	256	67	200	600	JKS-200, DFJ-200 OT JJS-200	J or T
ACS580-01-169A-2	R7	1251	4272	450	265	67	250	600	JKS-250, DFJ-250 OT JJS-250	J or T
ACS580-01-211A-2	R7	1521	5194	450	265	67	300	600	JKS-300, DFJ-300 OT JJS-300	J or T
ACS580-01-273A-2	R8	2061	7039	550	324	65	400	600	JKS-400, DFJ-300 OT JJS-400	J or T

* Heat dissipation value is a reference for cabinet thermal design

** The maximum noise level is at full fan speed. When the drive is not operating at full load and at maximum ambient temperature the noise level is lower.

***ABB does not require Bussmann brand fuses. Fuses which meet the appropriate UL class type, current rating, and are rated at 600V, 200 kA may be used.

Cooling and fuses

Cooling air flow and recommended input protection fuses for 380 to 480 V units										
Type designation	Frame size	Cooling Air Flow 380 to 480V units					Recommened UL Input Protection fuses			
		Heat dissipation*		Air flow		Max. noise level**	I _N	Voltage rating	Bussmann type***	UL class
		W	BTU/Hr	m3/h	ft3/min					
ACS580-01-02A1-4	R1	45	155	34	20	55	15	600	KTK-R-15, JSK-15, DFJ-15, FCF15RN or JJS-15	CC, CF, J or T
ACS580-01-03A0-4	R1	55	187	34	20	55	15	600	KTK-R-15, JSK-15, DFJ-15, FCF15RN or JJS-15	CC, CF, J or T
ACS580-01-03A5-4	R1	66	224	34	20	55	15	600	KTK-R-15, JSK-15, DFJ-15, FCF15RN or JJS-15	CC, CF, J or T
ACS580-01-04A8-4	R1	84	288	34	20	55	15	600	KTK-R-15, JSK-15, DFJ-15, FCF15RN or JJS-15	CC, CF, J or T
ACS580-01-06A0-4	R1	106	362	50	29	55	15	600	KTK-R-15, JSK-15, DFJ-15, FCF15RN or JJS-15	CC, CF, J or T
ACS580-01-07A6-4	R1	133	454	50	29	55	15	600	KTK-R-15, JSK-15, DFJ-15, FCF15RN or JJS-15	CC, CF, J or T
ACS580-01-012A-4	R1	174	593	50	29	55	15	600	KTK-R-15, JSK-15, DFJ-15, FCF15RN or JJS-15	CC, CF, J or T
ACS580-01-014A-4	R2	228	777	128	75	66	30	600	KTK-R-30, JKS-30, DFJ-30, FCF30RN or JJS-30	CC, CF, J or T
ACS580-01-023A-4	R2	322	1100	128	75	66	30	600	KTK-R-30, JKS-30, DFJ-30, FCF30RN or JJS-30	CC, CF, J or T
ACS580-01-027A-4	R3	430	1469	179	105	70	40	600	JKS-40, DFJ-40, FCF40RN or JJS-40	CF, J or T
ACS580-01-034A-4	R3	525	1791	179	105	70	60	600	JKS-60, DFJ-60, FCF60RN or JJS-60	CF, J or T
ACS580-01-044A-4	R3	619	2114	179	105	70	60	600	JKS-60, DFJ-60, FCF60RN or JJS-60	CF, J or T
ACS580-01-052A-4	R4	835	2852	134	79	69	80	600	JKS-80, DFJ-80, FCF80RN or JJS-80	CF, J or T
ACS580-01-065A-4	R4	1024	3497	134	79	69	90	600	JKS-100, DFJ-100, FCF100RN or JJS-100	CF, J or T
ACS580-01-078A-4	R5	1240	4235	139	82	63	100	600	JKS-100, DFJ-100 or JJS-100	J or T
ACS580-01-096A-4	R5	1510	5157	139	82	63	100	600	JKS-150, DFJ-150 or JJS-150	J or T
ACS580-01-124A-4	R6	1476	5041	435	256	67	200	600	JKS-200, DFJ-200 or JJS-200	J or T
ACS580-01-156A-4	R7	1976	6748	450	265	67	225	600	JKS-225, DFJ-225 or JJS-225	J or T
ACS580-01-180A-4	R7	2346	8012	450	265	67	300	600	JKS-300, DFJ-300 or JJS-300	J or T
ACS580-01-240A-4	R8	3336	11393	550	324	65	350	600	JKS-350, DFJ-350 or JJS-350	J or T
ACS580-01-260A-4	R8	3936	13422	550	324	65	400	600	JKS-400, DFJ-400 or JJS-400	T J or T
ACS580-01-302A-4	R9	4836	16516	1150	677	68	500	600	JJS-500	J or T
ACS580-01-361A-4	R9	4836	16516	1150	677	68	500	600	JJS-500	T
ACS580-01-414A-4	R9	6036	20614	1150	677	68	600	600	JJS-600	T

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Cooling and fuses

Cooling air flow and recommended input protection fuses for 575 to 600 V units											
Type designation	Frame size	Cooling Air Flow 575 to 600 V units					Recommened UL Input Protection fuses				
		Heat dissipation*		Air flow		Max. noise level**	I _N	Voltage rating	Bussmann type***	UL class	
		W	BTU/Hr	m3/h	ft3/min						A
ACS580-01-02A7-6	R2	66	224	101	59	64	15	600	KTK-R-15, JKS-15, DFJ-15, FCF15RN or JJS-15	CC, CF, J or T	
ACS580-01-03A9-6	R2	84	288	101	59	64	15	600	KTK-R-15, JKS-15, DFJ-15, FCF15RN or JJS-15	CC, CF, J or T	
ACS580-01-06A1-6	R2	133	454	101	59	64	15	600	KTK-R-15, JKS-15, DFJ-15, FCF15RN or JJS-15	CC, CF, J or T	
ACS580-01-09A0-6	R2	174	593	101	59	64	15	600	KTK-R-15, JKS-15, DFJ-15, FCF15RN or JJS-15	CC, CF, J or T	
ACS580-01-011A-6	R2	228	777	101	59	64	15	600	KTK-R-15, JKS-15, DFJ-15, FCF15RN or JJS-15	CC, CF, J or T	
ACS580-01-017A-6	R2	322	1100	101	59	64	30	600	KTK-R-30, JKS-30, DFJ-30, FCF30RN or JJS-30	CC, CF, J or T	
ACS580-01-022A-6	R3	430	1469	179	105	75	40	600	JKS-40, DFJ-40, FCF40RN or JJS-40	CF, J or T	
ACS580-01-027A-6	R3	525	1791	179	105	75	40	600	JKS-40, DFJ-40, FCF40RN or JJS-40	CF, J or T	
ACS580-01-032A-6	R3	619	2114	179	105	75	40	600	JKS-40, DFJ-40, FCF40RN or JJS-40	CF, J or T	
ACS580-01-041A-6	R5	835	2852	1139	82	63	100	600	JKS-100, DFJ-100 or JJS-100	J or T	
ACS580-01-052A-6	R5	1024	3497	139	82	63	100	600	JKS-100, DFJ-100 or JJS-100	J or T	
ACS580-01-062A-6	R5	1240	4235	139	82	63	100	600	JKS-100, DFJ-100 or JJS-100	J or T	
ACS580-01-077A-6	R5	1510	5157	139	82	63	100	600	JKS-100, DFJ-100 or JJS-100	J or T	
ACS580-01-099A-6	R7	2061	7039	450	265	67	150	600	JKS-150, DFJ-150 or JJS-150	J or T	
ACS580-01-125A-6	R7	2466	8422	450	265	67	200	600	JKS-200, DFJ-200 or JJS-200	J or T	
ACS580-01-144A-6	R8	3006	10266	550	324	65	250	600	JKS-250, DFJ-250 or JJS-250	J or T	
ACS580-01-192A-6	R9	4086	13954	1150	677	68	300	600	JJS-300	T	
ACS580-01-242A-6	R9	4896	16721	1150	677	68	400	600	JJS-400	T	
ACS580-01-271A-6	R9	4896	16721	1150	677	68	400	600	JJS-400	T	

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Cooling and fuses

Cooling air flow and recommended input protection fuses for 200 to 240 V units										
Type designation	Frame size	Cooling Air Flow 200 to 240 V units					Reccomended UL Input Protection fuses			
		Heat dissipation*		Air flow		Max. noise level**	I _N	Voltage rating	Bussmann type***	UL class
		W	BTU/Hr	m3/h	ft3/min	dBa	A	V		
ACS580-07-0246A-4+B055+C129+H351+H353+H358	R8	3719	12690	700	412	65	246	690	170M5408	T
ACS580-07-0363A-4+B055+C129+H351+H353+H358	R9	5321	18156	1300	765	68	363	690	170M6410	T
ACS580-07-0430A-4+B055+C129+H351+H353+H358	R9	6589	22482	1300	765	68	430	690	170M6411	T
ACS580-07-0505A-4+B055+C129+H351+H353+H358	R10	7102	24233	1900	1118	72	505	690	170M6412	T
ACS580-07-0585A-4+B055+C129+H351+H353+H358	R10	8213	28014	1900	1118	72	585	690	170M6413	L
ACS580-07-0650A-4+B055+C129+H351+H353+H358	R10	10197	34794	1900	1118	72	650	690	170M6414	L
ACS580-07-0725A-4+B055+C129+H351+H353+H358	R11	11258	38414	2400	1413	72	725	690	170M6416	L
ACS580-07-0820A-4+B055+C129+H351+H353+H358	R11	12936	44140	2400	1413	72	820	690	170M6416	L

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Cooling and fuses

Cooling air flow and recommended input protection fuses for 200 to 240 V units

Type designation	Frame size	Cooling Air Flow 200 to 240 V units							Reccomended UL Input Protection fuses			
		Heat dissipation*				Air flow		Max. noise level**	I _N	Voltage rating	Bussmann type***	UL class
		+F255				m3/h	ft3/min					
		W	BTU/Hr	W	BTU/Hr			A	V			
ACS580-OP-04A6-2	R1	49	168	53	181	42.5	26	59	15	600	KTK-R-15	CC
ACS580-OP-06A6-2	R1	60	205	64	219	42.5	26	59	15	600	KTK-R-15	CC
ACS580-OP-07A5-2	R1	71	243	75	256	42.5	26	59	15	600	KTK-R-15	CC
ACS580-OP-10A6-2	R1	93	318	96	328	42.5	26	59	15	600	KTK-R-15	CC
ACS580-OP-017A-2	R1	141	482	146	499	42.5	26	59	30	600	KTK-R-30	CC
ACS580-OP-024A-2	R2	186	635	192	656	100.3	60	64	30	600	KTK-R-30	CC
ACS580-OP-031A-2	R2	245	836	247	843	100.3	60	64	40	600	JJS-40	T
ACS580-OP-046A-2	R3	352	1202	353	1205	178.4	105	76	80	600	JJS-80	T
ACS580-OP-059A-2	R3	468	1596	472	1611	178.4	105	76	80	600	JJS-80	T
ACS580-OP-075A-2	R4	570	1945	574	1959	288.9	171	69	100	600	JJS-100	T
ACS580-OP-088A-2	R5	676	2307	672	2293	139.4	83	63	110	600	JJS-110	T
ACS580-OP-114A-2	R5	899	3068	906	3092	139.4	83	63	150	600	JJS-150	T
ACS580-OP-143A-2	R6	1103	3764	1117	3812	435	257	67	200	600	JJS-200	T
ACS580-OP-169A-2	R7	1320	4504	1350	4607	450.3	266	67	250	600	JJS-250	T
ACS580-OP-211A-2	R7	1672	5705	1672	5705	450.3	266	67	300	600	JJS-300	T
ACS580-OP-248A-2	R8	2227	7599	2227	7599	1150.3	677	65	350	600	JJS-350	T

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Cooling and fuses

Cooling air flow and recommended input protection fuses for 200 to 240 V units												
Type designation	Frame size	Cooling Air Flow 200 to 240 V units							Reccomended UL Input Protection fuses			
		Heat dissipation*				Air flow		Max. noise level**	I _N	Voltage rating	Bussmann type***	UL class
		+F255				m3/h	ft3/min					
		W	BTU/Hr	W	BTU/Hr			dB				
ACS580-OP-02A1-4	R1	49	168	53	181	42.5	26	55	15	600	KTK-R-15	CC
ACS580-OP-03A0-4	R1	59	202	63	215	42.5	26	55	15	600	KTK-R-15	CC
ACS580-OP-03A5-4	R1	70	239	74	253	42.5	26	55	15	600	KTK-R-15	CC
ACS580-OP-04A8-4	R1	89	304	93	318	42.5	26	55	15	600	KTK-R-15	CC
ACS580-OP-07A6-4	R1	112	383	116	396	42.5	26	55	15	600	KTK-R-15	CC
ACS580-OP-012A-4	R1	183	625	186	635	42.5	26	55	15	600	KTK-R-15	CC
ACS580-OP-014A-4	R2	235	802	239	816	100.3	60	66	30	600	KTK-R-30	CC
ACS580-OP-023A-4	R2	334	1140	340	1161	100.3	60	66	30	600	KTK-R-30	CC
ACS580-OP-027A-4	R3	443	1512	449	1532	178.4	105	70	40	600	JJS-40	T
ACS580-OP-034A-4	R3	541	1846	545	1860	178.4	105	70	60	600	JJS-60	T
ACS580-OP-044A-4	R3	638	2177	648	2211	178.4	105	70	60	600	JJS-60	T
ACS580-OP-052A-4	R4	873	2979	877	2993	42.5	26	69	80	600	JJS-80	T
ACS580-OP-065A-4	R4	1065	3634	1073	3662	134.3	80	69	90	600	JJS-90	T
ACS580-OP-077A-4	R4	1286	4388	1291	4405	134.3	80	63	100	600	JJS-100	T
ACS580-OP-096A-4	R5	1564	5337	1560	5323	139.4	83	63	150	600	JJS-150	T
ACS580-OP-124A-4	R6	1534	5235	1535	5238	435	257	67	200	600	JJS-200	T
ACS580-OP-156A-4	R7	2045	6978	2051	6999	450.3	266	67	225	600	JJS-225	T
ACS580-OP-180A-4	R7	2417	8247	2447	8350	450.3	266	67	300	600	JJS-300	T
ACS580-OP-240A-4	R8	3486	11895	3486	11895	550.5	324	65	350	600	JJS-350	T

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Cooling and fuses

Cooling air flow and recommended input protection fuses for 200 to 240 V units

Type designation	Frame size	Cooling Air Flow 200 to 240 V units							Reccomended UL Input Protection fuses			
		Heat dissipation*				Air flow		Max. noise level**	I _N	Voltage rating	Bussmann type***	UL class
		+F255				m3/h	ft3/min					
		W	BTU/Hr	W	BTU/Hr			dB				
ACS580-OP-02A7-6	R2	70	239	73	250	100.3	60	64	15	600	KTK-R-15	CC
ACS580-OP-03A9-6	R2	88	301	91	311	100.3	60	64	15	600	KTK-R-15	CC
ACS580-OP-06A1-6	R2	137	468	141	482	100.3	60	64	15	600	KTK-R-15	CC
ACS580-OP-09A0-6	R2	179	611	182	621	100.3	60	64	15	600	KTK-R-15	CC
ACS580-OP-011A-6	R2	234	799	237	809	100.3	60	64	30	600	KTK-R-30	CC
ACS580-OP-017A-6	R2	330	1126	335	1144	42.5	26	64	30	600	KTK-R-30	CC
ACS580-OP-022A-6	R3	438	1495	444	1515	178.4	105	75	40	600	JJS-40	T
ACS580-OP-027A-6	R3	536	1829	542	1850	178.4	105	75	40	600	JJS-40	T
ACS580-OP-032A-6	R3	633	2160	639	2181	178.4	105	75	40	600	JJS-40	T
ACS580-OP-041A-6	R5	867	2959	866	2955	139.4	83	63	50	600	JJS-50	T
ACS580-OP-052A-6	R5	1058	3610	1059	3614	139.4	83	63	80	600	JJS-80	T
ACS580-OP-062A-6	R5	1291	4405	1281	4371	139.4	83	63	80	600	JJS-80	T
ACS580-OP-077A-6	R5	1563	5333	1556	5310	139.4	83	63	100	600	JJS-100	T
ACS580-OP-099A-6	R7	2117	7224	2113	7210	450.3	266	67	150	600	JJS-150	T
ACS580-OP-125A-6	R7	2530	8633	2530	8633	450.3	266	67	175	600	JJS-175	T
ACS580-OP-144A-6	R8	3074	10489	3081	10513	550.5	324	65	200	600	JJS-200	T

* Heat dissipation value is a reference for cabinet thermal design

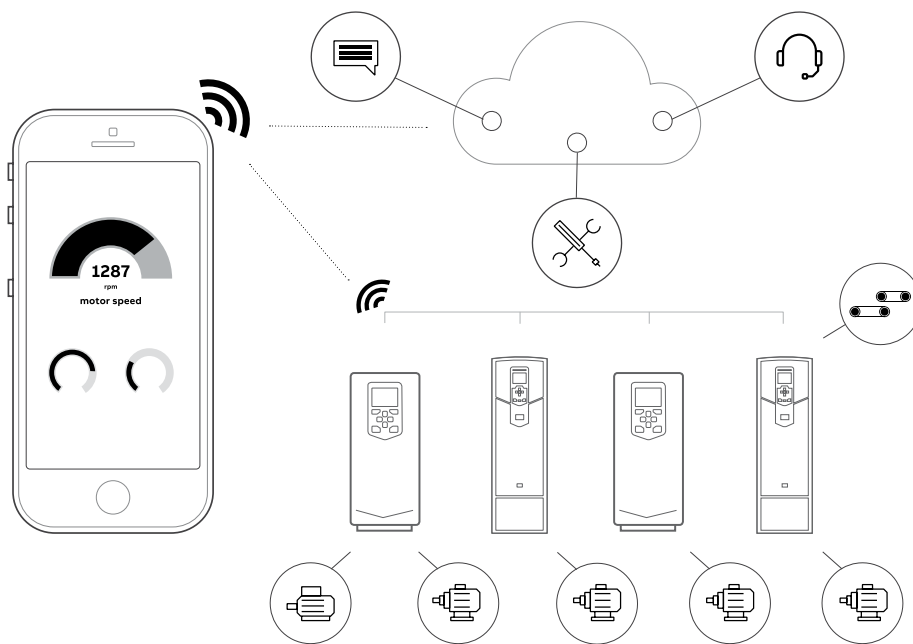
** The maximum noise level is at full fan speed. When the drive is not operating at full load and at maximum ambient temperature the noise level is lower.

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Save time, ease troubleshooting and improve drive performance with ABB smartphone apps

Better connectivity and user experience with Drivetune

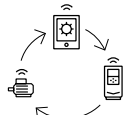
Easy and fast access to product information and support



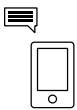
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Drivetune for commissioning and managing drives

Drive Services

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 drive equipment. 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.

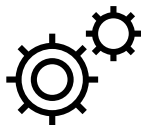
Your choice, your business efficiency

ABB Drive Care 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.

Service to match your needs

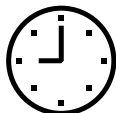
Your service needs depend on your operation, life cycle of your equipment and business priorities. We have identified our customers' four most common needs and defined service options to satisfy them. What is your choice to keep your drives at peak performance?



Operational efficiency

Example services include:

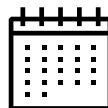
- Drive Care Agreement
- Commissioning
- Spare Parts
- Preventive Maintenance
- Drive Exchange



Rapid response

Example services include:

- Technical Support
- Drive Exchange
- On-Site Repair
- Spare Parts
- Training



Life cycle management

Example services include:

- Preventive Maintenance
- Hardware Upgrades
- Control Upgrades
- Retrofits



Performance improvement

Example services include:

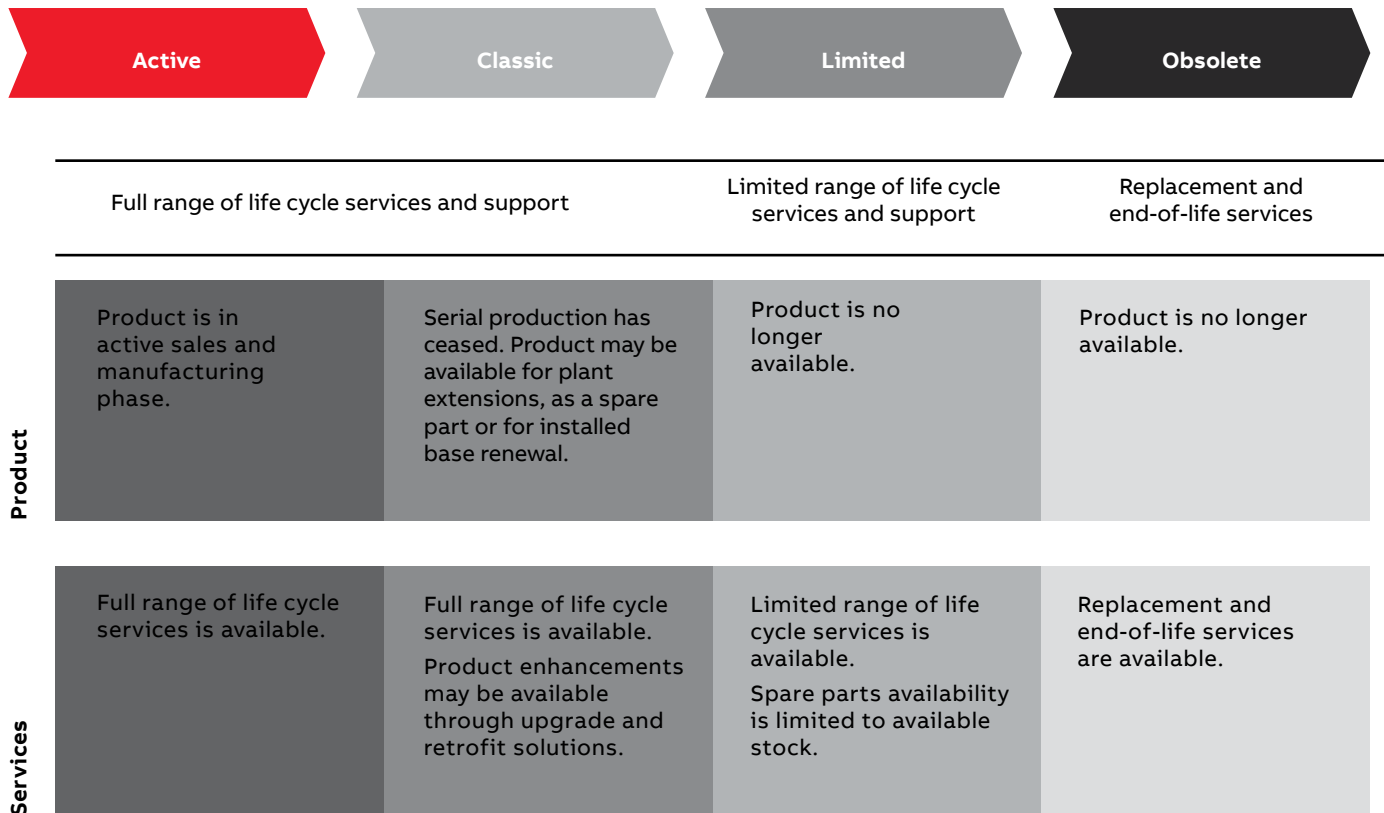
- Drive Care Agreement
- Training
- Preventive Maintenance
- Hardware Upgrades
- Control Upgrades
- Retrofits
- Workshop Repair

A lifetime of peak performance

You're 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's easy for you to see the exact service and maintenance available for your drives.

ABB drives life cycle phases explained:



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.

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For more information, please contact
your local ABB representative or visit

www.abb.com/ACS580
www.abb.com/drives

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Online manuals
for the ACS580 drives



Video playlist:
ACS580 how-to videos

