

# ABB standard drive

ACS550, 0.75 - 550 Hp

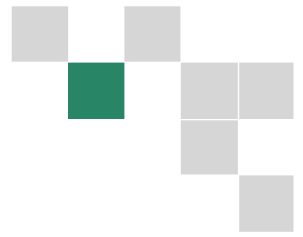
Technical catalog

Drive<sup>IT</sup> Low Voltage AC Drive



**ABB**

# Two ways to select your drive



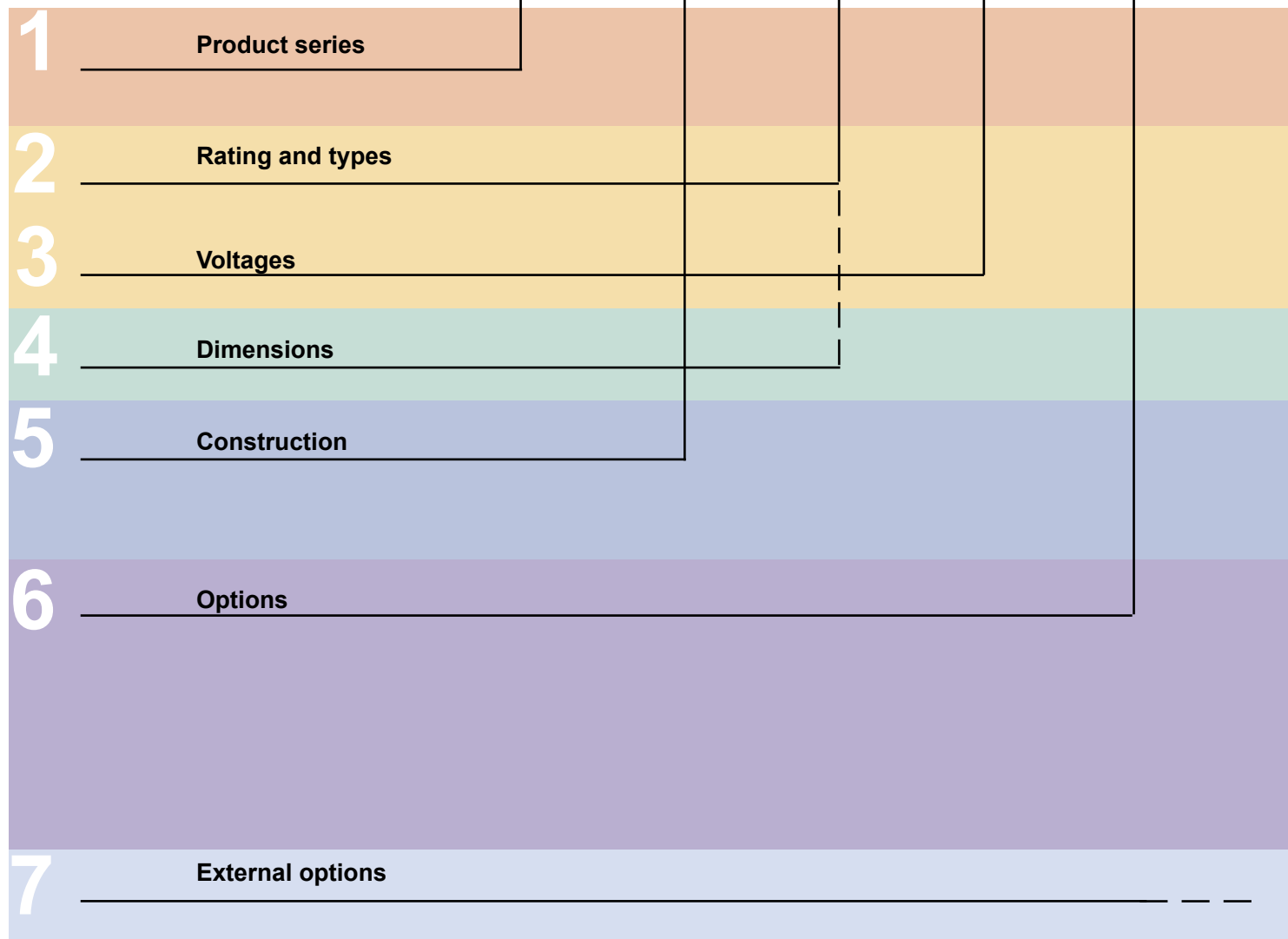
**Choice 1:** Simply contact your local ABB drives sales office and let them know what you want. Use page 5 as a reference section for more information.

**OR**

**Choice 2:** Build up your own ordering code using the simple 7-step approach below and then contact your local ABB Drive Sales Office.

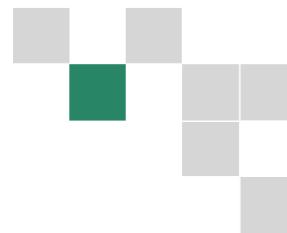
Type code:

ACS550 - U1 - 03A3 - 4 + B056



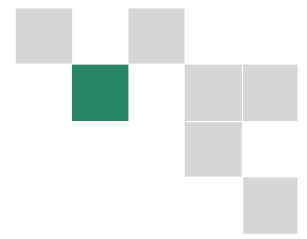
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# ABB ACS550 standard drive



ACS550 - U1 - 03A3 - 4

## What is an ABB ACS550 standard drive?

The ABB ACS550 standard drive is simple to buy, install, configure and use, saving considerable time. The drive has common user and process interface with fieldbus, common software tools for sizing, commissioning, maintenance and common spare parts.

## Where can it be used?

The ABB ACS550 standard drive can be used in a wide range of industries. Typical applications include pump, fan and constant torque use, such as conveyors. The ABB ACS550 standard drive is ideal for those situations where there is a need for simplicity to install, commission and use and where customizing or special product engineering is not required.

## ABB ACS550 standard drive promises

- Quick delivery
- Easy installation
- Trouble-free start-up
- Intuitive operation

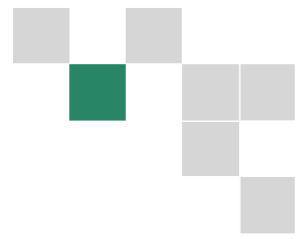
## Highlights:

- Advanced control panel permitting intuitive operation
- Patent pending swinging choke for superior harmonic reduction
- Sensorless vector control
- Integral RFI filter for 1st and 2nd environment as standard
- Built-in Modbus and numerous internally mountable fieldbus adapters
- UL, cUL listed and CE approved

## What are its main features?

Feature	Note	Benefit
Advanced control panel	Two soft-keys, functions change according to the state of the panel Built-in "Help" button Real-time clock, allows timed tracing of faults and setting of parameters to activate at various times of day Changed parameters menu	Easy commissioning Fast set-up Easier configuration Rapid fault diagnosis Quick access to recent parameter changes
Brake chopper	Built-in up to 15 Hp (480V)	Reduced installation cost
Chokes	Swinging DC chokes - matches the right inductance to the right load, suppressing and reducing harmonics	Reduces Total Harmonic Distortion (THD) emissions up to 25%
Connectivity	Simple to install: Easy connection of cables Easy connection to external fieldbus systems through multiple I/Os and plug-in options	Reduced installation time Secure cable connections
Diagnostic assistant	Activated when fault occurs	Quick fault diagnostics
EMC	1st and 2nd environment RFI filters as standard	No need for additional external filtering
Fieldbus	Built-in Modbus using RS 485 Optional plug-in fieldbus modules	Reduced cost
Maintenance assistant	Monitors running hours or motor rotation	Takes care of preventative maintenance of drive, the motor or run application
Sensorless vector control	Improved motor control performance	Enables wider range of applications
Start-up assistant	Guides user through all essential settings without going to parameter list	Easy set-up of parameters

# Ratings, types and voltages



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## Type code

This is the unique reference number that clearly identifies the drive by mounting configuration, power rating and voltage. Once you have selected the type code, the frame size can be used to determine the drives dimensions, shown on the next page.

## Voltages

The ACS550 is available in two voltage ranges:

4 = 380 - 480V

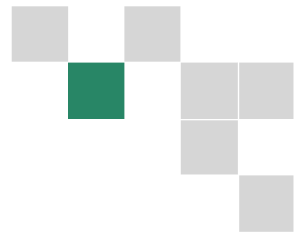
2 = 208 - 240V

## Notes

- $I_{2N}$ : continuous base current with 110% overload for 1 minute / 10 minutes.
- $I_{2hd}$ : continuous base current with 150% overload for 1 minute / 10 minutes.
- 180%  $I_{hd}$  continuous base current available for 2 seconds / 1 minute.
- Current ratings do not change with different supply voltages.
- The rated current of the ACS550 must be greater than or equal to the rated motor current to achieve the rated motor power given in the table.
- All -U1 models -04A6 through -180A come with a conduit box and advanced control panel as standard.
- Horsepower is based on NEMA motor ratings for most 4-pole motors (1800 rpm). Check motor nameplate current for compatibility.
- All 230V product can be operated on 230V single-phase power, using a de-rate of the output current of 50%.
- All -U2 models come standard with US conduit openings, top entry / top exit, common mode filter for drives larger than 200 HP, fused disconnect and extended enclosure with advanced control panel.

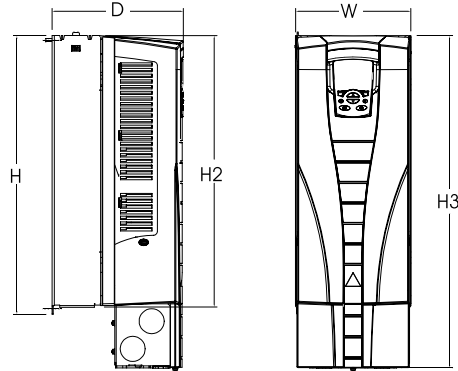
Type Code UL Type 1 NEMA 1 <sup>(6)</sup>	Nominal Ratings <sup>(4,5)</sup>				Frame Size
	Normal Duty (CT) (110% $I_{2N}$ )		Heavy-duty (CT) (150% $I_{2hd}$ )		
	$I_{2N}$ A <sup>(1,2)</sup>	P HP <sup>(7)</sup>	$I_{2hd}$ A <sup>(3)</sup>	P HP <sup>(7)</sup>	
ACS550-U1-04A6-2	4.6	1.0	3.5	0.75	R1
ACS550-U1-06A6-2	6.6	1.5	4.6	1.0	R1
ACS550-U1-07A5-2	7.5	2.0	6.6	1.5	R1
ACS550-U1-012A-2	11.8	3.0	7.5	2	R1
ACS550-U1-017A-2	16.7	5.0	11.8	3	R1
ACS550-U1-024A-2	24.2	7.5	16.7	5	R2
ACS550-U1-031A-2	30.8	10	24.2	7.5	R2
ACS550-U1-046A-2	46.2	15	30.8	10	R3
ACS550-U1-059A-2	59.4	20	46.2	15	R3
ACS550-U1-075A-2	74.8	25	59.4	20	R4
ACS550-U1-088A-2	88	30	74.8	25	R4
ACS550-U1-114A-2	114	40	88	30	R4
ACS550-U1-143A-2	143	50	114	40	R6
ACS550-U1-178A-2	178	60	143	50	R6
ACS550-U1-221A-2	221	75	178	60	R6
ACS550-U1-03A3-4	3.3	1.5	2.4	1	R1
ACS550-U1-04A1-4	4.1	2	3.3	1.5	R1
ACS550-U1-06A9-4	6.9	3	5.4	2	R1
ACS550-U1-08A8-4	8.8	5	6.9	3	R1
ACS550-U1-012A-4	11.9	7.5	8.8	5	R1
ACS550-U1-015A-4	15.4	10	11.9	7.5	R2
ACS550-U1-023A-4	23	15	15.4	10	R2
ACS550-U1-031A-4	31	20	23	15	R3
ACS550-U1-038A-4	38	25	31	20	R3
ACS550-U1-044A-4	44	30	38	25	R4
ACS550-U1-059A-4	59	40	44	30	R4
ACS550-U1-072A-4	72	50	59	40	R4
ACS550-U1-077A-4	77	60	72	50	R5
ACS550-U1-096A-4	96	75	77	60	R5
ACS550-U1-124A-4	124	100	96	75	R6
ACS550-U1-157A-4	157	125	124	100	R6
ACS550-U1-180A-4	180	150	156	125	R6
ACS550-U2-196A-4	196	150	162	125	R7
ACS550-U2-245A-4	245	200	192	150	R7
ACS550-U2-316A-4	316	250	248	200	R8
ACS550-U2-368A-4	368	300	302	250	R8
ACS550-U2-414A-4	414	350	368	300	R8
ACS550-U2-486A-4	486	400	414	350	R8
ACS550-U2-526A-4	526	450	477	400	R8
ACS550-U2-602A-4	602	500	515	450	R8
ACS550-U2-645A-4	645	550	590	500	R8

# Dimensions



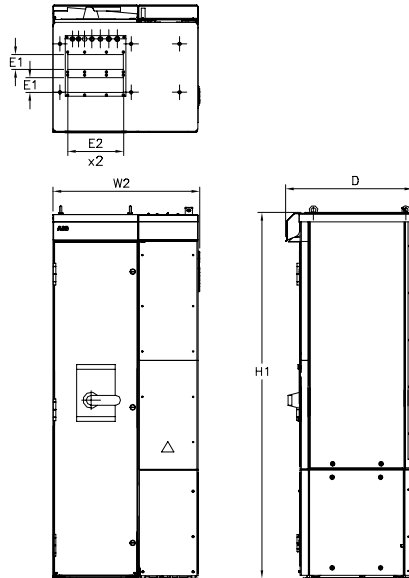
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## ACS550 NEMA 1 R1 - R6



	R1		R2		R3		R4		R5		R6	
	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
W	125	4.9	125	4.9	203	8.0	203	8.0	265	10.4	300	11.8
H	330	13.0	430	16.9	490	19.3	596	23.4	602	23.7	700	27.6
H2	315	12.4	415	16.3	478	18.8	583	23.0	578	22.8	698	27.5
H3	369	14.5	469	18.5	583	23.0	689	27.1	739	29.1	880	34.6
D	212	8.3	222	8.7	231	9.1	262	10.3	286	11.3	400	15.8
Weight	6.09 kg	13.4 lbs.	8.85 kg	19.5 lbs.	14.73 kg	32.4 lbs.	22.45 kg	49.5 lbs.	29.94 kg	66 lbs.	59.88 kg	132 lbs.

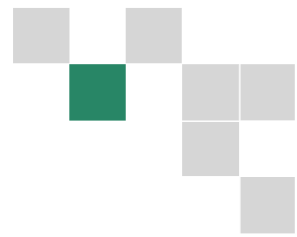
## ACS550 NEMA 1 R7 - R8



	H1		W2		Depth		Weight		E1		E2	
	mm	in	mm	in	mm	in	kg	lb	mm	in	mm	in
R7	1503	59.17	609	23.98	495	19.49	100	220	92	3.62	250	9.84
R8	2130	83.86	800	31.5	585	23.03	230	506	92	3.62	250	9.84

Drawings are not for engineering purposes.

# Construction



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“U1” within the type code (shown above) indicates the drive mounting configuration. U1 models are wall-mounted, while U2 models are free-standing with an extended enclosure and fused disconnect. Choose the correct one for your needs from the table below:

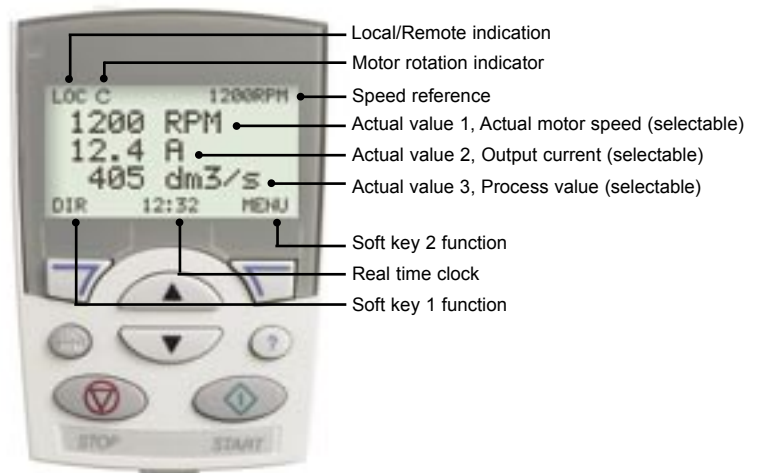
U1	U2
<ul style="list-style-type: none"> <li>■ Wall mounted, frame size R1-R6</li> <li>■ 0.75 - 150Hp</li> <li>■ UL Type 1 (IP21) NEMA 1</li> <li>■ Built-in EMC filter</li> <li>■ Standard software</li> <li>■ Built-in Modbus interface</li> <li>■ Cable connection box</li> <li>■ Brake chopper in frame sizes R1-R2</li> <li>■ Advanced control panel</li> </ul>	<ul style="list-style-type: none"> <li>■ Free standing, frame size R7-R8</li> <li>■ 150 - 550Hp</li> <li>■ UL Type 1 (IP21) NEMA 1</li> <li>■ Built-in EMC filter</li> <li>■ Standard software</li> <li>■ Built-in Modbus interface</li> <li>■ Free-standing with extended enclosure and fused disconnect</li> <li>■ Advanced control panel</li> </ul>

## Advanced control panel

For easy drive programming, a detachable, multi-lingual alphanumeric advanced control panel is delivered as standard. The control panel has various assistants and a built-in help functions to guide the user. It includes a real time clock, which can be used during fault logging and in controlling

the drive, such as start/stop and maintenance reminders. The control panel can be used for copying parameters for back up or for downloading to another drive. A large graphical display and soft keys make it extremely easy to navigate.

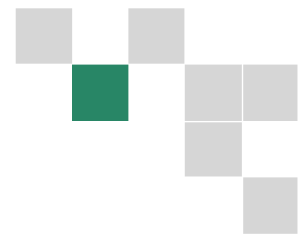
	Name	Function
	Start	Initiates operation of drive
	Stop	Ceases operation of drive
	Up	Changes parameters and their value/ increases reference
	Down	Changes parameters and their value/ decreases reference
	Loc/Rem	Changes drive state from local control to remote control (I/O or other external source)
	HELP	Built-in “Help” button
	Soft key 1	Function changes according to state of panel
	Soft key 2	Function changes according to state of panel



# Options

## Control interfaces

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### How to select options

The options shown below are available for use with the ACS550. Each item has a 4-digit option code, which is shown in the table below. This code is added to the end of the type code above using a '+'. Ordering options using the option code provides a factory installed option, while using the description provides a field installable kit.

#### Available options

Option Code	Description	
<b>Protection class</b>		
B056	UL Type 12 (IP54) NEMA 12	
<b>Slot 1 Options</b>		
L511	Relay Output Extension	OREL-01
L502	Pulse Encoder Interface	OTAC-01
<b>Slot 2 Options</b>		
L512	115/230V Digital Interface	ODHI-01
K451	DeviceNet	RDNA-01
K454	Profibus-DP	RPBA-01
K457	CANOpen	RCAN-01
K462	ControlNet	RCNA-01

NOTE: Only one option can be installed in each option slot.

### DriveWindow Light 2

DriveWindow Light 2 is a PC software used for rapid commissioning, operating and programming of drives. It has features for programming, monitoring, troubleshooting and maintenance.

It is also a set-up and control tool which is Win98, WinNT, Win2000 and WinXP compatible.

DriveWindow Light 2 operates both off- and on-line. No additional PC hardware is required. It uses the PC's RS-232 port. It is also compatible with drive types ACS140, ACS160, ACS400, ACS600, ACS800 and DCS400.

#### DriveWindow Light 2 features

- Graphical start-up wizards
- Off- and on-line viewing and changing of drive parameters
- Backup and restore parameters. In a fault situation the parameters can be reloaded resulting in time savings
- Graphical monitoring of actual signal values
- I/O mapping table
- Control of the drive

### Removing the relay output extension module



### Removing the panel



# Options

## Plug-in options

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### Relay output extension module

This plug-in option offers three additional relay outputs. They can be used to actuate motor starters for pumps using a lead-lag alternation scheme with the built-in Pump-Fan Macro. All relays can be programmed to on/off by using the advanced control panel's clock. Alternatively, fieldbus adapters can be used to control any external components in the system.

### Pulse encoder interface

The Pulse Encoder Interface module offers a differential or single ended interface for a digital pulse encoder connection. The module is capable of operating from either a 15 or 24 VDC signal with a maximum frequency of 200Hz.

### 115/230V digital input interface

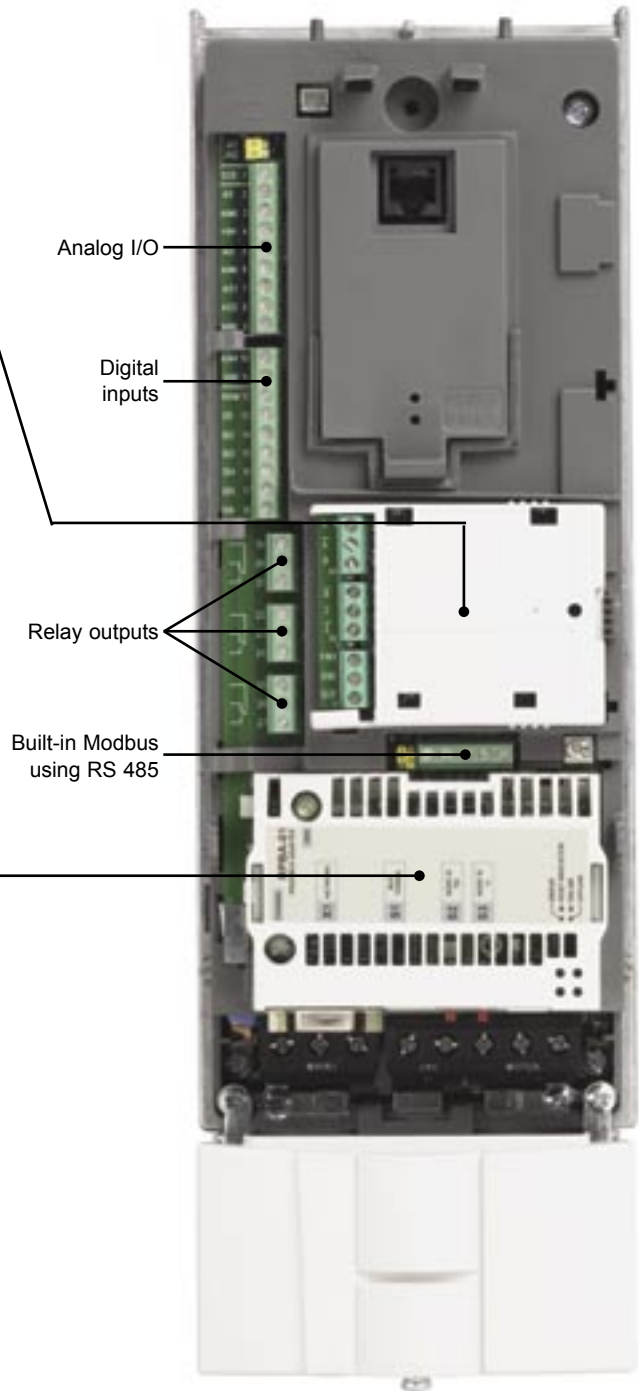
The 115/230V Digital Input Interface module offers six (6) 115/230V rated relays mounted on a common board used to drive DI1 through DI6 of the ACS550. The 115/230V must be provided by the user. The module cannot be used in conjunction with any fieldbus module as it occupies the same option slot.

### Plug-in fieldbus module

The plug-in fieldbus options bring connectivity to major automation systems. A single twisted pair avoids large amounts of conventional cabling, thereby reducing cost and increasing system reliability.

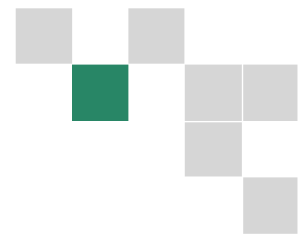
The ACS550 supports the following fieldbus options:

- DeviceNet
- Profibus-DP
- CANOpen
- ControlNet



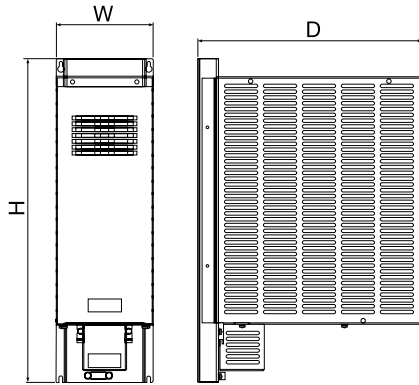
# Options

## External options



### Brake units and choppers

Frame sizes R1 to R2 are delivered with integrated brake choppers as standard. Other units can use the compact-sized brake units which include a brake chopper and resistor. For more information please refer to the ACS-BRK Brake Units Installation and Start-up Guide.



### Brake units technical data

Frequency Converter Input Voltage	Resistor Ohms	Continuous Output W	Max. Output 20/sec W	Brake Unit Type Code
200 - 240VAC 380 - 480VAC	32	2000	4500 12000	ACS-BRK-C
200 - 240VAC 380 - 480VAC	10.5	7000	14000 42000	ACS-BRK-D

### Dimensions

Width (W) mm / in	Height (H) mm / in	Depth (D) mm / in	Weight (W) kg / lbs.	Brake Unit Type Code
150 / 5.9	500 / 19.7	347 / 13.7	7.5 / 16.5	ACS-BRK-C
270 / 10.6	600 / 23.6	450 / 17.7	20.5 / 45.1	ACS-BRK-D

## Technical data

### Cooling

ACS550 are configured with cooling air fans. The cooling air must be free from corrosive materials with a maximum ambient temperature of 40°C (50°C with derating).

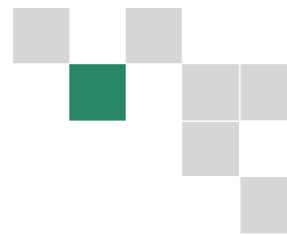
### Free space requirements

Enclosure Type	Space above mm / in	Space below mm / in	Space on left and right mm / in
U1 - Wall Mount	200 / 7.9	200 / 7.9	25 / 1
U2 - Floor Mount	200 / 7.9	0	0

### Cooling air flow

Type Code	Frame Size	W	BTU/Hr
ACS550-U1-03A3-4	R1	40	137
ACS550-U1-04A1-4	R1	52	178
ACS550-U1-06A9-4	R1	97	331
ACS550-U1-08A8-4	R1	127	434
ACS550-U1-012A-4	R1	172	587
ACS550-U1-015A-4	R2	232	792
ACS550-U1-023A-4	R2	337	1151
ACS550-U1-031A-4	R3	457	1561
ACS550-U1-038A-4	R3	562	1919
ACS550-U1-044A-4	R4	667	2278
ACS550-U1-059A-4	R4	907	3098
ACS550-U1-072A-4	R4	1120	3825
ACS550-U1-077A-4	R5	1300	4300
ACS550-U1-096A-4	R5	1440	4918
ACS550-U1-124A-4	R6	1940	6625
ACS550-U1-157A-4	R6	2310	7889
ACS550-U1-180A-4	R6	2810	9597
ACS550-U2-196A-4	R7	3050	10416
ACS550-U2-245A-4	R7	3850	13148
ACS550-U2-316A-4	R8	4550	15539
ACS550-U2-368A-4	R8	6850	23394
ACS550-U2-414A-4	R8	7400	25000
ACS550-U2-486A-4	R8	7850	26809
ACS550-U2-526A-4	R8	7600	25955
ACS550-U2-602A-4	R8	8100	27663
ACS550-U2-645A-4	R8	9100	31078

# Technical data



## Input cable and fuse connections

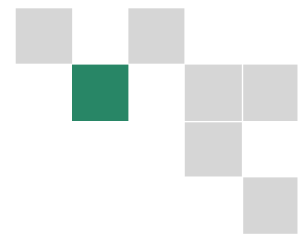
Standard fuses can be used with ABB standard drives. For input cable and fuse connections see table below.

### Recommended input protection fuses

Type Code	Frame Size	IEC fuses				UL fuses			
		Input Power Cable Cu mm <sup>2</sup>	A	V	Fuse Type	Input Power Cable AWG	A	V	Fuse Type
ACS550-U1-03A3-4	R1	1.5	10	600	IEC 269gG	14	10	600	UL Class T
ACS550-U1-04A1-4	R1	1.5	10	600	IEC 269gG	14	10	600	UL Class T
ACS550-U1-06A9-4	R1	1.5	10	600	IEC 269gG	14	10	600	UL Class T
ACS550-U1-08A8-4	R1	1.5	10	600	IEC 269gG	14	10	600	UL Class T
ACS550-U1-012A-4	R1	2.5	16	600	IEC 269gG	12	16	600	UL Class T
ACS550-U1-015A-4	R2	2.5	16	600	IEC 269gG	10	16	600	UL Class T
ACS550-U1-023A-4	R2	6	25	600	IEC 269gG	8	25	600	UL Class T
ACS550-U1-031A-4	R3	10	35	600	IEC 269gG	8	35	600	UL Class T
ACS550-U1-038A-4	R3	16	50	600	IEC 269gG	6	50	600	UL Class T
ACS550-U1-044A-4	R4	16	50	600	IEC 269gG	6	50	600	UL Class T
ACS550-U1-059A-4	R4	25	63	600	IEC 269gG	4	63	600	UL Class T
ACS550-U1-072A-4	R4	35	80	600	IEC 269gG	3	80	600	UL Class T
ACS550-U1-096A-4	R5	50	125	600	IEC 269gG	1	125	600	UL Class T
ACS550-U1-124A-4	R6	70	150	600	IEC 269gG	1/0	150	600	UL Class T
ACS550-U1-157A-4	R6	95	200	600	IEC 269gG	4/0	200	600	UL Class T
ACS550-U1-180A-4	R6	120	250	600	IEC 269gG	250MCM	250	600	UL Class T
ACS550-U2-196A-4	R7	3x185+195	250	500	OFAF1H250	*	250	500	UL Class T
ACS550-U2-245A-4	R7	3x240+120	250	500	OFAF1H250	*	250	500	UL Class T
ACS550-U2-289A-4	R7	2x(3x95+50)	315	500	OFAF1H315	*	315	500	UL Class T
ACS550-U2-368A-4	R8	2x(3x150+95)	400	500	OFAF1H400	*	400	500	UL Class T
ACS550-U2-486A-4	R8	2x(3x240+120)	500	500	OFAF1H500	*	500	500	UL Class T
ACS550-U2-526A-4	R8	3x(3x150+95)	630	500	OFAF1H630	*	630	500	UL Class T
ACS550-U2-602A-4	R8	3x(3x185+95)	630	500	OFAF1H630	*	630	500	UL Class T
ACS550-U2-645A-4	R8	3x(3x185+95)	800	500	OFAF1H800	*	800	500	UL Class T

\*Available later

# Technical specification



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Input power connection	
<b>Voltage and power range</b>	3-phase, 380 to 480 V, +10/-15%, 1 - 550Hp 3-phase, 200 to 240 V, +10/-15%, 0.75 - 75Hp
<b>Frequency</b>	48 to 63 Hz
<b>Power factor</b>	0.98

Motor connection	
<b>Voltage</b>	3-phase, from 0 to $U_{SUPPLY}$
<b>Frequency</b>	0 to 500 Hz
<b>Continuous loading capability</b> <small>(constant torque at a max ambient temperature of 40°C)</small>	Rated output current $I_2$
<b>Overload capacity</b> <small>(at a max. ambient temperature of 40°C)</small>	At normal use $1.1 \times I_{2N}$ for 1 minute every 10 minutes At heavy-duty use $1.5 \times I_{2nd}$ for 1 minute every 10 minutes Always $1.8 \times I_{2nd}$ for 2 seconds every 60 seconds
<b>Switching frequency</b>	
Standard	Default 4 kHz
Selectable	0.75 - 150Hp    1 kHz, 4 kHz, 8 kHz up to 550Hp    1 kHz, 4 kHz
<b>Acceleration time</b>	0.1 to 1800 s
<b>Deceleration time</b>	0.1 to 1800 s

Environmental limits	
<b>Ambient temperature</b>	
-15 to 40°C	No frost allowed
40 to 50°C	$f_{switch}$ 4 kHz, derating please contact supplier
<b>Altitude</b>	
Output current	Rated current available at 0 to 1000 m (3300 ft) reduced by 1% per 100 m over 1000 m (3300 ft) to 2000 m (6600 ft)
<b>Relative humidity</b>	lower than 95% (without condensation)
<b>Protection class</b>	UL Type 1 or 12 (NEMA 1 or NEMA 12)
<b>Enclosure color</b>	NCS 1502-Y, RAL 9002, PMS 420 C
<b>Contamination levels</b>	No conductive dust allowed
Transportation	IEC60721-3-1, class 1C3 (chemical gases), Class 1S3 (solid particles)
Storage	IEC60721-3-2, Class 2C3 (chemical gases), Class 2S3 (solid particles)
Operation	IEC60721-3-3, Class 3C3 (chemical gases), Class 3S3 (solid particles)

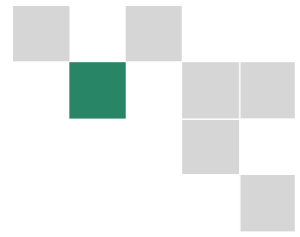
Programmable control connections	
<b>Two analog inputs</b>	
Voltage signal	0 (2) to 10 V, $R_{in} > 312 \text{ k}\Omega$ single-ended
Current signal	0 (4) to 20 mA, $R_{in} = 100 \Omega$ single-ended
Potentiometer reference value	10 V $\pm 2\%$ max. 10 mA, $R < 10 \text{ k}\Omega$
Maximum delay	12...32 ms
Resolution	0.1%
Accuracy	$\pm 1\%$
<b>Two analog outputs</b>	0 (4) to 20 mA, load $< 500 \Omega$
<b>Auxiliary voltage</b>	24 V DC $\pm 10\%$ , max. 250 mA
<b>Six digital inputs</b>	12 V... 24 V DC with internal or external supply, PNP and NPN
Input impedance	2.4 k $\Omega$
Maximum delay	5 ms $\pm 1$ ms
<b>Three relay outputs</b>	
Maximum switching voltage	250 V AC/30 V DC
Maximum switching current	6 A/30 V DC; 1500 V A/230 V AC
Maximum continuous current	2 A rms
<b>Serial communication</b>	
RS 485	Modbus protocol

Protection limits	
<b>Overvoltage trip limits</b>	
Running V DC	842 (corr. to 595 V input)
Start inhibit V DC	661 (corr. to 380 - 415 V input), 765 (corr. to 440 to 480 V input)
<b>Undervoltage trip limits</b>	
Running V DC	333 (corr. to 247 V input)
Start inhibit V DC	436 (corr. to 380 - 415 V input), 505 (corr. to 440 - 480 V input)

Product compliance	
Low Voltage Directive 73/23/EEC with supplements	
Machinery Directive 98/37/EC	
EMC Directive 89/336/EEC with supplements	
Quality assurance system ISO 9001 and Environmental system ISO 14001	
CE, UL and cUL approvals	

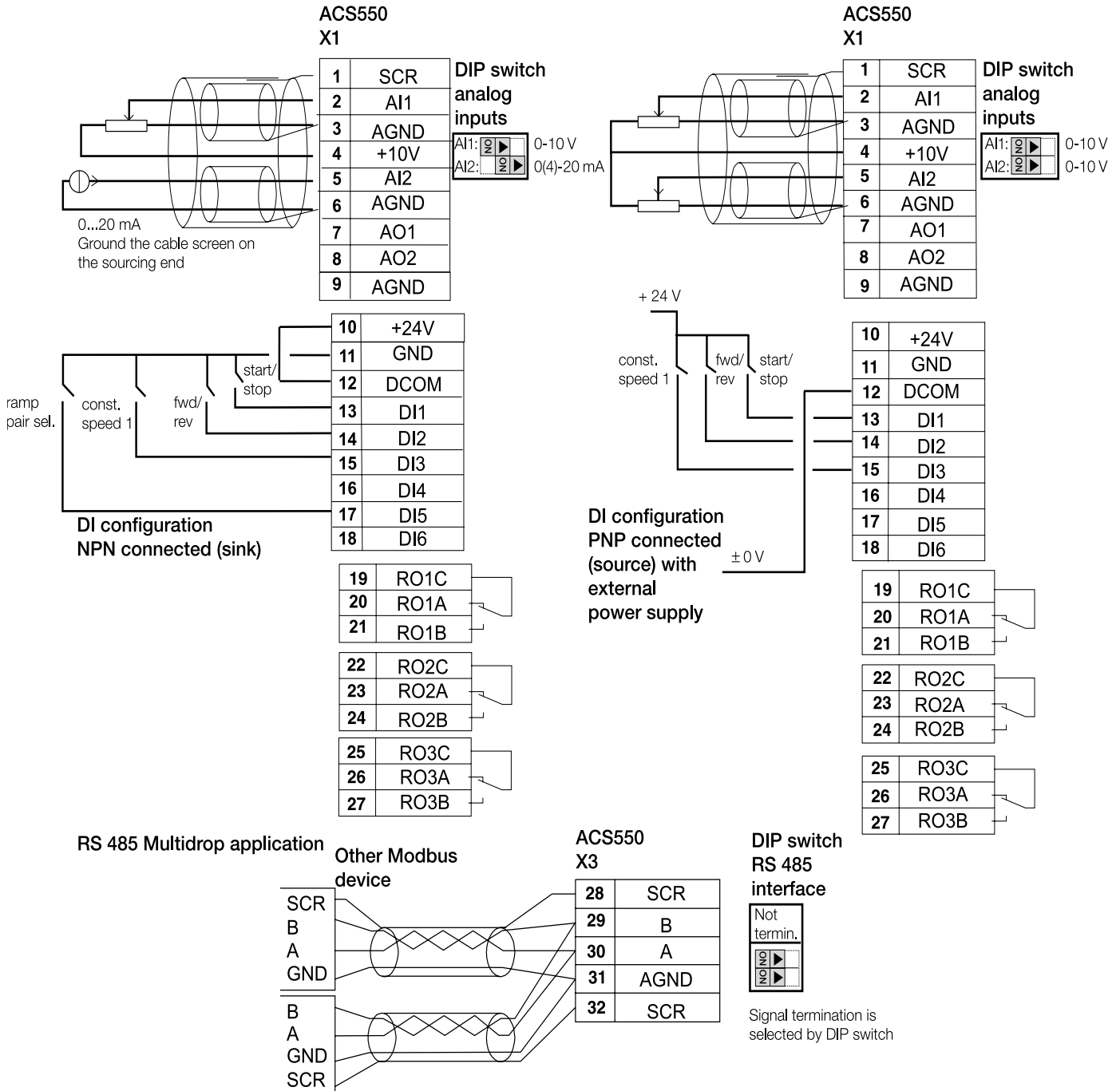
EMC (according to EN61800-3)	
1 <sup>st</sup> environment restricted and 2 <sup>nd</sup> environment unrestricted distribution with 30 m (99 ft) cable as standard	
For longer motor cable lengths, external EMC filters are available on request	

# Control connections



ACS550 - U1 - 03A3 - 4

These connections are shown as examples only.  
Please refer to the ACS550 User's Manual for more detailed information.



# Fieldbus Control

## Gateway to your process

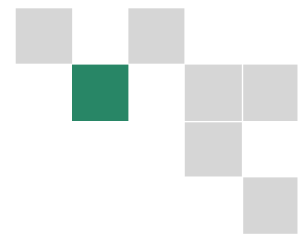


ABB AC drives have the connectivity to major automation systems. This is achieved with a dedicated gateway concept between the fieldbus systems and ABB drives.

The fieldbus gateway is a snap-on module that can be easily mounted inside the drive. As a result of the wide range of fieldbus gateways, your choice for an automation system becomes independent of your decision to use first-class ABB AC drives.

### Manufacturing Flexibility

#### Drive control

The drive Control Word (16 bit) provides a wide variety of functions from Start, Stop and Reset to Ramp Generator control. Typical setpoint values like Speed, Torque and Position can be transmitted to the drive with 15 bit accuracy.

#### Drive monitoring

A set of drive parameters and/or actual signals, like torque, speed, position, current etc., can be selected for cyclic data transfer providing fast data for operators and the manufacturing process.

#### Drive diagnostics

Accurate and reliable diagnostic information can be obtained via the drive Alarm, Limit and Fault Words reducing the down time of the drive and therefore also the down time of the manufacturing process.

#### Drive parameter handling

Total integration of the drives in the production process is achieved by single parameter read/write up to complete parameter set-up or download.

#### Easy to expand

Serial communication simplifies the latest trend of modular machine design enabling expansion of the installation at a later stage with low effort.

### Reduced Installation and Engineering Effort

#### Cabling

Substituting the large amount of conventional Drive Control cabling with a single twisted pair reduces costs and increases system reliability.

#### Design

The use of Fieldbus Control reduces engineering time at installation due to the modular structure of the hardware and software.

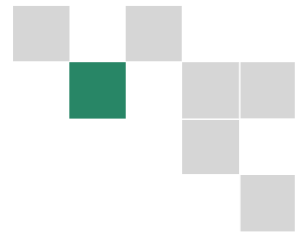
#### Commissioning and assembly

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

### Currently Available Gateways

- PROFIBUS-DP
- DeviceNet
- CANopen
- ControlNet

# Service products



To reduce the total cost of owning ABB drives and to maximize their availability ABB offers the following services:

## ABB maintenance services

ABB maintenance services ensure optimal operation of your drives and extends their useful life.

## On-site spares kits

On-site spares kits contain the most critical spare parts for your AC drives. The contents of the kit can be chosen according to the number of drives in use. Having a spares kit on site reduces the downtime of equipment and increases the availability of critical processes.

## Start-up services

Using ABB's start-up services you can trust that your drives are correctly commissioned and well-tuned to their application. ABB employs authorized professionals who have been thoroughly trained for their job.

## Training services

ABB offers dedicated training on ABB drives for your service and operating personnel. Upon successful completion of the training course your personnel will have acquired the skills to use ABB drives correctly and safely, and also to get the best results from their application. The training courses are broken down into modules that allow for customization of the contents depending on the objectives and skill levels of the participants.

ABB has a service organization that spans the globe. Contact your local ABB sales office for more information about our services.



# The ABB Product Family

## Small AC Drives

Includes the ACS140, and ACS400, covering sizes from ¼ hp to 50 hp and voltages from 200 to 480 V.



## Large AC Drives

The ACS800 Single and Multi-Drive family includes drives from 0.75 hp to 3,500 hp and voltages from 230 to 690 V.



## Medium-Voltage Drives

ABB's highly reliable ACS1000 is available from 400 hp to 6,700 hp and voltages of 2.3, 3.3, and 4.16 kV.



## DC Drives and Motors

DCS 500 and DCS 400 DC Drives are available from 5 hp to 10,000 hp and voltages from 230 to 1,000 V. A wide range of DC motors are also available.



## Motors

Low-voltage AC motors from ABB range from ¼ hp to 800 hp and voltages from 208 to 480 V. Medium-voltage AC motors are also available.



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ACS550-US-01 Rev. A Effective: 9/1/03 Specifications subject to change without notice.  
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