

ACB530 AC DRIVES



The versatile drive designed to handle your most complex sensorless vector applications in an easy to configure product.

Built with popular ABB inverter technology, the Baldor ACB530 is a product designed to tackle difficult and demanding applications while providing an interface to the user that is simple and intuitive. The ACB530 is a sensorless vector product that controls motor speed with the precision and responsiveness needed to accomplish most applications where open loop vector control is desirable.

Features

- Input Voltages / Power Ratings
208 -240 Vac 3-phase / .75-100 Hp
380-480 Vac 3-phase / 1-550 Hp
500-600 Vac 3-phase / 1.5-150 Hp
- Enclosures / Mounting
NEMA 1 (1 ~ 200 Hp)
Optional NEMA 12
- Control Modes
V/Hz
Sensorless Vector
- User-friendly keypad with full-graphics backlit LCD display
Parameter upload / download capability
Application macros and assistants
Help text available for all screens
Remote mountable
- PID Control Loop with 2 inputs
- Normal duty and heavy duty ratings
- Built-in Modbus RTU protocol (RS485)

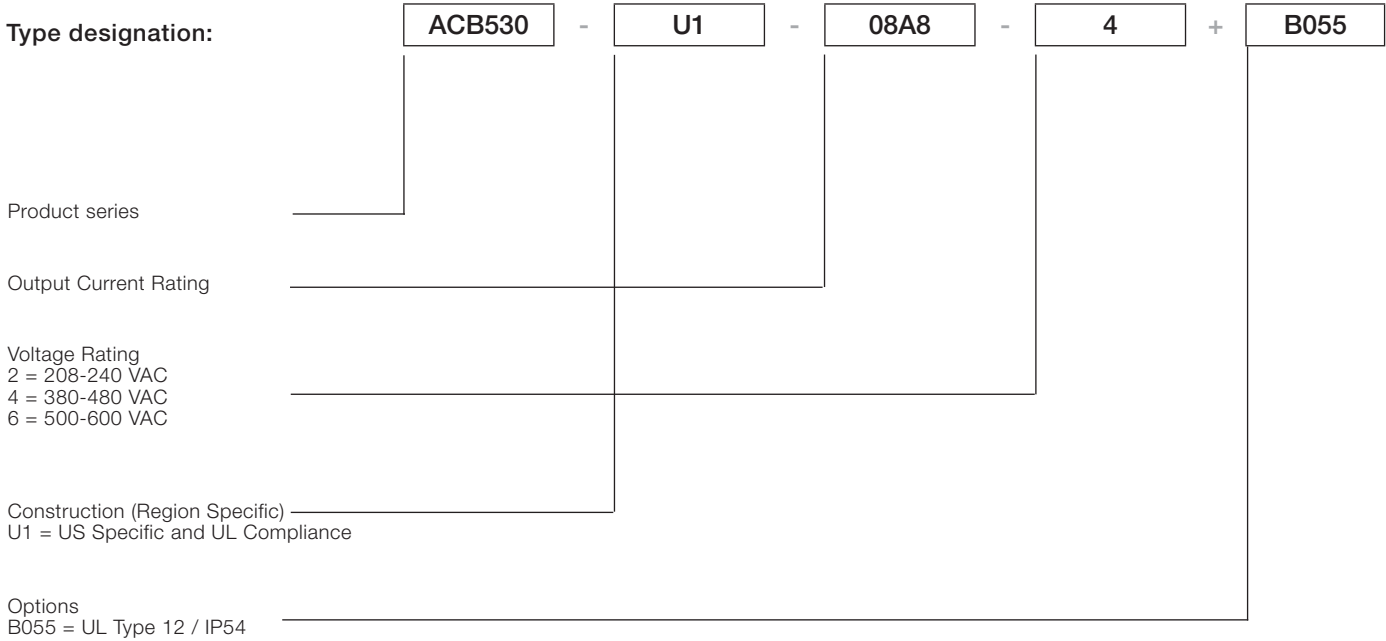
Specifications

- Digital Inputs (6), 12 - 24 Vdc sink / source, internal / external power source
- Relay Outputs (3) N.O. / N.C. (Form C)
- Analog Inputs (2)
Unipolar 4 ~ 20mA
- Environmental
15 - 40 (higher available w/derate)
1000 Altitude w/o derate
Lower than 95% Humidity, non-dondensing NEMA 1 models
- Electrical
Input voltage +10 - 15% of nominal, 48 ~ 63 Hz
Operational on single-phase input with derate
- Output ratings
0 ~ 500Hz Output Frequency
1KHz, 4KHz, 8KHz, 12KHz Switching Frequency
110% Overload Normal Duty Ratings - 1 minute
150% Overload Heavy Duty Ratings - 1 minute
180% Overload 2 Second Capability
4 to 16KHz switching frequency

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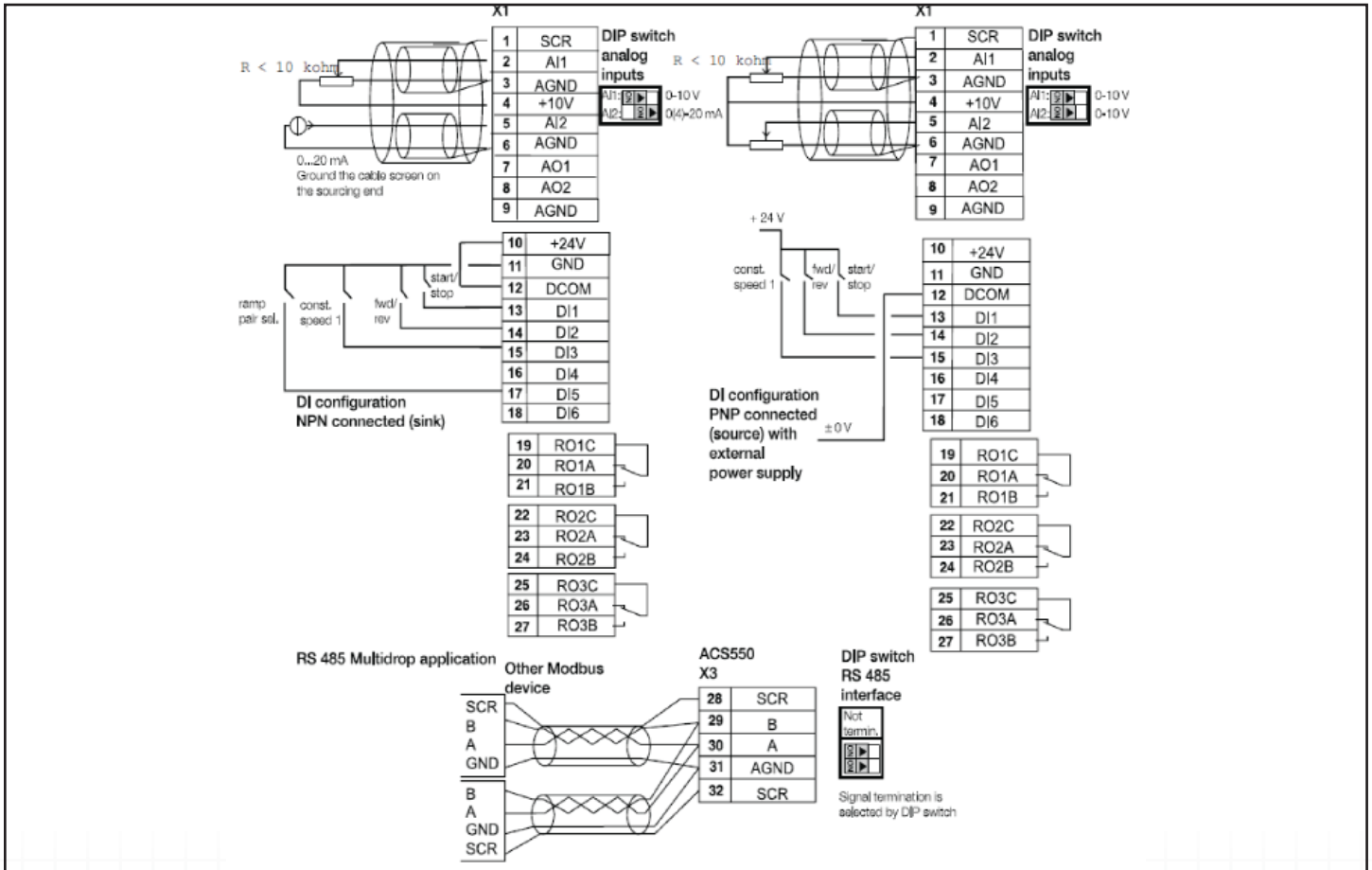
ACB530 Catalog Number Definition

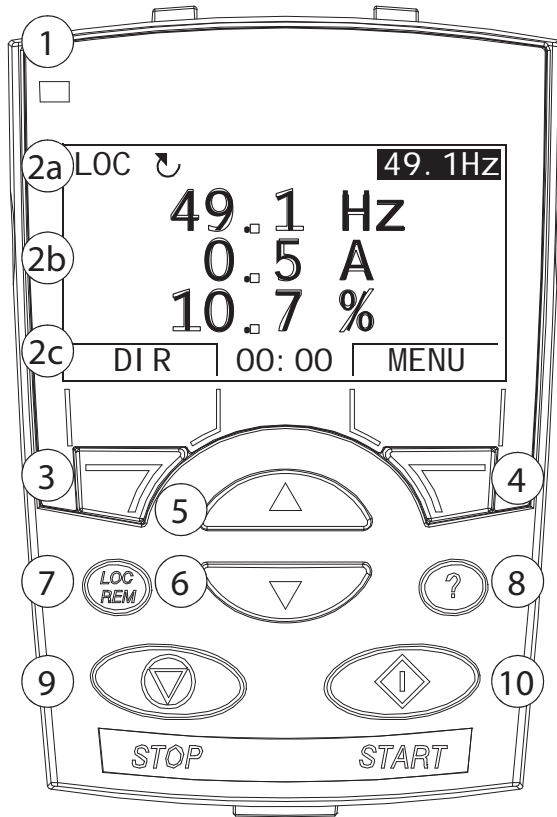


Agency Certifications / Listings:

- UL
- cUL
- CE
- CSA
- C-Tick

ACB530 Connections





Operation – Using the Keypad:

1. Status LED - Green for normal operation
2. LCD Display - Three Main Areas
 - 2a. Status Line - depends on operating mode
 - 2b. Center - signal and parameter value
 - 2c. Bottom Line - current function
3. Soft Key 1 - function depends on the context
4. Soft Key 2 - function depends on the context
5. Up - scrolls up through the menu
6. Down - scrolls down through the menu
7. Loc/Rem - changes between Local or Remote
8. Help - displays context sensitive information
9. Stop - stops the drive in local control
10. Start - starts the drive in local control

Optional Equipment and Accesories

Option

115 / 230V Digital input interface
 Cabinet Panel Mounting
 Panel Extension Cable
 Control Panel Mounting
 NEMA 4X Cabinet Panel Mounting
 Flange Mounting Kits

Field Kit Code

OHI-01-KIT
 OPMP-01
 OCAT-01
 ACS/H-CP-EXT
 ACS/H-CP-EXT-IP66
 FMK-A-R1
 FMK-A-R2
 FMK-A-R3
 FMK-A-R4
 AC8-FLNGMT-R5
 AC8-FLNGMT-R6

FIELDBUS Communications Options

DeviceNet Adaptor	RDNA-01-KIT
Profibus-DP Adaptor	RPBA-01-KIT
ControlNet Adaptor	RCNA-01-KIT
Ethernet Adaptor	RETA-01-KIT
EtherCAT Adaptor	RECA-01-KIT

Additional Features

- RS485 ports standard on every drive
- Real time clock for logging events in drive memory
- Fault trace capability to determine several key operating conditions captured at the time of fault
- Quick Setup Display
 Control type (V / Hz / Sensorless Vector)
 Motor rated volts
 Motor rated amps
 Motor rated base speed
 Motor rated frequency
 Calculate motor model
 Acceleration time
 Deceleration time
 Minimum speed
 Maximum speed

ACB530 AC DRIVES

Ratings and Dimensions:

Ratings Normal Duty		Type Code UL Type 1 (NEMA 1)	Frame Size	UL Type 1 / IP21			
P _N Hp	I _{2N} A			H in	W in	D in	Weight lb
3-phase supply voltage 208, 230 or 240 V							
2	7.5	ACB530-U1-07A5-2	R1	13.0	4.9	8.3	14.3
3	11.8	ACB530-U1-012A-2	R1	13.0	4.9	8.3	14.3
5	16.7	ACB530-U1-017A-2	R1	13.0	4.9	8.3	14.3
7.5	24.2	ACB530-U1-024A-2	R2	16.9	4.9	8.7	19.8
10	30.8	ACB530-U1-031A-2	R2	16.9	4.9	8.7	19.8
15	46.2	ACB530-U1-046A-2	R3	19.3	8.0	9.1	35.0
20	59.4	ACB530-U1-059A-2	R3	19.3	8.0	9.1	35.0
25	74.8	ACB530-U1-075A-2	R4	23.5	8.0	10.3	53.0
30	88.0	ACB530-U1-088A-2	R4	23.5	8.0	10.3	53.0
40	114	ACB530-U1-114A-2	R4	23.5	8.0	10.3	53.0
50	143	ACB530-U1-143A-2	R6	27.6	11.9	15.8	152.0
60	178	ACB530-U1-178A-2	R6	27.6	11.9	15.8	152.0
75	221	ACB530-U1-221A-2	R6	27.6	11.9	15.8	152.0
100	248	ACB530-U1-248A-2	R6	27.6	11.9	15.8	152.0
3-phase supply voltage 380, 400, 415, 440, 460 or 480V.							
2	4.1	ACB530-U1-04A1-4	R1	13.0	4.9	8.3	14.3
3	6.9	ACB530-U1-06A9-4	R1	13.0	4.9	8.3	14.3
5	8.8	ACB530-U1-08A8-4	R1	13.0	4.9	8.3	14.3
7.5	11.9	ACB530-U1-012A-4	R1	13.0	4.9	8.3	14.3
10	15.4	ACB530-U1-015A-4	R2	16.9	4.9	8.7	19.8
15	23	ACB530-U1-023A-4	R2	16.9	4.9	8.7	19.8
20	31	ACB530-U1-031A-4	R3	19.3	8.0	9.1	35.0
25	38	ACB530-U1-038A-4	R3	19.3	8.0	9.1	35.0
30	44	ACB530-U1-044A-4	R3	19.3	8.0	9.1	35.0
40	59	ACB530-U1-059A-4	R4	23.5	8.0	10.3	53.0
50	72	ACB530-U1-072A-4	R4	23.5	8.0	10.3	53.0
60	77	ACB530-U1-078A-4	R4	23.5	8.0	10.3	53.0
75	97	ACB530-U1-097A-4	R4	23.5	8.0	10.3	53.0
100	125	ACB530-U1-125A-4	R5	23.7	10.4	11.3	75.0
125	157	ACB530-U1-157A-4	R6	27.6	11.9	15.8	152.0
150	180	ACB530-U1-180A-4	R6	27.6	11.9	15.8	152.0
200	246	ACB530-U1-246A-4	R6	27.6	11.9	15.8	152.0
250	316	ACB530-PC-316A-4	R8	83.7	31.7	25.9	794
300	368	ACB530-PC-368A-4	R8	83.7	31.7	25.9	794
350	414	ACB530-PC-414A-4	R8	83.7	31.7	25.9	794
400	486	ACB530-PC-486A-4	R8	83.7	31.7	25.9	794
3-phase supply voltage 500, 525, 550, 575, or 600V.							
1.5	2.7	ACB530-U1-02A7-6	R2	16.9	4.9	8.7	19.8
2	3.9	ACB530-U1-03A9-6	R2	16.9	4.9	8.7	19.8
3	6.1	ACB530-U1-06A1-6	R2	16.9	4.9	8.7	19.8
5	9	ACB530-U1-09A0-6	R2	16.9	4.9	8.7	19.8
7.5	11	ACB530-U1-011A-6	R2	16.9	4.9	8.7	19.8
10	17	ACB530-U1-017A-6	R2	16.9	4.9	8.7	19.8
15	22	ACB530-U1-022A-6	R3	19.3	8.0	9.1	35.0
20	27	ACB530-U1-027A-6	R3	19.3	8.0	9.1	35.0
25	32	ACB530-U1-032A-6	R4	23.5	8.0	10.3	53.0
30	41	ACB530-U1-041A-6	R4	23.5	8.0	10.3	53.0
40	52	ACB530-U1-052A-6	R4	23.5	8.0	10.3	53.0
50	62	ACB530-U1-062A-6	R4	23.5	8.0	10.3	53.0
60	77	ACB530-U1-077A-6	R6	27.6	11.9	15.8	152.0
75	99	ACB530-U1-099A-6	R6	27.6	11.9	15.8	152.0
100	125	ACB530-U1-125A-6	R6	27.6	11.9	15.8	152.0
125	144	ACB530-U1-144A-6	R6	27.6	11.9	15.8	152.0

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