

# 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.

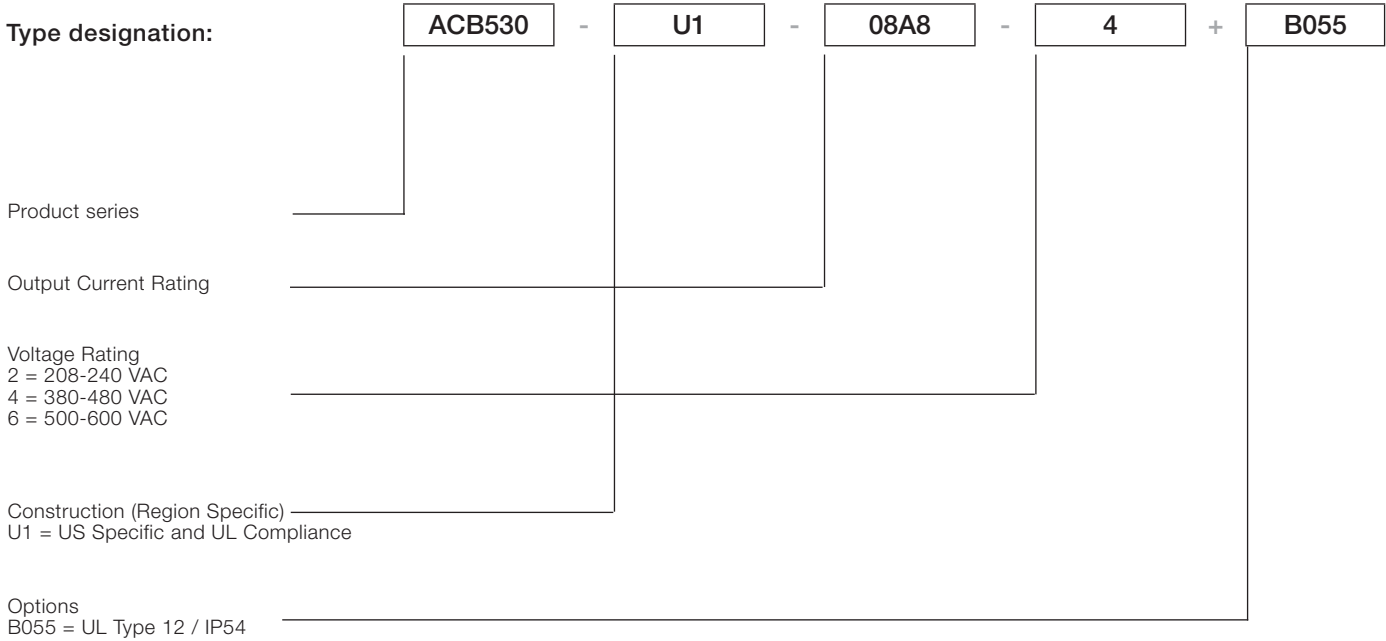
### Features

- 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

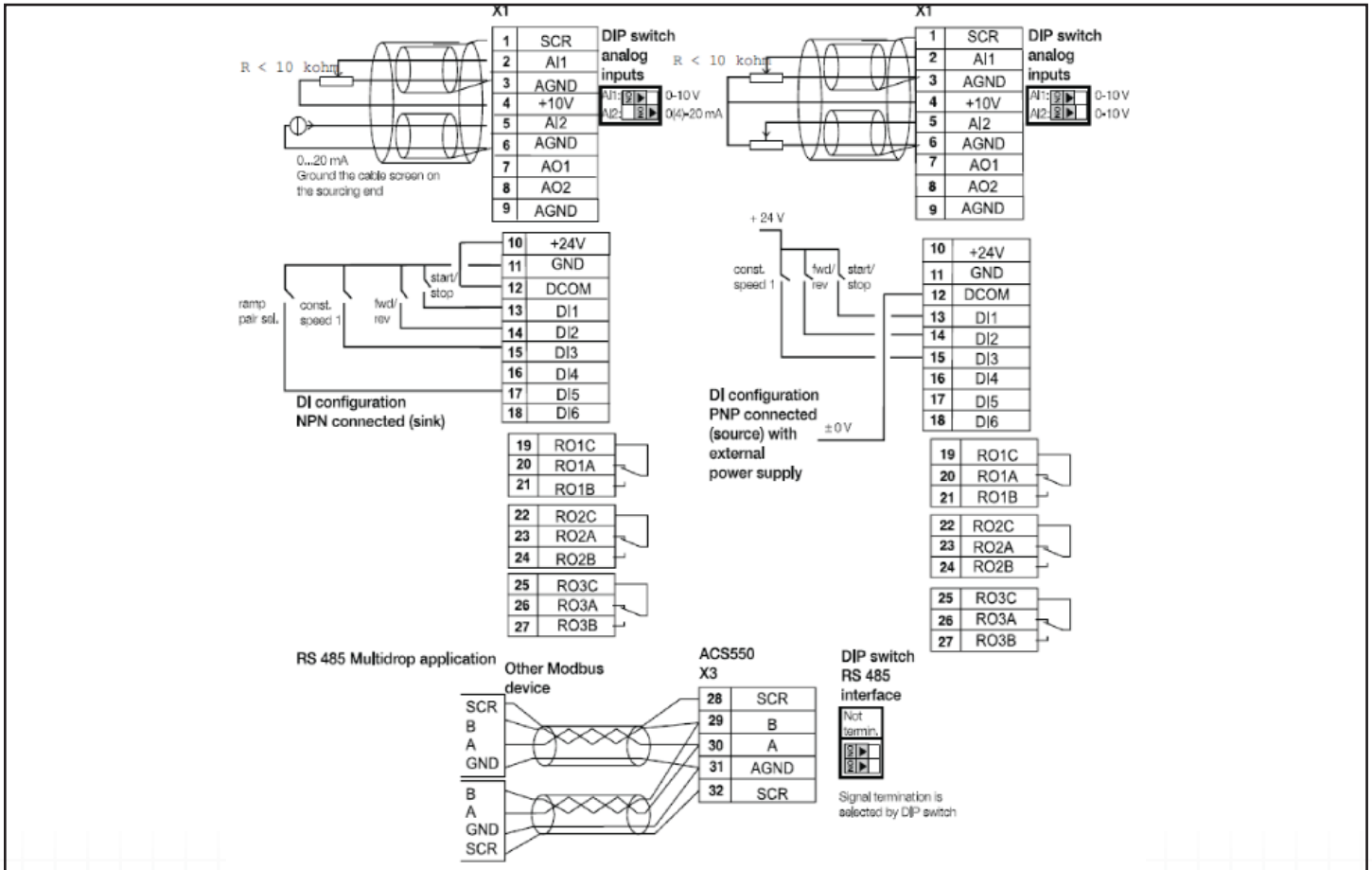
## ACB530 Catalog Number Definition

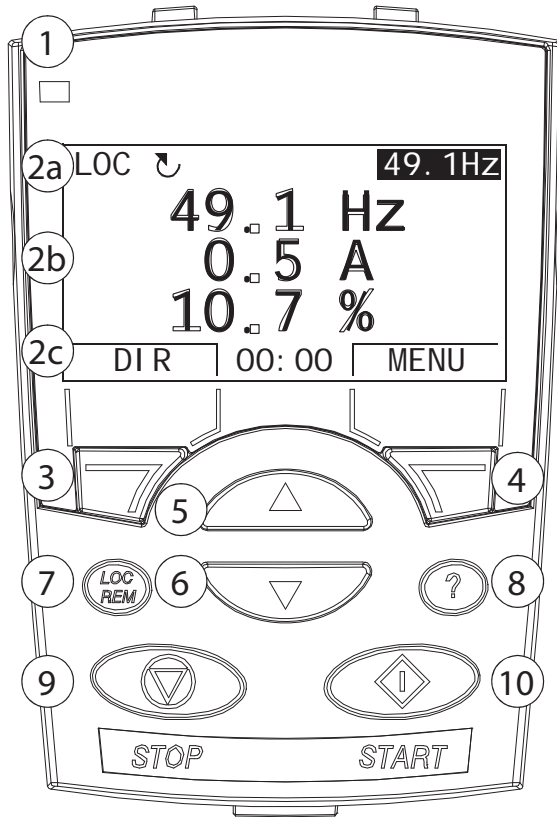


### Agency Certifications / Listings:

- 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 <sub>N</sub> Hp	I <sub>2N</sub> A			H in	W in	D in	Weight lb
<b>3-phase supply voltage 208, 230 or 240 V</b>							
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
<b>3-phase supply voltage 380, 400, 415, 440, 460 or 480V.</b>							
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
<b>3-phase supply voltage 500, 525, 550, 575, or 600V.</b>							
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

# BALDOR

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