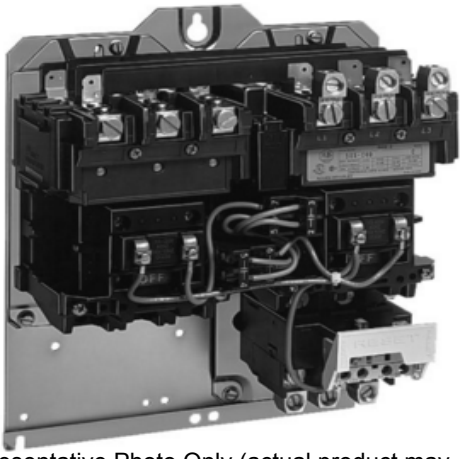
Product Details and Certifications

Cross Reference RA Part Number: 505-BOD C

Product: 505-BOD

Description: NEMA Full Voltage Reversing Starter,SIZE 1, with Eutectic Alloy Overload Relay, 115-120V 60Hz



Representative Photo Only (actual product may vary based on configuration sections)

CONTACTOR DATA

Bulletin Number	505 NEMA Full Voltage Reversing Starter
NEMA Size	NEMA 1
Enclosure Type	Open Type
Vertically Arranged Starter	No
Coil Voltage	115-120V 60Hz
Phases	3 Phases
Overload Relay	Eutectic Alloy

CERTIFICATIONS AND APPROVALS

NEMA/EEMAC
UL
CSA
ABS
USCG
IEEE
CE

For UL Certifications Directory: http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm

1

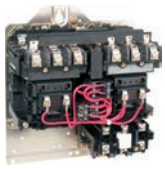
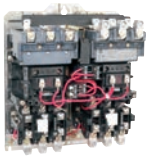
NEMA AC Contactors

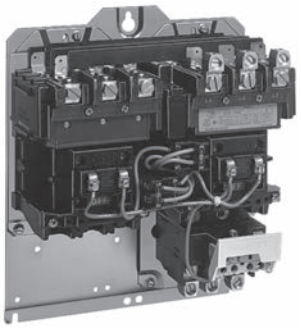
		
Bulletin	**500**	**500F**
Description	Top-wired contactor	Feed-through contactor
NEMA Size	00…9	0…5
Continuous Ampere Rating [A]	9…2250	18…270
Availability	**NEMA size 0…4, open type** Modular kits and components **NEMA size 00, 5…9, open type** Factory assembled **NEMA size 00…9, enclosed** Factory assembled	**NEMA size 0…4, open type** Modular kits and components **NEMA size 5, open type** Factory assembled **NEMA size 0…5, enclosed** Factory assembled
Enclosures (NEMA Type)	1, 3R/4/12, 4/4X, 7, and 9	—
Standards	• NEMA/EEMAC ICS2 (Industrial Controls and Systems) • UL 508 • CSA C22.2, No. 14 • ABS 4/5.115 • USCG 46 CFR 111.70 • IEEE 45	• NEMA/EEMAC ICS2 (Industrial Controls and Systems) • UL 508 • CSA C22.2, No. 14 • ABS 4/5.115 • USCG 46 CFR 111.70 • IEEE 45
Certifications	• UL Listed (File No. E3125; Guide No. NLDX) • (File No. E10314; Guide No. NPKR) • CSA Certified (LR1234) • CE Marked (Per EN 60947) • American Bureau of Shipping (ABS)	• UL Listed (File No. E3125; Guide No. NLDX) • (File No. E10314; Guide No. NPKR) • CSA Certified (LR1234) • CE Marked (Per EN 60947) • American Bureau of Shipping (ABS)
Product Selection	**Page 1-31**	**Page 1-36**

NEMA Compact AC Contactors and Starters

	
Bulletin	**300, 305, 309**
Features	• Modular line of NEMA contactors & starters • Space saving design • Electronic & conventional coils • DIN Rail mountable • Common accessories • Guarded terminals
NEMA Size	0…5
DIN Rail Mountable	✓
Certifications	cULus Listed (File No. E41850, Guide No. NLDX, NLDX7) CE Marked (per EN60947-4-1)
Product Selection	**Page 1-60**

NEMA Starters

			
Bulletin	**505**	**509**	**520**
Description	Reversing starters	Non-reversing starters	Multi-speed starters
	3-Phase 600V, 3-Pole Overload Protection		
NEMA Size	00…8	00…9	0…7
Continuous Ampere Rating	9…1215 A	9…2250 A	18…810 A
Availability	**All sizes** Factory assembled	**NEMA size 0…4, open type** Modular kits and components **NEMA size 00, 5…9, open type** Factory assembled **NEMA size 00…9, enclosed** Factory assembled	**All sizes** Factory assembled
Enclosure Type	1, 3R/4/12, 4/4X, 7, and 9	1, 3R/4/12, 4/4X, 7, and 9	1, 3R/4/12, 4/4X, 7, and 9
Standards	• NEMA/EEMAC ICS 2 (Industrial Controls and Systems) • UL 508 • CSA C22.2, No. 14 • ABS 4/5.115 • USCG 46 CFR 111.70	• NEMA/EEMAC ICS 2 (Industrial Controls and Systems) • UL 508 • CSA C22.2, No. 14 • ABS 4/5.115 • USCG 46 CFR 111.70	• NEMA/EEMAC ICS (Industrial Controls and Systems) • UL 508 • CSA C22.2, No. 14 • ABS 4/5.115
Certifications	• UL Listed (File No. E3125; Guide No. NLDX) • CSA Certified (File LR 1234) • CE Marked (per EN 60947-4-1) • American Bureau of Shipping (ABS) • Hazardous Location: UL Listed (File No. E10314), CSA Certified (File No. LR 11924)		• UL Listed (File No. E3125; Guide No. NLDX) • CSA Certified (File LR 1234) • Hazardous Location: UL Listed (File No. E10314), CSA Certified (File No. LR 11924)
Product Selection	**Page 1-39**	**Page 1-46**	**Page 1-53**



Bulletin 505
Size 2, with Solid-State Overload
Open Type without Enclosure

Bulletin 505

- NEMA sizes 00…8
- Exceptional electrical life
- Dependable coil operation
- Eutectic alloy overload relays: Class 10, 20, or 30
- Solid-state overload relays: Class 10, 15, 20, or 30
- Vertically arranged available — Bulletin 505V sizes 0…5
- Enclosure ratings — NEMA Type 1, 3R/4/12, 4/4X stainless steel, and 7 & 9 hazardous location
- 3-phase and single-phase available

Bulletin 505 reversing starters are most commonly used for full voltage starting and reversing of polyphase squirrel cage motors. Size 00…8 starters are electrically and mechanically interlocked to avoid both contactors being closed simultaneously. Bulletin 505V vertically arranged starters are available in Sizes 0…5 in the open type without enclosure construction only. Bulletin 505 reversing starters are available with Bulletin 592 eutectic alloy overload relays as standard and Bulletin 592 solid-state overloads are optional for additional flexibility in motor protection.

Table of Contents

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Standards Compliance

NEMA/EEMAC ICS 2
UL 508
CSA C22.2 No.14
ABS 4/5.115 — American Bureau of Shipping
UCSG 46 CFR 111.70
IEEE 45
EN/IEC 60947-4-1
CE Marked

Certifications

CSA Certified (LR1234)
UL Listed (File No. E3125, Guide No. NLDX)
Hazardous Location: UL Listed (File No. E10314, CSA Certified (LR11924)

Catalog Number Explanation

Example Cat. No.

505 – B O D –
a b c d

a

NEMA Size	
Code	Description
T	00
A	0
B	1
C	2
D	3
E	4
F	5
G	6
H	7
J	8

b

NEMA Enclosure Type	
Code	Type
A	Type 1
C	Type 4X (stainless steel)
H	Type 3R, 7 & 9 bolted
J	Type 3R/4/12
O	No enclosure

c

Nominal Coil Voltage		
Code	Voltage	Frequency
A	220V 240V	50 Hz 60 Hz
B	440V 480V	50 Hz 60 Hz
C	550V 600V	50 Hz 60 Hz
D	110V 120V	50 Hz 60 Hz
F	277V	60 Hz
H	200…208V	60 Hz
I	415V	50 Hz
J	24V	50/60 Hz
N	380V	50 Hz

d

Factory Installed Modifications/Options
For detailed information, see Modifications on page 1-106.

Note: All enclosed non-combination starters are supplied with external reset as standard, except for starters with E3 overload relay.

NEMA Reversing Starters

Product Selection

3-Phase • 600V AC Maximum • 60 Hz • with 3-Pole Overload Protection									
		Maximum Horsepower Rating Full Load Current Must Not Exceed "Continuous Ampere Rating"				Open Type Without Enclosure	Type 1 General Purpose Enclosure Surface Mounting	Type 3R/4/12, Rainproof, Dusttight Industrial Use Enclosure	Type 4/4X Watertight, Corrosion-Resistant Enclosures Stainless Steel
		Motor Voltage							
NEMA Size	Continuous Ampere Rating [A]	200V	230V	50 Hz 380…415V	460…575V	Cat. No.∗❄	Cat. No.∗	Cat. No.∗	Cat. No.∗‡
00	9	1.5	1.5	2	2	505-TO⊗-✪	505-TA⊗-✪	—	—
0	18	3	3	5	5	**505-AO⊗-✪**	**505-AA⊗-✪**	**505-AJ⊗-✪**	**505-AC⊗-✪**
1	27	7.5	7.5	10	10	**505-BO⊗-✪**	**505-BA⊗-✪**	**505-BJ⊗-✪**	**505-BC⊗-✪**
2	45	10	15	25	25	**505-CO⊗-✪**	**505-CA⊗-✪**	**505-CJ⊗-✪**	**505-CC⊗-✪**
3	90	25	30	50	50	**505-DO⊗-✪**	505-DA⊗-✪	505-DJ⊗-✪	**505-DC⊗-✪**
4	135	40	50	75	100	505-EO⊗-✪	**505-EA⊗-✪**	**505-EJ⊗-✪**	**505-EC⊗-✪**
5	270	75	100	150	200	**505-FO⊗-✪**	**505-FA⊗-✪**	**505-FJ⊗-✪**	**505-FC⊗-✪**
6§♣	540	150	200	300	400	505-GO⊗-✪	505-GA⊗-✪	505-GJ⊗-✪	505-GC⊗-✪
7§	810	—	300	600	600	505-HO⊗-✪	505-HA⊗-✪	505-HJ⊗-✪	505-HC⊗-✪
8§	1215	—	450	900	900	505-JO⊗-✪	505-JA⊗-✪	505-JJ⊗-✪	—

⊗ Coil Voltage Code

The cat. no. as listed is incomplete. Select a coil voltage code from the table below to complete the cat. no. Example: **Cat. No. 505-AA⊗-✪** becomes **Cat. No. 505-AAD-✪**. For other voltages, please consult your local Rockwell Automation sales office or Allen-Bradley distributor.

[V]		24➢	110V	120	200… 208	220	240	277	380	415	440	480	550	600
Common Control	AC, 50 Hz	—	—	—	—	A	—	—	N	I	B	—	C	—
	AC, 60 Hz	—	—	—	**H**	—	**A**	—	—	—	—	**B**	—	**C**
Transformer Control⌘	AC, 60 Hz	—	—	—	**H**	—	**A**	—	—	—	—	**B**	—	**C**
Separate Control (without transformer)	AC, 50 Hz		D	—	—	—	—	—	—	—	—	—	—	—
	AC, 60 Hz	J	—	**D**	—	—	—	F	—	—	—	—	—	—

✪ Overload Relay Code

Use to order solid-state overload relay. Do not use when ordering eutectic alloy overload relay. The cat. no. as listed is incomplete. Select an overload relay code from page 1-159 to complete the cat. no. Example: **Cat. No. 505-AAD-✪** becomes **Cat. No. 505-AAD-A2E**.

∗ **Omission of Overload Relays —** Bulletin 505 reversing starters are available without overload protection. Cat. nos. for all starters without overload protection will be the listed cat. no. with the No. **23** added. Example: **Cat. No. 505-AOD-✪** would be **Cat. No. 505-AOD-23**.

❄ **Vertically Arranged —** Full voltage reversing starters, sizes 0…5, open type without enclosure can be supplied in a vertically arranged construction. To order, change the bulletin number in the listed cat. no. from **505** to **505V**. Example: **Cat. No. 505V-AOD-A2E** with solid-state overload relay and **Cat. No. 505V-AOD** with eutectic alloy overload relay.

‡ Fiberglass reinforced polyester hubs are included with each starter.

§ Does not include line and load lugs. See page 1-118 for kits.

♣ Price includes control circuit transformer. This applies to NEMA size 6 enclosed, only.

➢ Only available on sizes 00…5. When using 24V coils on size 4 or 5, an interposing relay may be required. See coil VA values on page 1-129.

⌘ When selecting a factory installed control circuit transformer (see Modifications on page 1-106), use the common control coil voltage code to denote the transformer primary voltage. The starter coil and transformer secondary voltage will both be 120V by default. Example: **Cat. No. 505-BAB-6P** will have a transformer with a 480V primary/120V secondary voltage and a 120V starter coil. If a starter coil voltage other than 120V is desired, a second coil voltage code must be added to denote the coil/transformer secondary voltage. Example: **Cat. No. 505-BABJ-6P** will have a transformer with a 480V primary/24V secondary and a 24V starter coil.