

IEC Combination Starters

Fusible and Non-Fusible Disconnect Type

Bulletin 112



Cat. No. 112-C09FBA1F-1-7
IP66 (Type 3,4,12) Metal Enclosure with Hinged Cover

- Compact Design
- Can Be Modified in the Field
- Selection of Enclosures IP42 (Type 1) and IP66 (Type 3/4/12)
- Bimetallic Class 10 Overload Relays
- Solid-State Overload Relays
- Fusible or Non-Fusible Versions
- Handle with Defeater Mechanism
- Padlockable Handle with up to Three Padlocks

TABLE OF CONTENTS

Description	Page	Description	Page
Product Selection	3-75	Modifications	3-100
Accessories	3-89	Approximate Dimensions	3-105 and 3-108

Description

Bulletin 112 is the first true IEC combination starter on the market, in that the enclosure and components have been designed to specific IEC standard requirements. The Bulletin 112 combination starter consists of a Bulletin 100 Contactor, Bulletin 193 bimetallic (Class 10) or solid-state overload relay and Bulletin 194R fused disconnect switch installed in a common enclosure. These full-voltage combination starters are designed to provide the disconnecting means, short-circuit protection (with suitable fuses), control and overload protection for three-phase squirrel-cage motors. All starters include a normally open auxiliary contact as standard.

Conformity to Standards:

IEC 947
VDE 0660
CSA 22.2
UL 508

Approvals:

cUL US

A-B EXPRESS Fast Shipment Program

- Fast shipment of Bulletin 112 IEC Products to satisfy your unexpected demands.
- Make your selections from any of the Cat. Nos. printed in blue and identify your order as



Your order must include:

- Cat. No. of the combination starter selected.
- Coil Voltage Code.
- Overload Relay Suffix Code.
- If required, factory-installed modifications suffix code.
- If required, Cat. No. of any accessories.

Fusible Disconnect Type
AC Operated



Fast Shipment Program Cat. Nos. are printed in blue.

Max I _e [A]	Ratings (AC3, AC4)				Fuse Clip Rating Amperes/ UL Class	IP42 (Type 1) General Purpose Sheet Metal Enclosure (Hinged Cover)	IP66 (Type 3/4/12) Watertight, Dusttight Sheet Metal Enclosure (Hinged Cover)
	HP					Cat. No.	Cat. No.
	3 ∅						
	200V	230V	460V	575V			
9	2	2	5	7-1/2	30A/Class CC	112-C09A	112-C09F
12	3	3	7-1/2	10	30A/Class J	112-C12A	112-C12F
23	5	7-1/2	15	15	30A/Class J	112-C23A	112-C23F
30	7-1/2	10	20	25	60A/Class J	112-C30A	112-C30F
43	10	15	30	30	60A/Class J	112-C43A	112-C43F
60	15	20	40	50	100A/Class J	112-C60A	112-C60F
72	20	25	50	60	100A/Class J	112-C72A	112-C72F
110	30	40	75	100	200A/Class J	112-B110A	112-B110F
180	50	60	125	150	200A/Class J	112-A180A	112-A180F
180	60	—	150	—	400A/Class J	112-B180A	112-B180F
250	75	100	200	250	400A/Class J	112-B250A	112-B250F
300	100	100	250	300	400A/Class J	112-B300A	112-B300F

⊗ 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. 112-C09A** becomes **Cat. No. 112-C09AB**.

Voltage		208V	230...240V	460...480V	575...600V
Common Control ❶ Coil Voltage Code	60 Hz	H	A	B	C
120V — Separate Control (without transformer) Coil Voltage Code		D	D	D	D

⊗ Overload Relay Code

The Cat. No. as listed is incomplete. Select an overload relay code from page 3-87 or 3-88 to complete the Cat. No.

- ❶ When selecting a factory-installed control circuit transformer (see Modifications page 3-98), 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. 112-C09FB-6P** will have a transformer with a 480V primary/120V secondary 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. 112-C09FBJ-6P** will have a transformer with a 480V primary/24V secondary and a 24V starter coil

Accessories — Page 3-89
 Modifications — Page 3-100
 Approximate Dimensions — Page 3-105 and 3-108

IEC Combination Starters

Product Selection, Continued

Non-Fusible Disconnect Type



Fast Shipment Program Cat. Nos. are printed in blue.

AC Operated

Max I _e [A]	Ratings (AC3, AC4)				IP42 (Type 1) General Purpose Sheet Metal Enclosure (Hinged Cover)	IP66 (Type 3/4/12) Watertight, Dusttight Sheet Metal Enclosure (Hinged Cover)
	HP					
	3 ∅					
	200V	230V	460V	575V		
9	2	2	5	7-1/2	112-C09A [Ⓢ] -DNF	112-C09F [Ⓢ] -DNF
12	3	3	7-1/2	10	112-C12A [Ⓢ] -DNF	112-C12F [Ⓢ] -DNF
23	5	7-1/2	15	15	112-C23A [Ⓢ] -DNF	112-C23F [Ⓢ] -DNF
30	7-1/2	10	20	25	112-C30A [Ⓢ] -DNF	112-C30F [Ⓢ] -DNF
43	10	15	30	30	112-C43A [Ⓢ] -DNF	112-C43F [Ⓢ] -DNF
60	15	20	40	50	112-C60A [Ⓢ] -DNF	112-C60F [Ⓢ] -DNF
72	20	25	50	60	112-C72A [Ⓢ] -DNF	112-C72F [Ⓢ] -DNF
110	30	40	75	100	112-B110A [Ⓢ] -DNF	112-B110F [Ⓢ] -DNF
180	50	60	125	150	112-A180A [Ⓢ] -DNF	112-A180F [Ⓢ] -DNF
180	60	—	150	—	112-B180A [Ⓢ] -DNF	112-B180F [Ⓢ] -DNF
250	75	100	200	250	112-B250A [Ⓢ] -DNF	112-B250F [Ⓢ] -DNF
300	100	100	250	300	112-B300A [Ⓢ] -DNF	112-B300F [Ⓢ] -DNF

⊗ 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. 112-C09A[Ⓢ]-DNF becomes **Cat. No. 112-C09AB[Ⓢ]-DNF**.

Voltage		208V	230...240V	460...480V	575...600V
Common Control ^❶ Coil Voltage Code	60 Hz	H	A	B	C
120V — Separate Control (without transformer) Coil Voltage Code		AD	AD	CD	CD

⊗ Overload Relay Code

The Cat. No. as listed is incomplete. Select an overload relay code from page 3-87 or 3-88 to complete the Cat. No.

- ❶ When selecting a factory-installed control circuit transformer (see Modifications page 3-98), 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. 112-C09FB[Ⓢ]-DNF-6P will have a transformer with a 480V primary/120V secondary 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. 112-C09FBJ[Ⓢ]-DNF-6P will have a transformer with a 480V primary/24V secondary and a 24V starter coil.

Accessories — Page 3-89

Modifications — Page 3-100

Approximate Dimensions — Page 3-105 and 3-108