

PRODUCT PROFILE

PLASTIC ENCLOSURES BULLETIN 198E

A new line of Allen-Bradley direct-on-line (DOL) Starter Enclosures is designed to save installation time and to expand flexibility with the many configurations available.

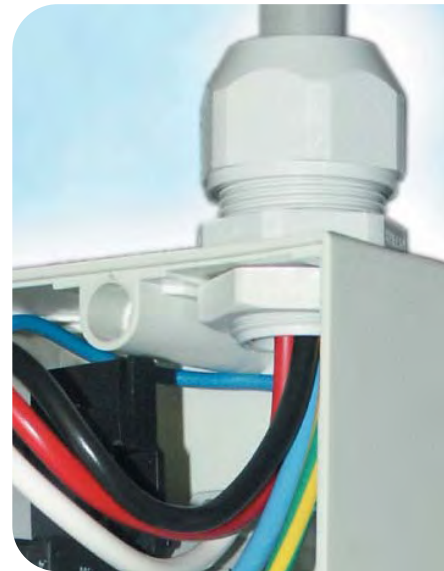
The new Bulletin 198E enclosures are available for in- and outdoor environments and specifically suited for applications like material handling, single drive OEM machinery, conveyor systems, fans and refrigeration. Designed for an easy and fast installation of the starter components, they help to bring down costly installation time to a minimum.

The new enclosures are suited for Bulletin 100-C09...C23 contactors in combination with Bulletin 193-E1 Plus electronic overload relays or with Bulletin 193-CT thermal overload relays for starting motors up to 11 kW/400 V and 10 HP/460 V.


ADVANTAGES

- Extremely reliable protection against dust, dirt and humidity
- IP66 and UL 4, 4X and 12 K
- Available in two materials:
 - High-grade ABS for economic solutions, mainly for indoor use
 - Heavy-duty polycarbonate for harsh environmental conditions in outdoor and indoor usage
- Knockouts for 20 mm and 25 mm metric cable glands
- Sealable cover screws
- No corrosive parts
- Good access to terminals and moulded connection kits make installation easy
- Meets IEC, CE, UL and cUL Standards and Approvals


THE RELIABLE PROTECTION FOR DOL STARTERS







Enclosures Bulletin 198E

	<p>Plastic Enclosures for DOL Starters</p> <ul style="list-style-type: none"> For Bulletin 100-C09...C23 contactors with: <ul style="list-style-type: none"> Bulletin 193-E1 Plus electronic overload relays Bulletin 193-CT thermal overload relays The 198E plastic enclosures provide reliable protection against dust, dirt and humidity. Available in two different materials: <ul style="list-style-type: none"> ABS V-0: The economic solution, for indoor use PC V-0: The extra robust solution for harsh environmental conditions, UL approved for outdoor and indoor use Common Features: <ul style="list-style-type: none"> Knockouts for 20 mm and 25 mm metric cable glands Sealable cover screws No corrosive parts 	<p>Standards Compliance</p> <p>EN / IEC 62208 EN / IEC 60947-4-1 UL 50 UL 508 CSA 22.2, No. 14</p> <p>Approvals</p> <p>CE Marked cULus Listed</p>
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Product Selection

	Description	Material	For Use With	Pkg. Quantity	Cat. No.
Plastic Enclosures for DOL Starters Protection Class IP66					
With blue RESET push button		ABS V-0	100-C09...C23 + 193-ED, -EE, -CT	1	198E-A0S1
With green START and raised red STOP/RESET push buttons, START contact kit included.					198E-A0S4
Plastic Enclosures for DOL Starters Protection Class IP66 UL Type 12K / 4 / 4X Outdoor					
With blue RESET push button		PC V-0	100-C09...C23 + 193-ED, -EE, -CT	1	198E-C0S1
With green START and raised red STOP/RESET push buttons, START contact kit included.					198E-C0S4

Accessories

	Description	For Use With	Pkg. Quantity	Cat. No.	
	Pushbutton Latch For maintained contact control, enclosures with START/STOP push buttons.	198E-A0S4, 198E-C0S4	1	198E-PLA	
	Neutral Terminal	198E-A..., 198E-C...	1	198E-PNT	
	START Contact Kit Included in the enclosure, as spare part only.	198E-A0S4, 198E-C0S4	1	198E-PCK	
	Pilot Lights Length of connection leads 180 mm, includes lamp, protection class IP54. *	Green 120V 240V 400V 415V Red 120V 240V 400V 415V Yellow 120V 240V 400V 415V White 120V 240V 400V 415V	198E-A..., 198E-C..., 140A-C-E...	1 1 1 1	140-LG120 140-LG240 140-LG400 140-LG415 140-LR120 140-LR240 140-LR400 140-LR415 140-LY120 140-LY240 140-LY400 140-LY415 140-LW120 140-LW240 140-LW400 140-LW415

* For protection class IP66 or UL Type 12K/4/4X applications, use 800F pilot lights, see catalog 800F-SG001_-EN-P

Component Selection for Enclosed Starters

3-phase Motors

Components		Current Range		230V 50 Hz	400V 50 Hz	500V 50 Hz	690V 50 Hz	200V 60 Hz	230V 60 Hz	460V 60 Hz	575V 60 Hz
Contactor	Overload Relay *	Min. [A]	Max. [A]	[kW]	[kW]	[kW]	[kW]	[HP]	[HP]	[HP]	[HP]
100-C09®10	193-ED1AB	0.1	0.5	0.06...0.09	0.06...0.12	0.06...0.12	0.06...0.18	—	—	—	—
100-C09®10	193-ED1BB	0.2	1.0	0.12	0.18...0.25	0.18...0.37	0.25...0.55	—	—	—	1/2
100-C09®10	193-ED1CB	1.0	5.0	0.18...1.1	0.37...1.5	0.55...2.2	0.75...3	1/2...3/4	1/2...1	1/2...2	3/4...3
100-C09®10	193-ED1DB	3.2	16	1.5...3	2.2...4	3.0...4	4	1...2	1 1/2...2	3...5	5...7 1/2
100-C12®10	193-ED1DB	3.2	16	4	5.5	5.5	5.5	3	3	7 1/2	10
100-C16®10	193-ED1DB	3.2	16		7.5	7.5	7.5	3	3	7 1/2	10
100-C16®10	193-ED1EB	5.7	27	5.5				5	5	10	15
100-C23®10	193-ED1EB	5.7	27	7.5	10...11	10...13	10	5	7 1/2	15	15
100-C09®10	193-CT-A15	0.1	0.15				0.06	—	—	—	—
100-C09®10	193-CT-A23	0.15	0.23			0.06	0.09	—	—	—	—
100-C09®10	193-CT-A35	0.23	0.35		0.06...0.09	0.09...0.12	0.12	—	—	—	—
100-C09®10	193-CT-A55	0.35	0.55	0.06	0.12	0.18	0.18...0.25	—	—	—	—
100-C09®10	193-CT-A80	0.55	0.8	0.09...0.12	0.18	0.25	0.37	—	—	—	—
100-C09®10	193-CT-B12	0.8	1.2	0.18	0.25...0.37	0.37	0.55...0.75	—	—	1/2	1/2
100-C09®10	193-CT-B18	1.2	1.8	0.25...0.37	0.55	0.55...0.75	1.1	—	—	3/4	3/4...1
100-C09®10	193-CT-B27	1.8	2.7	0.55	0.75	1.1	1.5	1/2	1/2	1	1 1/2...2
100-C09®10	193-CT-B40	2.7	4.0	0.75	1.1...1.5	1.5	2.2...3	3/4	3/4	1 1/2...2	2...3
100-C09®10	193-CT-B60	4.0	6.0	1.1	2.2	2.2...3	4	1	1	3	
100-C09®10	193-CT-B90	6.0	9.0	1.5...2.2	3...4	4		1 1/2...2	1 1/2...2	5	5...7 1/2
100-C09®10	193-CT-C12	9.0	12.5	3							7 1/2
100-C12®10	193-CT-B90	6.0	9.0				5.5	2	2	5	7 1/2
100-C12®10	193-CT-C12	9.0	12.5		5.5	5.5		3	3	7 1/2	10
100-C16®10	193-CT-B90	6.0	9.0				7.5				
100-C16®10	193-CT-C12	9.0	12.5			7.5		3	3	7 1/2	10
100-C16®10	193-CT-C17	12.5	16.5	4	7.5			5	5	10	15
100-C23®10	193-CT-C12	9.0	12.5				10				
100-C23®10	193-CT-C17	12.5	16.5			10...11		5	5	10	15

1-phase Motors

Components		Current Range		230V 50 Hz	115V 60 Hz	200V 60 Hz	230V 60 Hz
Contactor	Overload Relay *	Min. [A]	Max. [A]	[kW]	[HP]	[HP]	[HP]
100-C09®10	193S-EEPB	1.0	5.0	0.12...0.55	1/10...1/6	1/6...1/3	1/6...1/3
100-C09®10	193S-EERB	3.2	16	0.75...1.5	1/4...1/2	1/2...1 1/2	1/2...1 1/2
100-C12®10	193S-EERB	3.2	16	2.2	1/2	2	2
100-C16®10	193S-EERB	3.2	16		3/4	2	2
100-C16®10	193S-EESB	5.4	27	3.0	1	2	3
100-C23®10	193S-EESB	5.4	27	4.0	1 1/2...2	3	3
100-C09®10	193-CT-A15	0.1	0.15	—	—	—	—
100-C09®10	193-CT-A23	0.15	0.23	—	—	—	—
100-C09®10	193-CT-A35	0.23	0.35	—	—	—	—
100-C09®10	193-CT-A55	0.35	0.55	—	—	—	—
100-C09®10	193-CT-A80	0.55	0.8	—	—	—	—
100-C09®10	193-CT-B12	0.8	1.2	0.12	—	—	—
100-C09®10	193-CT-B18	1.2	1.8	0.18	—	—	—
100-C09®10	193-CT-B27	1.8	2.7	0.25	—	1/6	1/6
100-C09®10	193-CT-B40	2.7	4.0	0.37	1/10	1/4	1/4
100-C09®10	193-CT-B40	2.7	4.0	0.55	1/8	1/3	1/3
100-C09®10	193-CT-B60	4.0	6.0	0.55	1/4	1/3	1/2
100-C09®10	193-CT-B60	4.0	6.0	0.75		1/2	
100-C09®10	193-CT-B90	6.0	9.0	1.1	1/3	3/4	3/4
100-C09®10	193-CT-B90	6.0	9.0				1
100-C09®10	193-CT-C12	9.0	12.5	1.5	1/2	1...1 1/2	1 1/2
100-C12®10	193-CT-C12	9.0	12.5		1/2	1 1/2	2
100-C12®10	193-CT-C17	12.5	16.5	2.2	3/4	2	3
100-C16®10	193-CT-C17	12.5	16.5		1		

⊗ 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: 110V, 50/60 Hz: **Cat. No. 100-C09®10** becomes **Cat. No.100-C09KD22**.

[V]	110	120	208-240	230	240	400	480
50/60 Hz	KD			KF		KN	
60 Hz		D	L		A		B

For other AC voltages, see catalog A11_ or consult your local sales office.

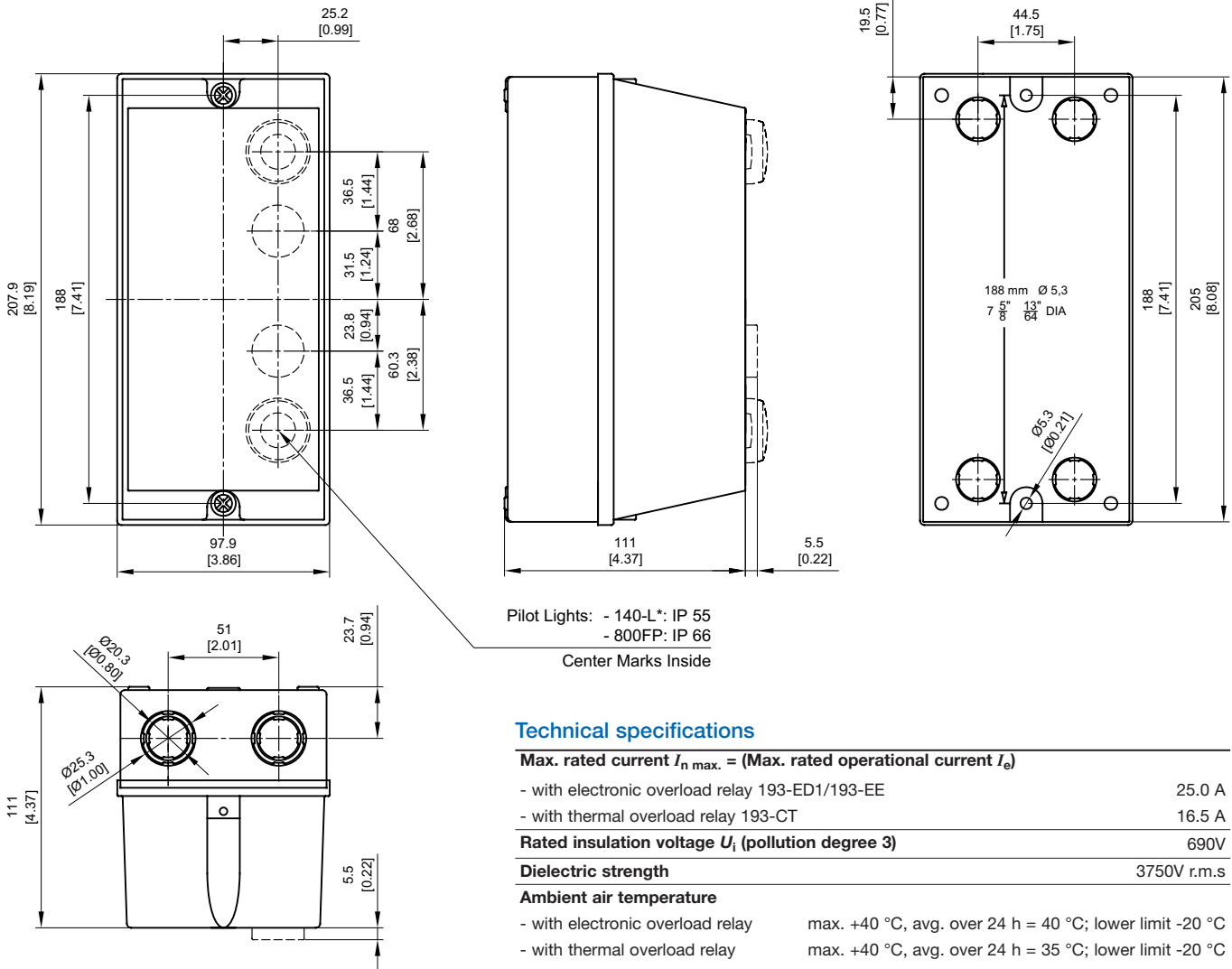
* Overload Relays

193-ED...: Electronic overload relays (193-EE... can be used as well).
193S-EE...: Electronic overload relays specially for single-phase motors.
 Max. environmental temperature 40 °C (outside the enclosure)

193-CT...: Thermal overload relays.
 Max. environmental temperature 40 °C (outside the enclosure)

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Approximate Dimensions



Technical specifications

Max. rated current $I_{n \max.}$ = (Max. rated operational current I_e)

- with electronic overload relay 193-ED1/193-EE	25.0 A
- with thermal overload relay 193-CT	16.5 A

Rated insulation voltage U_i (pollution degree 3) 690V

Dielectric strength 3750V r.m.s

Ambient air temperature

- with electronic overload relay	max. +40 °C, avg. over 24 h = 40 °C; lower limit -20 °C
- with thermal overload relay	max. +40 °C, avg. over 24 h = 35 °C; lower limit -20 °C
- storage	-55...+60 °C

Atmospheric conditions 95 % RH at max. +40 °C

Installation altitude up to 2000 m above sea level

Degree of protection according to IEC 60947-1 IP66

- against external mechanical impacts IK07

Mechanical lifetime

- with START/STOP push buttons, START/STOP operations >100000

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