

DEFINITE PURPOSE CONTACTORS

series
280
non-reversing

series
290
reversing

SERIES 280 & 290 PRODUCT PROFILE

c3controls **Series 280 and Series 290 Definite Purpose Contactors** are designed to meet your power switching application, right down to the number of power poles. Commonly used in the HVAC industry, definite purpose contactors can help you save money and a premium panel space. Just look and see what our new line has to offer!



DELIVERING SUPERIOR PRODUCT QUALITY AND MANUFACTURING EXCELLENCE

✓ Proven	Our Series 280 and 290 Definite Purpose Contactors are UL Recognized, meeting essential standards requirements. 
✓ Compact Size	Reduced panel area for lower installed costs. Maximum three (3) frame sizes per pole for devices rated from 20A to 90A.
✓ Lower Cost	Definite purpose contactors are a lower cost alternative when compared to 3-pole standard contactors.
✓ Flexibility	Available in multiple pole configurations, up to 3 to meet your application needs.
✓ Easy to Install	Panel-mountable with four screws, one in each corner, for fast and simple installation.
✓ Visible Certifications	Our product certifications and electrical ratings are clearly marked on the outside of the device for easy reference during installation.
✓ Environmentally Friendly	Environmentally friendly contacts are cadmium free and non-metallic materials are asbestos, halogen, and cadmium free. All c3controls products are compliant to the RoHS directives.
✓ Added Safety	The durable, impact-resistant Class F-type contactor frame is insulated to guard against physical or electrical damage.
✓ Limited Lifetime Warranty*	Every product is backed by our limited lifetime warranty—unmatched in the industry—bringing you quality components that perform in the most demanding applications.
✓ Guaranteed Availability*	Any order for standard catalog items received by 6:00pm ET is guaranteed to ship same-day. NOTE: Definite Purpose Contactors are not available for guaranteed same-day shipping.
✓ Advantage Pricing	Our approach to product development, manufacturing, and focus on servicing the OEM and Electrical Equipment Builder reduces cost. The result—the best value in the industry.

*See c3controls Terms & Conditions

UNIQUE FEATURES

Multiple Pole Configurations

- With 1-, 2-, and 3-pole configurations available, a more accurate contactor can now be chosen, leading to cost savings and a smaller dimensional footprint compared to a 3-pole only contactor.

Single Pole Contactor with Shunt

- Single pole contactors include a shunt for termination and feed-through of Neutral line.

Added Safety

- The durable, impact-resistant Class F-type contactor frame is insulated to guard against physical and electrical damage.

Integrated Mechanical Interlock

- Series 290 Reversing Contactors include an Integrated Mechanical Interlock to avoid simultaneous switching of both the frames.

Ease of Connection

- Quick connect and box lug wire terminals will help reduce your installation costs and enhance the features and performance of your equipment.

Quick Identification

- Clear markings and visible labels ensure quick identification of the product, simplifying troubleshooting in panels with many devices.

SPECIFICATIONS

		1-, 2- & 3-POLE AND 3 + 3-POLE, DUAL FRAME												2- & 3-POLE																	
UNITS		20A			25A			30A			40A			50A			60A			75A			90A								
KEY SPECIFICATIONS																															
Full Load Amps (FLA)																															
240/277V AC		A	20		25		30		40		50		60		75		90														
480V AC		A	20		25		30		40		50		60		75		90														
600V AC		A	20		25		30		40		50		60		75		90														
Resistive Load Amps		A	20		25		30		40		65		75		90		120														
Locked Rotor Amps																															
240/277V AC		A	120		150		180		240		300		360		450		540														
480V AC		A	100		125		150		200		250		300		375		450														
600V AC		A	80		100		120		160		200		240		300		360														
Power Pole Wire Terminals (for all Line and Load Terminals)		Phillips/Slotted/Socket Screw												Box Lug with Hex Drive Box Lug Screws																	
Quick Connects per Terminal																															
Coil Terminals (+/-)		Blades																													
Power Poles		Blades																													
		2/2 4 (for 1- & 2-Pole devices) and 2 (for 3- & 3+3 Pole devices)																													
		1-POLE						2-POLE						3-POLE						2- & 3-POLE											
UNITS		Up to 40 FLA						Up to 40 FLA						50A & 60A						75A & 90A											
COIL CHARACTERISTICS																															
Nominal Coil Voltage		V	24	24	120	208/240	277	24	120	208/240	277	24	120	208/240	277	24	120	208/240	277	24	120	208/240	277	24	120	208/240	277				
Maximum Pickup Voltage		V	18	88	177	221	18	88	177	221	18	88	177	220	18	88	177	220	18	93	177	235	18	88	177	220					
Drop-Out Voltage Range		V	6-15	20-70	40-140	50-165	6-15	20-70	40-140	50-165	6-15	20-70	40-140	65-185	6-15	20-70	40-140	65-185	6-15	20-70	40-135	50-180	6-15	20-70	40-110	65-185					
NOMINAL INRUSH																															
VA @ 50Hz			31		35		31		22		65		65		140		285														
VA @ 60Hz			28		32		28		20		60		60		132		240														
NOMINAL SEALED																															
VA @ 50Hz			6		7		6		5.5		7.5		7.5		20		42														
VA @ 60Hz			5		6		5		4.5		6		6		14		27														
Nominal Resistance		Ohms	18	420	1800	2500	11	237	1000	1600	7	180	720	900	7	180	720	900	2.3	53	180	280	0.85	15.6	63.5	85					
Nominal Coil Voltage		V	30	132	264	300	30	132	264	300	30	132	264	300	30	132	264	300	30	132	264	300	30	132	264	300					
OTHER CHARACTERISTICS																															
Line & Load Terminals		#10-32 Screw						Box Lug						#10-32 Screw						Box Lug											
Wire Size (Min.-Max.)		AWG 16-8*						14-4 Cu/Al						16-8*						14-4 Cu/Al						14-1 Cu/Al					
Tightening Torque (Recommended)		Lb-in. 25						40						25						40						50					
Insulation System		°C 130 (Class B)																													
Permissible Ambient Temperature		°C -40 to 65																													
Altitude		m 2000																													
Ingress Protection		IP 20																													
ROHS COMPLIANCE For RoHS compliance documentation by product, refer to www.c3controls.com .																															

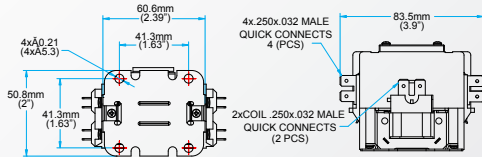
*Stranding must be split for #8 wire

For complete ratings and detailed specifications refer to www.c3controls.com.

DIMENSIONS

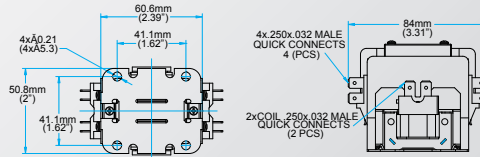
1 Pole Non-Reversing

280-D20N1N, 280-D25N1N & 280-D30N1N (20A - 30A)



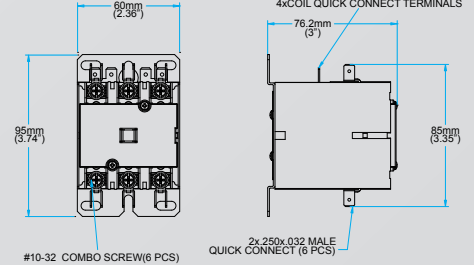
2 Pole Non-Reversing

280-D20N2, 280-D25N2 & 280-D30N2 (20A - 30A)



3 Pole Non-Reversing

280-D20N3, 280-D25N3 & 280-D30N3 (20A - 30A)



CERTIFICATIONS

Conformity to Standards:

UL 508
CSA C22.2 No. 14-10

Certifications:

UL File #: E236197 (Guide NLDX2, NLDX8)



Visit www.c3controls.com to download product certifications.

