

# Product Details and Certifications

Cross Reference RA Part Number: PN-23237

Product: **100S-D860ED22C**

Description: 100S-D Safety Contactor, IEC 860A, 110-130V AC/DC, 50/60Hz  
Electronic Coil with Electronic Interface, 2 N.O. - 2 N.C.



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

## CONTACTOR DATA

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Bulletin Number	100S-D IEC Safety Contactor
Current Rating	860A
Coil Voltage	110-130V AC/DC 50Hz/60Hz
Number of Poles	3 Poles
Coil Type	Electronic Coil with Electronic Interface
Auxiliary Contact Configuration	2 N.O. - 2 N.C.

## CERTIFICATIONS AND APPROVALS

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

Safety Contactors



Bulletin	100S-C/104S-C	<b>100S-D</b>
Screw Terminals	✓	Thru-hole Threaded (630...860 A)
Max. Current $I_e$	97 A	860 A
Current Rating	9...97 A	115...860 A
Features	<ul style="list-style-type: none"> <li>Positively guided/mechanically linked auxiliary contacts</li> <li>Front-mounted auxiliary contacts:                             <ul style="list-style-type: none"> <li>Permanently fixed</li> <li>Protective cover to prevent manual operation</li> <li>Red contact housing for easy identification</li> <li>Incorporates IEC 947-5-1 "Mechanically Linked" symbol</li> <li>Optional gold-plated bifurcated versions</li> </ul> </li> <li>AC and DC operating coils</li> <li>SUVA third-party certification</li> </ul>	<ul style="list-style-type: none"> <li>Mirror contact performance on auxiliary contacts, which are required in feedback circuit for modern safety applications.</li> <li>The N.C. auxiliary contacts will not change state when a power contact welds.</li> <li>SUVA third-party certification</li> <li>AC and DC operating coils</li> <li>"Mirror Contact" symbol</li> </ul>
Contacts	3 main poles with N.C. mechanically linked feedback contacts	3 main poles with N.C. mechanically linked feedback contacts
Coil Voltages	AC = 12...600V, 50/60Hz DC = 12...250V	<p><b>Conventional Coils</b>  <b>Cat. Nos. 100S-D115...D180</b>                      AC: 24...550V, 50 Hz; 24...600V, 60Hz; 100...277V, 50/60Hz                      DC: 24...250V</p> <p><b>Electronic Coils</b>  <b>Cat. Nos. 100S-D115...D300</b>                      AC: 24...500V, 50/60 Hz                      DC: 24...255V</p> <p><b>Cat. Nos. 100S-D420</b>                      AC: 42...500V 50/60 Hz                      DC: 48...255V</p> <p><b>Cat. Nos. 100S-D630...D860</b>                      AC: 100...600V, 50/60 Hz                      DC: 110...255V</p>
Optional Accessories	<ul style="list-style-type: none"> <li>Side-mount auxiliary contacts</li> <li>Surge suppressors</li> <li>Electronic timers</li> <li>Mechanical interlocks</li> </ul>	<ul style="list-style-type: none"> <li>Side-mount auxiliary contacts</li> <li>Surge suppressors</li> <li>IP20 terminal blocks</li> <li>Terminal shields</li> <li>Terminal covers</li> <li>Connecting components</li> <li>Terminal lugs</li> <li>Mechanical/electrical interlocks</li> </ul>
Standards Compliance	EN/IEC 60947-4 IEC 60947-5-1 Annex L — Mechanically Linked Contacts IEC 60947-4-1 Annex H — Mirror Contacts UL 508 CSA C22.2 No. 14 EN50205	EN/IEC 60947-4 IEC 60947-4-1, Annex H — Mirror Contacts IEC 60947-4-1/A1: 2002-09, Annex F UL 508 CSA C22.2, No. 14
Certifications	<ul style="list-style-type: none"> <li>cULus Listed (File No. E3125; Guide NLDX, NLDX7)</li> <li>SUVA Third-Party Certified</li> <li>CE Marked</li> </ul>	<ul style="list-style-type: none"> <li>cULus Listed (File No. E3125; Guide No. NLDX, NLDX7)</li> <li>SUVA Third-Party Certified</li> <li>CE Marked</li> <li>CCC (115...180 A - conventional coil; 140...420 A - electronic coil)</li> </ul>
Product Selection	Page 2-134	Page 2-151



**Bulletin 100S-D — Safety Contactors**

- 63...500 kW @ 400V
- 75...600 Hp @ 460V
- 100...700 Hp @ 575V
- Electronic and conventional coils
  - AC & DC
  - Integrated PLC interface
  - Low power pick-up & hold-in
  - Wide voltage ranges
- Complete range of accessories
- Environmentally friendly
- Compact dimensions

Bulletin 100S-D safety contactors were designed to address the needs of modern safety applications requiring feedback and monitoring of the energy isolating switchgear used in hazardous motion loads. The

100S-D meets these needs through its "mirror contact" design. If a power contact welds, the N.C. auxiliary contacts will not change state. This feature provides reliable indication about the open/closed status of the main power poles. In addition, the gold-plated bifurcated auxiliary contacts are ideally suited for low-energy applications or feedback control circuits with multiple series-connected N.C. auxiliary contacts.

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**Standards Compliance**

- IEC 60947-4-1
- IEC 60947-4 Annex F
- IEC 60947 Type "2"
- Coordination
- CSA C22.2 No. 14
- UL 508

**Certifications**

- CE Marked
- cULus Listed (File No. E 41850, Guide NLDX, NLDX7)
- SUVA Certified
- CCC (115...180 conventional coil; 140...420 electronic coil)

Your order must include: cat. no. of the contactor specified with coil voltage code and, if required, cat. no. of any accessories and/or replacement coils.

**Product Selection**  
**3-Pole AC-Operated Contactors**

$I_e$ [A]		Switching of 3-phase motors AC-2, AC-3										Auxiliary contacts		Cat. No. ➤
60 °C	40 °C	kW (50 Hz)*						Hp (60 Hz)				N.O.	N.C.⊗	
AC-3	AC-1	230V	400V	415V	500V	690V	1000V	200V	230V	460V	575V			
115	250	37	63	66/75	80	111	63	40	40	75	100	2	2	100S-D115⊗22BC
140	250	45	78	82/90	80/100‡	110/132‡	75	40	50	100	125	2	2	100S-D140⊗22BC
180	250	55	101	100	90/125‡	132/160‡	90	50	60	150	150	2	2	100S-D180⊗22BC
210	350	63	118	110	205	200	110	60	75	150	200	2	2	100S-D210⊗22BC
250	350	80	140	150	250	250	133	75	100	200	250	2	2	100S-D250⊗22BC
300	450	90	170	160	290	300	160	100	125	250	300	2	2	100S-D300⊗22BC
420	540	132	238	250	420	425	220	150	175	350	400	2	2	100S-D420⊗22BC
630	800	200	355	355	500	500	—	200	250	500	600	2	2	100S-D630⊗22BC
<b>860</b>	<b>1000</b>	<b>250</b>	<b>500</b>	<b>500</b>	<b>500</b>	<b>600</b>	<b>—</b>	<b>250</b>	<b>300</b>	<b>600</b>	<b>700</b>	<b>2</b>	<b>2</b>	<b>100S-D860⊗22BC</b>

\* Preferred values according to IEC 60072-1.

⊗ The N.C. contacts meet IEC 60947-4 Annex F requirements for mirror contact performance. The N.C. mirror contacts are wired in series or parallel and must be used as monitoring contacts with feedback to the safety circuit.

‡ Higher kW rating only applies to contactors with electronic coil.

➤ If standard cross-stamped auxiliary contacts are required, remove the letter "B" before the letter "C" in the cat. no. Example: Cat. No. **100S-D115⊗22BC** becomes Cat. No. **100S-D115⊗22C**.

⊗Coil voltage code—see page 2-152



Bulletin 100S-D  
**IEC Contactors**  
 Product Selection



⊗ **Coil Voltage Codes for AC Control**

Conventional Coil	[V]	24	48	100	110	120	200	208	220 ...230	230	240	277	380 ...400	415	440	480	500	550	600
100S-D115...100S-D180	AC, 50 Hz	K	Y	—	D	—	—	—	A	—	T	—	N	B	G	—	M	C	—
	AC, 60 Hz	J	X	—	—	D	—	H	—	—	A	T	—	—	N	B	—	—	C
100S-D115	AC, 50/60 Hz	—	—	KP	KN	—	KG	—	KL	KF	KA	KT	—	—	—	—	—	—	—

  

Electronic Coil w/ PLC Interface§	[V]	24	42...64	100	110... 130	200	208... 277	200... 220	230... 250	277	380... 415	380... 440	440... 480	380... 500	500
100S-D95...100S-D300	AC, 50/60 Hz	EJ♣	EY	EP	ED	EG	EA	—	—	—	—	VN	—	EN	—
100S-D420	AC, 50/60 Hz	—	—	EP	ED	EG	EA	—	—	—	—	—	—	EN	—
100S-D630...100S-D860	AC, 50/60 Hz	—	—	EP	ED	—	—	EG	EA	ET	EN	—	EB	—	EM

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§ Signal voltage of the Cat. No. 100S-D... electronic interface  $U_g$ : 24V DC/ $I_g$ : 15 mA

Pick-up voltage: 13.0V DC...30.2V DC  
 Drop-out voltage: -3.0V DC...+5.0V DC

♣ Not available with 100S-D300.

**3-Pole DC-Operated Contactors**

$I_e$ [A]		Switching of 3-phase motors AC-2, AC-3										Auxiliary contacts		Conventional Coil Cat. No.	Electronic Coil Cat. No. >		
60 °C	40 °C	kW (50 Hz) *						Hp (60 Hz)				N.O.	N.C. * *				
		230V	400V	415V	500V	690V	1000V	200V	230V	460V	575V						
AC-3	AC-1																
115	250	37	63	66/75	80	111	63	40	40	75	100	2	2	100S-D115⊗33LC‡	100S-D115⊗22BC		
140	250	45	78	75	80/100§	110/132§	75	40	50	100	125	3	2/1L	100S-D140⊗33LC‡	100S-D140⊗22BC		
180	250	55	101	100	90/125§	132/160§	90	50	60	150	150	3	2/1L	100S-D180⊗33LC‡	100S-D180⊗22BC		
210	350	63	118	110	205	200	110	60	75	150	200	2	2	—	100S-D210⊗22BC		
250	350	80	140	150	250	250	133	75	100	200	250	2	2	—	100S-D250⊗22BC		
300	450	90	170	160	290	300	160	100	125	250	300	2	2	—	100S-D300⊗22BC		
420	540	132	238	250	420	425	220	150	175	350	400	2	2	—	100S-D420⊗22BC		
630	800	200	355	355	500	500	—	200	250	500	600	2	2	—	100S-D630⊗22BC		
860	1000	250	500	500	500	600	—	250	300	600	700	2	2	—	100S-D860⊗22BC		

\* Preferred values according to IEC 60072-1.

⊗ The N.C. contacts meet IEC 60947-4 Annex F requirements for mirror contact performance. The N.C. mirror contacts are wired in series or parallel and must be used as monitoring contacts with feedback to the safety circuit.

‡ For conventional DC coil only. The pickup winding must be interconnected with the N.C. late-breaking auxiliary contacts.

§ Higher kW rating only applies to contactors with electronic coil.

> If standard cross-stamped front-mount auxiliary contacts are required, remove the letter "B" before the letter "C" in the Cat. No. Example: Cat. No. **100S-D115⊗22BC** becomes Cat. No. **100S-D115⊗22C**.



⊗ **Coil Voltage Codes for DC Control**

Conventional Coil	[V]	24	48	110	125	220	250
100S-D115...100S-D180	DC	ZJ	ZY	ZD	ZS	ZA	ZT

  

Electronic Coil w/ EI Interface ♣	[V]	24	48...72	110...130	200...255
100S-D115...100S-D300	DC	EZJ	EZY	EZD	EZA
100S-D420	DC	—	—	EZD	EZA
100S-D630...860	DC	—	—	ED	EA



♣ Signal voltage of the cat. no. 100S-S... electronic interface  $U_g$ : 24V DC/ $I_g$ : 15 mA

Pick-up voltage: 13.0V DC...30.2V DC  
 Drop-out voltage: -3.0V DC...+5.0V DC

