

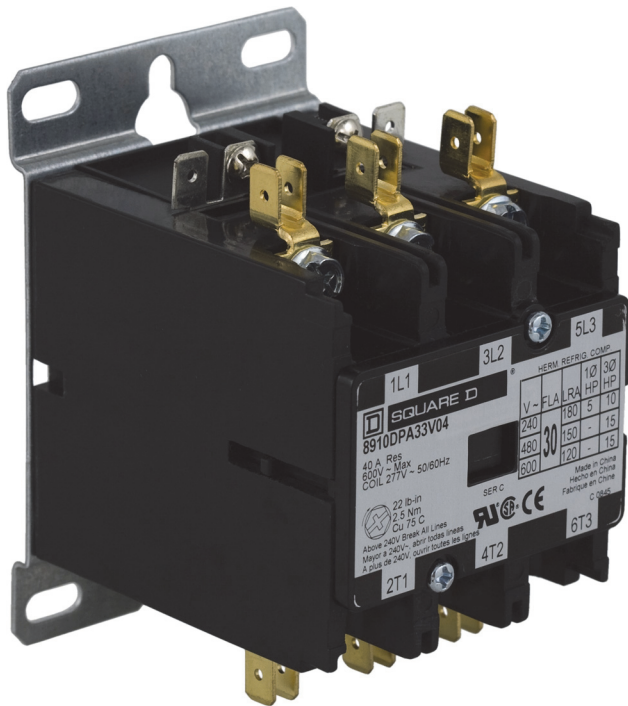
Definite Purpose Control

Catalog

8910CT9301R12/13

2014

Class 8910, 8911, 8965, 9998, 9999



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by Schneider Electric

**Definite Purpose Control
Contactors, Class 8910 Types DP and DPA**

Contactors, Class 8910 Types DP and DPA

Definite purpose contactors are ideal for heating, air conditioning, refrigeration, data processing, and food service equipment. Compact 1- and 2-pole contactors are available, as well as full-size devices with 2, 3, or 4 poles.

Features

- Quick connect terminals and binder head screws allow for easy wiring.
- Box lugs are standard on contactors 40 A and larger.
- An exclusive DIN track mounting option may reduce installation costs.
- Coils can be changed quickly, without a tool, on the Type DPA, 50–90 A contactors.
- Auxiliary contact modules snap on either side of the Type DPA contactors.

To order, specify the Class, Type, and Voltage Code (where indicated).



Type DP22V09
2 pole

Table 1: Compact 1-Pole Contactors—600 Vac Maximum

Full Load Amperes	Locked Rotor Amperes			Resistive Load Amperes	N.O. Poles	Class 8910 Type [1]
	277 V	460 V	575 V			
20	120	100	80	30	1	DP11
25	150	125	100	35	1	DP21
30	150	125	100	40	1	DP31
40	240	200	160	40 (50 for 277 V)	1	DP41

Table 2: Compact 2-Pole Contactors—600 Vac Maximum

Above 240 V, all lines must be switched.

Full Load Amperes	Locked Rotor Amperes			Resistive Load Amperes	N.O. Poles	Class 8910 Type [1]
	277 V	460 V	575 V			
20	120	100	80	30	2	DP12
25	150	125	100	35	2	DP22
30	150	125	100	40	2	DP32
40	240	200	160	50	2	DP42



Type DP42V14
2 pole

Table 3: 2, 3, and 4-Pole Contactors—600 Vac Maximum

Above 240 V, all lines must be switched.

Full Load Amperes	Locked Rotor Amperes			Resistance Load Amperes	Horsepower Ratings				N.O. Poles	Class 8910 Type [1]
	230 V	460 V	575 V		115 V, 1Ø	230 V, 1Ø	230 V, 3Ø	460/575 V, 3Ø		
20	120	100	80	30	1.5	3	7.5	7.5	2 3 4	DPA12 DPA13 DPA14
25	150	125	100	35	2	5	10	15/20	2 3 4	DPA22 DPA23 DPA24
30	180	150	120	40	2	5	10	15/20	2 3 4	DPA32 DPA33 DPA34
40	240	200	160	50	3	7.5	10	20/25	2 3 4	DPA42 DPA43 DPA44
50	300	250	200	62	3	10	15	30	2 3	DPA52 DPA53
60	360	300	240	75	5	10	25	30	2 3	DPA62 DPA63
75	450	375	300	94	5	15	25	40	2 3	DPA72 DPA73
90	540	450	360	120	7.5	20	30	50	2 3	DPA92 DPA93

[1] Add the voltage code suffix from Table 7 on page 4.



Type DPA33V04
3 pole

Definite Purpose Control Contactors, Class 8910 Types DP and DPA

**Table 4: 2 N.O. and 2 N.C. 4-Pole Contactors
600 Vac Maximum**
Above 240 V, all lines must be switched.

Full Load Amperes	Resistive Load Amperes	Poles		Contactors Class 8910	
		N.O.	N.C. [1]	Type [2]	Form
20	25	2	2	DPA14	Y392
25	35	2	2	DPA24	Y392
30	40	2	2	DPA34	Y392

[1] The N.C. poles are on the outside.
The N.C. poles open before the N.O. poles close.
[2] Add the voltage code suffix from Table 7. Add the Form after the voltage code (example: 8910DPA14V02Y392).

Table 5: Auxiliary Contacts

For Use with Class 8910 Type	Contact Arrangement	Auxiliary Contacts Class 9999 Type	
		20–40 A	50–90 A
DPA	1 N.O.	DD10	D10
	1 N.C.	DD01	D01
	1 N.O. / 1 N.C.	DD11	D11
	2 N.O.	DD20	D20

Figure 1: Auxiliary Contact Installation, 50–90 A (no tools required)

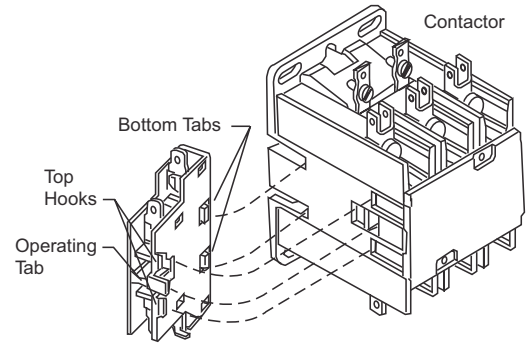




Table 6: NEMA Type 1 General Purpose Enclosures for Type DP and DPA Contactors

For Contactors, Class 8910 Type	Full Load Amperes	Poles	Enclosures, Class 9991 Type
DP	20–40	1 and 2	DPG1
		2 and 3	DPG1
		4	DPG2
DPA	50	2 and 3	DPG2
		2 and 3	DPG3
		2 and 3	DPG3
		2 and 3	DPG4

Table 7: Coil Voltage Codes

60 Hz	Voltage		Voltage Code Type DP, DPA
	50 Hz		
24	24		V14
24	—		—
120	110		V02
208	—		—
208–240	220		V09
230–240	220		—
277	—		V04
480	440		V06
600	550		V07 (not available for Type DP, 1-pole and 2-pole devices)

Table 8: Types DP and DPA Specifications

Mechanical Life	500,000 operations (actual product life will vary based on electrical load, duty cycle, application, and environmental conditions)	
Electrical Life	Type DP	100,000 operations
	Type DPA	200,000 operations
Duty Cycle	Continuous	
Operating Temperature	0–65 °C (32–149 °F)	
Slip-on Connector Rating	30 A, 75 °C wire	
Approvals	 UL Recognized File E3190 CCN NLDX2	 CSA Certified File LR25490 Class 3211 04

Definite Purpose Control Contactors, Class 8910 Types DP and DPA

Table 9: Replacement Coils for Class 8910 Type DPA

For Types	Full Load Amperes	Poles	Class 9998 Type [1]	Volt-Amperes	
				Inrush	Sealed
DP	50–60	2, 3	DA2	109	10
	75–90	2, 3	DA3	214	19
DP11–DP32	Coils are not replaceable.			33	8
DPA12–DPA44	Coils are not replaceable.			60	6

[1] Add the voltage code suffix from Table 10.
For example, a 120 V, 60 Hz coil for an 8910DPA53V02 contactor is 9998DA2V02.

**Figure 2: Coil Replacement, 50–60 A
(no tools required)**

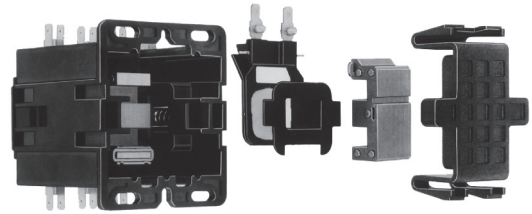


Table 10: Type DPA Coil Voltage Codes

Voltage, 60 Hz	Voltage, 50 Hz	Voltage Code
24	24	V14
120	110	V02
208–240	220	V09
277	—	V04
480	440	V06
600	550	V07 (Type DPA contactors only)

Table 11: Power Terminals

Full Load Amperes	Power Terminals	
	Type of Lug	Wire Range, AWG solid or stranded copper wire only
20–30	binder head	16 – 8
40	box lug	14 – 4
50–60	box lug	14 – 2
75–90	box lug	14 – 1/0

Table 12: Mounting Attachment

Description	Class 9999 Type
DIN mounting bracket attachment	DMB1

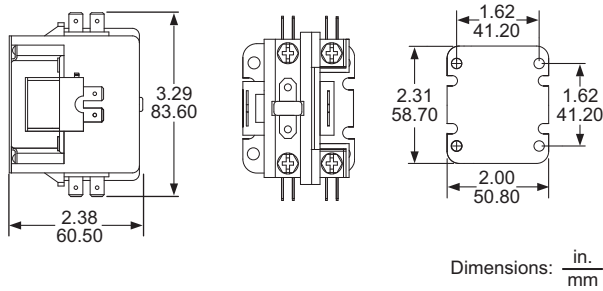
Factory Modifications

Table 13: Factory Modifications

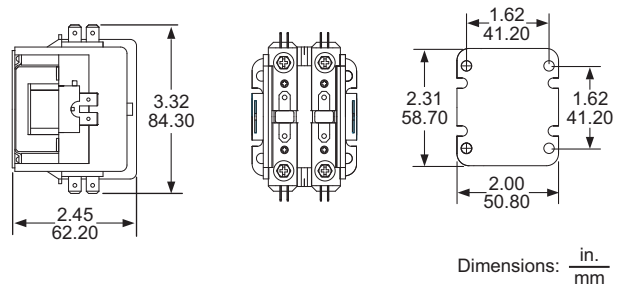
Modification	Form (add to the catalog number after the voltage code)
Factory installed auxiliary contacts	Contact your local Schneider Electric office.
Pressure wire connectors (20–30 A)	Y122
Box lugs (20–30 A)	Y239
DIN mounting bracket attached, 35 mm style (available for 20–60 A devices only)	Y135

Definite Purpose Control Contactors, Class 8910 Types DP and DPA

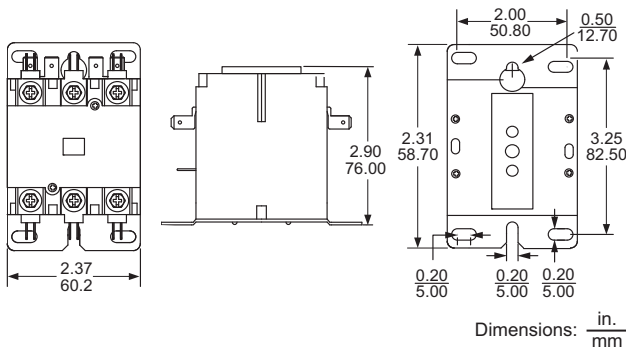
**Figure 3: Type DP, 1 Pole
20–40 Full Load Amperes**



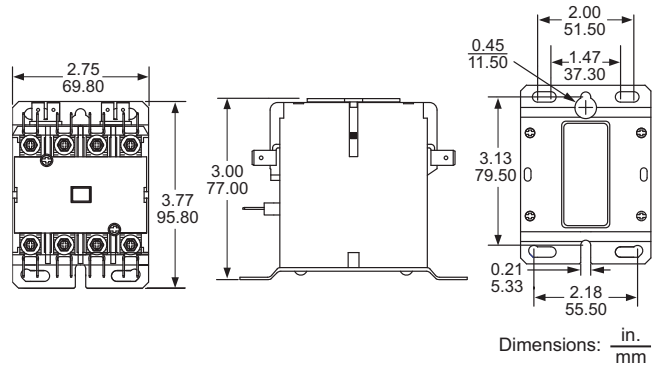
**Figure 4: Type DP, 2 Pole
20–40 Full Load Amperes**



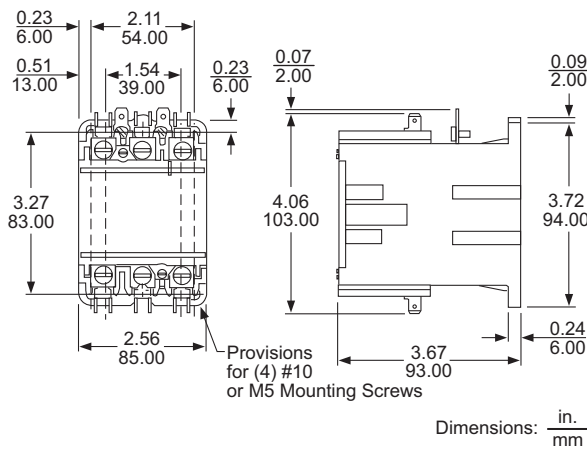
**Figure 5: Type DPA, 2 and 3 Pole
20–40 Full Load Amperes**



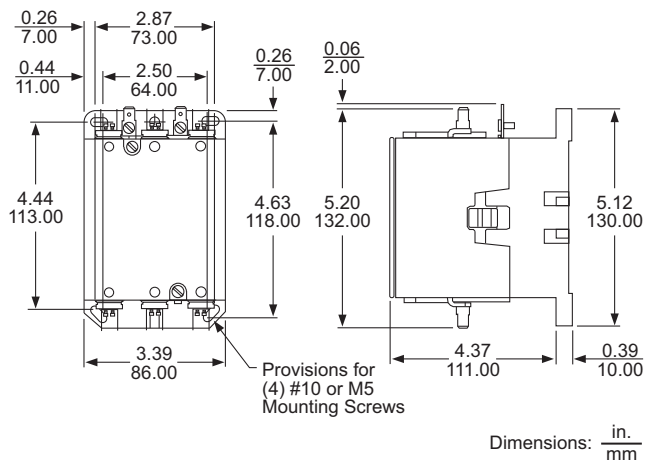
**Figure 6: Type DPA, 4 Pole
20–40 Full Load Amperes**



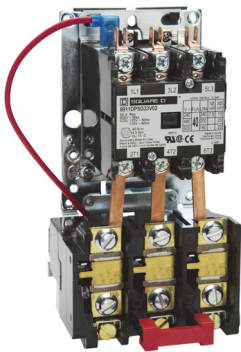
**Figure 7: Type DPA, 2 and 3 Pole
50 and 60 Full Load Amperes**



**Figure 8: Type DPA, 2 and 3 Pole
75 and 90 Full Load Amperes**



Starters, Class 8911 Types DPS and H-M



8911DPSO33V02

Class 8911 definite purpose starters are economical starters for applications with relatively low duty cycles. Typical applications include air compressors, agricultural equipment, pumps, and HVAC equipment. Definite purpose starters offer the following:

- Low cost
- Small size
- Melting-alloy overload block
- Trip-free reset mechanism
- Open style or enclosed option
- 500,000 mechanical operations (typical)

To order, specify the Class, Type, and Voltage Code (where indicated).



8911DPSG12V02

Table 14: 2, 3, and 4-Pole Starters—600 Vac Maximum

No. of Poles	Full Load Amperes	Horsepower Ratings				Class 8911 Type [1] [2]		No. of Thermal Units [3]
		115 V, 1Ø	230 V, 1Ø	230 V, 3Ø	460/575 V, 3Ø	Open Style	NEMA Type 1 Enclosed	
2-pole single phase	20	1.5	3	—	—	DPSO12	DPSG12	1
	25	2	5	—	—	DPSO22	DPSG22	
	30	2	5	—	—	DPSO32	DPSG32	
	40	3	7.5	—	—	DPSO42	DPSG42	
	50	3	10	—	—	DPSO52	DPSG52	
3-pole poly-phase	20	1.5	3	7.5	7.5	DPSO13	DPSG13	3
	25	2	5	10	15/20	DPSO23	DPSG23	
	30	2	5	10	15/20	DPSO33	DPSG33	
	40	3	7.5	10	20/25	DPSO43	DPSG43	
	50	3	10	15	30	DPSO53	DPSG53	

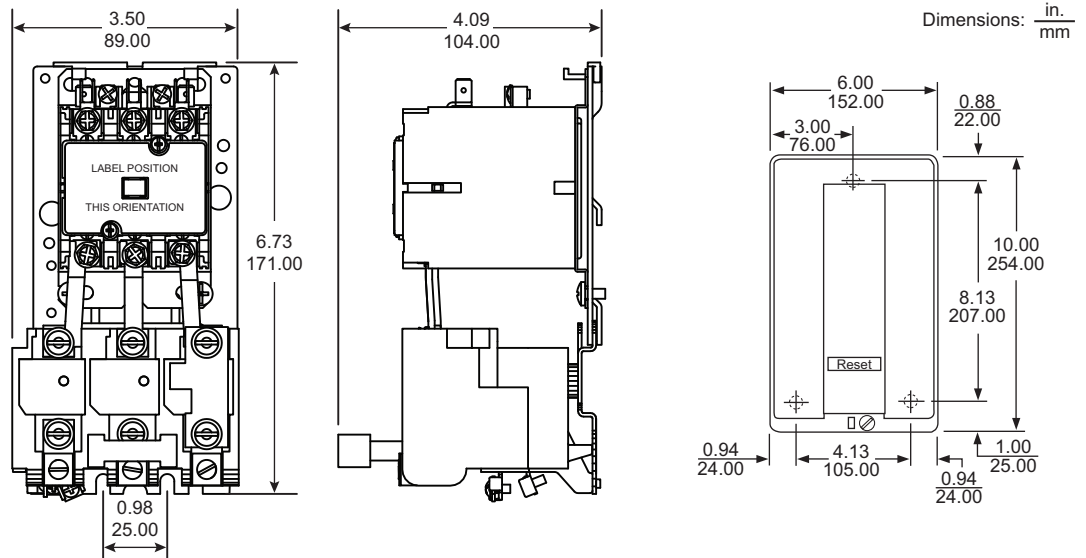
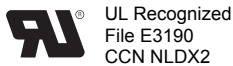
[1] Holding circuit contacts do not come standard; refer to the instruction bulletin supplied with the contactor.

[2] Add the voltage code suffix from Table 22 on page 10.

[3] See the instruction label for selection information.

Figure 9: Approximate Dimensions

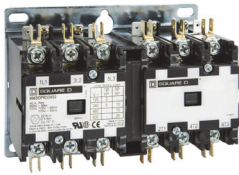
Approvals



Definite Purpose Control

Reversing/Hoist Contactors, Class 8965 Type DPR

Reversing/Hoist Contactors, Class 8965 Type DPR



Type DPR33V02

Class 8965 Type DPR reversing/hoist contactors are designed for the control of motors in hoists, overhead doors, small elevators, commercial laundry equipment, and other related products that use reversing motors. They are rated to perform in the short periods of jogging experienced in hoist service.

The coils are designed to operate on line voltages of 85–110% of rated voltage, at 50 or 60 Hz only. Coils are easily replaced by removing the external base. Auxiliary contacts can be field-installed on any Class 8965 reversing contactor.

Type DPR contactors accept one auxiliary contact module with up to two isolated circuits per side (two modules per device). Typically, when separate auxiliary contacts are ordered, two modules are used for each device—one for forward and one for reverse.

To order, specify the Class, Type, and Voltage Code (where indicated).

Approvals



Table 15: Reversing/Hoist Contactors—600 Vac Maximum

No. of Poles	Horsepower Ratings [1]				Open Style Class 8965 Type [2]
	115 V, 1Ø	230 V, 1Ø	230 V, 3Ø	460/575 V, 3Ø	
3-pole polyphase	1.5	3	7.5	7.5	DPR13
	2	5	10	15/20	DPR23
	2	5	10	15/20	DPR33
	3	7.5	10	20/25	DPR43
4-pole polyphase	2	5	10	15/20	DPR34
	3	7.5	10	20/25	DPR44

[1] For rapid operation (jogging duty), use the next larger size contactor.

[2] Add the voltage code suffix from Table 16.

Table 16: Coil Voltage Codes

Volts, 60 Hz	Volts, 50 Hz	Voltage Code
24	24	V14
120	110	V02
208–240	220	V09
277	—	V04
480	440	V06
600	550	V07

Table 17: Auxiliary Contacts, Separate Module

Description	Class 9999 Type [1]
1 N.O.	DD10
1 N.C.	DD01
1 N.O. / 1 N.C.	DD11
2 N.O.	DD20

[1] Order two modules for Type DPR—one for each side.

Table 18: Auxiliary Contacts, Factory Installed

Description	Form [1]
1 N.O. each side	X1010
1 N.C. each side	X0101
1 N.O. / 1 N.C. each side	X1111
2 N.O. each side	X2020

[1] Add to the catalog number after the voltage code.

Definite Purpose Control Reversing/Hoist Contactors, Class 8965 Type DPR

Figure 10: Type DPR 3-Pole Reversing/Hoist Contactors, Approximate Dimensions

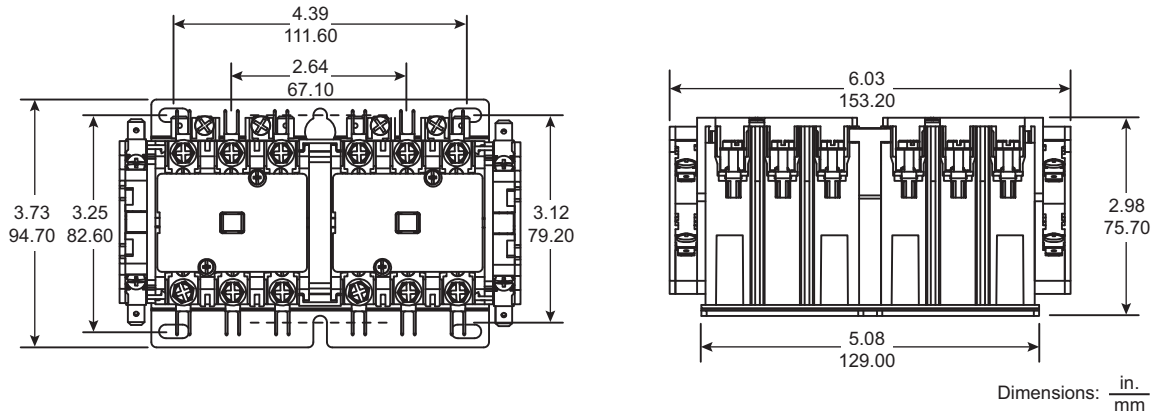


Figure 11: Type DPR 4-Pole Reversing/Hoist Contactors, Approximate Dimensions

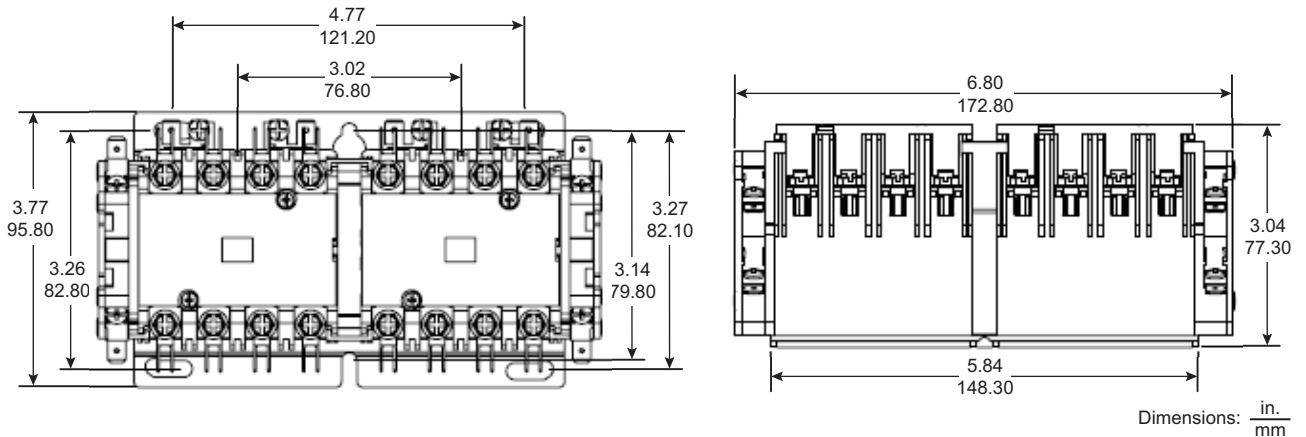


Table 19: Cross-Reference of Existing to Replacement Devices, Class 8911

Class 8911 Type		Class 8911 Type	
Existing Device	Replacement Device	Existing Device	Replacement Device
HO33	DPSO13	LO33	DPSO43
HG33	DPSG13		
JO33	DPSO23	LG33	DPSG43
JG33	DPSG23		
KO33	DPSO33	MO33	DPSO53
KG33	DPSG33	MG33	DPSG53
KO43	[1]	MO43	[1]
KG43		MG43	

[1] A Type DPS 4-pole starter is not available. The 3-pole device with auxiliary contact is recommended.

Table 20: Parts and Accessories

Description	Class and Type
Start-Stop push button kit [1]	8911DPB1
Hand-Off-Auto selector switch kit [1]	8911DSS1
Standard N.C. overload relay contact	9998SO1
N.C. and N.O. isolated overload relay alarm contacts	9999SO4
Overload relay jumper strap	9998SO31

[1] Use for 20–40 A starters; for larger sizes, contact your local Schneider Electric office. These kits include the support bracket for the operator and slip-on connectors where required.

Definite Purpose Control Reversing/Hoist Contactors, Class 8965 Type DPR

Table 21: Class 8911 Replacement Coils

Full Load Amperes	Poles	Class 9998 Type [1]	Volt-Amperes	
			Inrush	Sealed
50	2 and 3	DA2	109	10

[1] Add the voltage code suffix from Table 22.

Table 22: Coil Voltage Codes

Voltage, 60 Hz	Voltage, 50 Hz	Voltage Code
24	24	V14
120	110	V02
208–240	220	V09
277	—	V04
480	440	V06
600	550	V07

Table 23: Auxiliary Contacts for Type DPS Starters

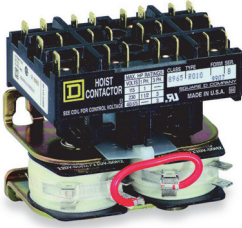
Auxiliary contacts must be field installed. Contact your local Schneider Electric office.

Description	Class 9999	
	20–40 A	50 A
1 N.O.	DD10	D10
1 N.C.	DD01	D01
1 N.O. / 1 N.C.	DD11	D11
2 N.O.	DD20	D20

Table 24: Ratings—Overload Contacts and Auxiliary Contacts

Device	Vac	Pilot Duty—AC Only (35% Power Factor)		Continuous Current Rating
		Make	Carry and Break	
9998SO1	120 or less	30 A	3 A	5 A
9999SO4 9999 R10, R11, R12, R13 9999 D10, D01, D11, D20 9999 DD10, DD01, DD11, DD20	120–600	3600 VA	360 VA	5 A

Reversing/Hoist Contactors, Class 8965 Type R



Type RO10V02

Class 8965 reversing/hoist contactors meet the small space requirements found in electrical hoists, light duty cranes, door operators, and related products. They are designed to perform in the short periods of jogging experienced in hoist service. Note that these contactors must be mounted upright on the vertical plane; the contactors will not operate properly when mounted in any other position.

To order, specify the Class, Type, and Voltage Code (where indicated).

Table 25: Application Data



Coils	Duty: Hoist Duty, H4 Intermittent Voltage Range: AC coils only +10%, -15% of nominal	
Burden	Inrush 76 VA, Sealed 27 VA	
Approvals	 UL Recognized File E3190 CCN NLDX2	 CSA Certified File LR60905 Class 3211 04

Table 26: AC Reversing/Hoist Contactors—600 Vac Maximum

No. of Poles	Horsepower Ratings				Power Terminals	Open Style, Class 8965 Type ^[1]	
	115 V, 1Ø	230 V, 1Ø	230 V, 3Ø	460/575 V, 3Ø		With ^[2] Jumper Straps	Without ^[2] Jumper Straps
3-pole polyphase	1	1.5	3	3	Quick connect	RO10	RO11
					Pressure wire ^[3]	RO12	RO13

^[1] Add the voltage code suffix from Table 29.

^[2] Jumper straps connect the line side power terminals of the same phase between the forward (up) and reverse (down) contactors in common; for example, L1 to L1, L2 to L2, and L3 to L3.

^[3] Coils rated 120 Vac or less are available with quick connect terminals only.

Table 27: Hoist Contactor Kits

For Use with Class 8965 Type	Description	Catalog Number
RO10	Armature kit	9998RP1
RO11 RO12 RO13	Contact carrier	31002-060-50

Table 28: Auxiliary Contacts Separate Module

Description	Terminals	Class 9999 Type
1 N.O. each side	Quick connect	R10
	Screw	R12
1 N.C. each side	Quick connect	R11
	Screw	R13

Table 29: Replacement Coils

Description	Voltage, 60 Hz	Voltage, 50 Hz	Voltage Code	Replacement Part Number
Tape wound coils, two per package	24	—	V01	31002-403-19
	120	110	V02	31002-403-40

Definite Purpose Control Reversing/Hoist Contactors, Class 8965 Type R

Table 30: Approximate Dimensions (3 Poles per Contactor)

Type	A		B		C		D		E		F		G	
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
RO10, 11	3.31	84	3.31	84	3.03	77	2.69	68	1.34	34	1.56	40	2.66	68
RO12, 13	3.31	84	3.69	94	2.69	68	2.69	68	1.34	34	1.56	40	2.66	68

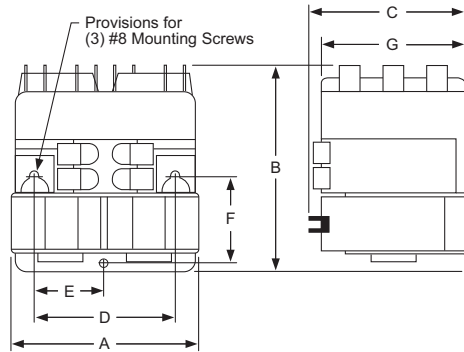


Table 31: Cross Reference—Obsolete Devices

Obsolete Device		Replacement Device		Auxiliary Contact Required	
Class	Type	Class	Type	Class	Type
8702 or 8965	HO3	8965	RO12	—	—
	HO4		RO12	9999	R12
	HO5		RO12	9999	R13
	HO6		RO12	—	—
	HO7		RO12	9999	R12
	HO8		RO12	9999	R13
8965	RG2S1	8965	RO10	9999	R10
	RG5S1		RO12	9999	R12
	RG5S2		RO12	9999	R12
	RO1		RO10	—	—
	RO1S1		RO11	—	—
	RO1S2		RO10	—	—
	RO1S3		RO11	—	—
	RO1S4		RO10	—	—
	RO1S5		RO10	—	—
RO1S6	RO10	—	—		
8965	RO2	8965	RO10	9999	R10
	RO2S1		RO11	9999	R10
	RO2S2		RO10	9999	R10
	RO3		RO10	9999	R11
	RO3S1		RO11	9999	R11
	RO3S2		RO10	9999	R11
	RO3S3		RO10	9999	R11
	RO4		RO12	—	—
	RO4S1		RO13	—	—
	RO5		RO12	9999	R12
	RO5S1		RO13	9999	R12
	RO5S2		RO12	9999	R12
	RO6		RO12	9999	R13
	RO6S1		RO13	9999	R13
	RO6S2		RO12	9999	R13

Replacement Parts Kits, Class 9998

Class 9998 replacement parts kits are available for servicing Square D™ contactors.

Replacement Contact Kits

Each Class 9998 replacement contact kit contains the necessary movable and stationary contacts, contact springs, and additional hardware required to service the devices listed below.



Table 32: Class 9998 Replacement Contact Kits for Class 8965 Reversing/Hoist Contactors

Device To Be Serviced		Contact Kit Class 9998 Type	Quantity
Contactor, Class 8965 Type	Series		
RO10	All	RA10	One kit services three poles
RO11		RA11	
RO12		RA12	

Table 33: Class 9998 Replacement Contact Kits for Class 8910 Definite Purpose Contactors

Device To Be Serviced		Contact Kit Class 9998 Type	Quantity
Contactor, Class 8910 Type	Series		
DPA5	A, B	DRC5	One kit per pole
DPA6	A, B	DRC6	
DPA7	A	DRC7	
DPA9	A	DRC9	

Contact Units for Melting Alloy Overload Relays

One N.C. contact, Class 9998 Type SO1, is provided in each overload relay block on Class 8911 Type DPS starters. Replacement contact modules are listed in Table 34.

Isolated overload relay alarm circuit contacts are available as an optional feature. A pilot light or audible alarm can be wired in series with this contact to indicate that the overload relay has tripped.



Table 34: Class 9998 Replacement Contact Modules

Magnetic Starter		Description	Parts Kit Class 9998 Type
Size	Type		
20–90 A	DPS	Standard N.C. contact unit	SO1
		N.O. isolated alarm contact and standard N.C. overload contact	SO4

Table 35: DP Type SO1 Contact Ratings

NEMA Contact Rating	Volts (110 V Minimum Recommended)	Inductive 35% Power Factor			
		Make		Break	
		A	VA	A	VA
B600	120	30	3600	3	360
	240	15	3600	1.5	360
	480	7.5	3600	0.75	360
	600	6	3600	0.6	360

Definite Purpose Control

External Auxiliary Contacts, Class 9999

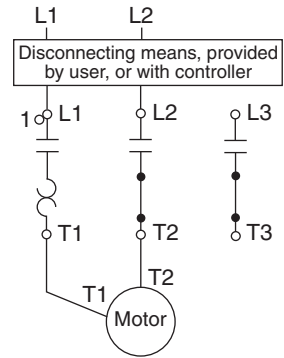
Melting Alloy Overload Relay Jumper Strap Kits

Jumper strap kits are used only on three-phase magnetic starters with melting alloy overload relays, where a three-phase starter is used to control a single-phase motor. These kits include two jumper straps, a wiring diagram showing how to wire a three-phase starter to control a single-phase motor, and thermal unit selection tables for single-phase operation.

Table 36: Melting Alloy Overload Relay Jumper Strap Kits

Class	For Starter		Parts Kit Class 9998 Type
	Size	Type	
All	20–50 A	DPS	SO31

Figure 12: Three-phase starter wiring to control a single-phase motor



External Auxiliary Contacts, Class 9999

Table 37: Class 8910 and 8911 Definite Purpose Contactors and Starters—Auxiliary Contacts

Device to be Serviced Class 8910 or 8911 Type	Auxiliary Contact Kit		
	Contact Arrangement	Class 9999 Type	
		20–40 A	50–90 A
DPA DPS	1 N.O.	DD10	D10
	1 N.C.	DD01	D01
	1 N.O. / 1 N.C.	DD11	D11
	2 N.O.	DD20	D20

Table 38: Class 8965 Reversing/Hoist Contactors—Auxiliary Contacts

Device to be Serviced Class 8965 Type	Contact Arrangement	Auxiliary Contact Kit	
		Type of Connector	Class 9999 Type
DPR	1 N.O.	screw/ quick connect	DD10
	1 N.C.		DD01
	1 N.O. / 1 N.C.		DD11
	2 N.O.		DD20
RO2 and RG2 RO10 Form X1 RO11 Form X1	1 N.O. each side	slip-on	R10
RO3 and RG3 RO10 Form X2 RO11 Form X2	1 N.C. each side	slip-on	R11
RO5 and RG5 RO12 Form X1 RO13 Form X1	1 N.O. each side	screw	R12
RO6 and RG6 RO12 Form X2 RO13 Form X2	1 N.C. each side	screw	R13

Schneider Electric USA, Inc.
1415 S. Roselle Road
Palatine, IL 60067 USA
1-888-778-2733
www.schneider-electric.us

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