

5DP Definite Purpose Contactors are designed for DC adjustable speed drive circuits using silicon controlled rectifier switching and other controls where a combination of normally open and normally closed power contacts are required. In all applications, reduced panel space for contactor mounting is made possible through a compact design and the built-in N.C. dynamic brake power contact feature.

In silicon controlled rectifier switching circuits, the SCR is normally phased back prior to contactor opening. Therefore, the N.O. contacts are not required to interrupt any appreciable current. Under abnormal conditions such as failure of the SCR or the control circuit, the

contactor may be required to interrupt up to 200% current. The N.O. contacts are equipped with permanent magnet blowouts to meet this requirement.

The dynamic brake N.C. contact is required to insert the dynamic brake resistor and therefore must make up to 200% of rated current each time the contactor is deenergized.

Jogging is accomplished at low voltage and current. Therefore, the dynamic brake contact is rated at $\frac{1}{3}$ of rated voltage and dynamic brake current. The permanent magnet blowouts provide this interrupting ability.



- 1. Normally Closed Double Break Power Contacts** - made of silver cadmium oxide furnish "anti-weld" protection under overload conditions. Generous size contacts are long lasting, and maintenance-free. All N.C. power contacts supplied with permanent magnet blowouts to lengthen contact life.
- 2. Normally Open Double Break Power Contacts** - incorporate the same design features as the normally closed power poles. Permanent magnet blowouts are also furnished on d.c. load applications.
- 3. Permanent Magnet Blowouts** - mounted to surround the power contacts, function to quickly quench the arc when breaking loads, thereby increasing contact life and assuring positive load circuit interruption. All normally closed poles are furnished with permanent magnet blowouts. Normally open poles can be supplied with or without blowouts as indicated in the circuit symbols shown on page J6.
- 4. Stainless Steel Springs** - maintain exact contact pressure and assure fast contact break (N.O.) and make (N.C.).
- 5. Molded Housing** - constructed of hot-molded, high impact, high arc resistant insulating material. This design totally encloses the contacts and operating magnet in separate compartments and functions to eliminate internal phase-to-phase short circuits.
- 6. Molded Coil** - is layer wound, designed for continuous duty service. Coil construction resists moisture; thermal and mechanical stress. Coil connections are made to pressure type terminals.
- 7. Free-Floating Armature-Magnet Frame** - provide quiet, low vibration, low friction operation. Precision ground pole faces achieve an absolute air gap which prevents "hanging-up". Magnet frame is sized for fast, powerful operation and self-seating extends operational life.
- 8. Auxiliary Contacts** - for 10/40 amp. contactors are available with either the front mounted snap action type with quick connect terminals or the side mounted type with pressure terminals. Contacts for larger sizes in standard or special make-before-break contact combinations feature either standard double break silver-to-silver contacts or low power gold alloy contacts.
- 9. Pressure Type Terminals** - accessible, up-front location permits modern straight-thru wiring. Terminals accept stripped, unplugged wires.

SCR Drive Contactors - N.O. or N.C. Power Poles

Drive Contactors Preferred Style 500 VDC Max

Type & Rating	Poles		Fig.No.	Open Type Catalog No.	Price
7001 40 amp.	0	1	7A	7001-5150- **	\$208.
	0	2	9	7001-5230- **	269.
	1	0	1	7001-6050- **	179.
	2	0	3	7001-7030- **	227.
	2	1	10	7001-7140- **	296.
5DP7 75 amp.	0	1	7A	5DP7-5150- **	756.
	0	2	9	5DP7-5230- **	1040.
	1	0	1	5DP7-6050- **	693.
	2	0	3	5DP7-7030- **	924.
	2	1	10	5DP7-7140- **	1210.
5DP3A 110 amp.	0	1	8	5DP3A4001- **	895.
	0	2	9	5DP3A3071- **	1323.
	1	0	1	5DP3A4011- **	857.
	2	0	3	5DP3A5021- **	1176.
	2	1	15	5DP3A5091- **	1502.
5DP4 180 amp.	0	1	8	5DP4-4001- **	1222.
	0	2	9	5DP4-3071- **	1812.
	1	0	1	5DP4-4011- **	1058.
	2	0	3	5DP4-5021- **	1533.
	2	1	15	5DP4-5091- **	2104.
5DP9 260 amp.	0	1	8	5DP9-4001- **	1676.
	0	2	9	5DP9-3071- **	2405.
	1	0	1	5DP9-4011- **	1481.
	2	0	3	5DP9-5021- **	2066.
	2	1	15	5DP9-5091- **	2793.
5DP5 360 amp.	0	1	8	5DP5-4001- **	3024.
	0	2	9	5DP5-3071- **	4788.
	1	0	1	5DP5-4011- **	2772.
	2	0	3	5DP5-5021- **	4410.
	2	1	15	5DP5-5091- **	6048.
5DP8 535 amp.	0	1	8	5DP8-4001- **	3402.
	0	2	9	5DP8-3071- **	5544.
	1	0	1	5DP8-4011- **	3150.
	2	0	3	5DP8-5021- **	5040.
	2	1	15	5DP8-5091- **	7497.
5DP6 700 amp.	0	1	8	5DP6-4001- **	5040.
	0	2	9	5DP6-3071- **	9576.
	1	0	1	5DP6-4011- **	4410.
	2	0	3	5DP6-5021- **	7938.
	2	1	15	5DP6-5051- **	11970.

* **Coil Table #1** Replace * with appropriate coil voltage digit.

60 Hz/Voltage	(*)	DC/Voltage	(*)
120	1	115	8
240	2	230	9

** **Coil Table #2** Replace ** with appropriate coil voltage suffix

60 Hz/Voltage	Suffix	DC/Voltage	Suffix
120	11	12	72
208/240	21	24	82
208	90	48	32
240	21	120	12
480	41	240	22
600	51		

For all DC Coils up to 260 Amp add \$202., for 360 & 535 Amp. add \$328., 700 Amp. deduct -\$504.00

Drive Contactors - Old Style

For New Installations Use Preferred Style

Type & Rating	Poles		Fig.No.	Open Type Catalog No.	Price
7000 10/40 amp.	0	1	7A	7000-5150- **	\$ 208.
	2	0	3	7000-7030- **	227.
	2	1	10	7000-7140- **	296.
5DP1 30 amp.	0	1	8	5DP1-01(*)00	416.
	0	2	9	5DP1-02(*)00	491.
	1	0	1	5DP1-10(*)00	378.
	1	1	5	5DP1-11(*)00	441.
	2	0	2	5DP1-20(*)00	403.
	2	1	6	5DP1-21(*)00	466.
	2	0	3	5DP1-5021- **	441.
	2	1	7	5DP1-5051- **	504.
5DP2 56 amp.	0	1	8	5DP2-01(*)00	630.
	0	2	9	5DP2-02(*)00	920.
	1	0	1	5DP2-10(*)00	605.
	1	1	5	5DP2-11(*)00	857.
	2	0	2	5DP2-20(*)00	794.
	2	1	6	5DP2-21(*)00	895.
	2	0	3	5DP2-5021- **	832.
	2	1	7	5DP2-5051- **	935.
5DP3 110 amp.	0	1	8	5DP3-01(*)00	895.
	0	2	9	5DP3-02(*)00	1323.
	1	0	1	5DP3-10(*)00	857.
	1	1	5	5DP3-11(*)00	1176.
	2	0	2	5DP3-20(*)00	1109.
	2	1	6	5DP3-21(*)00	1439.
	2	0	3	5DP3-5021- **	1172.
	2	1	7	5DP3-5051- **	1502.
5DP4 180 amp.	0	1	8	5DP4-01(*)00	1222.
	0	2	9	5DP4-02(*)00	1817.
	1	0	1	5DP4-10(*)00	1058.
	1	1	5	5DP4-11(*)00	1628.
	2	0	2	5DP4-20(*)00	1470.
	2	1	6	5DP4-21(*)00	2041.
	2	1	7	5DP4-5051- **	2104.
5DP9 260 amp.	0	1	8	5DP9-01(*)00	1676.
	0	2	9	5DP9-02(*)00	2405.
	1	0	1	5DP9-10(*)00	1481.
	1	1	5	5DP9-11(*)00	2192.
	2	0	2	5DP9-20(*)00	2003.
	2	1	6	5DP9-21(*)00	2730.
	2	1	7	5DP9-5051- **	2797.
5DP5 360 amp.	0	1	8	5DP5-01(*)00	3024.
	0	2	9	5DP5-02(*)00	4788.
	1	0	1	5DP5-10(*)00	2772.
	1	1	5	5DP5-11(*)00	4410.
	2	0	2	5DP5-20(*)00	4032.
	2	1	6	5DP5-21(*)00	5670.
	2	1	7	5DP5-5051- **	6048.
5DP8 535 amp.	0	1	8	5DP8-01(*)00	3402.
	0	2	9	5DP8-02(*)00	5544.
	1	1	5	5DP8-11(*)00	5040.
	2	0	2	5DP8-20(*)00	4662.
	2	1	6	5DP8-21(*)00	7119.
	2	1	7	5DP8-5051- **	7497.
5DP6 700 amp.	0	1	8	5DP6-01(*)00	5040.
	0	2	9	5DP6-02(*)00	9576.
	1	0	1	5DP6-10(*)00	4410.
	1	1	5	5DP6-11(*)00	8442.
	2	0	2	5DP6-20(*)00	7434.
	2	1	6	5DP6-21(*)00	11466.

The N.C. contact is short time rated for Dynamic Braking applications. Refer to table on page J7 for N.C. contact ratings.

Auxiliary Contact Blocks

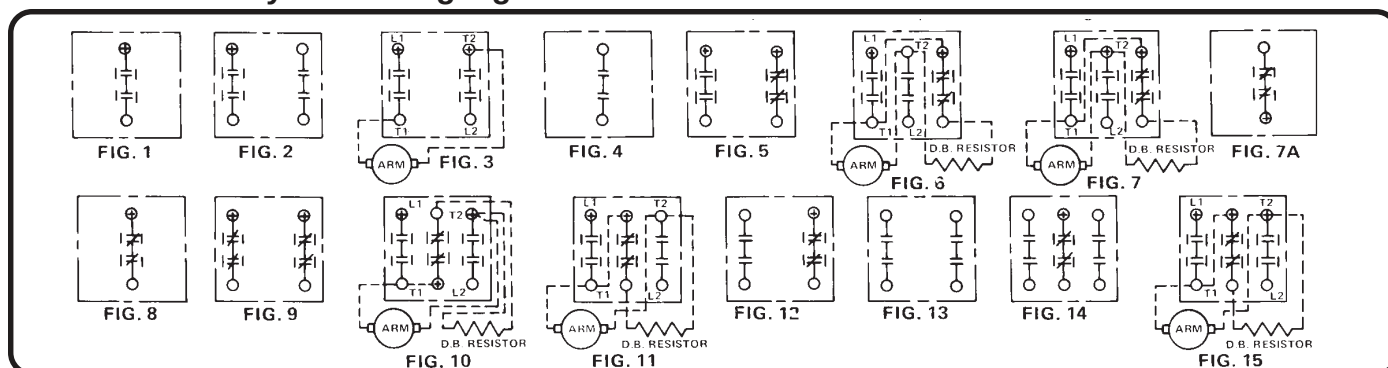
Description	Factory Installed Addition	Field Installation Kit	
		Kit No.	Price
Front mtd. aux. 10/40 amp. Old Style & 40A.			
N.O. - N.C. right hand front mtg.	76.	5999-3504	38.
N.O. - N.C. left hand front mtg.	76.	5999-3604	38.
N.O. - N.C. for multiple front mtg.	76.	5999-3704 ¹	38.
For 10/40 amp. Old Style & 40-535 Amp.			
N.O.	101.	5M63	50.
N.C.	101.	5M64	50.
N.O. & N.C.	139.	5M65	88.
N.O. low power .	227.	5M63L	176.
N.C. low power.	227.	5M64L	176.
N.O. & N.C. low power.	353.	5M65L	302.
N.O. Standard & N.C. low power.	277.	5M66	227.
N.O. low power & N.C. standard.	277.	5M65LO	227.
N.C. late break.	101.	5M64E	50.
N.O. & N.C. late break.	139.	5M68 ⁴	88.
N.C. lower power late break.	227.	5M64LE	176.
N.O. & N.C. low power late break.	277.	5M67 ⁴	227.
N.O. low power & N.C. low power late break.	347.	5M69 ⁴	302.
Tandem mounting auxiliary. * *	38.	5M60DA ²	32.
For 700 amp.			
Bi-Pole (N.O. & N.C.).	416.	5999-3163 ³	151.
N.O. low power .	391.	5999-3361 ³	126.
N.C. low power .	391.	5999-3362 ³	126.
N.O. & N.C. late break.	416.	5M46	151.
Bracket for mounting two additional contact blocks.	391.	5999-3969	63.

* * NOT for 10/40A or 40A

Auxiliary Contact Blocks contain 1 or 2 contact depending on the type ordered, the table below lists max. # of contact blocks for each contactor rating.

Amps	Front Mtd		Side Mtd		Maximum Aux. Contacts	N.O.	N.C.	Amps	Front Mtd		Side Mtd		Maximum Aux. Contacts	N.O.	N.C.
	LHS	RHS	LHS	RHS					LHS	RHS	LHS	RHS			
10/40 A	1 ⁵	1 ⁵ or 1	1	1	4=5	2	2	180 A	0	0	2	2	8 =	4	4
30 A	0	0	1	1	4=	2	2	260 A	0	0	2	2	8 =	4	4
40 A	1 ⁵	1 ⁵ or 1	1	1	4=5	2	2	360 A	0	0	2	2	8 =	4	4
56 A	0	0	2	2	8=	4	4	535 A	0	0	2	2	8 =	4	4
75 A	0	0	2	2	8=	4	4	700 A	0	0	2	1	6 =	3	3
110 A	0	0	2	2	8=	4	4								

Terminal Polarity and Wiring Figures:



Symbols: $\overline{\text{---}}$ N.O. Contact $\overline{\text{---}}|$ Contact with Blowout $\text{---}/\text{---}$ N.C. Contact $\oplus$ Positive Polarity

Contacts without blowouts do not have any interrupting rating. Contactors with 2 N.O. contacts and blowouts will interrupt 200% current under abnormal conditions.

Reversing Kits

Description	Kit No	Price
Mechanical interlock 10/40 amp. & 40 amp.	5M115	\$ 76.
Mechanical interlock 30-260 amps. contactors except 75 amp.	5999-4737	76.
Mechanical interlock 75 amp. contactors	5999-4717	76.
Mechanical interlock 360 & 535 amp.	5999-4757	315.
Mechanical interlock for two 3-pole 700 amp. contactors	5999-4767	630.
Mechanical interlock for two 700 amp. contactors (1Pole & 2-Pole)	5M96	630.
Reversing baseplate for 10/40 & 40 amp. contactors	5999-8568	50.
Reversing baseplate for 30, 56 & 75 amp.	5999-8569	69.
Reversing baseplate for 110,180 & 260 amp. contactors	5999-8570	88.
Reversing baseplate for 360 & 535 amp. contactors	5999-8571	189.
Reversing baseplate for two 3-Pole 700 amp. contactors	5999-8572	315.
Reversing baseplate for one 2-Pole 700 amp. & one 3-Pole 700 amp. contactors	5999-8573	315.
For 2, 2 Pole 700 Amp	5999-8580	315.

NOTE:

1. Kit includes one N.O. - N.C. auxiliary plus mounting hardware for installing 3rd and 4th auxiliary.
2. Contains mounting hardware only. Order auxiliary separately.
3. Without mounting bracket. Bracket required for mounting more than

- one extra auxiliary interlock.
4. Not for use on 10/40, 40 & 75 Amp.
5. If DC coil required then front Mtd Auxiliares not available & contact blocks restricted to 2 & max. aux. contacts 4. 1 contact listed also used to economise coil when DC operated.