

Combination Solid-State Motor Controller with Fusible Disconnect Switch (SMC Dialog Plus)

- See page 120 for product description.
- SCR fuses and isolation contactor are not included. Select on page 138. The addition of these options may require additional space. See page 141 for space factors of units with options.
- Control circuit transformer must be selected. Select on page 147.
- Bulletin 150 SMC Dialog Plus controllers are UL listed and CSA certified as motor overload protective devices. An external overload relay is not required for single motor applications.
- See page 238 for short circuit withstand ratings.

Rating (Amps)	Nominal Horsepower (Nominal kW) The horsepower and kW ratings shown are nominal. The limiting factor in the application and use of the SMC Dialog Plus is the output ampere rating.					Fuse Clip		Space Factor	Catalog Number [1] Wiring Type B—Class I		Delivery Program
	220-230V [2]	240V	380V-415V [2]	480V	600V [3]	Rating (Amps)	Class		NEMA Type 1 and Type 1 w/ gasket	NEMA Type 12 [4]	
	24	(0.75-5.5)	1-7.5	(0.75-11)	1-15	1-20	30 60		J	2.0	
35	(7.5)	10	(15)	20-25	25-30	30	R, HRCII-C	2.0 [5]	2154GB-DK_ _	2154GB-DJ_ _	
						60					
54	(11-15)	15-20	(18.5-22)	30-40	40-50	60	J	3.0	2154GB-FK_ _	2154GB-FJ_ _	
						100					
						200	R, HRCII-C	3.0 [6]			
						60					
97	(18.5-22)	25-30	(30-45)	50-75	60-75	100	J, R, HRCII-C	6.0 [7] 20" W 20" D	2154GB-HK_ _	2154GB-HJ_ _	
						200					
						400					
135	(30-37)	40-50	(55)	100	100-125	100	J, R, HRCII-C	6.0 [7] 20" W 20" D	2154GB-KK_ _	2154GB-KJ_ _	
						200					
						400					
180 [8]	(45)	60	(75-90)	125-150	150	200	J, R, HRCII-C	6.0 [7] 25" W 20" D	2154GB-MK_ _	2154GB-MJ_ _	
						400					
						600					
240	(55-75)	75	(110)	200	200-250	400	J, R, HRCII-C	6.0 [7] 25" W 20" D	2154GB-PK_ _	2154GB-PJ_ _	
						600					
360 [9]	(90-110)	100-150	(132-185)	250-300	300-350	400	J, R, HRCII-C	6.0 [7] 30" W 20" D	2154GB-RK_ _	2154GB-RJ_ _	
						600					
						800					
500 [9]	(132-150)	200	(200-250)	350-400	400-500	600	J, R, HRCII-C	6.0 [7] 35" W 20" D	2154GB-TK_ _	2154GB-TJ_ _	
						800					

[1] The catalog numbers listed are not complete:

- Select the control voltage code from table on page 205 to identify the preferred control voltage (e.g., 2154GB-BKB).
- If horsepower rated, select the number from table on page 206 that corresponds to the nominal horsepower desired (e.g., 2154GB-BKB-35).
- If kW rated, select the number from table on page 206 that corresponds to the nominal kW desired (e.g., 2154GB-BKB-35K).
- If power fuse **will not** be selected, select fuse clip from table above. Then select clip designator from table on page 208 (e.g., 2154GB-BKB-35-24J).
- If power fuse **will** be selected, first select clip designator from table on page 207 (e.g., 2154GB-BKB-35_ _-20J). Then select power fuse from table on page 207 (e.g., 2154GB-BKB-35GT-20J).
- For fuse rating based on load horsepower, see publication 2100-TD003x-EN-P.

[2] Units at these voltages are not UL listed or CSA certified.

[3] Delivery programs are as follows: PE in U.S. and SC in Canada for 24A-54A, PE-II in U.S. and SC-II in Canada for 97A-360A, and PE-II in U.S. and Canada for 500A.

[4] On NEMA Type 12 units, the energy savings and phase rebalance features will be inactive when the bypass contactor is energized. NEMA Type 12 SMC units can be used with NEMA Type 1 and NEMA Type 1 with gasket motor control centers when the application requires a bypass contactor that energizes when the SMC reaches “up to speed” and de-energizes when the stop function of the SMC is activated.

[5] NEMA Type 12 units are 2.5 space factors.

[6] NEMA Type 12 units are 3.5 space factors.

[7] Frame mounted section without vertical wireway. Horizontal bus is 5" deeper than standard.

[8] In NEMA Type 12 units, sections are 25" wide, 20" deep.

[9] When option 13SCR (add SCR fuses) is selected, the SCR fusing provides both short circuit protection and SCR protection. Optional power fuses are not valid when 13SCR or any other fuse clip is present.

Configuration Tables

Control Voltage Type for Bulletins 2102L, 2103L, 2106, 2107, 2112, 2113, 2122, 2123, 2126, 2127, 2172, and 2173 *

Control Voltage Code							Control Type
208V	240V	380V	400V	415V	480V	600V	
H	A	—	—	—	B	C	120V, 60Hz, Transformer Control ^[1]
HD	AD	—	—	—	BD	CD	120V, 60Hz, Separate Control ^[2]
—	—	N	—	I	—	—	110V, 50Hz, Transformer Control ^{[1],[3]}
—	—	NS	—	IS	—	—	110V, 50Hz, Separate Control ^[2]
—	—	—	KN	—	—	—	115V, 50Hz, Transformer Control ^{[1],[3]}
—	—	—	KNS	—	—	—	115V, 50Hz, Separate Control ^[2]
—	—	NP	—	—	—	—	220V, 50Hz, Transformer Control ^{[1],[3]}
—	—	NP	—	—	—	—	220V, 50Hz, Separate Control ^[2]
—	—	—	KNP	—	—	—	230V, 50Hz, Transformer Control ^{[1],[3]}
—	—	—	KNP	—	—	—	230V, 50Hz, Separate Control ^[2]
—	—	—	—	IT	—	—	240V, 50Hz, Transformer Control ^{[1],[3]}
—	—	—	—	IT	—	—	240V, 50Hz, Separate Control ^[2]
—	—	NLP	—	—	—	—	220V, 50Hz, Line to Neutral Control, (Separate Control) ^{[4],[5]}
—	—	—	KNLP	—	—	—	230V, 50Hz, Line to Neutral Control, (Separate Control) ^{[4],[5]}
—	—	—	—	ILT	—	—	240V, 50Hz, Line to Neutral Control, (Separate Control) ^{[4],[5]}
H	A	—	—	—	B	C	Common Control ^[6]

[1] Select a control circuit transformer. See Options section.

[2] Control circuit fusing (option 21) and/or disconnect interlock (option 98) may be required to comply with NEC. See Options section.

[3] Incorporates primary taps for future conversion to new global IEC voltage standards (e.g., 400V/115V/230V). Allows conversion without the need to replace transformers or coils.

[4] Requires horizontal neutral bus and vertical neutral bus in 9" vertical wireway. Refer to Section Modifications to select.

[5] Select control circuit fusing (see option 21 in Options section).

[6] Select control circuit fusing (see option 22 in Options section). Required to comply with NEC.

Primary Voltage Code for Bulletins 2195, 2196, and 2197

240V	380V	400V	415V	480V	600V
A	N	KN	I	B	C

Control Voltage Type for Bulletins 2154 and 2155

Control Voltage Code								Control Type
220V ^[1]	230V ^[1]	240V	380V ^[1]	400V ^[1]	415V ^[1]	480V	600V	
P	—	—	N	—	I	—	—	110V, 50Hz Transformer Control
—	P	—	—	KN	—	—	—	115V, 50Hz Transformer Control
—	—	A	—	—	—	B	C	120V, 60Hz Transformer Control

[1] Units at these voltages are not UL listed or CSA certified.

* Blue type indicates PE delivery program.

Fuse Clip Designator Selection and Power Fuse Selection for Bulletins 2106, 2112, 2122, 2126, 2154F, 2154G and 2172 * †

Fuse Clip Rating (Amperes)	Fuse Clip Type	To select Fuse Clip Designator, select code from one of these two columns.		To select Power Fuses, select power fuse manufacturer code from these columns [1],[2].		
		When NO power fuses will be selected, select fuse clip designator from this column.	When power fuses will be selected, select fuse clip designator from this column [1],[2]. The "20" portion of your Fuse Clip Designator (e.g., 20J) means that the power fuse will be selected automatically based on load horsepower.	Power Fuse Manufacturer Code [3]		Fuse Class [2]
				Typical (T) Accel. Time ≤ 5 sec.	Long (L) Accel. Time > 5 sec.	
30	CC [4]	24C	20C	LT	LL	CC
30	J R H [1],[4] HRCII-C [5]	24J 24R 24 24E	20J 20R — 20E	GT or BT	GL or BL	J R — HRCII-C
60	J R H [1],[4] HRCII-C [5]	25J 25R 25 25E	20J 20R — 20E	GT or BT	GL or BL	J R — HRCII-C
100	J R H [1],[4] HRCII-C [5]	26J 26R 26 26E	20J 20R — 20E	GT or BT	GL or BL	J R — HRCII-C
200	J R H [1],[4] HRCII-C [5]	27J 27R 27 27E	20J 20R — 20E	GT or BT	GL or BL	J R — HRCII-C
400	J R H [1],[4] HRCII-C [5]	28J 28R 28 28E	20J 20R — 20E	GT or BT	GL or BL	J R — HRCII-C
600	J R HRCII-C [5]	29J 29R 29E	20J 20R 20E	GT or BT	GL or BL	J R HRCII-C
800	L	24L	20L	GT or BT	GL or BL	L

- [1] Power fuse option not available for Class H fuse clips.
- [2] Available on 480V and 600V applications only.
To select power fuses for Bulletins 2106, 2112, 2122, 2126, and 2172:
 - Select fuse clip designator and add to catalog string number (e.g., 2106B-BABD-31__-20J).
 - Then select power fuse manufacturer code and add to catalog string number (e.g., 2106B-BABD-31GT-20J). Only use power fuse code when selecting power fuses.
- [3] Select power fuse manufacturer code by indicating choice of power fuse manufacturer—GT or GL = Ferraz Shawmut and BT or BL = Bussmann. When selecting Bussmann Class J or R, delivery program changes to PE. The Ferraz Shawmut Class J fuse incorporates blown fuse indication for fuses above 8A.
- [4] Not available with Bulletin 2154F and 2154G units.
- [5] HRCII-C fuses are available in Canada only. HRCII-C Bussmann (BT or BL) fuses are not available; use HRCII-C Ferraz Shawmut (option code GT or GL). They are CSA certified but are NOT UL listed.

* For Bulletins 2100D, 2102L, 2192F, and 2192M, see table on page 208. For Bulletin 2196, see page 209.
 † Refer to publication 2100-TD003x-EN-P, *CENTERLINE Motor Control Centers Power Fuses*, for more information.



Configuration Tables

Control Voltage Type for Bulletins 2162, 2163, 2164, and 2165

Line Voltage	Voltage Code
220/230	P ^{[1],[2]}
240	A ^[2]
380	N ^{[1],[2]}
400	KN ^{[1],[2]}
415	I ^{[1],[2]}
480	B
600	C

[1] Units at these voltages are not UL listed or CSA certified.

[2] Not applicable to 2164 or 2165.

Horsepower Ratings for All Bulletins

Motor Hp	Number	Motor Hp	Number	Motor Hp	Number	Motor Hp	Number
0.125	30	3	38	40	46	250	56
0.25	31	5	39	50	47	300	57
0.33	32	7.5	40	60	48	350	58
0.50	33	10	41	75	49	400	59
0.75	34	15	42	100	50		
1	35	20	43	125	51	450	60
1.5	36	25	44	150	52	500	61
2	37	30	45	200	54		

kW Ratings for Bulletins 2154, 2155, 2162, and 2163 ^[1]

kW	Number	kW	Number
0.25	32K	37	47K
0.37	33K	45	48K
0.55	34K	55	49K
0.75	35K	75	50K
1.1	36K	90	51K
1.5	37K	110	52K
2.2	38K	132	53K
3.7	39K	150	54K
5.5	40K	160	55K
7.5	41K	185	56K
11	42K	200	57K
15	43K	220	58K
18.5	44K	250	59K
22	45K		
30	46K		

[1] kW rated units are not UL listed, cUL listed or CSA certified.

Configuration Tables

Fuse Clip Designator Selection and Power Fuse Selection for Bulletins 2100D, 2102L, 2192F, and 2192M *†

Use this information to select a fuse clip designator.			Use this information to select power fuses. [1],[2]			
Fuse Clip Rating (Amperes)	Fuse Clip Type	Fuse Clip Designator	Power Fuse Rating (Amperes)	Power Fuse Rating Code	Power Fuse Manufacturer [3]	Fuse Class
30	CC	24C	1	600	L [4]	CC
			3	601		
			6	602		
			10	603		
			15	604		
			20	605		
			25	606		
	30	607	G or B [4]	J R —		
	1	600				
	3	601				
	6	602				
	10	603				
	15	604				
	20	605				
25	606	G or B [4]	J R —			
30	607					
35	608					
40	609					
45	610					
50	611					
60	612					
70	613					
80	614					
90	615					
100	616					
110	617					
125	618					
150	619					
175	620					
200	621					
225	622	G or B [4]	J R —			
250	623					
300	624					
350	625					
400	626					
450	627					
500	628					
600	629					
601	630					
601	630					
700	631					
800	632					
1000	633					
1200	634					
1600	637					
2000	639					

[1] Power fuse option is not available for Class H fuse clips.

[2] Available on 480V and 600V applications only. To select power fuses for Bulletins 2100D, 2102L, 2192F, and 2192M, combine power fuse rating code and power fuse manufacturer code and add to catalog string number (e.g., 2102LB-BKBD-24J-607G). Only use power fuse code when selecting power fuses.

[3] L = Littelfuse, G = Ferraz Shawmut, B = Bussmann. The Ferraz Shawmut Class J fuse incorporates blown fuse indication for fuses above 8A.

[4] When selecting Bussmann or Littelfuse power fuses, delivery program changes to PE. Littelfuse power fuses are available only in Class CC fuses with blown fuse indicators.

[5] Available: G = Ferraz Shawmut, 601A only.

* For Bulletins 2106, 2112, 2122, 2126, 2154, and 2172, see table on page 207. For Bulletin 2196, see page 209.

† Refer to publication 2100-TD003x-EN-P, *CENTERLINE Motor Control Centers Power Fuses*, for more information.

Allen-Bradley Parts