

# 3RV1 Motor Starter Protectors

## For Motor Protection

SIRIUS



3RV10 Class 10  
up to 12A

Description	Ordering Information
<p>The <b>3RV101 MSP's</b>, can be used as components in Group Installation per NEC 430-53(C) to turn motors on and off. Each device has built-in heater elements that provide overload protection and magnetic trip elements to protect the motor. When the <b>3RV101</b> is used as a component in Group Installation, multiple MSP's can be installed below one circuit breaker to protect its own motor. A contactor can be mounted to the MSP to provide a remotely operated starter.</p>	<ul style="list-style-type: none"> <li>▶ ON/OFF rocker mechanism with lockout.</li> <li>▶ Adjustment dial for setting to motor FLA.</li> <li>▶ Class 10 overload trip characteristics.</li> <li>▶ Short circuit trip at 12 times the maximum setting of the FLA adjustment dial.</li> <li>▶ Short circuit current rating:</li> <li>▶ Ambient compensated up to 140° F (applies to side by side mounting).</li> <li>▶ Phase loss sensitivity.</li> <li>▶ Test trip function.</li> <li>▶ Cage Clamp version.</li> <li>▶ Auxiliaries and Accessories see pages 1/9–1/19.</li> <li>▶ General Information see pages 1/31–1/34.</li> <li>▶ Technical Data see pages 1/20–1/30.</li> <li>▶ Dimensions see page 1/35.</li> </ul>

**Note:** Select MSP by motor Full Load Amperes. Horsepower ratings are for reference only.

Illustration	FLA Adjustment Range	Single-Phase HP Ratings		Three-Phase HP Ratings <sup>①</sup>				Instantaneous short circuit release $I_{sc}$ A	UL short-circuit breaking capacity @ 480 V $I_{cu}$ kA	Screw connection		Cage clamp connection	
		115V	230V	200V	230V	460V	575V			Catalog No	List Price \$	Catalog No	List Price \$
<b>3RV101 Frame Size S00<sup>②</sup></b>													
	0.11–0.16	—	—	—	—	—	— <sup>④</sup>	2.1	65	3RV1011-0AA10		3RV1011-0AA20	
	0.14–0.2	—	—	—	—	—	—	2.6	65	3RV1011-0BA10		3RV1011-0BA20	
	0.18–0.25	—	—	—	—	—	—	3.3	65	3RV1011-0CA10		3RV1011-0CA20	
	0.22–0.32	—	—	—	—	—	—	4.2	65	3RV1011-0DA10		3RV1011-0DA20	
	0.28–0.4	—	—	—	—	—	—	5.2	65	3RV1011-0EA10		3RV1011-0EA20	
	0.35–0.5	—	—	—	—	—	—	6.5	65	3RV1011-0FA10		3RV1011-0FA20	
	0.45–0.63	—	—	—	—	—	¼	8.2	65	3RV1011-0GA10		3RV1011-0GA20	
	0.55–0.8	—	—	—	—	¼	½	10	65	3RV1011-0HA10		3RV1011-0HA20	
	0.7–1	—	—	—	—	½	½	13	65	3RV1011-0JA10		3RV1011-0JA20	
0.9–1.25	—	—	—	¼	¾	¾	16	65	3RV1011-0KA10		3RV1011-0KA20		
	1.1–1.6	—	⅓	¼	½	¾	1	21	65	3RV1011-1AA10		3RV1011-1AA20	
	1.4–2	—	⅓	½	½	1	1½	26	65	3RV1011-1BA10		3RV1011-1BA20	
	1.8–2.5	—	⅓	½	½	1½	1½	33	65	3RV1011-1CA10		3RV1011-1CA20	
	2.2–3.2	⅓	¼	¾	¾	1½	2	42	65	3RV1011-1DA10		3RV1011-1DA20	
	2.8–4	⅓	½	¾	1	2	3	52	65	3RV1011-1EA10		3RV1011-1EA20	
	3.5–5	⅓	½	1	1	3	3	65	65	3RV1011-1FA10		3RV1011-1FA20	
	4.5–6.3	¼	¾	1½	1½	5	5	82	65	3RV1011-1GA10		3RV1011-1GA20	
	5.5–8	½	1	2	2	5	5	104	65	3RV1011-1HA10		3RV1011-1HA20	
	7–10	½	1½	3	3	7½	10 <sup>②</sup>	130	65	3RV1011-1JA10		3RV1011-1JA20	
	9–12	½	2	3	3	7½	10	156	65	3RV1011-1KA10		3RV1011-1KA20	
<b>Accessories</b>													
Transverse auxiliary switch <sup>③</sup> 1 NO + 1 NC separately								Approx. weight .02 kg		3RV19 01-1E		3RV19 01-2E	

① Select MSP by motor full load amps. Horse power ratings for reference only.

② Size S00 MSP are listed for group installation only.

③ For additional auxiliary switches refer to Accessories, Page 1/8 (screw connection) and Page 1/15 (Cage Clamp connection).

④ Shaded ratings apply for group installation only. These ratings do not apply as UL listed manual combination starters.



Description	Ordering Information
<p>The <b>3RV102</b>, <b>3RV103</b>, and <b>3RV104</b> MSP's can be used as Type E self-protected manual combination starters per UL508 (<b>3RV102</b> and <b>3RV104</b> require additional terminal adapters) or as components in Group Installation per NEC 430-53(C) to turn motors on and off. Each device has built-in heater elements that provide overload protection and magnetic trip elements to protect the motor. When the <b>3RV</b> is used as a component in Group Installation, multiple MSP's can be installed below one circuit breaker to protect its own motor. A contactor can be mounted to the MSP to provide a remotely operated starter.</p>	<ul style="list-style-type: none"> <li>▶ ON/OFF rotary handle with lockout and visible trip indication.</li> <li>▶ Adjustment dial for setting to motor FLA.</li> <li>▶ Class 10 overload trip characteristics.</li> <li>▶ Short circuit trip at 12 times the maximum setting of the FLA adjustment dial.</li> <li>▶ Short circuit current rating:</li> <li>▶ Ambient compensated up to 140° F (applies to side by side mounting).</li> <li>▶ Phase loss sensitivity.</li> <li>▶ Test trip function.</li> <li>▶ Accessories see pages 1/9–1/19.</li> <li>▶ General Information see pages 1/31–1/40.</li> <li>▶ Technical Data see pages 1/20–1/30.</li> <li>▶ Dimensions see pages 1/35.</li> </ul>

**Note:** Select MSP by motor Full Load Amperes. Horsepower ratings are for reference only.

Illustration	FLA Adjustment Range	Single-Phase HP Ratings		Three-Phase HP Ratings <sup>①</sup>				Instantaneous short-circuit release $I >$ A	UL Short-circuit breaking capacity @ 480 VAC $I_{CU}$ kA	Screw connection	
		115V	230V	200V	230V	460V	575V			Catalog No	List Price \$
	<b>3RV102 Frame Size S0<sup>②</sup></b>										
	0.11–0.16	—	—	—	—	—	—	2.1	65	3RV1021-0AA10	
	0.14–0.2	—	—	—	—	—	—	2.6	65	3RV1021-0BA10	
	0.18–0.25	—	—	—	—	—	—	3.3	65	3RV1021-0CA10	
	0.22–0.32	—	—	—	—	—	—	4.2	65	3RV1021-0DA10	
	0.28–0.4	—	—	—	—	—	—	5.2	65	3RV1021-0EA10	
	0.35–0.5	—	—	—	—	—	—	6.5	65	3RV1021-0FA10	
	0.45–0.63	—	—	—	—	—	—	8.2	65	3RV1021-0GA10	
	0.55–0.8	—	—	—	—	—	1/2	10	65	3RV1021-0HA10	
	0.7–1	—	—	—	—	1/2	1/2	13	65	3RV1021-0JA10	
	0.9–1.25	—	—	—	—	3/4	3/4	16	65	3RV1021-0KA10	
	1.1–1.6	—	1/10	—	—	3/4	1	21	65	3RV1021-1AA10	
	1.4–2	—	1/6	—	—	1	1 1/2	26	65	3RV1021-1BA10	
	1.8–2.5	—	1/6	1/2	1/2	1 1/2	1 1/2	33	65	3RV1021-1CA10	
	2.2–3.2	1/10	1/4	3/4	3/4	1 1/2	2	42	65	3RV1021-1DA10	
2.8–4	1/6	1/2	3/4	1	2	3	52	65	3RV1021-1EA10		
	<b>3RV103 Frame Size S2<sup>②</sup></b>										
	3.5–5	1/6	1/2	1	1	3	3	65	65	3RV1021-1FA10	
	4.5–6.3	1/4	3/4	1 1/2	1 1/2	5	5	82	65	3RV1021-1GA10	
	5.5–8	1/3	1	2	2	5	5	104	65	3RV1021-1HA10	
	7–10	1/2	1 1/2	3	3	7 1/2	10	130	65	3RV1021-1JA10	
	9–12.5	1/2	2	3	3	7 1/2	10	163	65	3RV1021-1KA10	
	11–16	1	3	5	5	10	15 <sup>③</sup>	208	65	3RV1021-4AA10	
	14–20	1 1/2	3	5	7 1/2	15	20	260	65	3RV1021-4BA10	
	17–22	2	3	7 1/2	7 1/2	15	20	286	65	3RV1021-4CA10	
	20–25	2	5	7 1/2	7 1/2	15	20	325	65	3RV1021-4DA10	
	<b>3RV104 Frame Size S3<sup>②</sup></b>										
	11–16	1	3	5	5	10	15	208	65	3RV1031-4AA10	
	14–20	1 1/2	3	5	7 1/2	15	20	260	65	3RV1031-4BA10	
	18–25	2	5	7 1/2	10	20	25	325	65	3RV1031-4DA10	
	22–32	3	5	10	10	25	30	416	65	3RV1031-4EA10	
	28–40	3	7 1/2	15	15	30	40	520	65	3RV1031-4FA10	
36–45	5	7 1/2	15	15	30	40	585	65	3RV1031-4GA10		
40–50	5	10	15	20	40	50	650	65	3RV1031-4HA10		
	<b>3RV104 Frame Size S3<sup>②</sup></b>										
	28–40	3	7 1/2	15	15	30	40	520	65	3RV1041-4FA10	
	36–50	5	10	15	20	40	50	650	65	3RV1041-4HA10	
	45–63	5	15	20	25	50	60	819	65	3RV1041-4JA10	
	57–75	7 1/2	15	25	25	60	75	975	65	3RV1041-4KA10	
70–90	10	20	30	30	75	100 <sup>③</sup>	1170	65	3RV1041-4LA10		
80–100	10	25	40	40	75	100	1235	65	3RV1041-4MA10		

① Select MSP by motor full load amps. Horse power ratings for reference only.  
 ② Size S0, S2, S3 are listed as type E combination motor controller. Required terminals see page 1/9.

③ Shaded ratings apply for group installation only. These ratings do not apply as UL listed manual combination starters.

Refer to pages 1/20 to 1/22 when using an MSP in a Manual Motor Starter or a Manual Self-Protected Combination Motor Controller.