



EMERSON[™]
Industrial Automation



Short Form Guide

Unidrive SP

Part Number: 0471-0162-02
Issue: 2



**CONTROL
TECHNIQUES**

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2 Product Information

2.1 Ratings



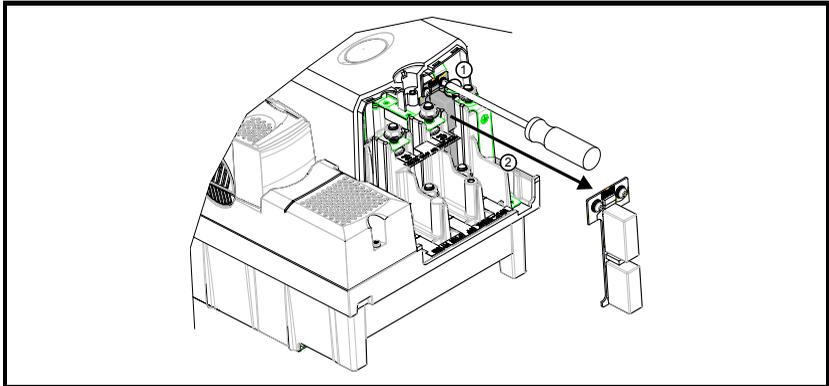
Fuses

The AC supply to the drive must be installed with suitable protection against overload and short-circuits. The following section shows recommended fuse ratings. Failure to observe this requirement will cause risk of fire.

Table 2-1 Size 0 to 3 ratings

Model	Max. cont. input current		Fuse		Cable size				Normal Duty			Heavy Duty		
					EN60204		UL508C		Max. cont. output current	Nom power @ 220V	Motor power @ 230V	Max. cont. output current	Nom power @ 220V	Motor power @ 230V
	Input	Output	Input	Output	A	kW	hp	A						
	1ph	3ph	IEC gG	UL	mm ²	mm ²	AWG	AWG	A	kW	hp	A	kW	hp
SP0201	5.0	3.6	6	10	0.75	0.75	16	24				2.2	0.37	0.5
SP0202	7.6	5.6	10	10	1	0.75	16	22				3.1	0.55	0.75
SP0203	9.6	6.9	12	16	1.5	0.75	14	20				4.0	0.75	1.0
SP0204	13.5	8.9	16	20	2.5	0.75	12	18				5.7	1.1	1.5
SP0205	17.4	12.3	20	20	4	0.75	12	18				7.5	1.5	2.0
SP0401		2.3	4	10	0.75	0.75	16	24				1.3	0.37	0.5
SP0402		2.8	4	10	0.75	0.75	16	24				1.7	0.55	0.75
SP0403		3.3	6	10	0.75	0.75	16	24				2.1	0.75	1.0
SP0404		4.4	6	10	0.75	0.75	16	22				3.0	1.1	1.5
SP0405		5.7	8	10	0.75	0.75	16	20				4.2	1.5	2.0
SP1201		9.5	10	10	1.5	1.0	14	18	5.2	1.1	1.5	4.3	0.75	1.0
SP1202		11.3	12	15	1.5	1.0	14	16	6.8	1.5	2.0	5.8	1.1	1.5
SP1203		16.4	20	20	4.0	1.0	12	14	9.6	2.2	3.0	7.5	1.5	2.0
SP1204		19.1	20	20	4.0	1.5	12	14	11	3.0	3.0	10.6	2.2	3.0
SP1401		4.8	8	8	1.0	1.0	16	22	2.8	1.1	1.5	2.1	0.75	1.0
SP1402		5.8	8	8	1.0	1.0	16	20	3.8	1.5	2.0	3.0	1.1	1.5
SP1403		7.4	8	10	1.0	1.0	16	18	5.0	2.2	3.0	4.2	1.5	2.0
SP1404		10.6	12	15	1.5	1.0	14	16	6.9	3.0	5.0	5.8	2.2	3.0
SP1405		11	12	15	1.5	1.0	14	14	8.8	4.0	5.0	7.6	3.0	5.0
SP1406		13.4	16	15	2.5	1.5	14	14	11	5.5	7.5	9.5	4.0	5.0
SP2201		18.1	20	20	4.0	2.5	12	14	15.5	4.0	5.0	12.6	3.0	3.0
SP2202		22.6	25	25	4.0	4.0	10	10	22	5.5	7.5	17	4.0	5.0
SP2203		28.3	32	30	6.0	6.0	8	8	28	7.5	10	25	5.5	7.5
SP2401		17	20	20	4.0	2.5	12	14	15.3	7.5	10	13	5.5	10
SP2402		21.4	25	25	4.0	4.0	10	10	21	11	15	16.5	7.5	10
SP2403		27.6	32	30	6.0	6.0	8	8	29	15	20	25	11	20
SP2404		27.6	32	30	6.0	6.0	8	8				29	15	20
SP3201		43.1	50	45	16	16	6	6	42	11	15	31	7.5	10
SP3202		54.3	63	60	25	25	4	4	54	15	20	42	11	15
SP3401		36.2	40	40	10	10	6	6	35	18.5	25	32	15	25
SP3402		42.7	50	45	16	16	6	6	43	22	30	40	18.5	30
SP3403		53.5	63	60	25	25	4	4	56	30	40	46	22	30
SP3501		6.7	8	10	1.0	1.0	16	18	5.4	3.0	3.0	4.1	2.2	2.0
SP3502		8.2	10	10	1.0	1.0	16	16	6.1	4.0	5.0	5.4	3.0	3.0
SP3503		11.1	12	15	1.5	1.0	14	14	8.4	5.5	7.5	6.1	4.0	5.0
SP3504		14.4	16	15	2.5	1.5	14	14	11	7.5	10	9.5	5.5	7.5
SP3505		18.1	20	20	4.0	2.5	12	14	16	11	15	12	7.5	10
SP3506		22.2	25	25	4.0	4.0	10	10	22	15	20	18	11	15
SP3507		26.0	32	30	6.0	6.0	8	8	27	18.5	25	22	15	20

Figure 3-7 Removal of Size 4 to 6 internal EMC filters



3.8.2 External filter

	Schaffner					Epcos				
	No.	L1, L2, L3		⏏		No.	L1, L2, L3		⏏	
1 ph										
SP0201	4200-6000	4mm ² 12AWG	0.8 N m (0.6 lb ft)	4mm ² 12AWG	0.8 N m (0.6 lb ft)					
SP0202										
SP0203										
SP0204										
SP0205										
3 ph										
SP0201	4200-6001	4mm ² 12AWG	0.8 N m (0.6 lb ft)	4mm ² 12AWG	0.8 N m (0.6 lb ft)					
SP0202										
SP0203										
SP0204										
SP0205										
SP0401	4200-6002	4mm ² 12AWG	0.8 N m (0.6 lb ft)	4mm ² 12AWG	0.8 N m (0.6 lb ft)					
SP0402										
SP0403										
SP0404										
SP0405										
SP1201	4200-6118	4mm ² 12AWG	0.8 N m (0.6 lb ft)	M5	3.5 N m (2.6 lb ft)	4200-6121	4mm ² 12AWG	0.6 N m (0.4 lb ft)	M5	3.0 N m (2.2 lb ft)
SP1202										
SP1203	4200-6119	4mm ² 12AWG	0.8 N m (0.6 lb ft)	M5	3.5 N m (2.6 lb ft)	4200-6120	4mm ² 12AWG	0.6 N m (0.4 lb ft)	M5	3.0 N m (2.2 lb ft)
SP1204										
SP1401	4200-6118	4mm ² 12AWG	0.8 N m (0.6 lb ft)	M5	3.5 N m (2.6 lb ft)	4200-6121	4mm ² 12AWG	0.6 N m (0.4 lb ft)	M5	3.0 N m (2.2 lb ft)
SP1402										
SP1403										
SP1404										
SP1405										
SP1406	4200-6119	4mm ² 12AWG	0.8 N m (0.6 lb ft)	M5	3.5 N m (2.6 lb ft)	4200-6120	4mm ² 12AWG	0.6 N m (0.4 lb ft)	M5	3.0 N m (2.2 lb ft)
SP2201										
SP2202	4200-6210	10mm ² 8AWG	2 N m (1.5 lb ft)	M5	3.5 N m (2.6 lb ft)	4200-6211	10mm ² 8AWG	1.35 N m (1.0 lb ft)	M5	3.0 N m (2.2 lb ft)
SP2203										

4.4 Braking resistor values (40°C [104°F])

Model	Minimum resistance*	Instantaneous power rating
	Ω	kW
SP0201 ~ SP0205	35	4.35
SP0401 ~ SP0405	105	5.79
SP1201 ~ SP1203	43	3.5
SP1204	29	5.3
SP1401 ~ SP1404	74	8.3
SP1405 ~ SP1406	58	10.6
SP2201 - SP2203	18	8.9
SP2401 ~ SP2404	19	33.1
SP3201 ~ SP3202	5.0	30.3
SP3401 ~ SP3403	18	35.5
SP3501 ~ SP3507	18	50.7
SP4201 ~ SP4203**	5.0	30.3
SP4401 ~ SP4402**	11	55.3
SP4403**	9	67.6
SP4601 ~ SP4606**	13	95.0
SP5201 ~ SP5202**	3.5	53
SP5401 ~ SP5402**	7	86.9
SP5601 ~ SP5602**	10	125
SP6401 ~ SP6402**	5	122
SP6601 ~ SP6602**	10	125

* Resistor tolerance: ±10%.

** The power ratings specified are for a stand-alone drive only. If the drive is part of a common DC bus system different ratings must be used. Contact the supplier of the drive for more information.