sprecher+schuh

Ratings to: AS/NZS 60947.4 IEC 60947.4

CONTACTOR RATINGS CHART

NHP

			CA8-5	CA8-9	CA8-12	CA7-9	CA7-12	CA7-16	CA7-23	CA7-30	CA7-37	CA7-43	CA7-55	CA7-60	CA7-72	CA7-85	CA7-97	CA9-116 [2]	CA9-146 [2]	CA9-190 [2]	CA9-205 [2]	CA9-265 [2]	CA9-305 [2]	CA9-370 [2]	CA9-400	CA9-460	CA9-580	CA9-750	CA9-860	CA9-1060
CURRENT RATINGS																														
40 °C I_{th}	**AC 1** - 415 V	Amps	20	20	20	32	32	32	32	65	65	85	85	100	100	100	130	160 [4]	225 [4]	275 [4]	350 [4]	400 [4]	500 [4]	600 [4]	600 [4]	700 [4]	800 [4]	1050 [4]	1350 [4]	1650 [4]
60 °C I_{th}	**AC 1** - 415 V	Amps	16	16	16	32	32	32	32	65	65	75	75	100	100	100	110	145 [4]	200 [4]	250 [4]	300 [4]	350 [4]	400 [4]	500 [4]	500 [4]	600 [4]	700 [4]	875 [4]	1150 [4]	1450 [4]
	AC 2, AC 3 - 415 V	Amps	4.9	8.5	11.5	9	12	16	23	30	37	43	55	60	72	85	97	116	146	190	205	265	305	370	400	460	580	750	860	1060
	AC 4 [1] - 415 V	Amps	2	3.6	3.6	4.3	6.6	9	9	12	14	16.5	22	25.5	31	38	44	38	38	49	55	73	89	100	118	135	-	-	-	-
	AC 2, AC 3 - 690 V	Amps	2.8	4.9	6.7	5	7	9	12	18	21	25	25	34	42	49	57	66	93	135	165	250	290	315	350	400	500	650	800	970
	AC 2, AC 3 - 1000 V	Amps	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	46	60	85	100	113	131	141	155	200	250	300	375	400
MOTOR STARTER RATINGS AT OPERATIONAL VOLTAGE 400/415 V. ALL kW RATINGS APPROXIMATE																														
60 °C I_{th}	**AC 2, AC 3** - 415 V	kW	2.2	4	5.5	4	5.5	7.5	11	15	20	22	30	32	40	45	55	55	75	90	110	132	160	200	220	250	355	425	500	630
	AC 4 [1] - 415 V	kW	0.75	1.5	1.5	1.8	3	4	4	5.5	6.3	7.5	11	13	17	20	22	20	20	25	30	40	50	55	63	75	-	-	-	-
	AC 2, AC 3 - 690 V	kW	2.2	4	5.5	4	5.5	7.5	10	15	18.5	22	22	32	40	45	55	63	90	132	160	200	250	315	315	355	500	600	800	1000
	AC 2, AC 3 - 1000 V	kW	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	55	75	110	132	160	185	200	220	280	355	400	555	600
Star-delta [3] @ 415 V	Line/delta	kW	4	7.5	11	7.5	11	15	22	25	37	40	45	55	63	80	90	110	132	160	200	250	315	355	400	400	560	800	900	1100
	Star point Y	kW				14	19	25	37	50	60	72	90	100	125	145	165	160	220	250	315	400	420	560	630	750	1000	1250	1450	1850
CAPACITOR AND LAMP SWITCHING AT OPERATIONAL VOLTAGE 415 V																														
Capacitor switching AC 6b [5] @ 415 V	40 °C	kVar	-	-	-	8	8	10	12.5	20	25	35	35	50	50	50	50	75	90	110	130	145	165	200	210	240	285	400	450	500
	60 °C	kVar	-	-		8	8	10	12.5	20	22	30	30	42	50	50	50	75 [6]	90 [6]	110 [6]	130 [6]	145 [6]	165 [6]	200 [6]	210 [6]	240 [6]	285 [6]	400 [6]	450 [6]	500 [6]
Incandescent lamps [11]	AC 5b	Amps	5	9	9	12	16	18	22	30	37	43	51	60	70	76	90	116	146	190	205	265	305	370	400	460	580	750	877	1072
Fluorescent lamps [13]	AC 5a	Amps	14.5	14.5	15	22.5	25	28	29	37	41	57	57	77	81	90	100	116	146	190	205	265	305	370	400	460	580	750	877	1072
MECHANICAL, ELECTRICAL AND COIL DATA																														
Mechanical life		mill/Ops	15	15	15	13	13	13	13	13	13	12	12	6	6	6	6	-	-	-	-	-	-	-	-	-	-	-	-	-
Electrical life at AC3 @400 V		mill/Ops	0.7	0.7	0.7	1.3	1.3	1.3	1.3	1.3	1.3	1	0.8	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Max operating rate 0.25 sec start (@ max Amps)		Ops/Hr	250	250	300	700	700	700	600	600	600	600	600	500	500	500	500	300	300	300	300	300	300	300	300	300	300	300	60	60
Switching delay AC Coil [9]	Pick-up	ms	15-40	15-40	15-40	15-30	15-30	15-30	15-30	15-30	15-30	15-30	15-30	20-40	20-40	20-40	20-40	20-55	20-55	25-60	25-60	30-60	30-60	30-60	50-120	50-120	50-120	50-120	50-80	50-80
	Drop-out	ms	15-33	15-33	15-33	10-60	10-60	10-60	10-60	10-60	10-60	10-60	10-60	10-60	10-60	10-60	20-40	40-70	40-70	45-80	45-80	45-80	45-80	45-80	33-70	33-70	33-70	33-70	35-55	35-55
AC Coil consumption	Pick-up	VA	35	35	35	75	75	75	105	105	105	135	135	235	235	235	400	130 [8]	130 [8]	220 [8]	220 [8]	385 [8]	385 [8]	385 [8]	995 [8]	955 [8]	880 [8]	880 [8]	2450 [8]	2450 [8]
	Hold-in	VA	5	5	5	9.5	9.5	9.5	12.3	12.3	12.3	13.3	13.3	19	19	19	24	6 [8]	6 [8]	7 [8]	7 [8]	17.5 [8]	17.5 [8]	17.5 [8]	12 [8]	12 [8]	12 [8]	12 [8]	48 [8]	48 [8]
	Hold-in	W	1.8	1.8	1.8	2.7	2.7	2.7	3.1	3.1	3.1	3.3	3.3	6.5	6.5	6.5	9	-	-	-	-	-	-	-	-	-	-	-	-	-
DC Coil consumption	Pick-up (peak)	W	3	3	3	10 (17)	10 (17)	10 (17)	10 (17)	10 (17)	10 (17)	16 (25)	16 (25)	200	200	200	325	210	210	205	205	400	400	400	900	900	785	785	-	-
(CA7/9's 24V DC)	Hold-in	W	3	3	3	1.7	1.7	1.7	1.7	1.7	1.7	2.5	2.5	4.5	4.5	4.5	5.5	2.5	2.5	2.5	2.5	3.5	3.5	3.5	5	5	5.5	5.5	-	-
Auxiliary contacts available (NO or NC)		Std	1/1	1/1	1/1	1/1	1/1	1/1	1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Auxiliary contacts available (1NO + 1NC)		Std	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1	1	1	1	1	1	1	1
Integral auxiliary contact	AC 12, 60 °C	Amps	6	6	6	20	20	20	20	-	-	-	-	-	-	-	-	16 [7]	16 [7]	16 [7]	16 [7]	16 [7]	16 [7]	16 [7]	16 [7]	16 [7]	16 [7]	16 [7]	16 [7]	16 [7]
	AC 15, 415V	Amps	1.8	1.8	1.8	6	6	6	6	-	-	-	-	-	-	-	-	3	3	3	3	3	3	3	3	3	3	3	3	3
Add-on auxiliary block	AC 12, 60 °C	Amps	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	16 [7]	16 [7]	16 [7]	16 [7]	16 [7]	16 [7]	16 [7]	16 [7]	16 [7]	16 [7]	16 [7]	16 [7]	16 [7]
	AC 15, 415V	Amps	1.2	1.2	1.2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3

ELECTRONIC OVERLOAD SELECTION						
Electronic Overload CEP7-1EF and adjustment range Direct mounting application [9] [10]	Amps		**CEP7-1EFCB** 1.0...5 A **CEP7-1EFDB** 3.2...16 A **CAP7-1EFEB** 5.4...27 A	**CEP7-1EFED** 5.4...27 A **CEP7-1EFFD** 11...55 A	**CEP7-1EFGE** 20...100 A	**Current Transformer Kits or separate components available**
THERMAL OVERLOAD SELECTION						
Thermal Overload and adjustment range. Direct mounting application [9] [10]	Amps	**CT8 A/B/C** 0.1...12.5 A	**CT7N-23-A/B/C** 0.1...25 A	**CT7N-37-C** 15...38 A **CT7N-43-C** 17...47 A **CT7N-55-C** 45...60 A	**CT7N-85-C** 35...90 A **CT7N-97-C** 85...97 A	

Utilisation categories

Main Poles

AC 1: Non-inductive or slightly inductive loads: resistance furnaces
AC 2: Slip-ring motors: Starting, plugging
AC 3: Squirrel-cage motors: Starting, switching off motors during running
AC 4: Squirrel-cage motors: Starting, plugging, inching

Auxiliary Contacts

AC 12: Control of resistive loads and solid state loads with isolation by optocouplers
AC 15: Control of electromagnetic loads: contactors coils

[1] Approximately 200,000 operations
[2] Available with standard electronic coil or electronic coil with PLC interface
[3] Star point Y = star connected. Star point Δ = delta connected star
[4] Amp rating at 690 V
[5] For PF correction panels min 6 pH inductive or use of harmonic filters
[6] kVar rating at 55°C
[7] Amp rating at AC 12, 40°C
[8] For 100…250 V AC coil voltage
[9] Maximum current setting to be no more than the rated current of contactor
[10] Refer Price List Catalogue for complete Cat. No. and Amp range
[11] Ratings at 230/240V
[12] CA8/7 with no suppressors fitted. CA9 electronic coils include suppression as standard
[13] Gas discharge lamps at @ 40º C which are enclosed

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