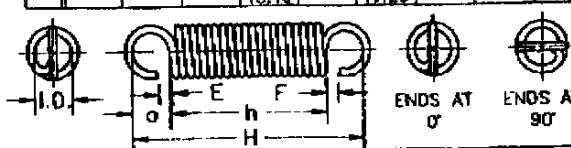


PUG 08 '97 10:22 FR ABB DSD FLORENCE 803 664 0520 TO 918002096332 P.02/18

ITEM	NOM. O.D.	FINAL LOAD		INITIAL LOAD		GRAD. TENSION	INITIAL TENSION	O.D. MAX	I.D. MIN	LENGTH		WIRE DIA (d)	ACTIVE TURNS	TOTAL TURNS	DIMENSIONS				LOOP POSITION	WIND	MATERIAL	FINISH	LIFE CYCLES X 100	REMARKS	ORIGINAL APPLIC. LAYOUT
		LBS	LENGTH	LBS	LENGTH					FREE (H)	BODY (H)				a	b	E	F							
A00	.312	5.12	4.08	—	3.28	2.24	1.14	.318	.238	2.56	1.96	.036	53.5	54.5	.241	.241	.082	.082	RANDOM	L	MUSIC WIRE	51042-A01	100	P1 & P2 ALARM & CONTROL SWITCH	
*B00	.844	77.3	8.50	—	—	21.6	12.3	.861	.585	8.04	4.88	.120	36	39	.750	.394	.156	.156	180°	L	MUSIC WIRE	51002-A01	50	KD OPENING SPRING	
*C00	.284	4.7	2.75	1.97	1.75	3.15	.61	.290	.200	1.42	.928	.032	28	28	.217	.217	.082	.082	90°	L	STAINLESS STEEL 18-8	CLEAN	100	OD OVERLOAD CALIBRATION	L-6156
*D00	.500	52.5	2.34	28.0	2.16	12.7	13.7	.510	.300	2.14	1.47	.095	14.5	15.5	.310	.310	.082	.082	0°	L	MUSIC WIRE	51002-A01	100	5-HVSD BRIDGE	
E00	.218	1.90	5.18	1.45	4.30	.500	.360	.222	.170	2.57	2.05	.022	92.2	93.2	.174	.174	.022	.022	RANDOM	L	MUSIC WIRE	51042-A01	100	TRIP SHAFT SPRING SHV 50-150 1200A	
*F00	.562	39.9	6.89	30.5	6.37	17.5	12.3	.574	.370	5.68	4.75	.090	61.6	62.8	.382	.382	.090	.090	90°	L	MUSIC WIRE	51002-A01	100	MAIN LATCH SPRING SHV 50-150 1200A	
*G00	.200	2.1	1.38	1.20	1.12	4.66	0	.218	.125	1.77	.612	.025	20	20	.150	.150	.062	.062	RANDOM	L	STAINLESS STEEL 18-8	CLEAN	100	KNS REVERSE CURRENT CALIB.	L-6055
*H00	.375	10.9	4.48	0.88	—	4.36	1.77	.382	.276	2.65	2.03	.046	43.3	43.3	.25	.25	.062	.062	90°	L	MUSIC WIRE	51002-A01	200	HV	L-6446
*J00	.240	3.92	2.87	2.81	2.75	1.91	0.35	.250	.188	1.42	1.04	.026	39	40	.188	.188	.032	.032	0°±60°	L	MUSIC WIRE	51002-A01	100	TRIPPER BAR RETURN SPRING	
A01	.240	.585	1.87	.354	1.50	0.53	0.13	.25	.188	.958	.558	.018	29	30	.200	.200	.032	.032	0°±90°	R or L	STAINLESS STL 18-8, TYPE 302	CLEAN	500	LATCH BAR RET. K4/8/16	
A02	.500	18.4	3.00	11.5	2.375	13.5	6.4	.505	.370	2.075	1.45	.063	21.5	22.5	.410	.215	.032	.032	180°	L	MUSIC WIRE	51042-A01	500	LATCH RESET K4/8/16	L-10078
*A03	.450	22.0	2.50	17.0	2.20	24.2	3.4	.455	.320	4.70	1.20	.063	18.5	19.5	.250	.250	.063	.063	0°±45°	L	MUSIC WIRE	51002-A01	500	NOV. 1993	
A04	.280	11.12	3.041	6.911	2.667	9.33	1.5	.284	.196	2.185	1.394	.041	33	34	.594	.198	.359	.093	0°	L	MUSIC WIRE	51042-A01	50	(X702)	L-6691
*A05	.200	2.36	1.320	1.00	1.125	4.83	0	.218	.125	1.77	.612	.025	18	18	.150	.150	.062	.062	RANDOM	L	STAINLESS STEEL 18-8	CLEAN	100	REVERSE CURRENT CALIBRATION	
*A06	.679	48	4.56	16.5	3.25	23.7	8.56	.700	—	3.92	2.02	.091	21.25	21.25	.500	.500	.188	.188	90°±45°	L	MUSIC WIRE	51002-A01	500	K4/K8 OPENING SPRING	
*A07	.744	73.5	4.58	25	3.25	36.6	18.43	.750	—	3.125	2.125	.105	19.25	19.25	.500	.500	.188	.188	90°±45°	L	MUSIC WIRE	51002-A01	250	K16 OPENING SPRING	
A08	.280	1.746	1.406	1.168	1.082	1.75	.61	.265	.211	.782	.35	.022	14.75	15.75	.216	.216	.078	.078	90°±45°	R or L	MUSIC WIRE	51042-A01	1000	UNIT SW OPER (WAS 70326)	L-6512
*A09	.200	1.10	.906	—	—	38.5	4.8	.205	—	.785	.490	.035	13	—	.130	.130	.030	.030	RANDOM	L	MUSIC WIRE	51002-A01	5	UNDERVOLTAGE POT. ADJUST.	
A10	.280	1.425	1.500	.822	1.125	1.37	.449	.286	.234	.813	.341	.022	14.5	14.5	.234	.234	.075	.075	90°	L	MUSIC WIRE	51042-A01	1000	(WAS X70235)	L-6823
A11	.284	6.0	1.31	2.5	1.00	11.4	1.0	0.32	—	.872	.369	.036	8.25	—	.25	.25	.060	.060	90°±45°	L	MUSIC WIRE	51042-A01	500	K NECH PRIMARY CLOSE LATCH RETURN	
*A12	.380	1.085	4.375	2	2.375	1.8	1.667	.395	—	2.062	1.42	.033	42	42	.316	.316	.094	.094	RANDOM	L	MUSIC WIRE	51002-A01	100	FB-30 BREAKER	
*A13	.240	1.250	.750	—	—	MAX.	.246	.184	.625	—	—	.026	6	—	.219	.219	.094	.094	0°±10°	L	MUSIC WIRE	51002-A01	—	003 PIN PRELOAD SPRING (701563-H)	
*A14	.600	75	3.937	45	3.625	96.2	17.4	.605	.350	3.442	2.714	.118	22	—	.360	.364	.219	.219	90°	L	STAINLESS STL 18-8, TYPE 302	NONE	100	KNU 2038 (X70296)	L-8211
A15	.308	8.7	1.50	3.7	1.1	13.5	1.5	.310	.220	.868	.531	.041	12	13	.218	.218	.06	.06	90°±45°	L	STAINLESS STL 18-8, TYPE 302	CLEAN	100	—	L-8110-3
*A16	.340	10.13	2.37	8.82	2.12	6.31	3.18	.345	.249	1.62	1.075	.043	24	—	.254	.254	—	—	STYLE #4 0°±45°	L	MUSIC WIRE	51002-A01	100	K3000/4000 SEC. CLS. LATCH	
A17	.550	43.13	4.50	21.60	3.25	18.24	3.8	.555	.396	2.401	1.563	.072	—	20.5	.406	.406	.072	.072	STYLE #4 0°±72°	L	MUSIC WIRE	51042-A01	100	K4000 PAWL CARRIER RESET	



TWISTED LOOP ACCEPTABLE FOR SPRING INDEX ABOVE 15.
NOTE: VALUES WITHOUT TOLERANCES ARE DESIGN DATA AND ARE NOT COMPULSORY TO MANUFACTURER.
TOLERANCES, UNLESS SPECIFIED:
LOOP POSITION: ±30°
DIMS. E & F: d/2 OR .016, WHICHEVER IS GREATER.

REF	13	TENSION SPRINGS	
DATE	11/29/81	DATE REL	—
DES	—	APPD	—
PART NO.		650216	
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ABB		POWER DISTRIBUTION INC.	
ABB BROWN BOVERI		CIRCUIT BREAKER DIVISION	

REV	DATE	REVISION DESCRIPTION	BY	REV	DATE	REVISION DESCRIPTION	BY
1	13/10/83	[3538] REDESIGNED ITEM A11 TO CAD	ESH				
2	12/7/84	REDRAWN - NO CHANGE	MDAY				

TOLERANCE - DIMENSIONS		TOLERANCE - Holes		TOLERANCE - Holes	
LINEAR	PLACES	LINEAR	PLACES	LINEAR	PLACES
1	± .002	1	± .002	1	± .002
2	± .002	2	± .002	2	± .002
3	± .002	3	± .002	3	± .002
4	± .002	4	± .002	4	± .002
5	± .002	5	± .002	5	± .002
6	± .002	6	± .002	6	± .002
7	± .002	7	± .002	7	± .002
8	± .002	8	± .002	8	± .002
9	± .002	9	± .002	9	± .002
10	± .002	10	± .002	10	± .002
11	± .002	11	± .002	11	± .002
12	± .002	12	± .002	12	± .002
13	± .002	13	± .002	13	± .002
14	± .002	14	± .002	14	± .002
15	± .002	15	± .002	15	± .002
16	± .002	16	± .002	16	± .002
17	± .002	17	± .002	17	± .002
18	± .002	18	± .002	18	± .002
19	± .002	19	± .002	19	± .002
20	± .002	20	± .002	20	± .002

4

3

2

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