

Fatal and non-fatal accidents in electrical equipment products in Japan in 1999-2022

electrical equipment products industry Code No.0114

Type of accidents in electrical equipment products in 1999-2022

Type of accidents	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	total
fall from height	125	140	132	140	125	154	117	146	147	125	80	91	112	102	100	86	95	101	113	134	101	113	102	108	2,789
falling to same level	219	219	241	210	224	209	207	264	263	248	181	190	215	214	189	216	212	257	253	277	258	228	263	312	5,569
crash	57	64	57	48	54	54	57	41	42	52	33	48	45	58	35	43	32	45	49	49	55	38	56	55	1,167
struck by flying or falling object	94	113	98	80	87	100	90	83	78	89	59	67	56	62	63	46	50	70	55	42	44	53	61	56	1,696
collapse	28	40	38	40	32	36	28	35	40	23	14	18	28	14	24	18	15	22	22	27	24	11	14	24	615
crashed by	42	49	43	40	37	64	42	49	49	48	25	41	25	16	15	34	28	28	36	31	44	29	36	39	890
caught in/between	500	515	468	411	405	395	374	332	318	326	210	219	243	216	207	208	194	200	196	191	193	182	171	199	6,873
cut	126	125	113	92	99	110	91	95	104	90	60	72	58	56	65	60	51	31	58	52	43	65	48	54	1,818
injury to the sole of the foot	2	3	4			1	1	3							3			2		1	2	2	1		25
drown						1						1	9												11
contact to high/low-temperature	26	32	17	19	18	18	16	18	19	21	11	15	16	16	14	11	10	17	18	21	18	14	20	16	421

other equipment	210	259	211	214	209	234	201	205	223	230	124	182	176	170	163	180	163	189	192	184	206	201	212	200	4,738
temporary buildings, establishments	232	252	259	237	237	260	219	276	270	242	195	209	218	218	180	202	213	267	254	269	245	243	260	293	5,750
substance, material	150	165	143	135	139	144	138	125	157	130	90	107	94	85	72	76	71	86	88	83	87	71	73	103	2,612
load	106	107	96	86	87	91	87	114	107	111	64	79	75	71	60	67	66	74	54	76	53	52	79	81	1,943
environment	14	17	27	16	19	23	24	34	14	25	8	12	39	33	30	30	17	23	20	44	20	27	28	42	586
others	85	84	68	73	72	70	89	99	123	83	59	86	89	79	74	61	81	81	78	96	93	123	292	137	2,275
total	1,444	1,553	1,423	1,301	1,262	1,360	1,271	1,329	1,347	1,285	844	1,011	1,028	948	865	892	877	976	977	1,020	972	972	1,199	1,130	27,286

Causal agents (middle) of fatal and non-fatal accidents in electrical equipment products in 1999-2022

Causal (M) agents	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	total
engine		2	3	2	1	4	1	2	1			1			1		2		5			1	2	1	29
power transmission mechanism	21	7	9	4	10	13	14	9	11	10	12	5	6	10	7	4	1	8	10	5	6	5	5	5	197
woodworking machine	19	6	8	8	8	6	7	6	8	7	7	5	2	3	9	3	5	3	6	2	4	4	5	3	144
construction machine		1	1				1	1		2	4	1		1	1	1			2	3		1		1	21
metal manufacturing	239	271	217	193	177	172	166	152	154	141	92	106	118	108	94	83	101	84	85	77	95	92	77	94	3,188

mortiser, wood borer											2			1		1			1					5	
chamfering machine, router, woodworking milling machine																									
chain saw								2	1	1	1	1						1						7	
other woodworking machines			5		3		2		2	1	4				2	1	2		2	1			2	1	28
leveling, transporting or loading machine												1				1			1	2				5	
excavating machine							1	1			1										1			4	
foundation work machine																				1				1	
hardening machine																									
demolition machine										1														1	
vehicle for high lift work											3			1	1								1	6	
other construction machines			1							1									1					3	
lathe			10		16		7	13	8	14	11	11	8	7	11	8	16	8	12	13	8	15	5	10	211
drill press, milling			24		17		23	26	13	17	10	17	11	6	8	13	16	10	10	10	9	4	8	7	259

railway equipment							1		2				1								1		5		
conveyor			24		22		15	16	13	13	5	8	6	4	13	6	7	8	7	7	7	13	11	8	213
loader									1														1	2	
straddle carrier																									
rough terrain hauler																									
other powered conveying machines			5		4		9	2	5	7	4	4	3	3	1	3	2	1	4	2	8	3	3	4	77
cars, bus, motorcycle			44		33		54	34	29	50	29	36	38	26	17	32	24	18	20	22	17	14	22	13	572
railway vehicle						4	1									1		1						7	
other vehicles			2		1		1	1	2		3	1	1	2	1		1		1		1	1	2	1	22
boiler													1												1
pressure vessel					1			2						1	2										6
other pressure vessels								1		1	1	3		3			1								10
chemical facilities			1		1		2	4		4	1	1	1	1	2	1	2	2		1			1		25
gas welding equipment			1		1		1		2	2				2				3	1				1	1	15
arc welding equipment					1			1	2	1		1	2	3	1	1		1	1	1			1	2	19
other welding equipment			4		5		3	4	2	4	1	3	2	3	2	5	3	1	5		1	3	2	2	55
kiln, caldron					3		1	2	1	1	1	1	1	2	2	1	2	1		3	4	2	2	1	31

industrial dryer				2					3			2			1			2			2	1	1	14	
other kiln, caldron												1												1	
transmission			1	2		1	1	3	2	5	2	4	3			1	1	4	2	3	2	2	3	42	
electric power facilities			3	2		7	4	2	8	4	1	1	3	2	5	4	5	2	4			3	5	4	69
other electrical equipment			2	8		6	5	4	6	3	1	5	2	3	3	4	4	6	3	5	3	2	3	78	
human power cranes						1	1		4		1		1			2				6	5	9	15	45	
human power hauling equipment			36	41		40	27	35	47	27	34	37	24	33	45	24	35	42	31	49	51	44	43	745	
human power machine			8	2		3	3	4		1	2	1	2		3	1		1		1	1	1	1	35	
hand tool			35	29		19	25	29	23	11	25	14	16	15	13	13	11	16	19	14	21	16	17	381	
ladder			37	43		35	41	50	31	24	33	36	34	34	36	38	40	38	46	41	44	47	26	754	
slinging tool			9	5		4	3	7	1	3	2	1	4	4	6	2	4	3	2	2	3	3	6	74	
other tools			42	37		45	40	46	53	22	33	39	35	29	30	36	43	36	32	46	35	41	43	763	
other equipment, facilities			32	26		33	41	36	39	20	39	28	31	34	30	30	38	35	40	34	26	34	32	658	
scaffolding				5		4	1	3	1	1	1	1	2			3	2	2	1	2	1	2	2	34	
timbering																									
stairs, landing stage			59	58		55	67	66	63	42	45	46	50	55	30	41	58	52	56	59	67	63	74	1,106	
opening			5	7		1	3	5	6	4	2	5	3	2	3		2	1	3	2	5	1		60	

roof, beam, haze, crossbeam, principal rafter			4	2			9	1	2	2	4	4	2	2	2		3	1	2	1		2	1	44
working platform, boot board			28	33		27	35	41	32	31	17	30	28	14	27	17	22	21	21	19	22	18	19	502
passage			114	95		93	111	107	94	79	103	96	95	84	103	110	144	142	146	127	120	130	157	2,250
building, establishment			27	19		25	26	28	25	22	17	20	21	11	16	28	16	20	20	19	16	31	19	426
other temporary buildings, establishments			22	18		14	24	19	19	14	20	16	17	12	21	14	20	15	20	16	12	13	21	347
explosive substance			1	6						1			2		2		2		1				1	16
inflammable substance			5	2		4	1	6	4	2	3	1	1	1	2	4	2	2	1		3	2	3	49
inflammable gas										1							1							2
harmful substance			11	7		11	20	14	7	7	13	10	8	4	6	9	6	13	7	7	5	9	8	182
radiation																1								1
other hazards, harmful substances			9	3		9	10	9	8	7	5	10	5	7	2	4	5	6	6	5	5	10	11	136
metal material			90	84		90	74	89	82	54	59	55	54	49	49	42	53	50	59	58	44	36	61	1,232
lumber, bamboo			2	8		8	2	3	5	6	3	4	5	4	6		2	1	4	3	4	2	3	75
stone, sand, substance			1	1		1							1		1		2				1	1	1	10

other materials			24		28		15	18	36	24	12	24	14	9	7	8	12	13	15	5	14	9	13	15	315
load			75		73		64	93	89	91	57	70	60	57	46	53	56	60	47	58	43	42	68	71	1,273
machine/equipment as load			21		14		23	21	18	20	7	9	15	14	14	14	10	14	7	18	10	10	11	10	280
natural ground, rock			2		2		2			1		1	1			2	1	1	1			1		3	18
standing tree			2					1		2			1			1								1	8
water					1		1	3	1				11		1									1	19
abnormal environment					2			1	1	1				1								2			8
high/cold temperature environment			6		3		3	11	4	7	2	3	6	9	9	2	3	3	5	11	8	8	8	4	115
other environments			17		11		18	18	8	14	6	8	20	23	20	25	13	19	14	33	12	16	20	33	348
other causal agent			17		16		16	17	54	13	8	13	20	8	15	5	10	14	12	12	11	39	189	20	509
no causal agent			47		48		67	75	66	64	47	67	68	69	56	55	67	67	61	80	81	82	100	113	1,380
unclassifiable			4		8		6	7	3	6	4	6	1	2	3	1	4		5	4	1	2	3	4	74
total	1,444	1,553	1,423	1,301	1,262	1,360	1,271	1,329	1,347	1,285	844	1,011	1,028	948	865	892	877	976	977	1,020	972	972	1,199	1,130	27,286

Workers age of fatal and non-fatal accidents in electrical equipment products in 1999-2022

Age	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	total
19 years old or less	42	50	54	39	45	46	30	32	24	28	21	21	10	11	16	14	14	12	15	9	11	17	18	16	595

20-29	289	396	320	288	244	307	266	283	258	246	124	185	193	170	136	146	135	151	122	141	136	143	170	142	4,991
30-39	286	342	316	310	299	320	335	363	351	336	203	267	260	227	190	163	192	206	185	196	172	163	201	196	6,079
40-49	339	288	266	249	262	260	261	260	283	269	232	232	258	256	242	240	222	250	250	271	247	245	311	263	6,256
50-59	368	370	367	334	306	303	282	286	326	269	173	221	209	187	182	211	197	232	277	277	272	264	318	342	6,573
60 years old or more	120	107	100	81	106	124	97	105	105	137	91	85	98	97	99	118	117	125	128	126	134	140	181	171	2,792
total	1,444	1,553	1,423	1,301	1,262	1,360	1,271	1,329	1,347	1,285	844	1,011	1,028	948	865	892	877	976	977	1,020	972	972	1,199	1,130	27,286

Workers' number of workplace of fatal and non-fatal accidents in electrical equipment products in 1999-2022

Workers scale	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	total
9 workers or less	199	224	212	207	208	223	182	169	151	127	84	90	86	72	89	84	82	74	73	80	58	71	80	64	2,989
10-29	300	290	275	285	279	257	218	247	212	204	146	163	154	168	118	145	141	146	136	158	163	129	167	147	4,648
30-49	206	232	195	153	173	168	160	186	145	146	95	97	114	97	108	114	90	124	122	101	94	118	107	116	3,261
50-99	228	228	220	192	195	201	188	199	198	193	136	139	159	147	142	140	127	149	148	146	156	168	193	186	4,178
100-299	270	327	259	271	220	303	302	315	301	306	183	293	231	234	214	196	214	229	230	257	219	232	291	292	6,189
300 workers or more	241	252	262	193	187	208	221	213	340	309	200	229	284	230	194	213	223	254	268	278	282	254	361	325	6,021
total	1,444	1,553	1,423	1,301	1,262	1,360	1,271	1,329	1,347	1,285	844	1,011	1,028	948	865	892	877	976	977	1,020	972	972	1,199	1,130	27,286

Month of fatal and non-fatal accidents in electrical equipment products in 1999-2022

Month	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	total
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Yamagata	38	30	25		20		23	32	34	29	16	20	27	26	19	33	26	38	25	35	22	21	19	43	601
Fukushima	48	43	41		44		45	31	43	34	27	38	34	37	35	31	22	35	30	32	37	22	35	46	790
Ibaraki	49	51	44		31		33	52	39	54	31	26	46	41	35	27	28	34	31	39	29	32	36	35	823
Tochigi	20	37	36		32		30	25	20	19	16	12	26	18	21	31	22	23	18	14	22	22	19	13	496
Gunma	68	72	66		75		45	36	49	38	16	41	34	33	22	51	40	35	36	36	30	31	54	49	957
Saitama	62	52	66		63		57	54	54	52	40	47	44	37	35	41	28	37	41	39	47	44	35	56	1,031
Chiba	27	22	23		22		27	27	22	23	20	19	13	22	16	17	13	21	15	13	15	19	16	24	436
Tokyo	69	72	56		49		54	61	42	50	29	28	31	24	29	23	26	28	18	36	26	25	36	28	840
Kanagawa	92	107	78		68		58	61	67	90	60	49	46	49	42	40	37	44	49	53	45	33	53	55	1,276
Niigata	51	48	41		31		37	35	48	39	31	25	30	29	32	26	30	34	39	36	32	24	44	32	774
Toyama	13	18	19		18		17	25	23	19	8	12	15	14	9	6	8	11	17	23	16	15	19	8	333
Ishikawa	14	17	17		10		21	15	19	20	14	10	18	11	7	16	8	13	13	16	15	21	7	10	312
Fukui	9	18	17		10		17	23	11	11	7	7	10	10	10	14	7	9	12	28	11	13	17	19	290
Yamanashi	16	33	22		17		14	18	22	16	7	13	10	7	14	13	17	19	14	18	12	15	18	23	358
Nagano	72	59	60		60		30	53	61	42	32	49	48	38	55	39	35	31	60	52	55	43	66	71	1,111
Gifu	38	36	36		16		33	22	24	22	7	19	23	23	17	20	14	21	26	24	24	33	34	25	537
Shizuoka	56	78	62		61		62	75	77	76	38	51	56	52	27	42	55	52	56	50	61	51	55	49	1,242
Aichi	53	66	67		55		71	64	71	62	38	43	47	52	47	55	47	39	67	48	48	51	58	75	1,224
Mie	45	53	43		55		64	56	58	49	31	77	36	39	28	34	37	28	32	33	31	22	74	33	958
Shiga	38	53	43		48		40	43	49	51	24	36	36	24	33	39	30	41	28	38	30	25	40	42	831
Kyoto	51	42	46		33		23	21	22	29	34	30	21	24	17	14	21	30	27	28	30	25	25	13	606
Osaka	121	121	96		87		72	105	86	83	48	65	60	47	47	47	70	41	47	63	61	65	57	55	1,544

Hyogo	55	67	80		65		82	79	91	71	59	59	51	60	62	50	66	64	47	55	57	46	53	57	1,376
Nara	9	9	7		12		6	13	14	14	10	6	6	8	10	3	6	5	12	5	7	6	8	6	182
Wakayama	9	4	9		3		5	8	3	10	2	8	3	5	4	1	3	5	8	4	3	3	17	3	120
Tottori	10	22	15		12		9	10	9	9	7	10	6	7	6	9	5	8	7	9	3	7	8	7	195
Shimane	7	9	17		13		13	10	11	9	7	14	9	7	8	7	6	7	7	4	4	16	13	14	212
Okayama	24	23	25		19		17	22	31	18	16	15	19	17	12	11	14	16	18	18	14	22	10	16	397
Hiroshima	13	22	23		24		23	22	25	9	19	14	17	24	10	10	9	13	15	22	16	16	34	11	391
Yamaguchi	3	4	5		4		1	6	8	4	7	3	4	8	2	3	6	4	8	2	3	6	6		97
Tokushima	8	15	11		9		10	1	7	2		3	5	6	5	7	4	10	4	4	1	12	10	11	145
Kagawa	8	7	10		8		8	6	5	11	4	6	6	8	6	10	6	10	5	7	6	6	9	6	158
Ehime	20	16	14		8		11	8	7	12	11	9	7	7	6	8	2	4	6	4	6	5	7	7	185
Kochi	7	6	6		3		3	4	1	7	4	2	6	6		1	4	6	2	1		3	1	4	77
Fukuoka	27	47	47		37		39	28	30	60	27	27	35	29	30	24	29	24	24	27	26	36	33	26	712
Saga	27	9	5		4		16	15	10	7	9	7	8	4	8	2	9	13	9	7	6	9	13	11	208
Nagasaki	12	5	10		2		5	7	17	12	7	6	10	4	4	2	3	6	4	6	10	20	6	8	166
Kumamoto	16	17	16		17		19	13	20	17	13	21	20	21	14	11	14	21	12	9	21	16	17	11	356
Oita	12	14	12		11		12	12	12	4	3	4	3	11	1	6	5	8	4	6	10	9	9	7	175
Miyazaki	11	9	4		10		6	12	11	6	5	2	8	5	4	3	3	8	8	8	10	3	8	5	149
Kagoshima	21	17	24		22		20	11	13	16	11	16	12	7	13	10	9	13	7	8	11	20	32	16	329
Okinawa	1		2				3	4	5	1				3	1			1	1	1	1	1	1	1	27
total	1,444	1,553	1,423	1,301	1,262	1,360	1,271	1,329	1,347	1,285	844	1,011	1,028	948	865	892	877	976	977	1,020	972	972	1,199	1,130	27,286

injury to the sole of the foot																									
drown						1						8												9	
contact to high/low-temperature			1																1	1				3	
contact to harmful substance		2			1	1					1		2								2			9	
electric shock	1	2					1			1												1		6	
explosion														1										1	
burst										1							1							2	
fire		1	1																					2	
traffic accident (public road)	2	6	3	4	2		4		1	1	1	8	1	2	2		1		1					39	
traffic accident (others)						1	1																	2	
reaction to motion/improper motion																									
others					1	3	3		2	2		1	2	1	2		2	4	1				1	1	26
unclassifiable																									
total	8	14	7	7	5	9	11	5	9	10	7	11	14	5	6		4	7	3	5	2	5	3	1	158

Causal agents (large) of fatal accidents in electrical equipment products in 1999-2022

Causal (L) agents	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	total
machine	2	3	1	1			1		2		2	1			1			3	1	1					19
crane, conveying machine	3	6	4	5	2	2	5	2	3	2	3	8	1	3	2		1		1						53
other equipment	2	2	1				1	2		2	1	1			1		1			2	1	2	1		20

vehicle	2	5	3	2	1	1	5		1	1		1	1	1										24	
pressure vessel								1																1	
chemical facilities														1										1	
welding equipment																									
kiln, caldron			1							1										1				3	
electric equipment	1	2					1	1		1											1			7	
human power machine, tools																									
tools										1									2		1			4	
other equipments, facilities	1											1				1				1				4	
temporary buildings, establishments				1	1	2	1		1	2			1	1							1			11	
hazards, harmful substances		3	1							1	1		2											8	
materials									1															1	
load	1																					1		2	
natural environment					1	1		1		1			9						2		2			17	
other causal agent						4				1										1		1		7	
no causal agent					1		3		2	1		1	1	1	2		2	4	1				1	20	
unclassifiable																									
total	8	14	7	7	5	9	11	5	9	10	7	11	14	5	6		4	7	3	5	2	5	3	1	158

Causal agents (small) of fatal accidents in electrical equipment products in 1999-2022

Causal (S) agents	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	total
-------------------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	-------

stone, sand, substance																									
other materials																									
load																							1		1
machine/equipment as load	1																								1
natural ground, rock																									
standing tree										1															1
water						1							9												10
abnormal environment					1																	2			3
high/cold temperature environment																				1					1
other environments								1												1					2
other causal agent						4				1											1		1		7
no causal agent					1		3		2	1		1	1	1	2		2	4	1					1	20
unclassifiable																									
total	8	14	7	7	5	9	11	5	9	10	7	11	14	5	6		4	7	3	5	2	5	3	1	158

Workers age of fatal accidents in electrical equipment products in 1999-2022

Age	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	total	
19 years old or less	1																								1	
20-29	2	3	3	2	2	1	3	1	1	1	1	4	1					1					1	1		28
30-39	1	4	1		1	3	1	1	2	2		4	4	1	2		1		1							29

40-49	3	3	1	3		1	5	1	2	2	3	2	2	2	3		3	3	1	4		1		1	46
50-59		2	2	1	2	2	2	1	1	2	2		3	1				3	1			2			27
60 years old or more	1	2		1		2		1	3	3	1	1	4	1	1					1	2	1	2		27
total	8	14	7	7	5	9	11	5	9	10	7	11	14	5	6		4	7	3	5	2	5	3	1	158

Workers' number of workplace of fatal accidents in electrical equipment products in 1999-2022

Workers scale	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	total
9 workers or less		1	1	4				1	1	2		1	4		1					1					17
10-29	1	4	1	1		2		1	1	2	1	1	5	1	1			1	1		1	1	1		27
30-49	2	3		1	1		2			2	2			1				1		1			1		17
50-99			2		2	2	3	1	2		2		1					2							17
100-299	1	1			2	1	1	1	1	2	1	9	2	1	1		2	2	1	2		2		1	34
300 workers or more	4	5	3	1		4	5	1	4	2	1		2	2	3		2	1	1	1	1	2	1		46
total	8	14	7	7	5	9	11	5	9	10	7	11	14	5	6		4	7	3	5	2	5	3	1	158

Month of fatal accidents in electrical equipment products in 1999-2022

Month	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	total
January	1	1		2	1	1		1	2		2	1			1		1		1				1	1	17
February	1	1	2				3		1	2				1	1			1		2					15
March		2			1		2	1	1	1		2	12					1	1			1			25
April			1	1		1	1				1			2				2							9

Shimane				1		1								1										3	
Okayama																				1				1	
Hiroshima							1	1																2	
Yamaguchi									1															1	
Tokushima																									
Kagawa																									
Ehime									1															1	
Kochi																									
Fukuoka					1					1									1					3	
Saga																									
Nagasaki																									
Kumamoto									1							1								2	
Oita									1															1	
Miyazaki												1							1					2	
Kagoshima						1															1			2	
Okinawa							1																	1	
total	8	14	7	7	5	9	11	5	9	10	7	11	14	5	6		4	7	3	5	2	5	3	1	158

Data sources: <https://anzeninfo.mhlw.go.jp/user/anzen/tok/anst00.html> (MHLW, Japan)

Return to https://www.jisha.or.jp/english/statistics/2022e_industry.html