Technical data

General			P110	M220 P220	M221 * P221 *	P225	M225 P226 *	T225	S432	S440	S606	S608	S612	S825
Standards			IEC 60947, EN 60947, IEC 60204, EN 60204, UL 508, CSA 22.2, No. 14											
Mechanical lifespan			$>10^6$	$>10^6$	$>10^6$	$>10^6$	$>10^6$	$>10^6$	$>10^6$	$>10^6$	$>10^6$	$>10^6$	$>10^6$	$>10^6$
Max. operating frequency / h			50	50	50	50	50	50	50	50	50	50	50	50
Climatic resistance			damp heat, constant, to DIN IEC 60068-2-3 damp heat, cyclic, to DIN IEC 60068-2-30											
Ambient temperature														
open	min / max	°C	–25/+50											
enclosed	min / max	°C	–25/+40											
Mounting position			as required											
Mechanical shock resistance (shock duration 20 ms)		g	>10	>10	>10	>10	>10	>10	>10	>10	>10	>10	>10	>10
Rated frequency		Hz	50 to 60 (other frequencies on request)											

Rated data														
Operational voltage U_e		V AC	440	690	690	690	690	690	690	690	690	690	690	690
Impulse withstand voltage U_{imp}		kV	4	6	6	6	6	6	6	6	6	6	6	6
Overvoltage category			III	III	III	III	III	III	III	III	III	III	III	III
Pollution degree			3	3	3	3	3	3	3	3	3	3	3	3
Uninterrupted current $I_u / I_{th} / I_{the}$		A	10	20	20	25	25	32	50	63	80	100	160	315
Load carrying capacity in intermittent operation, class 12		AB	60% / 40% / 25% DF = 1.3 / 1.6 / 2 × I_e											
Breaking capacity	220 – 240 V	A	90	180	180	255	255	370	520	550	600	700	900	1800
	380 – 440 V	A	70	150	150	230	230	300	430	500	550	600	850	1650
	500 – 690 V	A	—	90	90	270	270	210	280	380	420	450	340	350
Short-circuit rating Max. fuse		gL	10	20	20	25	25	32	50	63	80	100	160	315
Conditional short-circuit current		kA_{eff}	3	10	10	10	10	15	20	20	25	25	25	25
Isolating characteristics to EN 60947	up to ...	V AC	440	690	690	690	690	690	690	690	690	690	690	690
Switching angle			30° / 45° / 60° / 90°											
Contacts (current paths)		max	16	24	24	24	24	24	24	24	24	24	24	24
Current heat loss per contact at I_u		W	0.3	0.65	0.65	0.75	0.75	1.0	3.0	3.5	4.0	5.0	11	28.5
Terminal capacity solid or stranded	min	mm^2	0.75	1.0	1.0	1.5	1.5	2.5	2.5	4	6	10	10	185 [1]
	max	mm^2	1.5	2.5	2.5	4.0	4.0	6.0	10	16	25	35	70	185 [1]
flexible or multiwire including ferrule	min	mm^2	0.75	1.0	1.0	1.5	1.5	1.5	2.5	2.5	6	10	10	185 [1]
	max	mm^2	1.5	2.5	2.5	2.5	2.5	4.0	6.0	10	16	25	50	185 [1]
American Wire Gauge		AWG	16	12	12	10	10	10	6	4	4	1/0	2/0	350MCM
Thread dimensions for terminal screw			M2.5	M3	M3	M3.5	M3.5	M4	M5	M5	2×M4	2×M5	2×M6	M12
Terminal tightening torque	min	Nm	0.4	0.5	0.5	0.8	0.8	1.2	2.0	2.0	1.2	2.0	2.5	14
	max	Nm	0.6	1.0	1.0	1.5	1.5	2.5	4.0	4.0	2.5	4.0	6.0	25

* use this version for 600V AC (UL/CSA) applicatons

[1] with terminal extensions for cable lug connection

Technical data

Rated data			P110	M220 P220	M221 * P221 *	P225	M225 P226 *	T225	S432	S440	S606	S608	S612	S825
Operational current I_e														
AC-21A		A	10	20	20	25	25	32	50	63	80	100	160	315
AC-22A	220 – 500 V	A	10	20	20	25	25	32	50	63	80	100	160	315
	660 – 690 V	A	—	20	20	25	25	32	50	63	80	80	125	125
AC-23A (cos ϕ=0.65) 400 V		A	6	16	16	22	22	30	44	50	65	80	120	285
UL / CSA	300V AC	A	10	20	20	25	25	35	55 [1]	70 [1]	95 [1]	110 [1]	175 [1]	240
General Use	600V AC	A	—	—	20	—	25	35	55 [1]	70 [1]	95 [1]	110 [1]	175 [1]	240
Operational power 50 – 60 Hz, 3 phase														
AC-23A	220 – 240 V	kW	1.8	4	4	5.5	5.5	7.5	11	15	30	30	37	75
	380 – 440 V	kW	3	7.5	7.5	11	11	15	22	30	45	55	75	132
	500 V	kW	—	7.5	7.5	11	11	15	30	45	55	55	90	132
	660 – 690 V	kW	—	7.5	7.5	11	11	15	30	37	45	45	55	55
AC-3	220 – 240 V	kW	1.5	3	3	4	4	5.5	11	15	15	22	22	37
	380 – 440 V	kW	2.2	5.5	5.5	7.5	7.5	11	22	30	30	37	45	55
	500 V	kW	—	5.5	5.5	7.5	7.5	11	22	30	30	37	45	55
	660 – 690 V	kW	—	5.5	5.5	7.5	7.5	11	22	30	30	37	45	55
UL / CSA	110 – 120 V AC	HP	0.5	1	1	1.5	1.5	3	5	7.5	10	10	15	25
	208 V AC	HP	0.5	2	2	5	5	7.5	7.5	7.5	10	15	15	30
	220 – 240 V AC	HP	0.5	2	2	5	5	7.5	10	15	15	15	15	30
	440 – 480 V AC	HP	—	—	5	—	10	10	20	30	30	30	40	50
	550 – 600 V AC	HP	—	—	5	—	10	10	25	40	50	50	50	50

Rated data (auxiliary contacts)

Operational voltage U_e		V AC	440	500	500	500	500	500	500	500	500	500	500	500
Uninterrupted current I_u / I_{th} / I_{the}		A	10	20	20	25	25	32	50	63	80	100	160	315
Operational current I_e AC-21A		A	10	20	20	25	25	32	50	63	80	100	160	315
AC-15	110 – 240 V	A	2.5	6	6	6	6	14	16	16	16	16	16	16
	380 – 440 V	A	1.5	4	4	5	5	6	7	7	7	7	7	7
	500 V	A	0.8	2	2	2.5	2.5	3	3.5	3.5	3.5	3.5	3.5	3.5
UL / CSA General Use	600 V AC	A	—	—	20	—	25	35	55	70	70	110	175	240
Heavy Pilot Duty			B300	A300	A600	A300	A600	A600	A600	A600	A600	A600	A600	A600
Short-circuit rating Max. fuse		gL	10	20	20	25	25	32	50	63	80	100	160	315
Conditional short-circuit current		kA_{eff}	3	10	10	10	10	15	20	20	25	25	25	25
Terminal capacity flexible or multiwire	min	mm^2	0.75	1	1	1.5	1.5	1.5	2.5	2.5	6	10	10	185 [1]
including ferrule	max	mm^2	1.5	2.5	2.5	2.5	2.5	4.0	6.0	10	16	25	50	185 [1]
American Wire Gauge		AWG	16	12	12	10	10	10	6	4	4	1/0	2/0	350MCM

Conformity

The Rotary Cam Switches conform to the regulations of the EC guideline 73/23 EEC 'Electrical equipment for application within certain voltage limits' – specified as directive for low voltage devices.

The conformity is proved by the complete compliance of the harmonized European standards

- EN 60947-1
- EN 60947-3
- EN 60947-5-1
- EN 60204-1.

Salzer Electric products are developed, manufactured and tested according to these standards.

The CE marking on all our products prove the conformity to the directives.

The Rotary Cam Switches are approved according to UL 508 and CSA 22.2, No. 14.

* use this version for 600V AC (UL/CSA) applicatons

[1] with terminal extensions for cable lug connection