Switch features:

- S1 (64x64mm) Front element size (can be changed by mountings and optional extras)
- Terminal screws accessible laterally (resp. from above and below for -V mountings)
- Designed for vertical wiring (resp. horizontal for -V mountings: e.g. VE-V, FS1-V)

Approvals:

Approved	Confirms to requirements	No listing required
CSA, CUL, CULUS, GOST, UL	BS EN, CH, D, FI, IEC, N, ÖVE, VDE	S

BS EN...*BS EN 60947 - British Standards Institution*, **CCC**...*CCC - China Compulsory Certification*, **CH**...*Schweizerischer Elektrotechnischer Verein*, **CSA**...*Canadian Standards Association*, **CUL**...*Canadian National Standards - Listed*, **CULUS**...*Canadian National and United States Standards - Listed*, **CUR**...*Canadian National Standards - Recognized*, **CURUS**...*Canadian National and United States Standards - Recognized*, **D**...*Danmarks Elektriske Materiellkontrol*, **FI**...*Sähkötarkastuskeskus*, **GOST**...*GOST - gosudarstvennyj standard*, **IEC**...*IEC 60947 - International Electrical Commission (IEC) Recommendation*, **N**...*Norges Elektriske Materiellkontroll*, **ÖVE**...*Österreichischer Verband für Elektrotechnik*, **RuMRS**...*Russian Maritime Register of Shipping*, **S**...*Svenska Elektriska Materielkontrollanstalten*, **UL**...*United States Standards - Listed*, **UR**...*United States Standards - Recognized*, **VDE**...*VDE 0660 - Verband Deutscher Elektrotechniker*

Note the remarks in the approval table!: http://www.krausnaimer.com/0/apps.htm

AC-Values:

IEC 60947-3, EN 60947-3, VDE 0660 part 107:

Rated Operational Voltage Ue		690V	1)
Rated Insulation Voltage Ui		690V	1)
Rated Thermal Current Iu/Ith		63A	2)
Breaking Capacity	220V-240V:	550A	2)
	380V-440V:	550A	2)
	660V-690V:	365A	2)
Disconnection property up to		690V	1)
Rated Operational Current Ie			
AC-20A No-load operation		63A	2)
AC-21A Switching of resistive loads, including moderate overloads			
For switching of power >1kW		63A	2)
AC-22A Switching of combined resistive or low inductive loads including moderate overloads	220V-500V:	63A	2)
	660V-690V:	63A	2)
Rated Utilization Category			
AC-2 Slip ring motor starting, reversing and plugging, star-delta starting 3 phase, 3 pole	220V-240V:	18.5kW	2)
	380V-440V:	30kW	2)
	500V-500V:	40kW	2)
	660V-690V:	37kW	2)
AC-3 Direct-on-line starting, star-delta starting			
3 phase, 3 pole	220V-240V:	11kW	2)
	380V-440V:	18.5kW	2)
	500V-500V:	18.5kW	2)
	660V-690V:	18.5kW	2)
1 phase, 2 pole	110V-120V:	3kW	2)
	220V-240V:	6kW	2)
	380V-440V:	11kW	2)
AC-4 Direct-on-line starting, reversing, plugging and inching			
3 phase, 3 pole	220V-240V:	5.5kW	2)
	380V-440V:	7.5kW	2)
	500V-500V:	7.5kW	2)
	660V-690V:	7.5kW	2)
1 phase, 2 pole	110V-120V:	1.2kW	2)
	220V-240V:	2.4kW	2)
	380V-440V:	4kW	2)
AC-23A Frequent switching of motors or other high inductive loads			
3 phase, 3 pole	220V-240V:	15kW	2)
	380V-440V:	30kW	2)
	500V-500V:	45kW	2)
	660V-690V:	40kW	2)
1 phase, 2 pole	110V-120V:	4kW	2)
	220V-240V:	10kW	2)
	380V-440V:	18.5kW	2)
AC-23B Occasional switching of motors or other high inductive loads			
3 phase, 3 pole	220V-240V:	15kW	2)
	380V-440V:	30kW	2)
	660V-690V:	40kW	2)

1)...IEC 60947-3, EN 60947-3, VDE 0660 part 107 - Valid for lines with grounded common neutral termination, overvoltage category III, Other values on request.
2)...IEC 60947-3, EN 60947-3, VDE 0660 part 107

UL/Canada:

Rated Voltage	600V	1)
Rated Insulation Voltage Ui	600V	1)
Rated Thermal Current	65A	1)

Ampere Rating - Resistive or low inductive loads				
	For switching of power >1kW		65A	1)
Ratings				
	Standard motor load, DOL Rating (similar AC-3)			
	3 phase, 3 pole	110V-120V:	7.5HP	2)
		220V-240V:	15HP	2)
		440V-480V:	25HP	2)
		550V-600V:	30HP	2)
	1 phase, 2 pole	110V-120V:	3HP	2)
		220V-240V:	7.5HP	2)
		277V-277V:	7.5HP	2)
		440V-480V:	15HP	2)
		550V-600V:	20HP	2)
	Heavy motor Load-reversing (similar AC-4)			
	3 phase, 3 pole	110V-120V:	5HP	2)
		220V-240V:	7.5HP	2)
		440V-600V:	20HP	2)
	1 phase, 2 pole	110V-120V:	2HP	2)
		220V-240V:	5HP	2)
		277V-277V:	5HP	2)
Pilot Duty, Heavy			A600	1)

1)...UL/Canada - Refer to International Standards and Approvals
2)...UL/Canada

General:

Minimum Voltage	on request	
Power loss per contact at Iu	1.7W	
Resistance to vibration	on request	
Resistance to shock	on request	
Rated Impulse Withstand Voltage Uimp	6kV	1)
Short Circuit Protection		
Max. fuse size (gL/gG-characteristic)	80A	
Rated short-time withstand current (1s-current)	1000A	
Ambient Temperature of Stages (for switches with electro-mechanical accessories refer to optional extra)		
open at 100% Iu/Ith	55°C during 24 hours with peaks up to 60°C	
enclosed at 100% Ithe	35°C during 24 hours with peaks up to 40°C	
Storage temperature	-40°C to 85°C (in case of temperature below -5°C no shock load permissible)	
Terminal lead material	copper wires only	
Max. Permissible Wire Gage		
Single-core or stranded wire	2x16mm2 2xAWG 6	
Flexible wire	2x10mm2 2xAWG 6	
Flexible wire with sleeving in accordance with DIN 46228	2x10mm2	

1)...IEC 60947-3, EN 60947-3, VDE 0660 part 107 - Valid for lines with grounded common neutral termination, overvoltage category III, Other values on request.