

Approvals:

Approved	Confirms to requirements	No listing required
CCC, CSA, CULUS, GOST	BS EN, CH, IEC	

BS EN...BS EN 60947 - British Standards Institution, **CCC**...CCC - China Compulsory Certification, **CH**...Schweizerischer Elektrotechnischer Verein, **CSA**...Canadian Standards Association, **CULUS**...Canadian National and United States Standards - Listed, **CURUS**...Canadian National and United States Standards - Recognized, **EMEA**...Lloyds Register EMEA, **GOST**...GOST - gosudarstvennyj standard, **IEC**...IEC 60947 - International Electrical Commission (IEC) Recommendation, **RuMRS**...Russian Maritime Register of Shipping

Note the remarks in the approval table!: www.krausnaimer.com

AC-Values:

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

Rated Operational Voltage U _e	690V	1)
Rated Insulation Voltage U _i	690V	1)
Rated Thermal Current I _u /I _{th}	50A	2)
Breaking Capacity	220V-240V: 380A 380V-440V: 360A 660V-690V: 270A	2) 2) 2)
Disconnection property up to	690V	1)
Rated Operational Current I _e		
AC-15 Switching of control devices, contactors, valves etc.	220V-240V: 16A 380V-440V: 7A	2) 2)
AC-20A No-load operation	50A	2)
AC-21A Switching of resistive loads, including moderate overloads		
For switching of power >1kW	40A	2)
AC-22A Switching of combined resistive or low inductive loads including moderate overloads	220V-500V: 40A 660V-690V: 40A	2) 2)
Rated Utilization Category		
AC-2 Slip ring motor starting, reversing and plugging, star-delta starting 3 phase, 3 pole	220V-240V: 10kW 380V-440V: 18.5kW 500V-500V: 22kW 660V-690V: 22kW	2) 2) 2) 2)
AC-3 Direct-on-line starting, star-delta starting		
3 phase, 3 pole	220V-240V: 7.5kW 380V-440V: 15kW 500V-500V: 15kW 660V-690V: 15kW	2) 2) 2) 2)
1 phase, 2 pole	110V-120V: 2.5kW 220V-240V: 5.5kW 380V-440V: 7.5kW	2) 2) 2)
AC-4 Direct-on-line starting, reversing, plugging and inching		
3 phase, 3 pole	220V-240V: 3.7kW 380V-440V: 6kW 500V-500V: 6kW 660V-690V: 6kW	2) 2) 2) 2)
1 phase, 2 pole	110V-120V: 1.1kW 220V-240V: 2.2kW 380V-440V: 3.7kW	2) 2) 2)
AC-23A Frequent switching of motors or other high inductive loads		
3 phase, 3 pole	220V-240V: 11kW 380V-440V: 22kW 500V-500V: 30kW 660V-690V: 22kW	2) 2) 2) 2)
1 phase, 2 pole	110V-120V: 2.5kW 220V-240V: 5.5kW 380V-440V: 11kW	2) 2) 2)
AC-23B Occasional switching of motors or other high inductive loads		
3 phase, 3 pole	220V-240V: 11kW 380V-440V: 22kW 660V-690V: 22kW	2) 2) 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	50A	1)
Ampere Rating - Resistive or low inductive loads		
For switching of power >1kW	50A	1)
Ratings		
Standard motor load, DOL Rating (similar AC-3)		
3 phase, 3 pole	110V-120V: 7.5HP 220V-240V: 15HP 440V-480V: 25HP 550V-600V: 30HP	2) 2) 2) 2)
1 phase, 2 pole	110V-120V: 3HP 220V-240V: 7.5HP 277V-277V: 7.5HP 440V-480V: 15HP 550V-600V: 20HP	2) 2) 2) 2) 2)
Heavy motor Load-reversing (similar AC-4)		
3 phase, 3 pole	110V-120V: 3HP 220V-240V: 5HP 440V-600V: 15HP	2) 2) 2)
1 phase, 2 pole	110V-120V: 1.5HP 220V-240V: 3HP 277V-277V: 3HP	2) 2) 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	1.3W	
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)	63A	
Rated short-time withstand current (1s-current)	800A	
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	2x10mm ² 2xAWG 8	
Flexible wire	2x6mm ² 2xAWG 8	
Flexible wire with sleeving in accordance with DIN 46228	2x6mm 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.