

KG64

Type Size : S0

Special Classification :

Classification Contact : Rigid contact bridge

Classification Contact Mat: Silver

Classification Terminal: Screw terminal

Activ : Y

Clear for Instr.leaflet : Y

IEC 60947-3 EN 60947-3, VDE 0660 Teil 107

Rated insulation voltage U_i	Voltage (V) AC / DC					Instr.		
	690 AC					Y		
Rated impulse withstand voltage U_{imp}	Voltage (kV)	Overvoltage category	Pollution degree	Supply system	Function	Instr.		
	6	III	3	Valid for lines with grounded common neutral termination	Switch / Switch disconnector	N		
Rated uninterrupted current I_u/I_{th}	Current (A)	Ambient temperature (°C)	Peak temperature (°C)	additional requirements		Instr.		
	63	50	55	Ambient temperature +50°C during 24 hours with peaks up to +55°C		Y		
Conventional enclosed thermal current I_{the}	Current (A)	Ambient temperature (°C)	Peak temperature (°C)	Additional requirements	No. of stages (from - to)	Mounting	Mounting size	Instr.
	63	35	40	Ambient temperature +35°C during 24 hours with peaks up to +40°C	--			N
Rated operational current I_e	Utilization category		Voltage (V)		Current (A)		Instr.	
	AC-32A		20 - 400		63		Y	
	AC-20A		690		63		N	
	AC-21A		20 - 690		63		N	
	AC-22A		220 - 500		63		N	
	AC-22A		660 - 690		55		N	
Rated operational power	Utilization category	Voltage (V)	No. of phases	No. of poles	Power (kW)	Current (A)	Instr.	
	AC-3	220 - 240	3	3	11,00	--	Y	
	AC-3	380 - 440	3	3	18,50	35	Y	
	AC-3	500 - 500	3	3	22,00	--	N	
	AC-3	660 - 690	3	3	15,00	--	Y	
	AC-23A	220 - 240	3	3	11,00	--	Y	
	AC-23A	380 - 440	3	3	22,00	41	Y	
	AC-23A	500 - 500	3	3	30,00	--	N	
	AC-23A	660 - 690	3	3	18,50	--	Y	
Max Fuse Rating IEC	Fuse characteristic		No. of Fuses		Current (A)		Instr.	
	gG		1		63		Y	
Tested AC and DC values	Utilization category / Time constant	No. of contacts in series	Off or change-over switch	Voltage (V)	AC / DC	Current (A)	Instr.	
	DC-21B	1	ON - OFF	24	DC	63	N	
	DC-21B	2	ON - OFF	48	DC	63	N	
Rated conditional short-circuit current	Current (kA)	Text	cut-off current I_c (kA)		Durchlassenergie I^2t (kA²s)		Instr.	
	15	--	5,10		17,57		N	
Rated breaking capacity	Voltage (V)		Current (A)		Utilization category / UL (DOL)		Instr.	
	220 - 240		350				N	
	380 - 440		350				N	
	660 - 690		190				N	

IEC 60947-3 EN 60947-3, VDE 0660 Teil 107

Possible as Switch disconnector	Yes/No				Instr. Leaflet
	Y				N
Rated short-circuit making capacity Icm	Current (A)				Instr. Leaflet
	3000				N
Disconnecting requirements	Voltage (V)	Overvoltage category	Pollution degree	Supply system	Instr.
	690	III	3	Valid for lines with grounded common neutral termination	N

UL60947-4-1 , UL508

Nominal Voltage	Voltage (V)					AC / DC		Instr.	
	600					AC		Y	
Rated insulation voltage Ui	Voltage (V)					AC / DC		Instr.	
	600					AC		Y	
Rated thermal current	Current (A)		Ambient temperature (°C)			Additional Text		Instr.	
	60		0 - 40					Y	
Horsepower rating	Across-the-Line Motor Starting			Voltage (V)	No. of phases	No. of poles	Power (HP)	Ambient temperature [°C]	Instr.
	DOL			110 - 120	1	2	3,00	40	Y
	DOL			220 - 240	1	2	7,50	40	Y
	DOL			277 - 277	1	2	7,50	40	Y
	DOL			415 - 415	1	2	10,00	40	Y
	DOL			440 - 480	1	2	15,00	40	Y
	DOL			550 - 600	1	2	15,00	40	Y
	DOL			110 - 120	3	3	5,00	40	Y
	DOL			220 - 240	3	3	15,00	40	Y
	DOL			415 - 415	3	3	20,00	40	Y
	DOL			440 - 480	3	3	30,00	40	Y
	DOL			550 - 600	3	3	40,00	40	Y
	SCCR / Max. fuse rating	Conditions of acceptability							
This device is suitable for use on circuits capable of delivering not more than 10kA rms symmetrical amperes, 600V ac max. when protected by Type RK1 fuses.								Y	
Suitable for use on a circuit capable of delivering not more than 65000 rms symmetrical amperes 600V max., when protected by 70A Class J fuses.								Y	
Temp. rating of wire	Temperature rating (°C)			Current (A)		Text			Instr.
	60 - 75			--					Y
General Use	AC / DC	Voltage (V)	Current (A)	No. of phases	No. of poles	No. of contacts in series			Instr.
	AC	277	60	1	1	1			Y
	AC	600	60	1	2	1			Y
	AC	600	60	3	3	1			Y
Suitable as Motor disconnect	Yes/No				MOTOR-DISCONNECT-UL/CSA Text				Instr.
	Y								N
General Information	Text								Instr.
	The operating handle and position indicating means to be used with these manual motor controllers should be provided from the manufacturer, or the operating handle and position indicating means to be used should have been previously evaluated in combination with the manual motor controllers.								Y
	When intended for use as a motor disconnect the device shall be provided with a method of being locked in the OFF-position.								Y

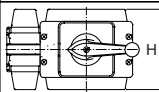
CSA

Nominal Voltage	Voltage (V)		AC / DC	Instr.
	600		AC	Y
Rated insulation voltage Ui	Voltage (V)		AC / DC	Instr.
	600		AC	Y
Rated thermal current	Current (A)	Ambient temperature (°C)	Additional Text	Instr.
	60	0 - 40		Y

CSA

Horsepower rating	Across-the-Line Motor Starting				Voltage (V)	No. of phases	No. of poles	Power (HP)	Ambient temperature [°C]	Instr.
	DOL				110 - 120	1	2	3,00	40	Y
	DOL				220 - 240	1	2	7,50	40	Y
	DOL				277 - 277	1	2	7,50	40	Y
	DOL				415 - 415	1	2	10,00	40	Y
	DOL				440 - 480	1	2	15,00	40	Y
	DOL				550 - 600	1	2	15,00	40	N
	DOL				110 - 120	3	3	5,00	40	Y
	DOL				220 - 240	3	3	15,00	40	Y
	DOL				415 - 415	3	3	20,00	40	Y
	DOL				440 - 480	3	3	30,00	40	Y
	DOL				550 - 600	3	3	40,00	40	Y
Temp. rating of wire	Temperature rating (°C)				Current (A)		Text			Instr.
	75				--					Y
General Use	AC / DC	Voltage (V)	Current (A)	No. of phases	No. of poles	No. of contacts in series				Instr.
	AC	277	60	1	1	1				Y
	AC	600	60	1	2	1				Y
	AC	600	60	3	3	1				Y
Suitable as Motor disconnect	Yes/No				MOTOR-DISCONNECT-UL/CSA Text					Instr.
	Y				SUITABLE FOR MOTOR DISCONNECT. CONVIENT COMME SECTIONNEUR DE CIRCUIT MOTEUR.					N
UL/CSA additional information	label text									Instr. Leaflet
	10000 RMS SYMMETRICAL AMPERES, 600 VAC MAXIMUM WHEN PROTECTED BY CLASS RK1 FUSES, AND GE CIRCUIT-BREAKERS									N

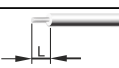
MASTER DATA

Max. number of stages	number of stages		Modul				Instr.
	4		KO				N
Switch Measures	Picture name	B	F	H	H1	H2	H3
		--	--	64	--	--	--
							N
Number of Terminals	Number of Terminals per Stage						Instr. Leaflet
	2						N
K-size system	K-size						Instr. Leaflet
	K1						N

GENERAL TECHNICAL INFORMATION

Minimal ratings (voltage/current)	Voltage (V)	Current (mA)	Environment conditions	Environment conditions 2	Environment conditions 3	Instr.
	24	500	Ambient air must be free of particular contamination with sulfur and/or sulfurous components such as H2S etc.	In case extraordinary contamination with dust is expected an adequate dust protection is required.		N
Rated short-time withstand current I _{cw}	Time (s)		Current (A)			Instr.
	1		580			N
Size of conductor	composition of conductor	Min. / Max. value	No. of conductor per terminal	Cross section (mm²) or (AWG/kcmil)	Material of the wire	Instr.
	solid wire	Min.	2	0.75mm²	Copper	Y
	solid wire	Min.	1	1.5mm²	Copper	Y
	flexible wire	Max.	1	AWG 6	Copper	Y
	flexible wire	Min.	1	2.5mm²	Copper	Y
	flexible wire	Max.	1	10mm²	Copper	Y
	flexible wire	Min.	2	1.5mm²	Copper	Y
	Single-core or stranded wire	Max.	1	AWG 6	Copper	Y
	Single-core or stranded wire	Max.	1	16mm²	Copper	Y
	flexible wire with sleeve	Max.	1	10mm²	Copper	Y
	flexible wire with ferrule according to DIN 46228	Min.	2	0.75mm²	Copper	Y

GENERAL TECHNICAL INFORMATION

	flexible wire with ferrule according to DIN 46228		Min.		1		1.5mm²		Copper		Y				
Stripping length		Length (mm) --										Instr.			
		12 										Y			
Recommended screw driver		Type of screw driver					Value					Instr.			
		Cross Screwdriver					PH2					Y			
		Slot screwdriver according to DIN 5264					1,2x6,5					Y			
Tightening torque of screws		tightening torque (Nm)					tightening torque (lb-in)					Instr.			
		1,80					16					Y			
Approbations		Test report or certificate		Specification		Date of issue		Period of validity		Related factories		Marking		Instr.	
				EAC						AT10		EAC		N	
				EAC						DE10		EAC		N	
				CE marking								CE		N	
				UK Directives								UKCA		N	
				Lloyd's Register EMEA								Lloyd's Register		N	
				IEC 60947-3; EN 60947-3; VDE 0660 Teil107								IEC 60947-3		N	
				UL 60947-4-1; CSA C22.2 No. 60947-4-1						DE10		CULUS - 77B7		N	
				UL 60947-4-1; CSA C22.2 No. 60947-4-1						AT10		CULUS - 77B7		N	
				UL 60947-4-1; CSA C22.2 No. 60947-4-1						NZ10		CULUS - 77B7		N	
				UL 60947-4-1; CSA C22.2 No. 60947-4-1						US10		CULUS - 77B7		N	
				CSA C.22.2 No.14						AT10		CSA		N	
				CSA C.22.2 No.14						DE10		CSA		N	
				CSA C.22.2 No.14						NZ10		CSA		N	
				CSA C.22.2 No.14						US10		CSA		N	
				GB/T14048.3						DE10		CCC		N	
				GOST R				3.FEB.2015				GOST		N	
				Russian Maritime Register of Shipping								RuMRS		N	
Power loss per pole		Power (W)										Instr.			
		2,20										N			
Mechanical life		No. of operating cycles			Ambient temperature (°C)			Number of stages			Limitations			Instr.	
		150000			-5 - 55			--			Valid for manual operation. Valid for switches without optional extras. The value refers to the mechanics of the device, for lifetime of the electrical contacts please refer to "electrical life values". One operating cycle means 0-1-0.			N	
Electrical life (B10-Value)		Utilization category	cos(φ)	Time constant (ms)	Voltage (V)	Current (A)	No. of operations	number of series contacts	AC/DC	No. of phases	No. of poles	Instr.			
			0,64	--	220	20,00	200000	1	AC	1	1	N			
			0,65	--	380	20,00	200000	1	AC	1	1	N			
		AC-23	--	--	500	45,00	94000	1	AC	3	3	N			
		AC-22	--	--	500	63,00	50000	1	AC	3	3	N			
		AC-23	--	--	690	22,40	150000	1	AC	3	3	N			
			--	50	60	2,00	100000	1	DC	1	1	N			
			--	55	110	1,50	75000	1	DC	1	1	N			
Degree of protection		IP - Code switch terminal										Instr.			
		IP20										N			
Conditions during transport and storing		Minimum temperature (°C)				Maximum temperature (°C)				additional requirements				Instr.	
		-40				85				In case of temperatures below -5°C no shock load permissible				N	

GENERAL TECHNICAL INFORMATION

Shock / Vibration	Type of oscillation				Values		Instr.	
	Resistance to vibration				Min. 4g, 2-100Hz, 1,6mm		N	
	Resistance to shock				min. 6g, 6ms		N	
General Information	Text						Instr.	
	EMC Note: This device is suitable for use in environment A and B.						Y	
	Do not lubricate or treat contacts.						Y	
	Switches may only be mounted, connected and set into operation by qualified persons according to the accepted rules of technology.						Y	
	Use copper wire only. Do not coat the wire end with tin.						Y	
	Terminals with factory fitted jumper links are tightened during production. Take care during installation to ensure factory fitted links are not lost by undoing both sides of linked terminals. After wiring, all terminal screws must be tightened to recommended torque specifications.						Y	
Creepage distance	Distance (mm)						Instr.	
	12,70						N	
Clearance	Distance (mm)						Instr.	
	12,70						N	
Operating temperature	Min. Temperature [°C]				Max. Temperature [°C]		Instr. Leaflet	
	-5				55		N	
Mounting	Mounting unit	Stages Contact	Description	Technical Specification	Enclosure entries	Sales description	Sales description short	Instr. Leaflet
	E	1 - 5	Panel mounting	Four hole mounting, with seal		four hole panel mounting, IP66/67	Panel mounting 4-hole	N
	E-V	1 - 5	Panel mounting	Four hole panel mounting, with seal, the terminals are 90° rotated		four hole panel mounting with 90° rotated terminals, IP66/67	Panel mounting 4-hole	N
	CL10V	1 - 5	Plastic housing	Without cover interlock, with padlock device	M20, M25	chemical resistant enclosure with integrated padlock device, IP66/67	Plastic housing	N
	CL11	1 - 5	Plastic housing	With cover interlock, can only opened at 9 o'clock position	M20, M25	chemical resistant enclosure with cover interlock, IP66/67	Plastic housing	N
	CL11V	1 - 5	Plastic housing	With cover interlock, can only opened at 9 o'clock position	M20, M25	chemical resistant enclosure with integrated padlock device and cover interlock, IP66/67	Plastic housing	N
	PFD1	2 - 5	Plastic housing	Without cover coupling, for switches with cam-operated auxiliary contacts	M25	Isolating enclosure with cover coupling, IP65	Plastic housing	N
	PFD5	2 - 5	Plastic housing	Without cover coupling, for switches with cam-operated auxiliary contacts	M20	Isolating enclosure, IP65	Plastic housing	N
	PFE1	2 - 5	Plastic housing	With cover coupling, for switches with cam-operated auxiliary contacts	M25	Isolating enclosure, IP65	Plastic housing	N
	PFE2	2 - 5	Plastic housing	With cover coupling, for switches with cam-operated auxiliary contacts	NPT	Isolating enclosure, IP65	Plastic housing	N
	PFE5	2 - 5	Plastic housing	With cover coupling, for switches with cam-operated auxiliary contacts	M25,PG21	Isolating enclosure, IP65	Plastic housing	N
	PFE6	2 - 5	Plastic housing	With cover coupling, for switches with cam-operated auxiliary contacts	NPT	Isolating enclosure, IP65	Plastic housing	N
	PFF1	2 - 5	Plastic housing	Without cover coupling, V840A, for switches with cam-operated auxiliary contacts	M25	Isolating enclosure with padlock device V840A, IP65	Plastic housing	N
	VE2	2 - 5	Base mounting	Snap-on for DIN Rail EN 60715 with face plate for 45 mm standard knock-out		Snap-on base mounting for track EN60715 and face plate for 45mm knock-out, IP40	DIN rail mounting	N
	VE2C	2 - 5	Base mounting	Snap-on for DIN Rail EN 60715, just as high to cover the latching mechanism, can be snapped on Din-rails inside any distribution board and are ready to use, wiring can be done without removing face plate and handle		four hole base mounting with snap-on for DIN rail EN60715	DIN rail mounting	N
	VE-V	2 - 5	Base mounting	Four hole mounting, the terminals are 90° rotated		four hole base mounting with 90° rotated terminal, IP40	Base mounting	N
	V0	2 - 5	Base mounting	Switch side mounting for KL-housing without cover locking		front mounting for enclosures	Without mounting	N
	V1	2 - 5	Base mounting	Switch side mounting for KL-housing with cover locking 0 position at 9 o'clock		front mounting for enclosures with cover interlock	Without mounting	N
	VE	2 - 5	Base mounting	Four hole mounting		four hole base mounting, IP40	Base mounting	N
	KL10	1 - 5	Plastic housing	Without cover interlock	M20, M25	UV-resistance enclosure, IP66/67	Plastic housing	N
	KL11	1 - 5	Plastic housing	With cover interlock, can only opened at 9 o'clock position	M20, M25	UV-resistance enclosure with cover interlock, IP66/67	Plastic housing	N
	KL11V	1 - 5	Plastic housing	With cover interlock, can only opened at 9 o'clock position, with padlock device	M20, M25	UV-resistance enclosure with integrated padlock device and cover interlock, IP66/67	Plastic housing	N
	KL12	1 - 5	Plastic housing	With cover interlock, can only opened at 12 o'clock position	M20, M25	UV-resistance enclosure with cover interlock, IP66/67	Plastic housing	N

GENERAL TECHNICAL INFORMATION

Mounting	Mounting unit	Stages Contact s	Description	Technical Specification	Enclosure entries	Sales description	Sales description short	Instr. Leaflet
	KL12V	1 - 5	Plastic housing	With cover interlock, can only opened at 12 o'clock position, with padlock device	M20, M25	UV-resistance enclosure with integrated padlock device and cover interlock, IP66/67	Plastic housing	N
	PFA5	2 - 4	Plastic housing	Without cover coupling, for switches without cam-operated auxiliary contacts	M20	Isolating enclosure, IP65	Plastic housing	N
	PFB1	2 - 4	Plastic housing	With cover coupling, for switches without cam-operated auxiliary contacts	M25	Isolating enclosure with cover coupling, IP65	Plastic housing	N
	PFB2	2 - 4	Plastic housing	With cover coupling, for switches without cam-operated auxiliary contacts	NPT	Isolating enclosure with cover coupling, IP65	Plastic housing	N
	PFB5	2 - 4	Plastic housing	With cover coupling, for switches without cam-operated auxiliary contacts	M20	Isolating enclosure with cover coupling, IP65	Plastic housing	N
	PFA1	2 - 5	Plastic housing	Without cover coupling, for switches without cam-operated auxiliary contacts	M25	Isolating enclosure, IP65	Plastic housing	N
	PFB6	2 - 4	Plastic housing	With cover coupling, for switches without cam-operated auxiliary contacts	NPT	Isolating enclosure with cover coupling, IP65	Plastic housing	N
	KL70	1 - 5	Plastic housing	Without cover interlock	M40, M25	UV-resistance enclosure, IP66/67	Plastic housing	N
	KL71V	1 - 5	Plastic housing	With cover interlock, can only opened at 9 o'clock position, with padlock device	M40, M25	UV-resistance enclosure with integrated padlock device and cover interlock, IP66/67	Plastic housing	N
	CL12V	3 - 4	Plastic housing	With cover interlock, can only opened at 12 o'clock position, with padlock device	M20, M25	chemical resistant enclosure with integrated padlock device and cover interlock, IP66/67	Plastic housing	N
	V2	2 - 5	Base mounting	Switch side mounting for KL-housing with cover locking 0 position at 12 o'clock		front mounting for enclosures with cover interlock	Without mounting	N
	KL10V	1 - 5	Plastic housing	Without cover interlock, with padlock device	M20, M25	UV-resistance enclosure with integrated padlock device, IP66/67	Plastic housing	N
Waste Electrical & Electronic Equipment (WEEE)	Picture name	Description						Instr. Leaflet
		Do not throw in the trash as care must be taken to ensure environmentally sound disposal and recycling. Please either use an environmentally friendly waste disposal company; return to the supplier for disposal; or return direct to the manufacturer, Kraus & Naimer. You can find local Kraus & Naimer offices at www.krausnaimer.com						Y
Proposition 65	Picture name	Description						Instr. Leaflet
		WARNING: This product can expose you to chemicals including nickel and lead, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov .						Y
POWER TRANSFER SWITCH	Yes/No							Instr. Leaflet
	N							N
Switch terminals	Contact system				Contact Material			Instr. Leaflet
	Rigid contact bridge				Silver			N
connection type	Terminal type							Instr. Leaflet
	Screw terminal							N
Max. Terminal Digits	Type of marking				Max. Digits			Instr. Leaflet
	Bolt				2			N
3D-Model Group	3D-Model Group							Instr. Leaflet
	94							N
Product Group	Main Group				Series			Instr. Leaflet
	Compact Switch				KG			N