

Datasheet

Article number: 70011049

Designation: KG20B.T206/D-A059.KL11V

Description: Switchgear


IEC 60947-3 EN 60947-3, VDE 0660 Teil 107						
Rated insulation voltage Ui						
Voltage (V) AC / DC						
690 AC						
Rated impulse withstand voltage Uimp						
Voltage (kV)		Overvoltage category	Pollution degree	Supply system		Function
6 III			3	Valid for lines with grounded common neutral termination		Switch / Switch disconnector
Rated uninterrupted current Iu/Ith						
Current (A)		Ambient temperature (°C)		Peak temperature (°C)		additional requirements
25		50		55		Ambient temperature +50°C during 24 hours with peaks up to +55°C
Conventional enclosed thermal current Ithe						
Current (A)		Ambient temperature (°C)		Peak temperature (°C)		Additional requirements
25		35		40		Ambient temperature +35°C during 24 hours with peaks up to +40°C
Rated operational current Ie						
Utilization category			Voltage (V)		Current (A)	
AC-32A			20 - 400		20	
AC-20A			690		25	
AC-21A			20 - 690		25	
AC-22A			220 - 500		20	
AC-22A			660 - 690		20	
Rated operational power						
Utilization category			Voltage (V)		Power (kW)	
AC-3			220 - 240		4	
AC-3			380 - 440		5,50	
AC-3			500 - 500		5,50	
AC-3			660 - 690		5,50	
AC-3			220 - 240		2,20	
AC-3			380 - 440		3,70	
AC-23A			220 - 240		5,50	
AC-23A			380 - 440		7,50	
AC-23A			500 - 500		7,50	
AC-23A			660 - 690		7,50	
AC-23A			220 - 240		3	
AC-23A			380 - 440		5	
Max Fuse Rating IEC						
Fuse characteristic			No. of Fuses		Current (A)	
gG			1		35	
Rated conditional short-circuit current						
Current (kA)		Text		cut-off current Ic (kA)		Durchlassenergie I²t (kA²s)
15		–		3,50		5,62
Rated breaking capacity						
Voltage (V)			Current (A)		Utilization category / UL (DOL)	
220 - 240			180		–	
380 - 440			180		–	
660 - 690			125		–	
Rated short-circuit making capacity Icm						
						Current (A)
						1000
UL60947-4-1 , UL508						
Nominal Voltage						
Voltage (V) AC / DC						
600 AC						
Rated insulation voltage Ui						
Voltage (V) AC / DC						
600 AC						
Rated thermal current						
Current (A)		Ambient temperature (°C)		Additional Text		
25		0 - 40		–		
Horsepower rating						
Across-the-Line Motor Starting		Voltage (V)	No. of phases	No. of poles	Power (HP)	Ambient temperature [°C]
DOL		110 - 120	1	2	1	40
DOL		220 - 240	1	2	3	40

Horsepower rating						
Across-the-Line Motor Starting						
	Voltage (V)	No. of phases	No. of poles	Power (HP)	Ambient temperature [°C]	
DOL	277 - 277	1	2	3	40	
DOL	415 - 415	1	2	5	40	
DOL	440 - 480	1	2	5	40	
DOL	550 - 600	1	2	5	40	
DOL	110 - 120	3	3	2	40	
DOL	200 - 240	3	3	7,50	40	
DOL	415 - 415	3	3	10	40	
DOL	440 - 480	3	3	15	40	
DOL	550 - 600	3	3	20	40	
Pilot duty rating code						
Duty Code						
A600						
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.						
Suitable for use on a circuit capable of delivering not more than 65000 rms symmetrical amperes at 600V max., when protected by 40A Class J fuses.						
Temp. rating of wire						
Temperature rating (°C)			Current (A)		Text	
60 - 75					-- --	
Connecting instructions						
Markings						
For use on a flat surface of a type 1 enclosure.						
The operating handle and position indicating means to be used with these industrial switches should be provided from the manufacturer.						
General Use						
AC / DC	Voltage (V)	Current (A)	No. of phases	No. of poles	No. of contacts in series	
AC	277	25	1	1	1	
AC	600	25	1	2	1	
AC	600	25	3	3	1	
Suitable as Motor disconnect						
Yes/No			MOTOR-DISCONNECT-UL/CSA Text			
Y			--			
General Information						
Text						
- When intended for use as switch used in Photovoltaic applications the devices shall be provided with a method of being locked in the OFF-position.						
- 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.						
- When intended for use as a motor disconnect the device shall be provided with a method of being locked in the OFF-position.						
CSA						
Nominal Voltage						
			Voltage (V)		AC / DC	
			600		AC	
Rated insulation voltage Ui						
			Voltage (V)		AC / DC	
			600		AC	
Rated thermal current						
			Current (A)	Ambient temperature (°C)		Additional Text
			25	0 - 40		--
Horsepower rating						
Across-the-Line Motor Starting						
	Voltage (V)	No. of phases	No. of poles	Power (HP)	Ambient temperature [°C]	
DOL	110 - 120	1	2	1	40	
DOL	220 - 240	1	2	3	40	
DOL	277 - 277	1	2	3	40	
DOL	415 - 415	1	2	5	40	
DOL	440 - 480	1	2	5	40	
DOL	550 - 600	1	2	5	40	
DOL	110 - 120	3	3	2	40	
DOL	220 - 240	3	3	7,50	40	
DOL	415 - 415	3	3	10	40	
DOL	440 - 480	3	3	15	40	
DOL	550 - 600	3	3	20	40	
Pilot duty rating code						
Duty Code						
A600						
Temp. rating of wire						
Temperature rating (°C)			Current (A)		Text	
75					-- --	
General Use						
AC / DC	Voltage (V)	Current (A)	No. of phases	No. of poles	No. of contacts in series	
AC	277	25	1	1	1	
AC	600	25	1	2	1	
AC	600	25	3	3	1	
Suitable as Motor disconnect						
Yes/No			MOTOR-DISCONNECT-UL/CSA Text			
Y			SUITABLE FOR MOTOR DISCONNECT.			
MASTER DATA						
Max. number of stages						
			number of stages		Modul	
			8		KO	


Switch Measures									
Picture name	B	F	H	H1	H2	H3			
	--	--	54	--	--	--			
GENERAL TECHNICAL INFORMATION									
Minimal ratings (voltage/current)									
Voltage (V)	Current (mA)	Environment conditions		Environment conditions 2	Environment conditions 3				
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.	--				
Rated short-time withstand current Icw									
Time (s)						Current (A)			
1						350			
Size of conductor									
composition of conductor	Min. / Max. value	No. of conductor per terminal		Cross section (mm²) or (AWG/kcmil)	Material of the wire				
flexible wire	Max.	1		AWG 10	Copper				
flexible wire	Max.	1		4mm²	Copper				
Single-core or stranded wire	Max.	1		6mm²	Copper				
Single-core or stranded wire	Max.	1		AWG 10	Copper				
flexible wire with sleeve	Max.	1		4mm²	Copper				
Stripping length									
Length (mm) --									
Recommended screw driver									
Type of screw driver	Value								
Cross Screwdriver	PH2								
Slot screwdriver according to DIN 5264	0,8x4								
Tightening torque of screws									
tightening torque (Nm)						tightening torque (lb-in)			
1,25						11			
Power loss per pole									
						Power (W)			
						0,70			
Mechanical life									
No. of operating cycles	Ambient temperature (°C)		Number of stages		Limitations				
200000	-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.				
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
--	0,59	--	220	10	200000	1	AC	1	1
--	0,64	--	220	20	200000	1	AC	1	1
--	0,65	--	380	5	200000	1	AC	1	1
--	0,64	--	380	10	200000	1	AC	1	1
--	0,64	--	380	15	200000	1	AC	1	1
--	0,65	--	380	20	175000	1	AC	1	1
AC-23	--	--	440	15,50	100000	1	AC	3	3
--	--	50	24	1	200000	1	DC	1	1
--	--	50	48	1	200000	1	DC	1	1
--	--	55	110	1	200000	1	DC	1	1
--	--	55	220	0,50	100000	1	DC	1	1
Degree of protection									
IP - Code switch terminal									
IP20									
Conditions during transport and storing									
Minimum temperature (°C)				Maximum temperature (°C)			additional requirements		
-40				85			In case of temperatures below -5°C no shock load permissible		
Shock / Vibration									
Type of oscillation	Values								
Resistance to vibration	Min. 4g, 2-100Hz, 1,6mm								
Resistance to shock	min. 6g, 6ms								
General Information									
Text									
- EMC Note: This device is suitable for use in environment A and B.									
- Do not lubricate or treat contacts.									
- Switches may only be mounted, connected and set into operation by qualified persons according to the accepted rules of technology.									
- Use copper wire only. Do not coat the wire end with tin.									
- 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.									
- For devices with lockable handles: the position of the handle of these devices shall be marked to guide proper operation.									
- The "ON" and "OFF" position may be marked using the symbols "I" and "O" according IEC60417, Symbols 5007 and 5008.									

Creepage distance	
	Distance (mm)
	12,70
Clearance	
	Distance (mm)
	12,70
Operating temperature	
	Min. Temperature [°C]
	-5
	Max. Temperature [°C]
	55

Waste Electrical & Electronic Equipment (WEEE)

Picture name	Description
	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

Proposition 65

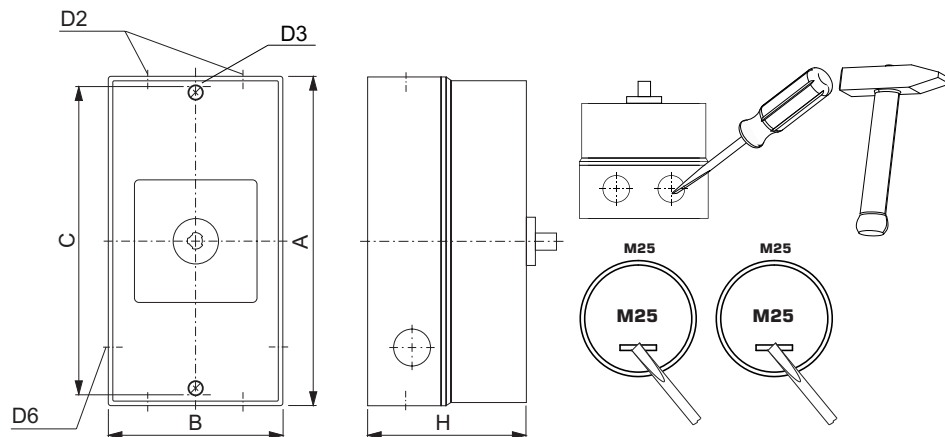
Picture name	Description
	WARNING: This product can expose you to chemicals including nickel and lead, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov .

Classification Contact: Rigid contact bridge

Classification Contact Mat: Silver

Classification Terminal: Screw terminal

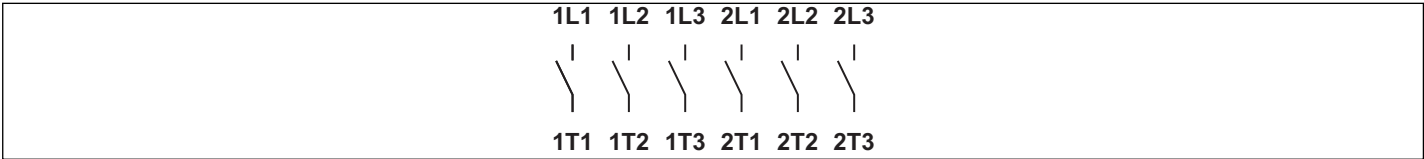
Mounting-KL11V



IP - Code front side		IP66, IP67, IP69k
Stages		6,00 - 6,00
A	H	190,00 mm
B	H	100,00 mm
C	H	178,00 mm
D2	Ø	4,00 x M25
D3	Ø	5,60 mm
D6	Ø	2,00 x M25
H	H	93,00 mm


Wiring diagram

KG20B.T306.KL11V



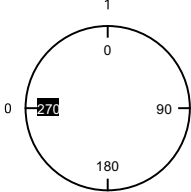
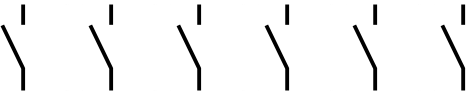
Switch program

KG20B.T306.KL11V



Kraus & Naimer

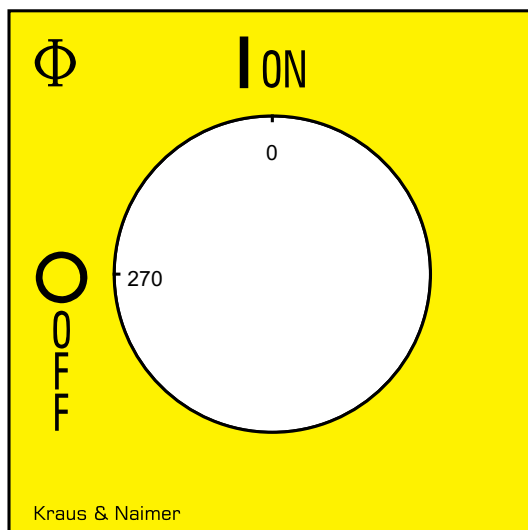
KG20B
T306
Page 1 of 1

Face Plate		1L1	1L2	1L3	2L1	2L2	2L3		
		1	3	5	7	9	11	13	15
									
Switching Angle 90 Total switching Angle 90		2	4	6	8	10	12	14	16
		1T1	1T2	1T3	2T1	2T2	2T3		
0	270								
1	0								
	90								
	180								

Version: 117

Face plate

S1.F656/E10.V9



AUXILIARY CONTACTS

(cam operated) for switch type KG20 - KG100C
and KH(R)16 - KH(R)25B

Designation: K0.M510A/2CA-B

Number of contacts: "2" 2 auxiliary contacts

Operation of contacts: "C" 1 auxiliary contact
closed in pos. 1 and 1 auxiliary contact closed in
pos. 0 (NO/NC)

Type of version: "A" 1. auxiliary contact module

Type of mounting: "-B" for type of mounting VE,
VE2, silver contacts

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



Nominal Voltage						
			Voltage (V) AC / DC			
			500 AC			
			690 AC			
Rated uninterrupted current I _u /I _{th}						
Current (A)	Ambient temperature (°C)	Peak temperature (°C)	additional requirements			
10	55	60	Ambient temperature +55°C during 24 hours with peaks up to +60°C			
16	55	60	Ambient temperature +55°C during 24 hours with peaks up to +60°C			
Conventional enclosed thermal current I _{the}						
Current (A)	Ambient temperature (°C)	Peak temperature (°C)	Additional requirements	No. of stages (from - to)	Mounting	Mounting size
10	35	40	Ambient temperature +35°C during 24 hours with peaks up to +40°C	--	--	--
16	35	40	Ambient temperature +35°C during 24 hours with peaks up to +40°C	--	--	--
Rated operational current I _e						
Utilization category			Voltage (V)		Current (A)	
AC-15			110 - 240		2,50	
AC-15			380 - 440		1,50	
AC-15			500		1	
AC-21A			500		10	
Max Fuse Rating IEC						
Fuse characteristic			No. of Fuses		Current (A)	
gG			1		10	

UL60947-4-1, UL508

Nominal Voltage						
			Voltage (V) AC / DC			
			600 AC			
Rated insulation voltage Ui						
			Voltage (V) AC / DC			
			600 AC			
Rated thermal current						
			Current (A)	Ambient temperature (°C)		Additional Text
			10	0 - 40		--
Pilot duty rating code						
Duty Code						
A600						
General Use						
AC / DC	Voltage (V)	Current (A)	No. of phases	No. of poles	No. of contacts in series	
AC	600	10	1	1		

GENERAL TECHNICAL INFORMATION

Minimal ratings (voltage/current)				
Voltage (V)	Current (mA)	Environment conditions	Environment conditions 2	Environment conditions 3
20	5	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.	--
Size of conductor				
composition of conductor	Min. / Max. value	No. of conductor per terminal	Cross section (mm²) or (AWG/kcmil)	Material of the wire
solid wire	Min.	1	0.5mm²	Copper
solid wire	Min.	2	0.5mm²	Copper
flexible wire	Min.	1	0.75mm²	Copper
flexible wire	Min.	2	0.75mm²	Copper
flexible wire	Max.	2	AWG 16	Copper
flexible wire	Max.	2	1.5mm²	Copper

Size of conductor				
composition of conductor	Min. / Max. value	No. of conductor per terminal	Cross section (mm²) or (AWG/kcmil)	Material of the wire
Single-core or stranded wire	Max.	2	AWG 14	Copper
Single-core or stranded wire	Max.	2	1.5mm²	Copper
flexible wire with ferrule according to DIN 46228	Max.	2	1mm²	Copper
flexible wire with ferrule according to DIN 46228	Min.	1	0.5mm²	Copper
flexible wire with ferrule according to DIN 46228	Min.	2	0.5mm²	Copper
Stripping length				
Length (mm) – 				
6				
Recommended screw driver				
Type of screw driver	Value			
Cross Screwdriver	PH1			
Slot screwdriver according to DIN 5264	0,6x3,5			
Tightening torque of screws				
		tightening torque (Nm)		tightening torque (lb-in)
		0,60		5
Power loss per pole				
				Power (W)
				0,40
Degree of protection				
IP - Code switch terminal				
IP20				
Conditions during transport and storing				
		Minimum temperature (°C)	Maximum temperature (°C)	additional requirements
		-40	85	In case of temperatures below -5°C no shock load permissible
General Information				
Text				
<ul style="list-style-type: none">- Do not lubricate or treat contacts.- Switches may only be mounted, connected and set into operation by qualified persons according to the accepted rules of technology.- Use copper wire only. Do not coat the wire end with tin.				
				
13 21 14 22				