



Sample image

Datasheet

Article number: 70025630

Designation: KG32.T204/D-A020.KL51V

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
6 III				3		Valid for lines with grounded common neutral termination
Function Switch / Switch disconnecter						
Rated uninterrupted current Iu/Ith						
Current (A)		Ambient temperature (°C)		Peak temperature (°C) additional requirements		
32		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)		No. of stages (from - to)
32		35		40		Mounting
				Additional requirements		Mounting size
				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		32
AC-20A				690		32
AC-21A				20 - 690		32
AC-22A				220 - 500		32
AC-22A				660 - 690		32
Rated operational power						
Utilization category		Voltage (V)		No. of phases		No. of poles
AC-3		220 - 240		3		3
AC-3		380 - 440		3		3
AC-3		500 - 500		3		3
AC-3		660 - 690		3		3
AC-3		220 - 240		1		2
AC-3		380 - 440		1		2
AC-23A		220 - 240		3		3
AC-23A		380 - 440		3		3
AC-23A		500 - 500		3		3
AC-23A		660 - 690		3		3
AC-23A		220 - 240		1		2
AC-23A		380 - 440		1		2
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		220 --		
		380 - 440		220 --		
		660 - 690		135 --		
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		
30		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	1,50	40
DOL			200 - 208	1	2	3	40
DOL			220 - 240	1	2	5	40
DOL			277 - 277	1	2	5	40
DOL			415 - 415	1	2	5	40
DOL			440 - 480	1	2	7,50	40
DOL			550 - 600	1	2	7,50	40
DOL			110 - 120	3	3	3	40
DOL			200 - 240	3	3	10	40
DOL			415 - 415	3	3	10	40
DOL			440 - 480	3	3	20	40
DOL			550 - 600	3	3	25	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	30	1	1	1		
AC	600	30	1	2	1		
AC	600	30	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
				30	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	1,50	40
DOL			220 - 240	1	2	5	40
DOL			277 - 277	1	2	5	40
DOL			415 - 415	1	2	5	40
DOL			440 - 480	1	2	7,50	40
DOL			550 - 600	1	2	7,50	40
DOL			110 - 120	3	3	3	40
DOL			220 - 240	3	3	10	40
DOL			415 - 415	3	3	10	40
DOL			440 - 480	3	3	20	40
DOL			550 - 600	3	3	25	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	30	1	1	1		
AC	600	30	1	2	1		
AC	600	30	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
4 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 H ₂ S etc.	In case extraordinary contamination with dust is expected an adequate dust protection is required.	--

Rated short-time withstand current I_{cs}

Time (s)	Current (A)
1	430

Size of conductor

composition of conductor	Min. / Max. value	No. of conductor per terminal	Cross section (mm ²) or (AWG/kcmil)	Material of the wire
solid wire	Min.	1	0.75mm ²	Copper
solid wire	Min.	2	0.5mm ²	Copper
flexible wire	Min.	2	0.75mm ²	Copper
flexible wire	Max.	1	AWG 10	Copper
flexible wire	Max.	1	4mm ²	Copper
flexible wire	Min.	1	1.5mm ²	Copper
Single-core or stranded wire	Max.	1	6mm ²	Copper
Single-core or stranded wire	Max.	1	AWG 10	Copper
flexible wire with sleeve	Max.	1	4mm ²	Copper
flexible wire with ferrule according to DIN 46228	Min.	1	0.75mm ²	Copper
flexible wire with ferrule according to DIN 46228	Min.	2	0.5mm ²	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)
1,10

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	15	200000	1	AC	1	1
--	0,64	--	220	20	200000	1	AC	1	1
AC-23	--	--	440	22	175000	1	AC	3	3
AC-23	--	--	690	13	200000	1	AC	3	3
AC-22	--	--	690	32	100000	1	AC	3	3
--	--	50	60	2	60000	1	DC	1	1
--	--	55	110	1,50	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.

General Information

Text

- 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]

Max. Temperature [°C]

-5

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



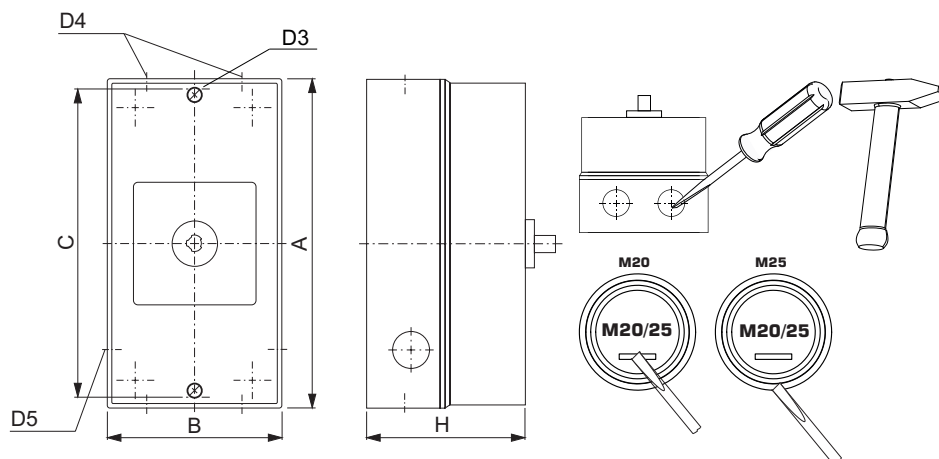
WARNING: This product can expose you to chemicals including nickel and lead, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

Classification Contact: Rigid contact bridge

Classification Contact Mat: Silver

Classification Terminal: Screw terminal

Mounting-KL51V

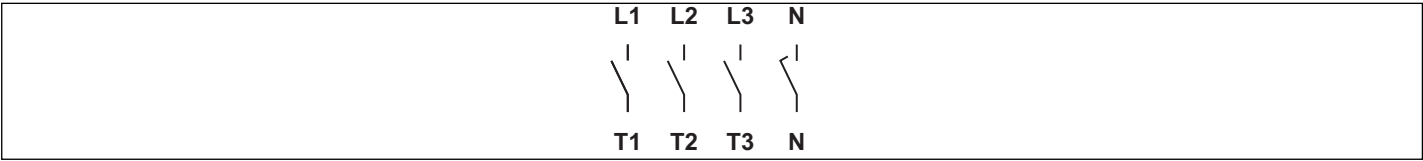


IP - Code front side	IP66, IP67, IP69k
Stages	1,00 - 5,00
A	H 160,00 mm
B	H 85,00 mm
C	H 150,00 mm
D3	Ø 4,20 mm
D4	Ø 4,00 x M20/M25
D5	Ø 2,00 x M20
H	H 82,00 mm




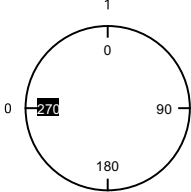

Wiring diagram

KG32.T304.KL51V



Switch program

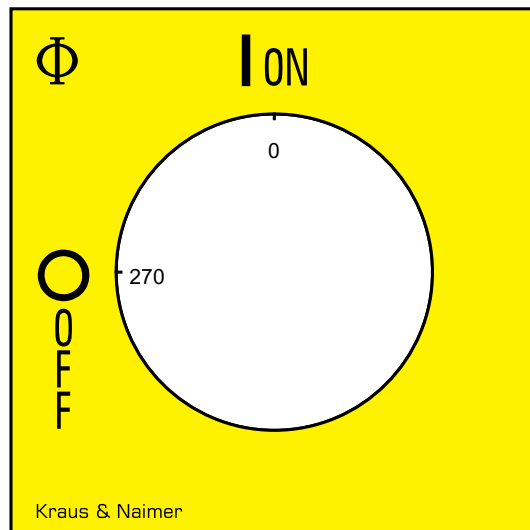
KG32.T304.KL51V

 Kraus & Naimer		KG32		T304		Page 1 of 1			
Face Plate									
		L1 1	L2 3	L3 5	N 7	9	11	13	15
									
Switching Angle <input type="text" value="90"/> Total switching Angle <input type="text" value="90"/>		2 T1	4 T2	6 T3	8 N	10	12	14	16
0	270								
1	0								
	90								
	180								

Version: 94

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 (mm ²) or (AWG/kcmil)	Material of the wire
Single-core or stranded wire	Max.	2	AWG 14	Copper
Single-core or stranded wire	Max.	2	1.5mm ²	Copper
flexible wire with ferrule according to DIN 46228	Max.	2	1mm ²	Copper
flexible wire with ferrule according to DIN 46228	Min.	1	0.5mm ²	Copper
flexible wire with ferrule according to DIN 46228	Min.	2	0.5mm ²	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				