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Sample image

Datasheet

Article number: 70014347
Designation: KG20B.T104/01.E
Description: Schalter globaler Trenner
Contact development: T304
Face plate engraving: F456
Type of mounting: E

Type Size: S1
Classification Contact: Rigid contact bridge
Classification Contact Mat: Silver
Classification Terminal: Screw terminal

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

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*	*No. of stages (from - to)*	*Mounting*	*Mounting size*
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)*	*No. of phases*	*No. of poles*	*Power (kW)*
AC-3	220 - 240	3	3	4
AC-3	380 - 440	3	3	5,50
AC-3	500 - 500	3	3	5,50
AC-3	660 - 690	3	3	5,50
AC-3	220 - 240	1	2	2,20
AC-3	380 - 440	1	2	3,70
AC-23A	220 - 240	3	3	5,50
AC-23A	380 - 440	3	3	7,50
AC-23A	500 - 500	3	3	7,50
AC-23A	660 - 690	3	3	7,50
AC-23A	220 - 240	1	2	3
AC-23A	380 - 440	1	2	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

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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)
DOL	110 - 120	1	2	1
DOL	220 - 240	1	2	3
DOL	277 - 277	1	2	3
DOL	415 - 415	1	2	5
DOL	440 - 480	1	2	5
DOL	550 - 600	1	2	5
DOL	110 - 120	3	3	2
DOL	200 - 240	3	3	7,50
DOL	415 - 415	3	3	10
DOL	440 - 480	3	3	15
DOL	550 - 600	3	3	20

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 5 kA Amperes, 600 Volts dc max. when protected by Class RK5 fuses (rated 600Vdc/max. 25A).
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
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 disconnector 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)
DOL	110 - 120	1	2	1
DOL	220 - 240	1	2	3
DOL	277 - 277	1	2	3
DOL	415 - 415	1	2	5
DOL	440 - 480	1	2	5
DOL	550 - 600	1	2	5
DOL	110 - 120	3	3	2
DOL	220 - 240	3	3	7,50
DOL	415 - 415	3	3	10
DOL	440 - 480	3	3	15
DOL	550 - 600	3	3	20

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

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General Use

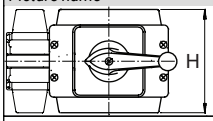
AC / DC	Voltage (V)	Current (A)	No. of phases	No. of poles	No. of contacts in series
AC	600	25	1	2	1
AC	600	25	3	3	1

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

Tightening torque of screws

tightening torque (Nm)	tightening torque (lb-in)
1,25	11

Stripping length

Length (mm)	--
9	STRIPPINGLENGTH

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.	--

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

Approbations

Specification	Marking
EAC	
CE marking	
UK Directives	
Lloyd´s Register EMEA	
IEC 60947-3; EN 60947-3; VDE 0660 Teil107	**IEC 60947-3** **EN 60947-3**
IEC 60947-6-1; EN 60947-6-1; VDE 0660 Teil114	**IEC 60947-6-1** **EN 60947-6-1**
UL 60947-4-1; CSA C22.2 No. 60947-4-1	LISTED77B7
CSA C.22.2 No.14	
GB/T14048.3	GB/T14048.3
Russian Maritme Register of Shipping	

Power loss per pole

Power (W)
0,70

Mechanical life

No. of operations	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".

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

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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
--	0,64	--	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

Recommended screw driver

Type of screw driver	Value
Cross Screwdriver	PH2
Flat blade	0,8x1,2

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.

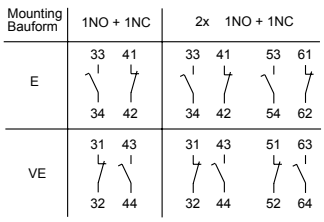
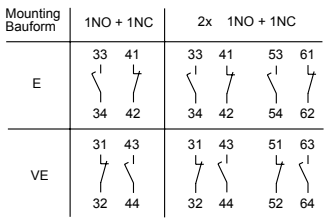
Creepage distance

Distance (mm)
12,70

Clearance

Distance (mm)
12,70

Further Pictures

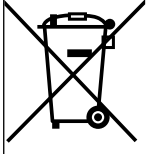
Picture Purpose	Picture Name
AUX.CONT.	H010/A, H010/C  H010/B 

Technical Data according to UL Specifications		Auxiliary Contacts KG20 - KG64B	Auxiliary Contacts KG80 - KG105C
Rated Voltage	V A . C.	600	600
Ampere Rating	A	10	10
Type of wire	-	Use 60/75°C copper wire only	Use 75°C copper wire only
Temperature rating of wire	°C	60/75	75
Torque value for field wiring terminals	lb-in.	-	-
	Nm	-	-

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

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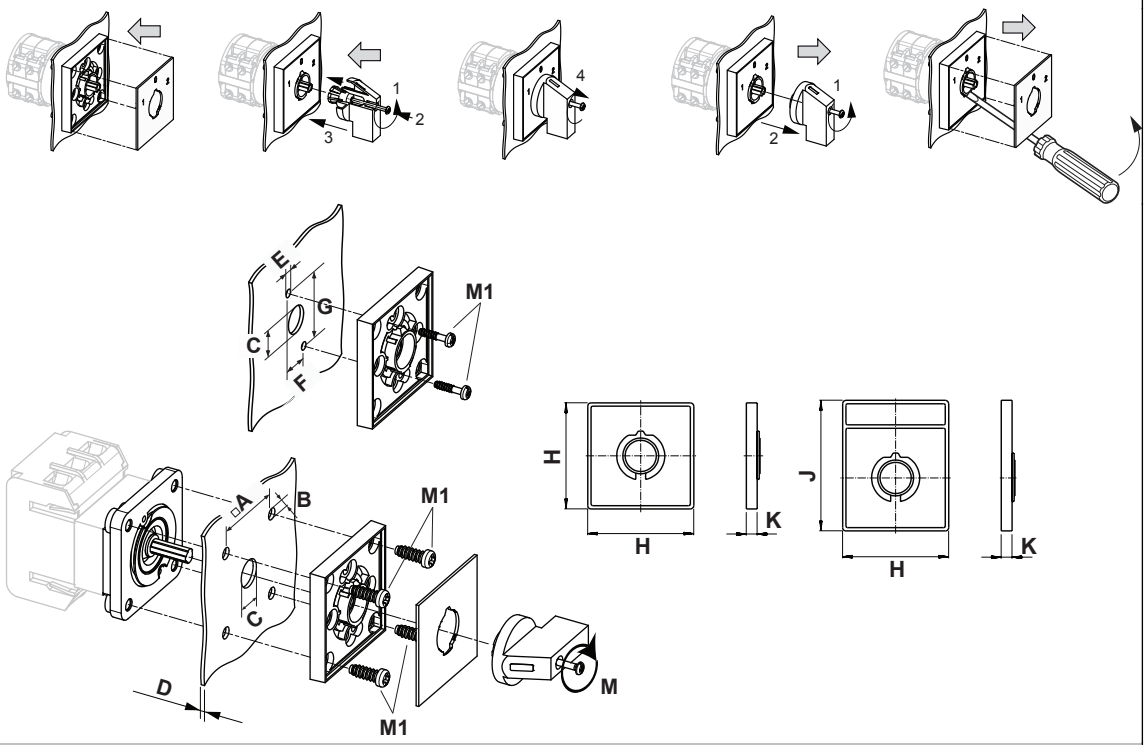
Proposition 65	
Picture name	*Description*
	WARNING: This product can expose you to chemicals including nickel and lead, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

Mounting-E



IP - Code front side		IP66, IP67
Stages		1,00 - 12,00
A	□	48,00 mm
B	Ø	5,00 mm
C	Ø	10,00 - 15,00 mm
D	H	<= 4,00 mm
E	Ø	3,50 mm
F	H	12,20 mm
G	H	30,00 mm
H	H	64,00 mm
J	H	78,50 mm
K	H	7,40 mm
M	M	0,70 Nm
M1	M	0,90 Nm

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Wiring diagram

KG20B.T304.E

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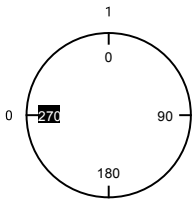
KG20B	T304	Page 1 of 1

Face Plate



Switching Angle 90
Total switching Angle 90

		L1	L2	L3	N				
		1	3	5	7	9	11	13	15
		2	4	6	8	10	12	14	16
		T1	T2	T3	N				
0	270								
1	0	■	■	■	■				
	90								
	180								

Version: 94

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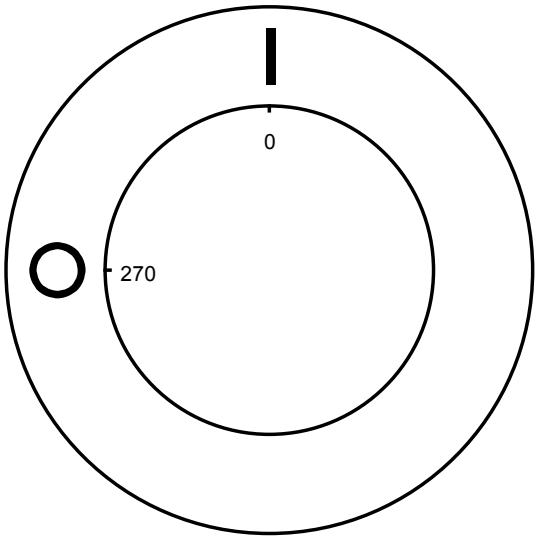
Face plate

S1.F456/C10.V11H



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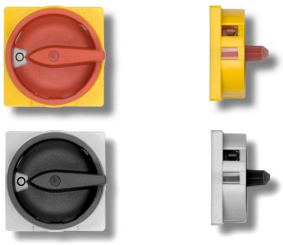
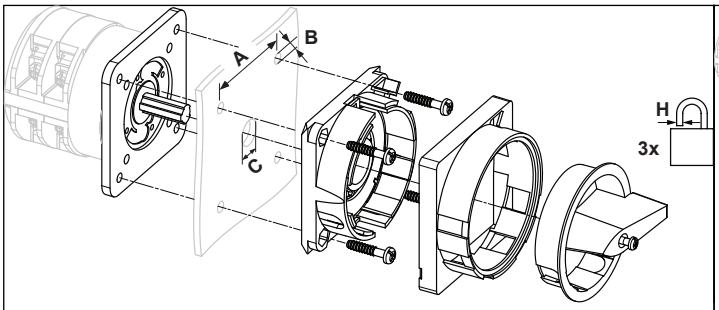


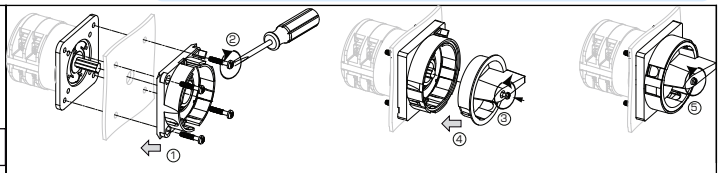
Sample image

PADLOCK DEVICE with F-handle ring

Designation: S1.V840G/A71/A2
Colour of F-handle ring: "A" black
Colour of face ring: "7" electro-grey
Locking position: "1" at 09:00 (1x90°)
Type of mounting: "A" for type of mounting E
Type of mounting: "A" for type of mounting GK (Rose)
Switch type: "2" for KA-, KG- and KH(R)-switches



A	□	48,00 mm	B	⌀	5,00 mm	C	⌀ 15,00 mm
H	⌀	7,00 - 8,50 mm					



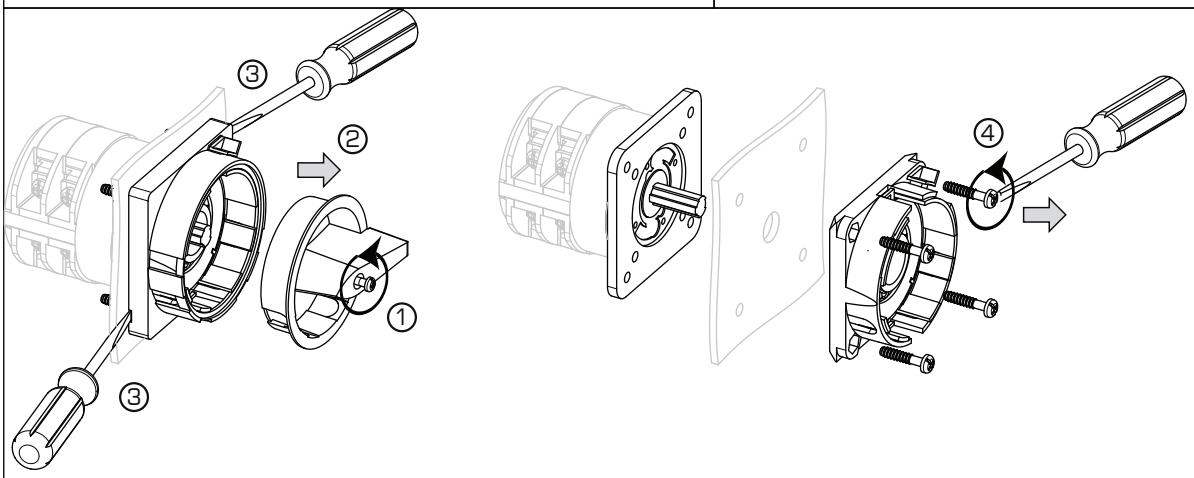
MOUNTING

1 + 2 The padlock device has to be mounted by four cylinder head screws from the front.

3 Loosen the screw and

4 Push it into the handle onto the shaft

5 Fasten the screw.



1 Loose handle screw

2 remove handle.

3 Insert a proper auxiliary tool at those points of the frame of the device which are marked by a srew driver on the drawing and remove the frame.

4 Fixing screws can be loosen now.