Kraus & Naimer

Sample image

Datasheet

Article number: 70011189
Designation: KG10.T103/40.CS51V
Description: Schalter globaler Trenner
Contact development: T30311
Face plate engraving: F656
Type of mounting: CS51V

Type Size: S0
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*
4	II	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*
20	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*
20	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-15	220 - 240	6
AC-15	380 - 440	4
AC-20A	690	20
AC-21A	20 - 690	20
AC-22A	220 - 500	20
AC-22A	660 - 690	16

Rated operational power

Utilization category	*Voltage (V)*	*No. of phases*	*No. of poles*	*Power (kW)*
AC-3	220 - 240	3	3	2,20
AC-3	380 - 440	3	3	3,70
AC-3	500 - 500	3	3	3,70
AC-3	660 - 690	3	3	3,70
AC-3	220 - 240	1	2	1,10
AC-3	380 - 440	1	2	1,50
AC-23A	220 - 240	3	3	3
AC-23A	380 - 440	3	3	5,50
AC-23A	500 - 500	3	3	5,50
AC-23A	660 - 690	3	3	5,50
AC-23A	220 - 240	1	2	1,50
AC-23A	380 - 440	1	2	2,20

Max Fuse Rating IEC

Fuse characteristic	*No. of Fuses*	*Current (A)*
gG	1	20

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)*
DC-13	1	ON - OFF	24	DC	3
DC-13	1	ON - OFF	48	DC	1,70
DC-13	1	ON - OFF	60	DC	1,40
DC-13	1	ON - OFF	110	DC	0,70
DC-13	1	ON - OFF	220	DC	0,15
DC-13	2	ON - OFF	24	DC	6
DC-13	2	ON - OFF	48	DC	3
DC-13	2	ON - OFF	96	DC	1,70
DC-13	2	ON - OFF	120	DC	1,40
DC-13	2	ON - OFF	220	DC	0,70

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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)*
DC-13	2	ON - OFF	440	DC	0,15
DC-21A	1	ON - OFF	24	DC	16
DC-21A	1	ON - OFF	48	DC	14
DC-21A	1	ON - OFF	60	DC	13
DC-21A	1	ON - OFF	110	DC	6
DC-21A	1	ON - OFF	220	DC	0,90
DC-21A	2	ON - OFF	48	DC	16
DC-21A	2	ON - OFF	96	DC	14
DC-21A	2	ON - OFF	120	DC	13
DC-21A	2	ON - OFF	220	DC	6
DC-21A	2	ON - OFF	440	DC	0,90
DC-21A	3	ON - OFF	72	DC	16
DC-21A	3	ON - OFF	144	DC	14
DC-21A	3	ON - OFF	180	DC	13
DC-21A	3	ON - OFF	330	DC	6
DC-21A	3	ON - OFF	660	DC	0,90
DC-21A	4	ON - OFF	96	DC	16
DC-21A	4	ON - OFF	192	DC	14
DC-21A	4	ON - OFF	240	DC	13
DC-21A	4	ON - OFF	440	DC	6
DC-21A	5	ON - OFF	120	DC	16
DC-21A	5	ON - OFF	240	DC	14
DC-21A	5	ON - OFF	300	DC	13
DC-21A	5	ON - OFF	550	DC	6
DC-21A	6	ON - OFF	144	DC	16
DC-21A	6	ON - OFF	288	DC	14
DC-21A	6	ON - OFF	360	DC	13
DC-21A	6	ON - OFF	660	DC	6
DC-22A	1	ON - OFF	24	DC	14
DC-22A	1	ON - OFF	48	DC	13
DC-22A	1	ON - OFF	60	DC	12
DC-22A	1	ON - OFF	110	DC	1,90
DC-22A	1	ON - OFF	220	DC	0,30
DC-22A	2	ON - OFF	48	DC	14
DC-22A	2	ON - OFF	96	DC	13
DC-22A	2	ON - OFF	120	DC	12
DC-22A	2	ON - OFF	220	DC	1,90
DC-22A	2	ON - OFF	440	DC	0,30
DC-22A	3	ON - OFF	72	DC	14
DC-22A	3	ON - OFF	144	DC	13
DC-22A	3	ON - OFF	180	DC	12
DC-22A	3	ON - OFF	330	DC	1,90
DC-22A	3	ON - OFF	660	DC	0,30
DC-22A	4	ON - OFF	96	DC	14
DC-22A	4	ON - OFF	192	DC	13
DC-22A	4	ON - OFF	240	DC	12
DC-22A	4	ON - OFF	440	DC	1,90
DC-22A	5	ON - OFF	120	DC	14
DC-22A	5	ON - OFF	240	DC	13
DC-22A	5	ON - OFF	300	DC	12
DC-22A	5	ON - OFF	550	DC	1,90
DC-22A	6	ON - OFF	144	DC	14
DC-22A	6	ON - OFF	288	DC	13
DC-22A	6	ON - OFF	360	DC	12
DC-22A	6	ON - OFF	660	DC	1,90
DC-23A	1	ON - OFF	24	DC	13
DC-23A	1	ON - OFF	48	DC	12
DC-23A	1	ON - OFF	60	DC	10
DC-23A	1	ON - OFF	110	DC	1,50
DC-23A	1	ON - OFF	220	DC	0,20
DC-23A	2	ON - OFF	48	DC	13
DC-23A	2	ON - OFF	96	DC	12
DC-23A	2	ON - OFF	120	DC	10
DC-23A	2	ON - OFF	220	DC	1,50
DC-23A	2	ON - OFF	440	DC	0,20
DC-23A	3	ON - OFF	72	DC	13
DC-23A	3	ON - OFF	144	DC	12
DC-23A	3	ON - OFF	180	DC	10
DC-23A	3	ON - OFF	330	DC	1,50
DC-23A	3	ON - OFF	660	DC	0,20
DC-23A	4	ON - OFF	96	DC	13
DC-23A	4	ON - OFF	192	DC	12
DC-23A	4	ON - OFF	240	DC	10
DC-23A	4	ON - OFF	440	DC	1,50
DC-23A	5	ON - OFF	120	DC	13
DC-23A	5	ON - OFF	240	DC	12

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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)
DC-23A	5	ON - OFF	300	DC	10
DC-23A	5	ON - OFF	550	DC	1,50
DC-23A	6	ON - OFF	144	DC	13
DC-23A	6	ON - OFF	288	DC	12
DC-23A	6	ON - OFF	360	DC	10
DC-23A	6	ON - OFF	660	DC	1,50

Rated conditional short-circuit current

Current (kA)	Text	cut-off current Ic (kA)	Durchlassenergie I²t (kA²s)
2	--	1,45	1,95

Rated breaking capacity

Voltage (V)	Current (A)	Utilization category / UL (DOL)
220 - 240	120	--
380 - 440	120	--
660 - 690	80	--

Rated short-circuit making capacity Icm

Current (A)
450

UL60947-4-1 , UL508

Nominal Voltage

Voltage (V)	AC / DC
300	AC

Rated insulation voltage Ui

Voltage (V)	AC / DC
300	AC

Rated thermal current

Current (A)	Ambient temperature (°C)	Additional Text
20	0 - 40	--

Horsepower rating

Across-the-Line Motor Starting	Voltage (V)	No. of phases	No. of poles	Power (HP)
DOL	110 - 120	1	2	0,50
DOL	220 - 240	1	2	1
DOL	277 - 277	1	2	1
DOL	110 - 120	3	3	1
DOL	220 - 240	3	3	2

Pilot duty rating code

Duty Code
A300

SCCR / Max. fuse rating

Conditions of acceptability

These devices are suitable for use on circuits capable of delivering not more than 5kA rms symmetrical amperes, 300V ac max. when protected by Class J fuses.

Temp. rating of wire

Temperature rating (°C)	Current (A)	Text
60 - 75	--	--

Connecting instructions

Markings

Break all lines.

For use on a flat surface of a type 1 enclosure.

General Use

AC / DC	Voltage (V)	Current (A)	No. of phases	No. of poles	No. of contacts in series
AC	277	20	1	1	1
AC	300	20	1	2	1
AC	300	20	3	3	1

Suitable as Motor disconnect

Yes/No
Y

General Information

Text

- 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
300	AC

Rated insulation voltage Ui

Voltage (V)	AC / DC
300	AC

Rated thermal current

Current (A)	Ambient temperature (°C)	Additional Text
20	0 - 40	--

Horsepower rating

Across-the-Line Motor Starting	Voltage (V)	No. of phases	No. of poles	Power (HP)
DOL	110 - 120	1	2	0,50
DOL	220 - 240	1	2	1
DOL	277 - 277	1	2	1

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Horsepower rating

Across-the-Line Motor Starting	*Voltage (V)*	*No. of phases*	*No. of poles*	*Power (HP)*
DOL	110 - 120	3	3	1
DOL	220 - 240	3	3	2

Pilot duty rating code

Duty Code
A300

Temp. rating of wire

Temperature rating (°C)	*Current (A)*	*Text*
75	--	--

General Use

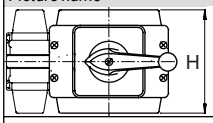
AC / DC	*Voltage (V)*	*Current (A)*	*No. of phases*	*No. of poles*	*No. of contacts in series*
AC	277	20	1	1	1
AC	277	20	3	3	1

MASTER DATA

Max. number of stages

number of stages	*Modul*
7	FL

Switch Measures

Picture name	*B*	*F*	*H*	*H1*	*H2*	*H3*
	--	--	50	--	--	--

GENERAL TECHNICAL INFORMATION

Tightening torque of screws

tightening torque (Nm)	*tightening torque (lb-in)*
0,60	5

Stripping length

Length (mm)	--
8	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	130

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.	1	AWG 12	Copper
flexible wire	Max.	1	2.5mm²	Copper
Single-core or stranded wire	Max.	1	AWG 12	Copper
Single-core or stranded wire	Max.	1	2.5mm²	Copper
flexible wire with ferrule according to DIN 46228	Max.	1	2.5mm²	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

Approbations

Specification	*Marking*
EAC	
CE marking	
UK Directives	
IEC 60947-3; EN 60947-3; VDE 0660 Teil107	**IEC 60947-3** **EN 60947-3**
UL 60947-4-1; CSA C22.2 No. 60947-4-1	LISTED77B7
CSA C.22.2 No.14	
GB/T14048.3	GB/T14048.3

Power loss per pole

Power (W)
0,90

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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	--	122	10	150000	1	AC	1	1
--	0,59	--	220	10	90000	1	AC	1	1
--	0,59	--	220	15	50000	1	AC	1	1
--	0,64	--	220	20	30000	1	AC	1	1
AC-3	--	--	440	8	100000	1	AC	3	3
AC-23	--	--	440	11,50	50000	1	AC	3	3
AC-3	--	--	690	4,60	100000	1	AC	3	3
AC-23	--	--	690	6,70	100000	1	AC	3	3
AC-22	--	--	690	20	40000	1	AC	3	3
--	--	55	110	1	50000	1	DC	1	1
--	--	55	110	1,50	25000	1	DC	1	1

Recommended screw driver

Type of screw driver	Value
Cross Screwdriver	PH1
Flat blade	0,8x4

Degree of protection

IP - Code switch terminal
IP10

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

- 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.
- After installation of the switches the spacings between the terminals must be sufficient to fulfill the requirement of the applicable standards.

Creepage distance

Distance (mm)
9,50

Clearance

Distance (mm)
6,35

Distance of stages

Distance (mm)
9,50

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.

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Wiring diagram

KG10.T30311.CS51V

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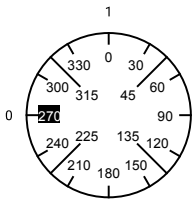
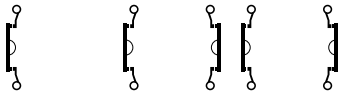
KG10 | **T30311VE** | **Page 1 of 1**

Face Plate



	T2		T1	T3	14	22						
	1	**3**	**5**	**7**	**9**	**11**	**13**	**15**	**17**	**19**	**21**	**23**

Marking plate:S0D H043 91E



Switching Angle 90
Total switching Angle 90

		2	**4**	**6**	**8**	**10**	**12**	**14**	**16**	**18**	**20**	**22**	**24**
		L2		L1	L3	13	21						
0	270						■						
	285												
	300												
	315												
	330												
	345												
1	0	■		■	■	■							
	15												
	30												
	45												
	60												
	75												
	90												
	105												
	120												
	135												
	150												
	165												
	180												
	195												
	210												
	225												
	240												
	255												

Version: 7

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Face plate

S1.F656/C10.V9