Kraus & Naimer

Sample image

Datasheet

Article number: 70011276
Designation: CH10.A178.FT2
Description: Switch

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

Rated insulation voltage Ui

Voltage (V)	*AC / DC*
690	AC / DC

Rated uninterrupted current Iu/Ith

Current (A)	*Ambient temperature (°C)*	*Peak temperature (°C)*	*additional requirements*
20	55	60	Ambient temperature +55°C during 24 hours with peaks up to +60°C

Rated operational current Ie

Utilization category	*Voltage (V)*	*Current (A)*
AC-15	220 - 240	6
AC-15	380 - 440	4

Rated operational power

Utilization category	*Voltage (V)*	*No. of phases*	*No. of poles*	*Power (kW)*
AC-3	220 - 240	3	3	3
AC-3	380 - 440	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
AC-23A	220 - 240	3	3	3,70
AC-23A	380 - 440	3	3	7,50
AC-23A	660 - 690	3	3	7,50
AC-23A	220 - 240	1	2	2,50
AC-23A	380 - 440	1	2	3,70

Max. Fuse rating IEC

Fuse characteristic	*No. of Fuses*	*Current (A)*
gG	1	25

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*
20	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	0,50	40
DOL	220 - 240	1	2	1	40
DOL	277 - 277	1	2	2	40
DOL	440 - 480	1	2	2	40
DOL	550 - 600	1	2	2	40
DOL	110 - 120	3	3	1,50	40
DOL	220 - 240	3	3	3	40
DOL	440 - 480	3	3	5	40
DOL	550 - 600	3	3	5	40

Pilot duty rating code

Duty Code
A600

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, 600V ac max. when protected by Class RK1 fuses.

Temp. rating of wire

Temperature rating (°C)	*Current (A)*	*Text*
60 - 75	--	Use copper wire only

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	600	20	1	2	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	20	3	3	1

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
20	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	0,50	40
DOL	220 - 240	1	2	1	40
DOL	277 - 277	1	2	2	40
DOL	440 - 480	1	2	2	40
DOL	550 - 600	1	2	2	40
DOL	110 - 120	3	3	1,50	40
DOL	220 - 240	3	3	3	40
DOL	440 - 480	3	3	5	40
DOL	550 - 600	3	3	5	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	20	1	1	1
AC	600	20	1	2	1
AC	600	20	3	3	1

GENERAL TECHNICAL INFORMATION

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	0.75mm²	Copper
Solid wire	Min.	2	0.75mm²	Copper
Flexible wire	Min.	1	0.75mm²	Copper
Flexible wire	Min.	2	0.75mm²	Copper
Flexible wire	Max.	2	AWG 12	Copper
Flexible wire	Max.	2	2.5mm²	Copper
Single-core or stranded wire	Max.	2	AWG 10	Copper
Single-core or stranded wire	Max.	2	4mm²	Copper
Flexible wire with ferrule according to DIN 46228	Min.	1	0.75mm²	Copper
Flexible wire with ferrule according to DIN 46228	Min.	2	0.75mm²	Copper
Flexible wire with ferrule according to DIN 46228	Max.	2	2.5mm²	Copper

Stripping length

Length (mm)	--
9	

Recommended screw driver

Type of screw driver	Value
Cross Screwdriver	PH1
Slot screwdriver according to DIN 5264	0,8x4

Tightening torque of screws

tightening torque (Nm)	tightening torque (lb-in)
1	9

Approbations

Specification	Marking
CE marking	
UK Directives	
CSA C.22.2 No.14	

General Information

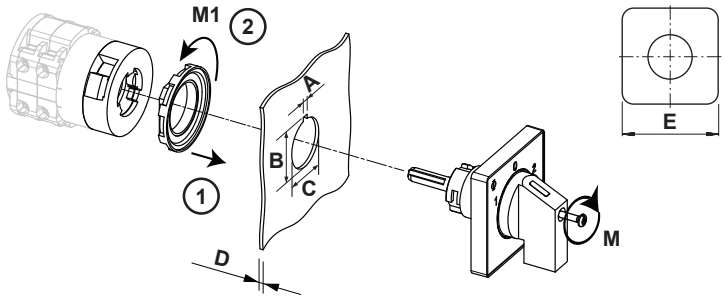
Text

- Alleen koperleidingen met of zonder vertinde/verzilverde draden (per draad) gebruiken. Het nadien vertinnen van de uiteinden is niet toegestaan.
- Terminals with factory fitted jumper links are tightened during production for loss prevention. When opening the terminal clamps, make sure that no factory fitted links get lost and that all wire connections are properly seated.
- After wiring, ALL terminal screws must be tightened to the specified torque values.
- Het gebruik van een extra apparaat kan de beschermingsklasse van de gekozen bouwvorm beïnvloeden.

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.	
- After installation of the switches the spacings between the terminals must be sufficient to fulfill the requirement of the applicable standards.	
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-FT2



IP - Code front side		IP66, IP67, IP69k
Stages		1,00 - 12,00
A	⊢	3,20 mm
A+_tol.	⊢	0,20 mm
A-_tol.	⊢	0,00 mm
B	⊢	24,10 mm
B+_tol.	⊢	0,40 mm
B-_tol.	⊢	0,00 mm
C	⌀	22,30 mm
C+_tol.	⌀	0,40 mm
C-_tol.	⌀	0,00 mm
D	⊢	<= 6,00 mm
E	□	48,00 mm
M		0,50 Nm
M1		1,80 Nm

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Wiring diagram

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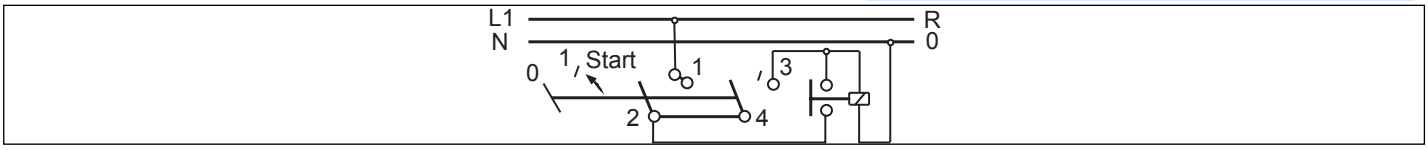

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Switch program

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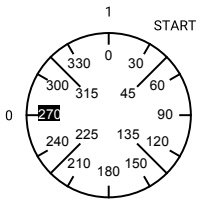
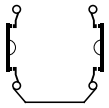
Face Plate





Switching Angle 90
Total switching Angle 120

		1	3	5	7	9	11	13	15	17	19	21	23
		2	4	6	8	10	12	14	16	18	20	22	24
0	270												
	285												
	300												
	315												
	330												
	345												
1	0	■											
	15	■											
START	30	■	■										
	45												
	60												
	75												
	90												
	105												
	120												
	135												
	150												
	165												
	180												
	195												
	210												
	225												
	240												
	255												

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Jumpers

1 ●	● 3	4 ○—●	2
5 ○	○ 7	8 ○	○ 6
9 ○	○ 11	12 ○	○ 10
13 ○	○ 15	16 ○	○ 14
17 ○	○ 19	20 ○	○ 18
21 ○	○ 23	24 ○	○ 22
25 ○	○ 27	28 ○	○ 26
29 ○	○ 31	32 ○	○ 30
33 ○	○ 35	36 ○	○ 34
37 ○	○ 39	40 ○	○ 38
41 ○	○ 43	44 ○	○ 42
45 ○	○ 47	48 ○	○ 46

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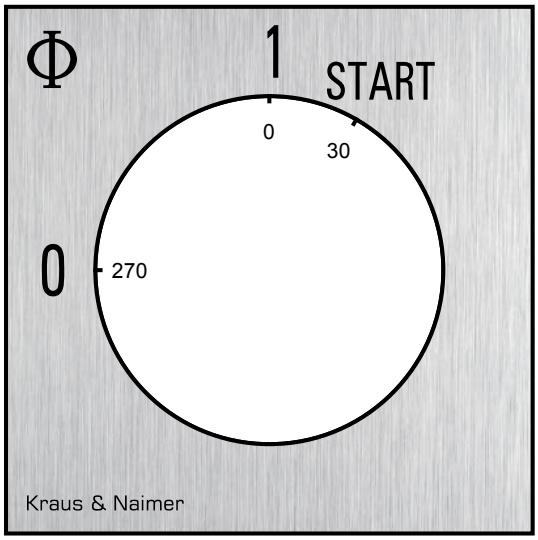
Face plate

S0.F119/A10.E1L



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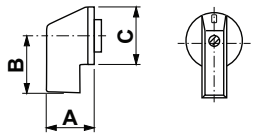
HANDLES

Designation: S0C.G251
Handle colour: "1" black

GENERAL TECHNICAL INFORMATION	
Recommended screw driver	
Type of screw driver	*Value*
Cross Screwdriver	PH1
Slot screwdriver according to DIN 5264	0,8x4



A	22,00 mm	B	23,80 mm	C	27,60 mm