



Sample image

Datasheet

Article number: 70001950

Designation: CA10.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 impulse withstand voltage Uimp

Voltage (kV)	Overvoltage category	Pollution degree	Supply system	Function
4 III	3	Valid for lines with grounded common neutral termination	Switch disconnecter	

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
300 AC / DC

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)	Ambient temperature [°C]
Reversing	110 - 120	1	2	0,17	40
Reversing	220 - 240	1	2	0,50	40
Reversing	277 - 277	1	2	0,60	40
Reversing	110 - 120	3	3	0,50	40
Reversing	220 - 240	3	3	1	40
DOL	110 - 120	1	2	0,50	40
DOL	220 - 240	1	2	1	40
DOL	277 - 277	1	2	2	40
DOL	110 - 120	3	3	1,50	40
DOL	220 - 240	3	3	3	40

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 5000 rms symmetrical amperes, 600V ac max. when protected by Class RK1 fuses. Manual Motor Controllers when intended for use as a motor disconnecter are suitable for use on a circuit capable of delivering not more than 5000 rms symmetrical amperes, 600V ac max. when protected by 30A Class J time delay fuses.

Temp. rating of wire

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

Connecting instructions						
Markings						
When intended for use as a motor disconnecter the device shall be provided with a method of being locked in the OFF-position.						
General Use						
AC / DC	Voltage (V)	Current (A)	No. of phases	No. of poles	No. of contacts in series	
AC	300	20	1	2	1	
AC	300	20	3	3	1	
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
				110 - 120	1	2
				220 - 240	1	2
				277 - 277	1	2
				110 - 120	3	3
				220 - 240	3	3
Pilot duty rating code						
Duty Code						
A300						
Temp. rating of wire						
		Temperature rating (°C)	Current (A)		Text	
		75	--		only	
General Use						
AC / DC	Voltage (V)	Current (A)	No. of phases	No. of poles	No. of contacts in series	
AC	300	20	1	1	1	
GENERAL TECHNICAL INFORMATION						
Tightening torque of screws						
				tightening torque (Nm)	tightening torque (lb-in)	
				0,60	5	
Stripping length						
				Length (mm) --		
				8 STRIPPINGLENGTH		
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		2.5mm²	Copper	
flexible wire	Max.	2		AWG 14	Copper	
Single-core or stranded wire	Max.	2		AWG 12	Copper	
Single-core or stranded wire	Max.	2		2.5mm²	Copper	
flexible wire with ferrule according to DIN 46228	Min.	1		0.5mm²	Copper	
flexible wire with ferrule according to DIN 46228	Max.	2		2.5mm²	Copper	
flexible wire with ferrule according to DIN 46228	Min.	2		0.5mm²	Copper	
Approbations						
Specification						
Marking						
EAC						
CE marking						
UK Directives						
CSA C.22.2 No.14						
GB/T14048.3						
Recommended screw driver						
Type of screw driver				Value		
Cross Screwdriver				PH1		
Slot screwdriver according to DIN 5264				0,8x4		
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.						

General Information

Text

- 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.

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



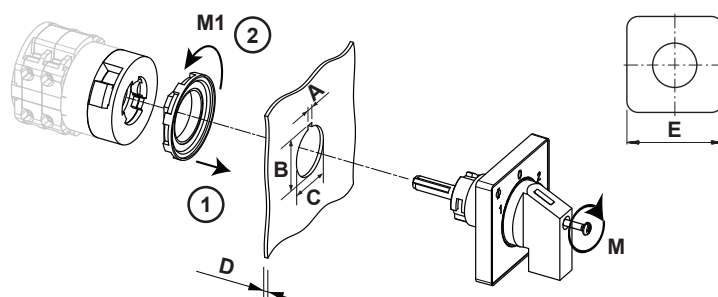
WARNING: This product can expose you to chemicals including nickel and lead, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

Classification Contact: Rigid contact bridge

Classification Contact Mat: Silver

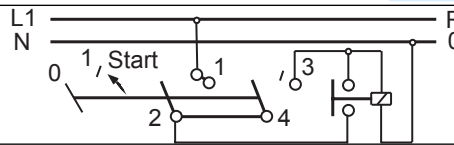
Classification Terminal: Screw terminal

Mounting-FT2



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

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Switch program

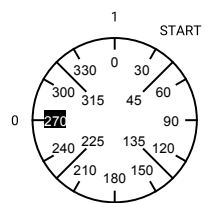
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Kraus & Naimer

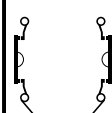
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Face Plate



Switching Angle

Total switching Angle

	1	3	5	7	9	11	13	15	17	19	21	23
												

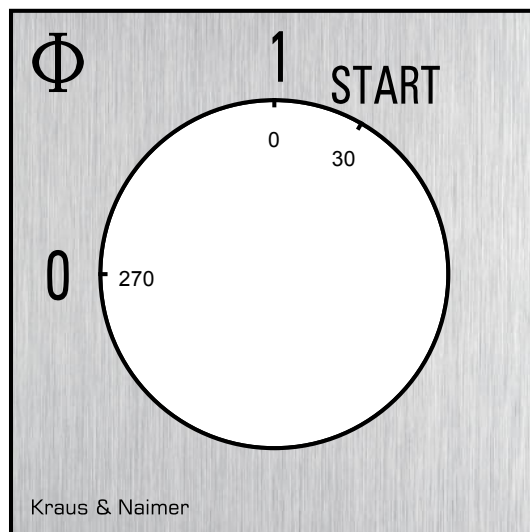
	2	4	6	8	10	12	14	16	18	20	22	24
												

	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										

Version: 131

Face plate

S0.F119/A10.E1L



HANDLES

Designation: S0C.G251

Handle colour: "1" black

