

PRODUCT-DETAILS

# A110-30-22-59

## A110-30-22 690V 60Hz Contactor



### General Information

Extended Product Type	A110-30-22-59
Product ID	1SFL451001R5922
EAN	7320500227107
Catalog Description	A110-30-22 690V 60Hz Contactor
Long Description	A 3-phase Contactor suitable for various applications such as Motor starting, Isolation, Bypass and Distribution application up to max 1000 V. Operated with control voltage, versions from 24V AC, 690 AC, 50 and 60 Hz

### Ordering

Minimum Order Quantity	1 piece
Customs Tariff Number	85364900

### Popular Downloads

Data Sheet, Technical Information	1SBC100192C0206
Instructions and Manuals	5309660-60
Dimension Diagram	53540923-1

## Dimensions

Product Net Width	90 mm
Product Net Depth / Length	156.5 mm
Product Net Height	148 mm
Product Net Weight	1.8 kg

## Technical

Number of Main Contacts NO	3
Number of Main Contacts NC	0
Number of Auxiliary Contacts NO	2
Number of Auxiliary Contacts NC	2
Rated Operational Voltage	Main Circuit 1000 V
Rated Frequency (f)	Main Circuit 60 Hz
Conventional Free-air Thermal Current ( $I_{th}$ )	acc. to IEC 60947-4-1, Open Contactors $q = 40^\circ\text{C}$ 160 A
Rated Operational Current AC-1 ( $I_e$ )	(690 V) $40^\circ\text{C}$ 160 (690 V) $55^\circ\text{C}$ 145 (690 V) $70^\circ\text{C}$ 130
Rated Operational Current AC-3 ( $I_e$ )	(415 V) $55^\circ\text{C}$ 110 A (440 V) $55^\circ\text{C}$ 100 A (500 V) $55^\circ\text{C}$ 100 A (690 V) $55^\circ\text{C}$ 82 A (1000 V) $55^\circ\text{C}$ 30 A (380 / 400 V) $55^\circ\text{C}$ 110 A (220 / 230 / 240 V) $55^\circ\text{C}$ 110
Rated Operational Power AC-3 ( $P_e$ )	(415 V) 59 kW (440 V) 59 kW (500 V) 59 kW (690 V) 75 kW (1000 V) 40 kW (380 / 400 V) 55 kW (220 / 230 / 240 V) 30 kW
Rated Breaking Capacity AC-3 acc. to IEC 60947-4-1	8 x $I_e$ AC-3
Rated Making Capacity AC-3 acc. to IEC 60947-4-1	10 x $I_e$ AC-3
Short-Circuit Protective Devices	gG Type Fuses 160 A
Maximum Breaking Capacity	$\cos \phi = 0.45$ ( $\cos \phi = 0.35$ for $I_e > 100$ A) at 440 V 1160 A $\cos \phi = 0.45$ ( $\cos \phi = 0.35$ for $I_e > 100$ A) at 690 V 800 A
Maximum Electrical Switching Frequency	(AC-1) 300 cycles per hour (AC-2 / AC-4) 150 cycles per hour (AC-3) 300 cycles per hour
Rated Operational Current DC-1 ( $I_e$ )	(110 V) 2 Poles in Series, $40^\circ\text{C}$ 160 A (220 V) 3 Poles in Series, $40^\circ\text{C}$ 160 A
Rated Operational Current DC-3 ( $I_e$ )	(110 V) 2 Poles in Series, $40^\circ\text{C}$ 160 A (220 V) 3 Poles in Series, $40^\circ\text{C}$ 160 A
Rated Operational Current DC-5 ( $I_e$ )	(110 V) 2 Poles in Series, $40^\circ\text{C}$ 160 A (220 V) 3 Poles in Series, $40^\circ\text{C}$ 160 A

Rated Insulation Voltage (U <sub>i</sub> )	acc. to IEC 60947-4-1 and VDE 0110 (Gr. C) 1000 V acc. to UL/CSA 600 V
Rated Impulse Withstand Voltage (U <sub>imp</sub> )	Main Circuit 8 kV
Mechanical Durability	10 million
Maximum Mechanical Switching Frequency	3600 cycles per hour
Coil Operating Limits	(acc. to IEC 60947-4-1) 0.85 x U <sub>c</sub> Min. ... 1.1 x U <sub>c</sub> Max. (at $\theta \leq 70^\circ\text{C}$ )
Rated Control Circuit Voltage (U <sub>c</sub> )	60 Hz 690 V
Coil Consumption	Holding at Max. Rated Control Circuit Voltage 50 Hz 22 V·A Holding at Max. Rated Control Circuit Voltage 60 Hz 26 V·A Pull-in at Max. Rated Control Circuit Voltage 50 Hz 350 V·A Pull-in at Max. Rated Control Circuit Voltage 60 Hz 450 V·A
Operate Time	Between Coil De-energization and NC Contact Closing 7 ... 15 ms Between Coil De-energization and NO Contact Opening 10 ... 18 ms Between Coil Energization and NC Contact Opening 7 ... 22 ms Between Coil Energization and NO Contact Closing 10 ... 25 ms
Connecting Capacity Main Circuit	Bar 30 mm <sup>2</sup> Flexible with Cable End 2 x 6 ... 35 mm <sup>2</sup> Rigid 2 x 6 ... 65 mm <sup>2</sup>
Connecting Capacity Auxiliary Circuit	Flexible with Ferrule 2x 0.75 ... 2.5 mm <sup>2</sup> Flexible with Insulated Ferrule 2x 0.75 ... 2.5 mm <sup>2</sup> Flexible 2x0.75 ... 2.5 mm <sup>2</sup> Solid 2 x 1 ... 4 mm <sup>2</sup> Stranded 2 x 1 ... 4 mm <sup>2</sup>
Degree of Protection	acc. to IEC 60529, IEC 60947-1, EN 60529 Coil Terminals IP20 acc. to IEC 60529, IEC 60947-1, EN 60529 Main Terminals IP10
Connecting Terminals (delivered in open position) Main Poles	M8 hexagon socket screw with single connector
Terminal Type	Cable Clamp

## Technical UL/CSA

Maximum Operating Voltage UL/CSA	Main Circuit 600 V
General Use Rating UL/CSA	(600 V AC) 140 A
Horsepower Rating UL/CSA	(200 V AC) Three Phase 30 hp (208 V AC) Three Phase 30 hp (220 ... 240 V AC) Three Phase 40 hp (440 ... 480 V AC) Three Phase 75 hp (550 ... 600 V AC) Three Phase 100 hp

## Environmental

Ambient Air Temperature	Close to Contactor Fitted with Thermal O/L Relay (0.85 ... 1.1 U <sub>c</sub> ) -25 ... 50 °C Close to Contactor without Thermal O/L Relay (0.85 ... 1.1 U <sub>c</sub> ) -40 ... 70 °C Close to Contactor for Storage -60 ... +80 °C
Maximum Operating Altitude Permissible	Without Derating 3000 m
Resistance to Shock acc. to IEC 60068-2-27	Half-sine Pulse for 11 ms, No Change in Contact Position, Open, Shock Direction: A 20 g Half-sine Pulse for 11 ms, No Change in Contact Position, Closed, Shock Direction: A 20 g Half-sine Pulse for 11 ms, No Change in Contact Position, Closed, Shock Direction: B1 15 g

Half-sine Pulse for 11 ms, No Change in Contact Position, Closed, Shock  
 Direction: C1 20 g  
 Half-sine Pulse for 11 ms, No Change in Contact Position, Closed, Shock  
 Direction: C2 20 g  
 Half-sine Pulse for 11 ms, No Change in Contact Position, Open, Shock  
 Direction: B1 5 g  
 Half-sine Pulse for 11 ms, No Change in Contact Position, Open, Shock  
 Direction: B2 15 g  
 Half-sine Pulse for 11 ms, No Change in Contact Position, Open, Shock  
 Direction: C1 20 g  
 Half-sine Pulse for 11 ms, No Change in Contact Position, Open, Shock  
 Direction: C2 20 g

RoHS Status Following EU Directive 2011/65/EU

**Certificates and Declarations (Document Number)**

BV Certificate	07172/D0 BV
CB Certificate	SE-69487
CQC Certificate	CQC2002010304008904 CQC2009010304353526
CSA Certificate	314005
Declaration of Conformity - CCC	2020980304001630 2020980304001078
Declaration of Conformity - CE	2CMT2015-005436
DNV Certificate	DNV_E-12191
Environmental Information	1SFC101001D0201
GL Certificate	GL_99358-97HH
Instructions and Manuals	5309660-60
LOVAG Certificate	SE-9645071-2
LR Certificate	LR_12-70027-E1
RINA Certificate	ELE060313XG/001
RMRS Certificate	RMRS_12-03683-315
RoHS Information	2CMT2015-005436

**Container Information**

Package Level 1 Units	box 1 piece
Package Level 1 Width	170 mm
Package Level 1 Depth / Length	140 mm
Package Level 1 Height	170 mm
Package Level 1 Gross Weight	2 kg
Package Level 1 EAN	7320500227107

**Classifications**

Object Classification Code	Q
ETIM 4	EC000066 - Magnet contactor, AC-switching
ETIM 5	EC000066 - Magnet contactor, AC-switching
ETIM 6	EC000066 - Power contactor, AC switching
ETIM 7	EC000066 - Power contactor, AC switching

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eClass	V11.0 : 27371003
UNSPSC	39121529
IDEA Granular Category Code (IGCC)	4755 >> Contactors

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## Categories

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Low Voltage Products and Systems → Control Products → Contactors → Block Contactors

