PRODUCT-DETAILS

GAF1650-10-11-70

GAF1650-10-11 100-250V 50/60Hz / 100-250V DC Contactor



General Information

Extended Product Type	GAF1650-10-11-70
Product ID	1SFL677025R7011
EAN	7320500408810
Catalog Description	GAF1650-10-11 100-250V 50/60Hz / 100-250V DC Contactor
Long Description	A 3-pole Contactor suitable for DC-1 applications where all three poles must be connected in series in a 1-pole configuration up to max 1000 VDC. Operated with wide control voltage range 100-250 V, AC/DC

Ordering

Minimum Order Quantity	1 piece
Customs Tariff Number	85364900

Popular Downloads

EPLAN Data	9AAC171155_EPLAN
Data Sheet, Technical Information	1SBC100214C0202

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Data Sheet, Technical Information (Part 2)	1SAC200017M0002
Instructions and Manuals	1SFC101047M9701
CAD Dimensional Drawing	2CDC001079B0201

Dimensions

Product Net Width	438 mm
Product Net Depth / Length	244 mm
Product Net Height	392 mm
Product Net Weight	33 kg
Dimension Diagram	53540930-7

Technical

Number of Main Contacts NO	1
Number of Main Contacts NC	0
Number of Auxiliary Contacts NO	1
Number of Auxiliary Contacts NC	1
Number of Poles	1P
Rated Operational Voltage	Main Circuit 1000 V
Conventional Free-air Thermal Current (I_{th})	acc. to IEC 60947-4-1, Open Contactors Θ = 40 °C 1650 A
Rated Operational Current AC-3 (I_e)	(415 V) 55 °C 1060 A (440 V) 55 °C 1060 A (500 V) 55 °C 970 A (690 V) 55 °C 970 A (1000 V) 55 °C 400 A
Rated Operational Current DC-1 (I_e)	(1000 V) 3 Poles in Series, 40 °C 1650 A (1000 V) 3 Poles in Series, 55 °C 1450 A (1000 V) 3 Poles in Series, 70 °C 1270 A (220 V) 3 Poles in Series, 40 °C 1650 A (220 V) 3 Poles in Series, 55 °C 1450 A (220 V) 3 Poles in Series, 70 °C 1270 A (400 V) 3 Poles in Series, 40 °C 1650 A (400 V) 3 Poles in Series, 55 °C 1450 A (400 V) 3 Poles in Series, 70 °C 1270 A (600 V) 3 Poles in Series, 40 °C 1650 A (600 V) 3 Poles in Series, 55 °C 1450 A (600 V) 3 Poles in Series, 70 °C 1270 A
Rated Insulation Voltage (U_i)	acc. to UL/CSA 1000 V
Rated Impulse Withstand Voltage (U_{imp})	Main Circuit 8 kV
Mechanical Durability	0.5 million
Maximum Mechanical Switching Frequency	300 cycles per hour
Coil Operating Limits	(acc. to IEC 60947-4-1) 0.85 x Uc Min. ... 1.1 x Uc Max. (at θ ≤ 70 °C)
Rated Control Circuit Voltage (U_c)	50 Hz 100 ... 250 V 60 Hz 100 ... 250 V DC Operation 100 ... 250 V

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Coil Consumption	Holding at Max. Rated Control Circuit Voltage 50 Hz 48 V·A Holding at Max. Rated Control Circuit Voltage 60 Hz 48 V·A Holding at Max. Rated Control Circuit Voltage DC 16 W Pull-in at Max. Rated Control Circuit Voltage 50 Hz 1900 V·A Pull-in at Max. Rated Control Circuit Voltage 60 Hz 1900 V·A Pull-in at Max. Rated Control Circuit Voltage DC 1700 V·A
Power Loss	at Rated Operating Conditions per Pole 80 W
Operate Time	Between Coil De-energization and NC Contact Closing 35 ... 55 ms Between Coil De-energization and NO Contact Opening 35 ... 55 ms Between Coil Energization and NC Contact Opening 50 ... 80 ms Between Coil Energization and NO Contact Closing 50 ... 80 ms
Connecting Capacity Main Circuit	Bar 100 mm²
Connecting Capacity Auxiliary Circuit	Flexible with Ferrule 2x 0.75 ... 2.5 mm² Flexible with Insulated Ferrule 1x 0.75 ... 2.5 mm² Flexible with Insulated Ferrule 2x 0.75 ... 2.5 mm² Flexible 2x0.75 ... 2.5 mm² Solid 2 x 1 ... 4 mm² Stranded 2 x 1 .... 4 mm²
Connecting Capacity	Bar 100 mm²
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 IP00
Connecting Terminals (delivered in open position) Main Poles	M 3.5 (+,-) pozidriv 2 screw with cable clamp
Recommended Screw Driver	Main Circuit M12 Control Circuit Pozidriv 2 Control Circuit M3.5
Tightening Torque	Cable Lug 45 N·m Main Circuit 45 N·m
Terminal Type	Main Circuit: Bars
Suitable for Product Class	Block ContactorsBlock Contactors
Product Name	Block Contactor

Technical UL/CSA

Maximum Operating Voltage UL/CSA	Main Circuit 600 V
General Use Rating UL/CSA	(1000 V DC) 1650 A (440 V DC) 1650 A (600 V DC) 1650 A

Environmental

Ambient Air Temperature	Close to Contactor Fitted with Thermal O/L Relay (0.85 ... 1.1 Uc) -25 ... 50 °C Close to Contactor without Thermal O/L Relay (0.85 ... 1.1 Uc) -40 ... 70 °C Close to Contactor for Storage -40 ... 70 °C Operation -40 ... 70 °C Storage -40 ... +70 °C
Maximum Operating Altitude Permissible	Without Derating 3000 m

Material Compliance

Conflict Minerals Reporting Template (CMRT)	9AKK108467A5658
REACH Declaration	2CMT2021-006202

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RoHS Declaration	2CMT2021-006277
RoHS Information	Following EU Directive 2011/65/EU and Amendment 2015/863 July 22, 2019
Toxic Substances Control Act - TSCA	2CMT2023-006525
WEEE B2C / B2B	Business To Business
WEEE Category	5. Small Equipment (No External Dimension More Than 50 cm)

ABB EcoSolutions

End Of Life Disassembling Instructions	1SFC100112M0005

Certificates and Declarations

CB Certificate	SEMKO_SE-76672
CQC Certificate	CQC2012010304550984
Declaration of Conformity - CCC	2020980304001789
Declaration of Conformity - CE	2CMT003517
Declaration of Conformity - UKCA	2CMT2020-006118
EAC Certificate	9AKK107046A8618
UL Certificate	9AKK107046A9917
UL Listing Card	UL_E73397

Container Information

Package Level 1 Units	box 1 piece
Package Level 1 Width	555 mm
Package Level 1 Depth / Length	365 mm
Package Level 1 Height	500 mm
Package Level 1 Gross Weight	35 kg
Package Level 1 EAN	7320500408810

External Classifications and Standards

Object Classification Code	Q
ETIM 7	EC002552 - Power contactor, DC switching
ETIM 8	EC002552 - Power contactor, DC switching
ETIM 9	EC002552 - Power contactor, DC switching
eClass	V11.0 : 27371018
UNSPSC	39121529
IDEA Granular Category Code (IGCC)	4763 >> Power contactor, DC switching

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Categories

Low Voltage Products and Systems → Control Products → Contactors → Block Contactors → GA Contactors → GAF1650



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