Product data sheet
Characteristics

GV2P10KD09BL
Motor Starter Kit, TeSys, LC1D09BL contactor, GV2P10 motor starter protector, 24 VDC coil, 4 to 6.3A trip

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Main

Range	TeSys
Product or Component Type	Motor starter
Contactor application	Resistive load Motor control
Utilisation category	AC-3 AC-1 AC-4
Poles description	3P
Power pole contact composition	3 NO
[Ue] rated operational voltage	Power circuit <= 690 V AC 25...400 Hz Power circuit <= 300 V DC
[Ie] rated operational current	9 A 140 °F (60 °C)) <= 440 V AC AC-3 power circuit 25 A 140 °F (60 °C)) <= 440 V AC AC-1 power circuit
Motor power kW	2.2 KW 220...230 V AC 50/60 Hz AC-3) 4 KW 380...400 V AC 50/60 Hz AC-3) 4 KW 415...440 V AC 50/60 Hz AC-3) 5.5 KW 500 V AC 50/60 Hz AC-3) 5.5 KW 660...690 V AC 50/60 Hz AC-3) 2.2 kW 400 V AC 50/60 Hz AC-4)
Motor power HP (UL / CSA)	1 Hp 230/240 V at AC 50/60 Hz for 1 phase 2 Hp 200/208 V at AC 50/60 Hz for 3 phase 2 Hp 230/240 V at AC 50/60 Hz for 3 phase 5 Hp 460/480 V at AC 50/60 Hz for 3 phase 7.5 Hp 575/600 V at AC 50/60 Hz for 3 phase 0.33 hp 115 V at AC 50/60 Hz for 1 phase
Control circuit type	DC low consumption
[Uc] control circuit voltage	24 V DC
Auxiliary contact composition	1 NO + 1 NC
[Uimp] rated impulse withstand voltage	6 kV IEC 60947
Overvoltage category	III
[Ith] conventional free air thermal current	25 A 140 °F (60 °C) power circuit 10 A 140 °F (60 °C) signalling circuit
Irms rated making capacity	250 A 440 V power circuit IEC 60947 140 A AC signalling circuit IEC 60947-5-1 250 A DC signalling circuit IEC 60947-5-1
Rated breaking capacity	250 A 440 V power circuit IEC 60947
[Icw] rated short-time withstand current	105 A 104 °F (40 °C) - 10 s power circuit 210 A 104 °F (40 °C) - 1 s power circuit 30 A 104 °F (40 °C) - 10 min power circuit 61 A 104 °F (40 °C) - 1 min power circuit 100 A - 1 s signalling circuit 120 A - 500 ms signalling circuit 140 A - 100 ms signalling circuit
Associated fuse rating	10 A gG signalling circuit IEC 60947-5-1 25 A gG <= 690 V type 1 power circuit 20 A gG <= 690 V type 2 power circuit
Average impedance	2.5 mOhm - Ith 25 A 50 Hz power circuit
[Ui] rated insulation voltage	Power circuit 690 V IEC 60947-4-1 Power circuit 600 V CSA Power circuit 600 V UL Signalling circuit 690 V IEC 60947-1 Signalling circuit 600 V CSA Signalling circuit 600 V UL
Electrical durability	0.6 Mcycles 25 A AC-1 <= 440 V 2 Mcycles 9 A AC-3 <= 440 V
Power dissipation per pole	1.56 W AC-1 0.2 W AC-3
Safety cover	With
Mounting Support	Plate Rail

Standards	CSA C22.2 No 14 EN 60947-4-1 EN 60947-5-1 IEC 60947-4-1 IEC 60947-5-1 UL 508
Product Certifications	GL UL LROS (Lloyds register of shipping) CCC RINA BV GOST DNV CSA
Connections - terminals	Power circuit screw clamp terminals 1 0.00…0.01 in² (1…4 mm²)flexible without cable end Power circuit screw clamp terminals 2 0.00…0.01 in² (1…4 mm²)flexible without cable end Power circuit screw clamp terminals 1 0.00…0.01 in² (1…4 mm²)flexible with cable end Power circuit screw clamp terminals 2 0.00…0.00 in² (1…2.5 mm²)flexible with cable end Power circuit screw clamp terminals 1 0.00…0.01 in² (1…4 mm²)solid without cable end Power circuit screw clamp terminals 2 0.00…0.01 in² (1…4 mm²)solid without cable end Control circuit screw clamp terminals 1 0.00…0.01 in² (1…4 mm²)flexible without cable end Control circuit screw clamp terminals 2 0.00…0.01 in² (1…4 mm²)flexible without cable end Control circuit screw clamp terminals 1 0.00…0.01 in² (1…4 mm²)flexible with cable end Control circuit screw clamp terminals 2 0.00…0.00 in² (1…2.5 mm²)flexible with cable end Control circuit screw clamp terminals 1 0.00…0.01 in² (1…4 mm²)solid without cable end Control circuit screw clamp terminals 2 0.00…0.01 in² (1…4 mm²)solid without cable end
Tightening torque	Power circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals flat Ø 6 mm Power circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals Philips No 2 Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals flat Ø 6 mm Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals Philips No 2
Operating time	65.45...88.55 ms closing 20...30 ms opening
Safety reliability level	B10d = 1369863 cycles contactor with nominal load EN/ISO 13849-1 B10d = 20000000 cycles contactor with mechanical load EN/ISO 13849-1
Mechanical durability	30 Mcycles
Maximum operating rate	3600 cyc/h 140 °F (60 °C)
Trip unit rating	4…6.3 A
Trip unit technology	Thermal-magnetic
Phase failure sensitivity	Yes IEC 60947-4-1
Suitability for isolation	Yes IEC 60947-1

Complementary

Coil technology	Built-in bidirectional peak limiting diode suppressor
Control circuit voltage limits	Drop-out 0.1...0.3 Uc DC 140 °F (60 °C)) Operational 0.8...1.25 Uc DC 140 °F (60 °C))
Time constant	40 ms
Inrush power in W	2.4 W 68 °F (20 °C))
Hold-in power consumption in W	2.4 W 68 °F (20 °C)
Auxiliary contacts type	Mechanically linked 1 NO + 1 NC IEC 60947-5-1 Mirror contact 1 NC IEC 60947-4-1
Signalling circuit frequency	25...400 Hz
Minimum switching current	5 mA signalling circuit

Minimum switching voltage	17 V signalling circuit
Non-overlap time	1.5 Ms on de-energisation between NC and NO contact 1.5 ms on energisation between NC and NO contact
Insulation resistance	> 10 MOhm signalling circuit
Contact compatibility	M5
Motor power range	1.1…2 KW 200…240 V 3 phase 2.2…3 KW 380…440 V 3 phase 4…6 KW 380…440 V 3 phase 4…6 kW 480…500 V 3 phase
Motor starter type	Direct on-line contactor
Contactor coil voltage	24 V DC low consumption
Utilisation category	AC-3 IEC 60947-4-1 Category A IEC 60947-2
Network frequency	50/60 Hz IEC 60947-4-1
Fixing mode	35 mm symmetrical DIN rail clipped Panel screwed with 2 x M4 screws)
Operating position	Any position
Motor power kW	2.2 KW 400/415 V AC 50/60 Hz 3 KW 500 V AC 50/60 Hz 4 kW 690 V AC 50/60 Hz
Breaking capacity	100 KA Icu 230/240 V AC 50/60 Hz IEC 60947-2 100 KA Icu 400/415 V AC 50/60 Hz IEC 60947-2 100 KA Icu 440 V AC 50/60 Hz IEC 60947-2 100 KA Icu 500 V AC 50/60 Hz IEC 60947-2 6 kA Icu 690 V AC 50/60 Hz IEC 60947-2
[Ics] rated service short-circuit breaking capacity	100 % 690 V AC 50/60 Hz IEC 60947-2 100 % 500 V AC 50/60 Hz IEC 60947-2 100 % 230/240 V AC 50/60 Hz IEC 60947-2 100 % 440 V AC 50/60 Hz IEC 60947-2 100 % 400/415 V AC 50/60 Hz IEC 60947-2
Control Type	Rotary knob
Line Rated Current	6.3 A
Magnetic tripping current	78 A
[Ue] rated operational voltage	690 V AC 50/60 Hz IEC 60947-2
[Ui] rated insulation voltage	690 V AC 50/60 Hz IEC 60947-2
[Ith] conventional free air thermal current	6.3 A IEC 60947-4-1
[Uimp] rated impulse withstand voltage	6 kV IEC 60947-2
Power dissipation per pole	2.5 W
Mechanical durability	100000 cycles
Electrical durability	100000 cycles AC-3 440 V
Maximum operating rate	25 cyc/h
Rated duty	Continuous IEC 60947-4-1
Direct connector	Without
Connections - terminals	Screw clamp terminals 2 0.00…0.01 in² (1…6 mm²) solid Screw clamp terminals 2 0.00…0.01 in² (1.5…6 mm²) flexible without cable end Screw clamp terminals 2 0.00…0.01 in² (1…4 mm²) flexible with cable end
Tightening torque	15.05 lbf.in (1.7 N.m) screw clamp terminals

Environment

IP degree of protection	IP20 front face IEC 60529
Pollution degree	3
Ambient Air Temperature for Operation	23…140 °F (-5…60 °C)
Ambient Air Temperature for Storage	-76…176 °F (-60…80 °C)
Permissible ambient air temperature around the device	-40…158 °F (-40…70 °C) at Uc
Operating altitude	9842.52 ft (3000 m) without derating
Fire resistance	1562 °F (850 °C) IEC 60695-2-1
Flame retardance	V1 conforming to UL 94
Mechanical robustness	Vibrations contactor open2 Gn, 5...300 Hz Vibrations contactor closed4 Gn, 5...300 Hz Shocks contactor open10 Gn for 11 ms Shocks contactor closed15 Gn for 11 ms

Height	3.03 in (77 mm)
Width	1.77 in (45 mm)
Depth	3.74 in (95 mm)
Net Weight	1.06 lb(US) (0.48 kg)
Standards	IEC 60947-4-1 CSA C22.2 VDE 0113 VDE 0660 UL 508 IEC 60947-1 NF C 79-130 NF C 63-120 EN 60204 IEC 60947-2 NF C 63-650
Product certifications	DNV UL 508 type E LROS (Lloyds register of shipping) EZU CCC UL TSE RINA CSA EAC ATEX BV GL
Protective treatment	TH
Climatic withstand	IACS E10
IK degree of protection	IK04
IP degree of protection	IP20 IEC 60529
Ambient air temperature for operation	-4…140 °F (-20…60 °C)
Operating altitude	6561.68 ft (2000 m)
Ambient air temperature for storage	-40…176 °F (-40…80 °C)
Height	3.50 in (89 mm)
Width	1.77 in (45 mm)
Depth	3.82 in (97 mm)

Ordering and shipping details

Category	22368-TESYS GV2P & LC1D STARTER KIT
Discount Schedule	I11
GTIN	3606486287903
Returnability	No

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	3.03 in (7.7 cm)
Package 1 Width	1.77 in (4.5 cm)
Package 1 Length	3.74 in (9.5 cm)
Package 1 Weight	25.92 oz (734.82 g)

Offer Sustainability

California proposition 65	WARNING: This product can expose you to chemicals including: Antimony oxide & Antimony trioxide, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov
REACh Regulation	REACh Declaration
EU RoHS Directive	Compliant EU RoHS Declaration
Mercury free	Yes
China RoHS Regulation	China RoHS Declaration
RoHS exemption information	Yes