Product datasheet

Specifications



TeSys GV3L magnetic motor circuit breaker 80A EverLink

GV3L80

EAN Code: 3606481304575

Main

Range	TeSys Deca
Product name	TeSys GV3
Product or component type	Motor circuit breaker
Device short name	GV3L
Device application	Motor protection
Trip unit technology	Magnetic

Complementary

Poles description	3P
Network type	AC
Utilisation category	Category A conforming to IEC 60947-2 AC-3 conforming to IEC 60947-4-1
Network frequency	50/60 Hz conforming to IEC 60947-2
Motor power kW	45 kW at 400/415 V AC 50/60 Hz maximum peak current 750 A 45 kW at 500 V AC 50/60 Hz maximum peak current 750 A 55 kW at 690 V AC 50/60 Hz maximum peak current 750 A
Breaking capacity	65 kA Icu at 230/240 V AC 50/60 Hz 50 kA Icu at 400/415 V AC 50/60 Hz 50 kA Icu at 440 V AC 50/60 Hz 12 kA Icu at 500 V AC 50/60 Hz 6 kA Icu at 690 V AC 50/60 Hz
[Ics] rated service short-circuit breaking capacity	100 % at 230/240 V AC 50/60 Hz 60 % at 400/415 V AC 50/60 Hz 60 % at 440 V AC 50/60 Hz 50 % at 500 V AC 50/60 Hz 50 % at 690 V AC 50/60 Hz
Control type	Rotary handle
[In] rated current	80 A
Magnetic tripping current	1120 A
[Ith] conventional free air thermal current	80 A conforming to IEC 60947-2
[Ue] rated operational voltage	690 V AC 50/60 Hz conforming to IEC 60947-2
[Ui] rated insulation voltage	690 V AC 50/60 Hz conforming to IEC 60947-2
[Uimp] rated impulse withstand voltage	6 kV conforming to IEC 60947-2
Suitability for isolation	Yes conforming to IEC 60947-1
Power dissipation per pole	8 W
Mechanical durability	50000 cycles
Electrical durability	20000 cycles for AC-3 at 415 V In

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

Rated duty	Uninterrupted conforming to IEC 60947-4-1
Tightening torque	5 N.m - on screw clamp terminal
Fixing mode	35 mm symmetrical DIN rail: clipped Panel: screwed (with 3 x M4 screws)
Mounting position	Horizontal Vertical
Width	55 mm
Height	132 mm
Depth	136 mm
Net weight	0.96 kg
Colour	Dark grey

Environment

Standards	EN/IEC 60947-2 EN/IEC 60947-4-1 UL 60947-4-1 CSA C22.2 No 60947-4-1 IEC/EN 60335-1:Clause 30.2 IEC/EN 60335-2-40:Annex JJ
Product certifications	CB Scheme CE UKCA CCC EAC LROS (Lloyds register of shipping) BV ABS DNV-GL
IP degree of protection	IP20 conforming to IEC 60529
Climatic withstand	conforming to IACS E10
Ambient air temperature for storage	-40…80 °C
Fire resistance	960 °C conforming to IEC 60695-2-11
Ambient air temperature for operation	-20…60 °C
Mechanical robustness	Shocks: 5 Gn for 11 ms contactor open Shocks: 30 Gn for 11 ms contactor closed Vibrations: 4 Gn, 5...300 Hz
Operating altitude	3000 m

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	15.800 cm
Package 1 Width	6.500 cm
Package 1 Length	14.600 cm
Package 1 Weight	1.334 kg
Unit Type of Package 2	S03
Number of Units in Package 2	12
Package 2 Height	30.000 cm
Package 2 Width	30.000 cm

Package 2 Length	40.000 cm
Package 2 Weight	16.008 kg
Unit Type of Package 3	P06
Number of Units in Package 3	120
Package 3 Height	73.500 cm
Package 3 Width	80.000 cm
Package 3 Length	60.000 cm
Package 3 Weight	160.080 kg

Logistical informations

Country of origin	FR

Contractual warranty

Warranty (in months)	18

Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

Environmental Data explained >

How we assess product sustainability >

Environmental footprint

Total lifecycle Carbon footprint	**30 kg CO2 eq.**
Carbon footprint of the manufacturing phase [A1 to A3]	**5 kg CO2 eq.**
Carbon footprint of the distribution phase [A4]	**0.3 kg CO2 eq.**
Carbon footprint of the installation phase [A5]	**0.1 kg CO2 eq.**
Carbon footprint of the use phase [B2, B3, B4, B6]	**21 kg CO2 eq.**
Carbon footprint of the end-of-life phase [C1 to C4]	**3 kg CO2 eq.**
Environmental Disclosure	Product Environmental Profile

Use Better

Materials and Substances

Packaging made with recycled cardboard	**Yes**
Packaging without single use plastic	**Yes**
SCIP Number	**2057c252-f956-4ac1-a3d9-75119bc8a000**
EU RoHS Directive	Compliant By Exemption
REACh Regulation	Reference contains Substances of Very High Concern above the threshold

Use Again

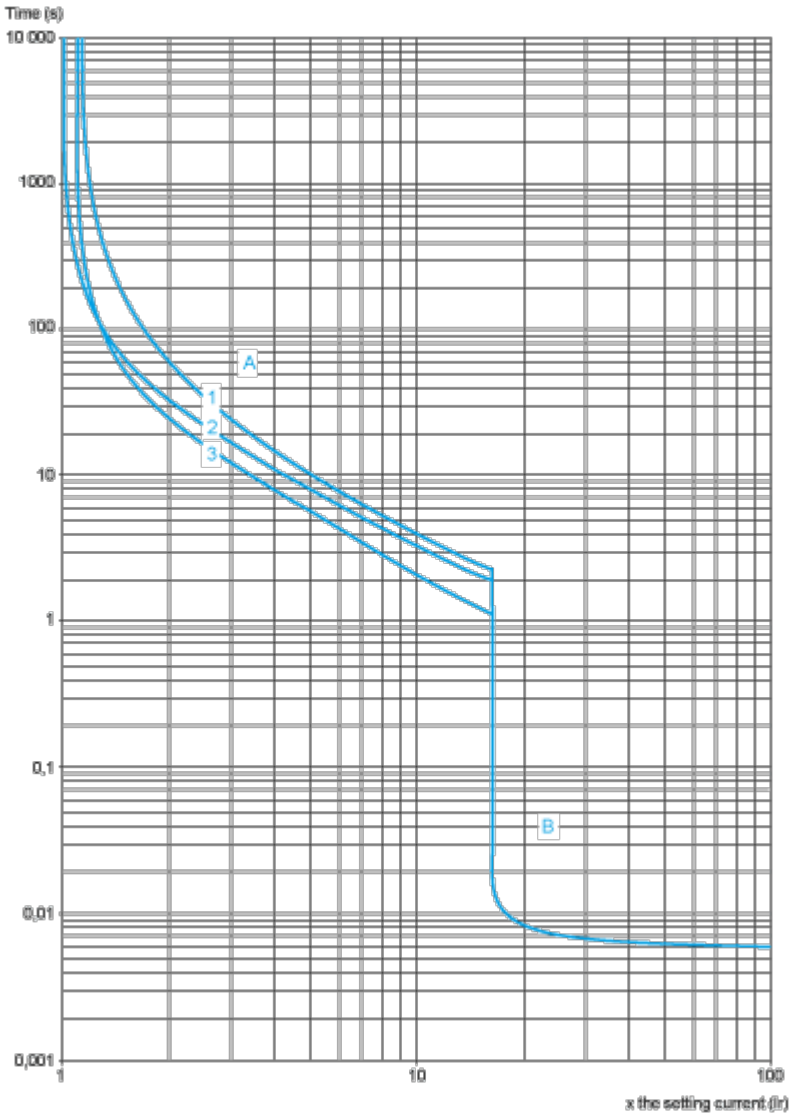
Repack and remanufacture

Recyclability potential, in %	**58**
End of life manual availability	End of Life Information
Take-back	**No**
WEEE Label	**The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins**

Performance Curves

Tripping Curves for GV3L Combined with Thermal Overload Relay LRD33

Average Operating time at 20 °C without Prior Current Flow



1 3 poles from cold state

2 2 poles from cold state

3 3 poles from hot state

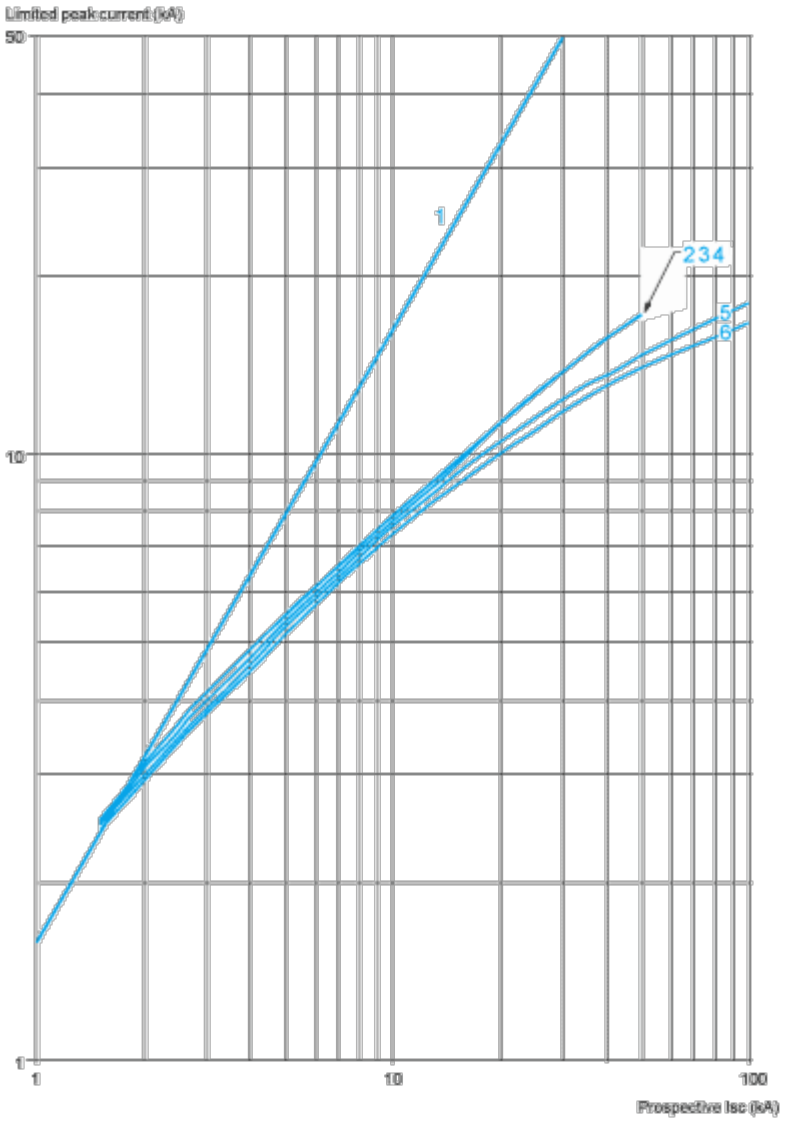
A Thermal overload relay protection zone

B GV3L protection zone

Current Limitation on Short-Circuit for GV3L (3-Phase 400/415 V)

Dynamic Stress

I peak = f (prospective Isc) at 1.05 Ue = 435 V



1 Maximum peak current

2 GV3L80 - GV3L73 - GV3L65

3 GV3L50

4 GV3L40

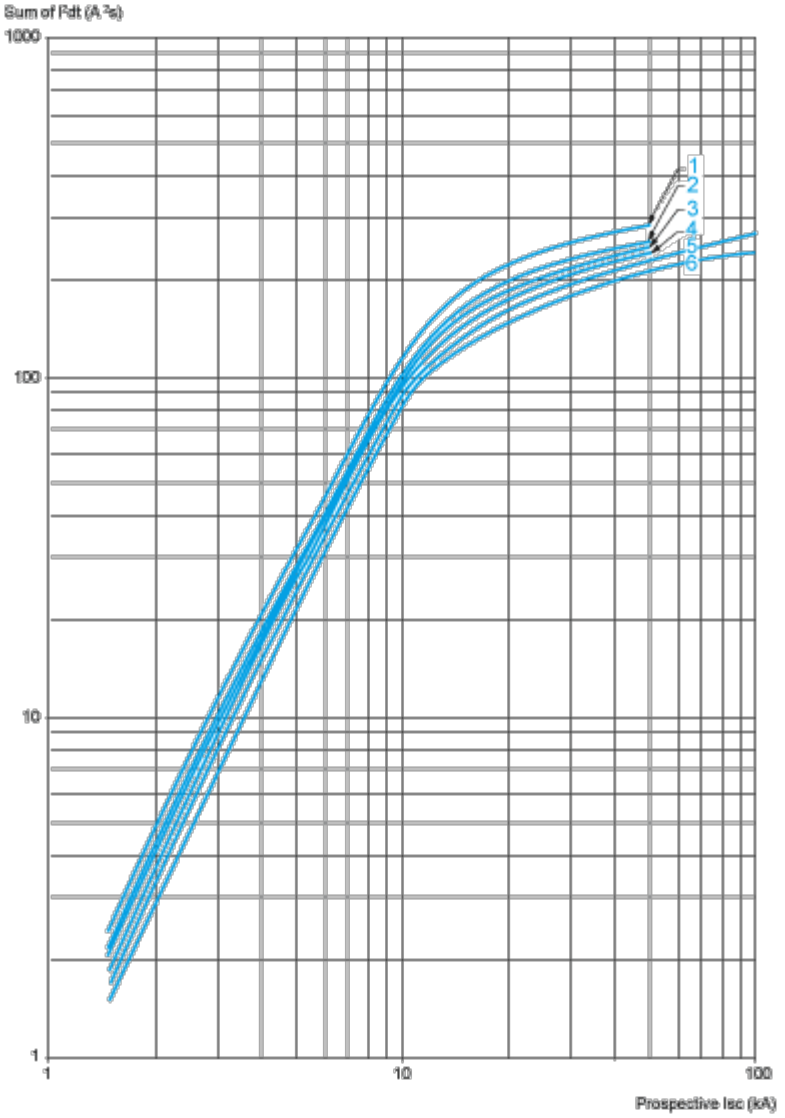
5 GV3L32

6 GV3L25

Thermal Limit on Short-Circuit for GV3L

Thermal Limit in A^2s

Sum of I^2dt = f (prospective Isc) at 1.05 Ue = 435 V



1 GV3L73 - GV3L80

2 GV3L65

3 GV3L50

4 GV3L40

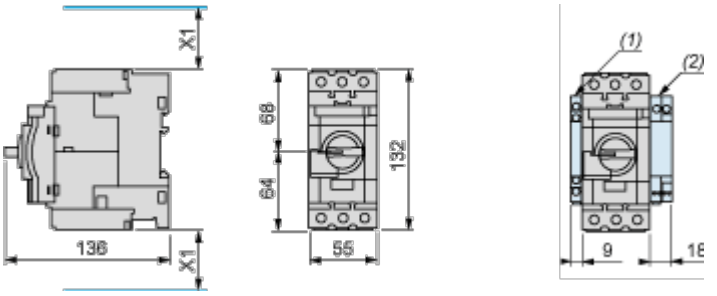
5 GV3L32

6 GV3L25

Dimensions Drawings

GV3L, GV3P

Dimensions



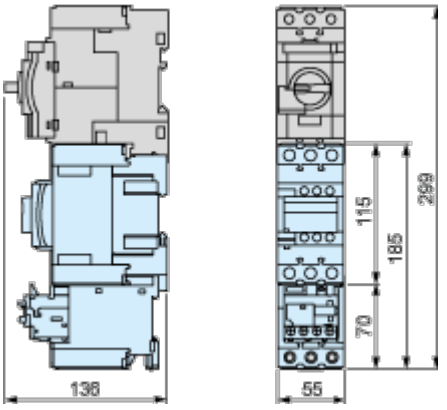
(1) Blocks GVAN••, GVAD•• and GVAM11.

(2) Blocks GV3AU•• and GV3AS••.

X1 = Electrical clearance (ISC max) 40 mm for Ue ≤ 500 V, 50 mm for Ue ≤ 690 V

NOTE: Leave a space of 9 mm between 2 circuit breakers: either an empty space or side-mounting add-on contact blocks. Side by side mounting is possible up to 40 °C.

Mounting with Tesys contactor LC1D40A…D80A and relay LR3D313…380 (1)(2)(3)

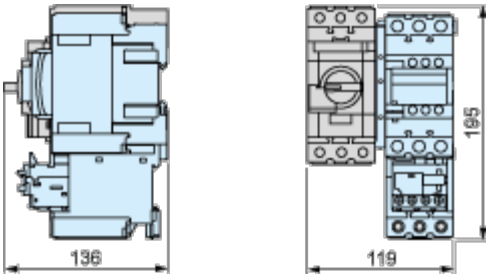


(1) Mountings with c.b. up to GV3L73, GV3P73.

(2) For GV3L80, GV3P80 use cable between components for dissipating heat. Consult online datasheets for values.

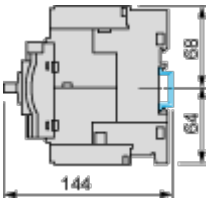
(3) S-shape busbar system suitable up to 73 A.

Side by side mounting with Tesys contactor LC1D40A…D73A (S-shape busbar system GV3S(1))

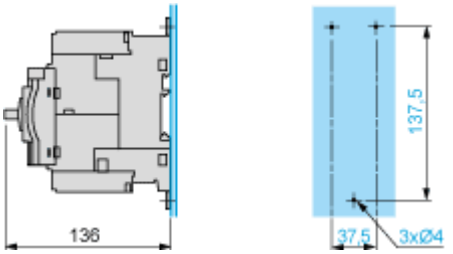


(1) Mountings with c.b. up to GV3L73, GV3P73.

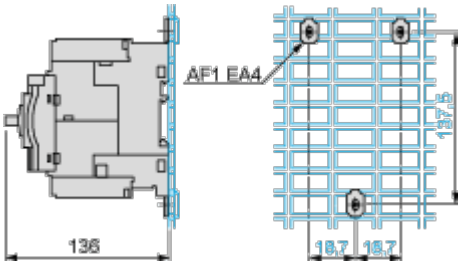
Mounting on Rail AM1 DE200 or AM1 ED201



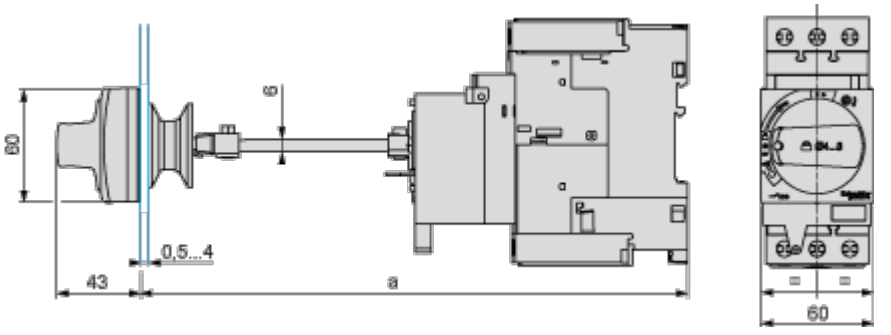
Panel Mounting, using M4 Screws



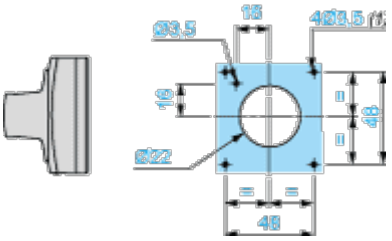
Mounting on Pre-Slotted Plate AM1 PA



Mounting of External Operator GV3APN01, GV3APN02 or GV3APN04 for Motor Circuit Breakers GV3L

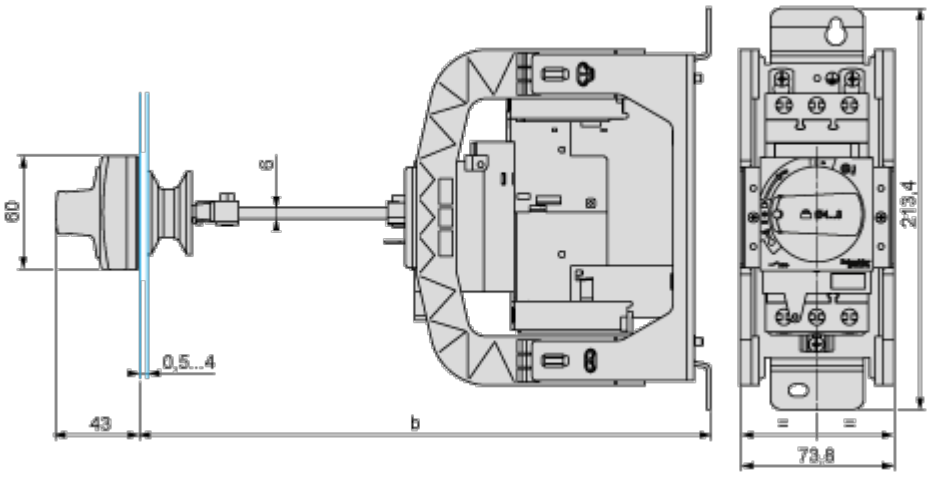


Door cut-out



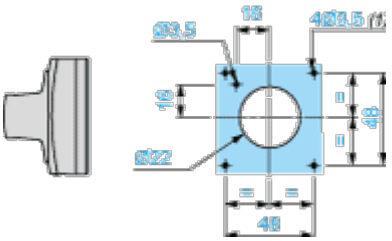
(1) For IP65 only.

Mounting of External Operator GVAPH03 for Motor Circuit Breakers GV3L



	b	
	Minimum	Maximum
GV3APN•• + GVAPH03	200	300
GV3APN•• + GVAPH03 + GVAPK12	300	492

Door cut-out



(1) For IP65 only.

Connections and Schema

GV3L••

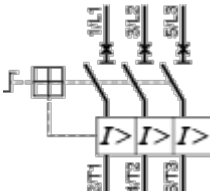
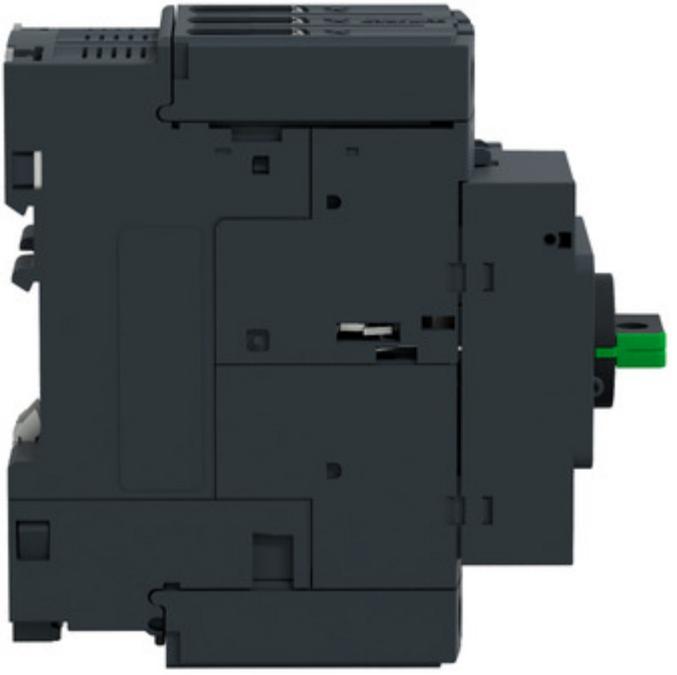
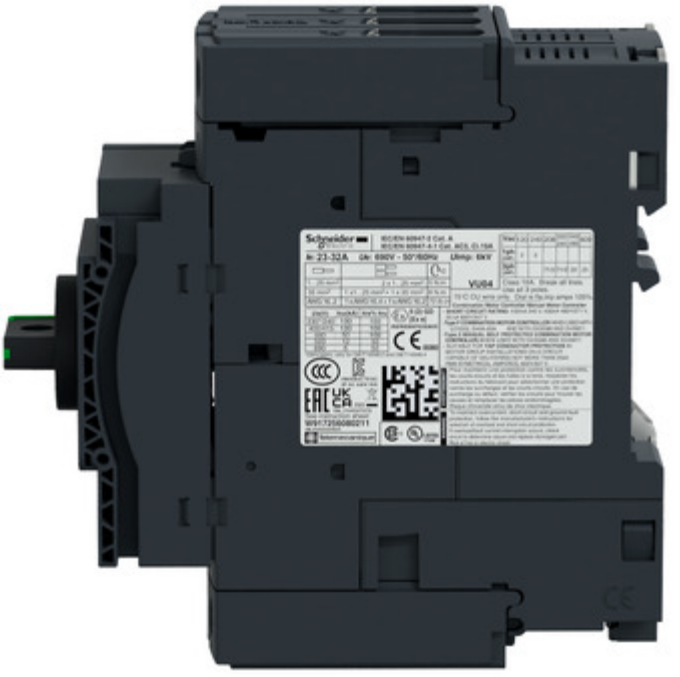


Image of product / Alternate images

Alternative






37.5
137.5
M4