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ravioli

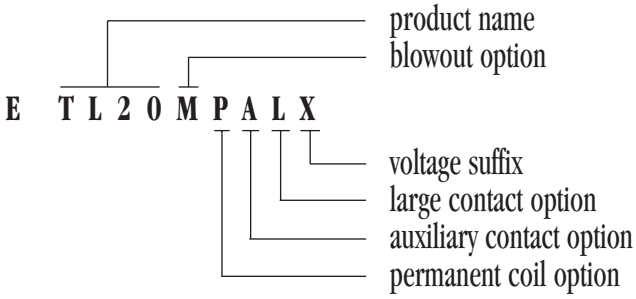
CSQ
ISO 9001
RAVI 9105

D.C. Contactors LOGO Series - TL20

D.C.Contactors
LOGO Series - TL20
150A

Codes for placing orders

The product code is composed as follows:



The numeric suffix identifying voltage is as follows:

Voltage (V)	12	24	36	48	72	80	96
Suffix	1	2	3	4	7	8	9

Recommended working positions:
either horizontal or vertical with poles pointing upwards.

Main features of the range

The range of LOGO series type TL20 contactors, which are both compact in size and powerful, has been designed in accordance with the safety requirements as set out in the EUROPEAN DIRECTIVE CEE 89/392 as well as with Norms CEI EN 60947-4-1 and EN 1175-1.
The products included in the range are suitable for the traction and material handling sectors using direct current and can be applied to lift trucks, industrial cleaning machines, various services on board ships and boats as well as to road and rail transport vehicles.

Coils

The d.c.coils feature terminals with 6mm double connections.
Standard duty is in intermittent mode (50%). Maximun working time is 15 mins (temporary duty).
Normalised voltages: 12 - 24 - 36 - 48 - 72 - 80 - 96V.
The following are available: reduced consumption coils for continuous duty-**option P.**

Main contacts

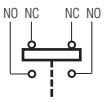
These contactors have double breaking contacts, in Ag-CdO special alloy, resistant to arc and suitable for heavy duty.
The contacts are also available as spare parts.

Further options

Option M - magnetic blowouts
TL20M contactors featuring permanent magnets are recommended for voltages ≥48V dc.
In this case the polarities indicated on the cover must be respected.

Option V - dust protection
Closed contact housings can be applied to protect the contactor from oil splashes and dust.
This option can not be used on contactor types with permanent magnets.

Option A - auxiliary contacts



A microswitch of INO+INC auxiliary contacts can be supplied mounted on the TL20 types of contactors.
Operating current (resistive load) 5A-24Vcc

Single Pole Contactors
Type TL20

LOGO series single pole contactors type TL20 are available in the following versions:

– 50% intermittent coil
– 100% intermittent-permanent coil (option P)
– application of magnetic blowouts (option M)
– application of dust protection (option V)
– application of auxiliary contacts (option A)
– with large, main contacts (option L)

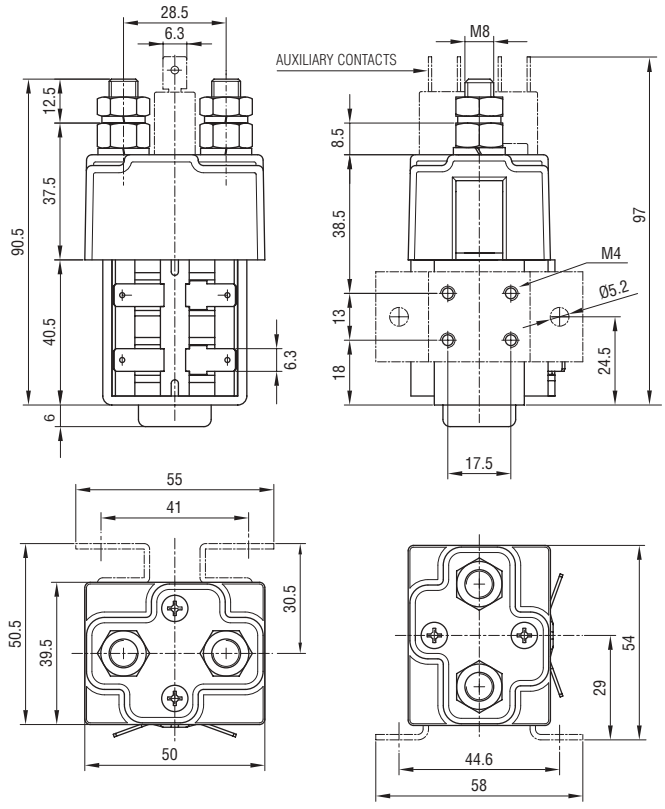
Types and Codes

Type	Code
TL20 50% int.	**E TL20**
TL20 50% int. and magnets	**E TL20M**
TL20 100% int.	**E TL20P**
TL20 100% int. and magnets	**E TL20MP**

The suffix A is to be added to these codes when the mounted auxiliary contact is required.

Option L - large contacts

The TL20 range of contactors feature standard D.8mm contacts. For more severe applications, the TL20 series can mount larger contacts D.10 mm.
The suffix L denotes the wide contact code.



PERFORMANCES

Contactor		TL20	TL20M	TL20P
Nominal operating current at 50% intermittent, 300 op/h	I_e	150A	150A	150A
Thermal current rating	I_{th}	100A	100A	100A
Nominal voltage	U_e	24V	48V	24V
Breaking capacity with 15 ms time constant		675A	675A	675A
Category of usage		DC5	DC5	DC5
Working voltage limits		0,7-1,1Vn	0,7-1,1Vn	0,8-1,1Vn
Coil power dissipation		20W	20W	12W
Manoeuvre time	pull-in time drop-out time	≤ 20ms ≤ 10ms	≤ 20ms ≤ 10ms	≤ 20ms ≤ 10ms
Max clamps torque		60 kgcm	60 kgcm	60 kgcm
Mechanical life	op.n.	$3x10^6$	$3x10^6$	$3x10^6$
Contact material		AgCdO	AgCdO	AgCdO
Main contacts		1NO	1NO	1NO

Single Pole Contactors
Type TL25

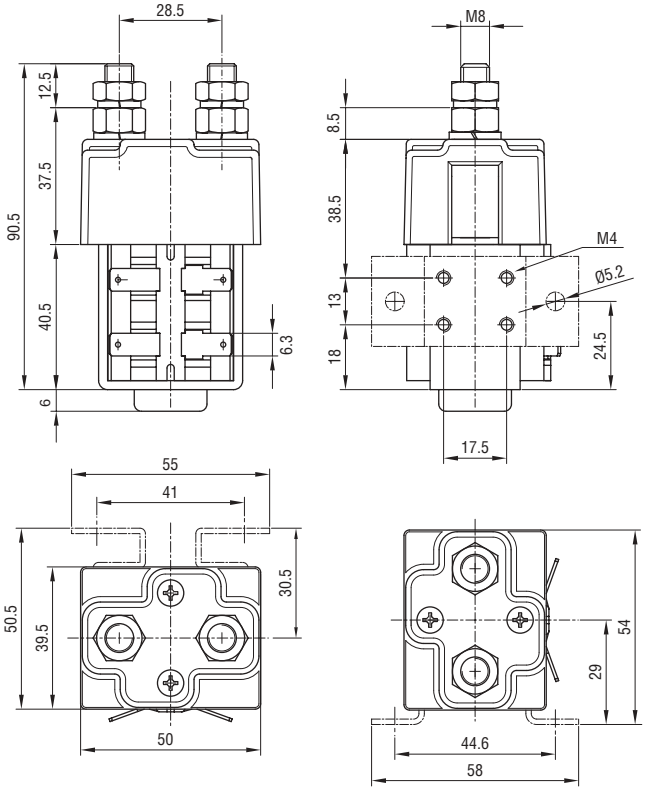
LOGO series single pole contactors type TL25 are available in the following versions:

– 50% intermittent coil
– application of magnetic blowouts (option M)
– application of dust protection (option V)

Types and Codes

Type	Code
TL25 50% int.	**E TL25**
TL25 50% int. and magnets	**E TL25M**

On request, for large quantity, TL25 contactors can be supplied with permanent coil (option P) and/or with large contacts (option L)



PERFORMANCES

Contactor		TL25	TL25M
Nominal operating current at 50% intermittent, 300 op/h	I_e	150A	150A
Thermal current rating	I_{th}	100A	100A
Nominal voltage	U_e	24V	48V
Breaking capacity with 15 ms time constant		675A	675A
Category of usage		DC5	DC5
Working voltage limits		0,7-1,1Vn	0,7-1,1Vn
Coil power dissipation		20W	20W
Manoeuvre time	pull-in time drop-out time	≤ 20ms ≤ 10ms	≤ 20ms ≤ 10ms
Max clamps torque		60 kgcm	60 kgcm
Mechanical life	op.n.	$3x10^6$	$3x10^6$
Contact material		AgCdO	AgCdO
Main contacts		1NC	1NC

Double Pole Contactors
Type TL22

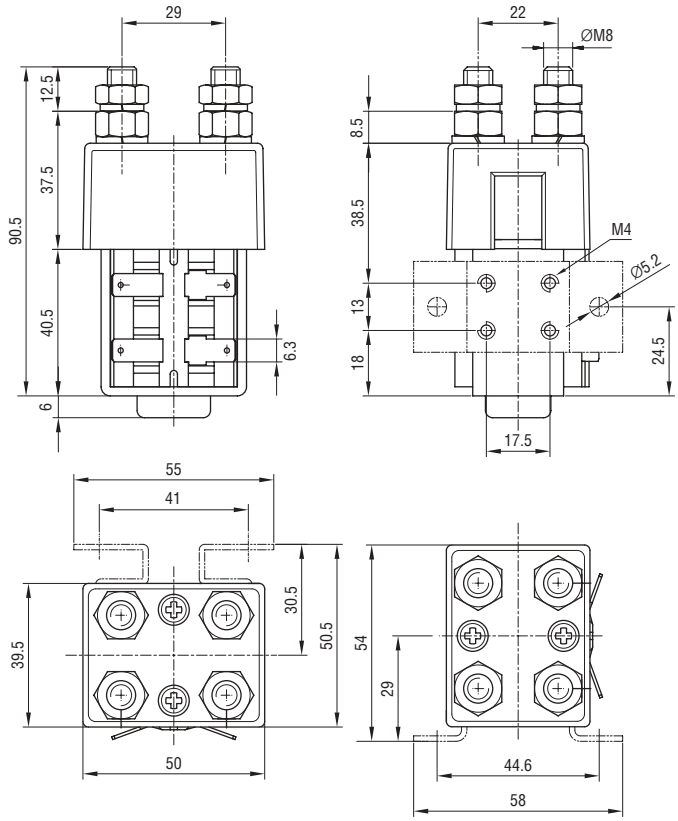
LOG0 series double pole contactors type TL22 are available in the following versions:

– 50% intermittent coil (standard version)
– 100% intermittent-permanent coil (option P)

Neither magnetic blowouts nor auxiliary contacts can be mounted on these contactors.

Types and Codes

Type	Code
TL22 50% int.	**E TL22**
TL22 100% int.	**E TL22P**



PERFORMANCES

Contactor		TL22	TL22P
Nominal operating current at 50% intermittent, 300 op/h	I_e	150A	150A
Thermal current rating	I_{th}	100A	100A
Nominal voltage	U_e	48V	48V
Breaking capacity with 15 ms time constant		675A	675A
Category of usage		DC5	DC5
Working voltage limits		0,7-1,1Vn	0,8-1,1Vn
Coil power dissipation		20W	12W
Manoeuvre time	pull-in time drop-out time	≤ 20ms ≤ 10ms	≤ 20ms ≤ 10ms
Max clamps torque		60 kgcm	60 kgcm
Mechanical life	op. n.	$3x10^6$	$3x10^6$
Contact material		AgCdO	AgCdO
Main contacts		2NO	2NO

D.C. Motor Reversers
Types TL222

Main features

The joining of two contactors of the type TL22 or TL22P makes the construction of corresponding motor reversers possible, and these are supplied with electrical connections and with a common bracket.
Main contacts: 2x2NO
– 50% intermittent coil (standard version)
– 100% intermittent-permanent coil (option P)

Neither magnetic blowouts nor auxiliary contacts can be mounted on these motor reversers.

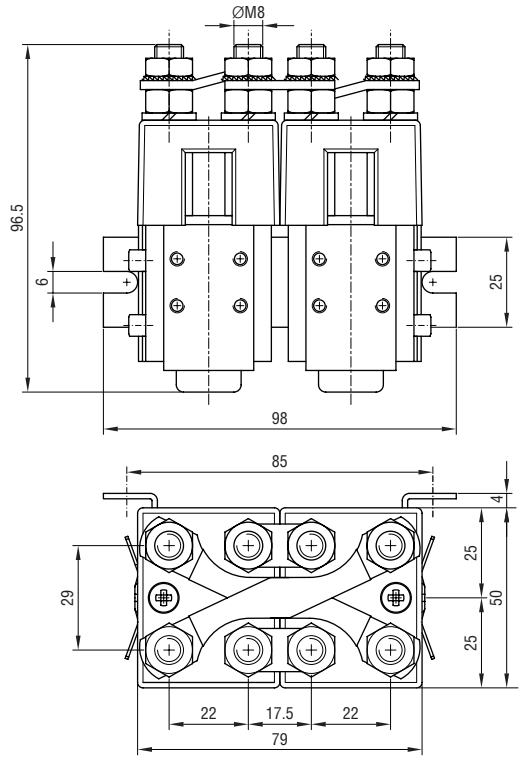
Performances: see TL22 and TL22P on page 5

Correct use of the motor reverser

The used contactors have fast drop-out times (10 msec) and relatively long pull-in times (approx. 20 msec).
In this way, safe reversals can be carried out without the risk of the contacts being closed at the same time.
The use of suppressor diodes, however, increases drop-out times, and therefore it is important to choose the most suitable type of suppressor (diode+resistor).

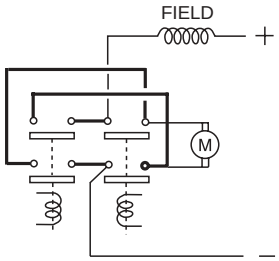
Types and Codes

Type	Code
TL222 50% int.	**E TL222**
TL222 100% int.	**E TL222P**



Diagrams of functioning

The lines ——— represent the links supplied with the motor reverser.



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