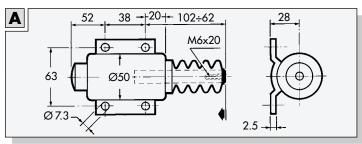
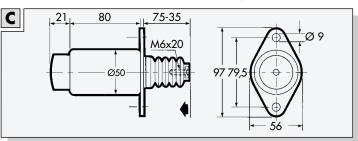
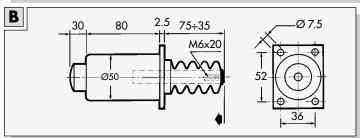
FAMILY E - ES 50

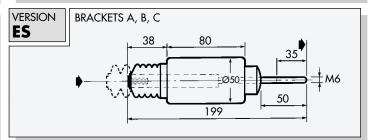
DUAL COIL SOLENOID FOR PULL ACTION OR PULL-PUSH ACTION





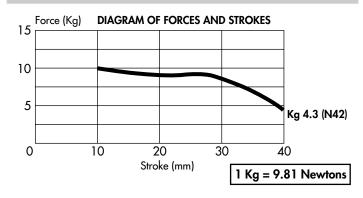






SPECIFICATIONS

Rated voltage	12 V DC	24 V DC
Pull current	41 A	23 A
Hold current	0.50 A	0.28 A
Duty service	Continuo	us (100%)
Stroke	40 m	m
Force at starting	4.3 K	g
Windings insulation class	H (18	80° C)
Ambient temperature	-40°	C ÷ 120°C
Weight	1.18	Kg



OPERATION

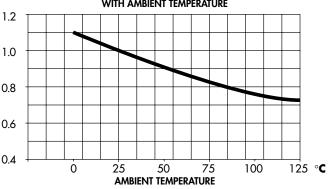
The solenoid has two windings:

An intermittent-service pulling winding involved in the initial phase for approximately 150 ms, with the function of moving the plunger.

A continuous-service holding winding, with the function of maintaining the plunger in position.

For a proper operation of the solenoid, it is indispensable for the plunger to reach end of travel and to obtain the perfect adherence to the bottom.





AVAILABLE OPTIONS

The desired model has to be defined choosing one option in every column, building in this way the solenoid code.

Versions	Voltages	Circuits	Brackets	Optional Springs	Electrical connections
E5 pull action	1 = 12 V DC	1 = Series 1	A	M1	Standard Faston
ES5 pull-push action	2 = 24 V DC	2 = Series 2	В	M2	F = Cables
		3 = Series 3	C (series 3)	M3	\mathbf{V} = Faston - screws
				M4 (external)	



DUAL COIL SOLENOID FOR PULL ACTION OR PULL-PUSH ACTION

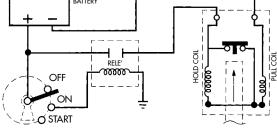
ELECTRIC CIRCUITS FOR DIESEL ENGINES

SERIES 1

WITH INTERNAL SWITCH

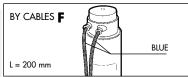
DIRECT ELECTRIC CIRCUIT

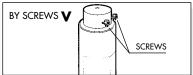
The solenoid connection is not conditioned by the polarity (+ and -) In the version with cables these are blue.



ELECTRICAL CONNECTIONS





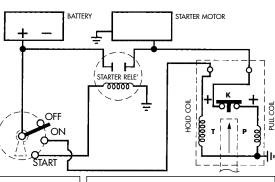


SERIES 2

WITH INTERNAL SWITCH

ELECTRIC CIRCUIT COMBINED WITH STARTER MOTOR

The solenoid connection feeding the pull coil P and the hold coil T is marked with the indication PULL (red cable) and HOLD (blue cable). The body is connected to ground. The pull coil P is fed in parallel with the starter motor: the red cable connected to the positive of the starter motor and the blue cable connected to the positive of the key switch. The auxiliary switch K ensures disconnection of the coil P and prevents the possible damaging return of parasitic currents.



ELECTRICAL CONNECTIONS





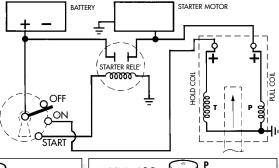
SERIES 3

WITHOUT INTERNAL SWITCH

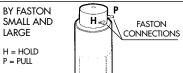
The connection of the solenoid is the same as for the Series 2. The pull coil P and the hold coil T are respectively marked PULL and HOLD. The negative common in the version with faston is at ground.

• Designed for coupling with starter motor.

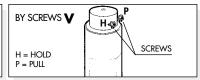
• Designed for external switch (Code CEI IEO4 - timed static electronic switch ideal for dusty or saline environments and in applications with repeated accelerations).



ELECTRICAL CONNECTIONS







ACCESSORIES WITH M6 THREAD



OPTIONAL SPRINGS

INTERNAL SPRING 5M1		INTERNAL SPRING 5M2		INTERNAL SPRING 5M3		
WIRE DIAMETER SPRING 1		WIRE DIAMETER SPRING 1.25		WIRE DIAMETER SPRING 1.45		
allla		Ollilo		allllo		
Kg 0.3	Kg 1.5	Kg 0.4	Kg 2.5	Kg 2.6	Kg 6.0	
EXTERNAL SPRING 5M4 (QQQQQQQQQQQQQQQQQQQQQQQQQQQQQQQQQQQ						
Kg 4.2	Kg 6.0	0				



COSTRUZIONI ELETTROMAGNETICHE INDUSTRIALI