Technical Data Sheet

COLTRI COMPRESSORS

PORTABLES LINE

MINI COMPACT

ELECTRIC



Contact

Powerful, portable and a great looking frame

The **MINI COMPACT** range of compressors are very popular in the marine industry thanks in part to their reinforced, more enveloping chassis. All equipped with the popular GP 100 pumping unit, they are available with gasoline or electric motors, both three-phase and single-phase. The equipment includes a filling connection for flexible hose with working pressure from 232 to 330 bar. Optional extras include a pressure maintenance valve, automatic condensate drain and auto-stop, all of which allow the product to be tailored to the user's needs.







Technical data

Type of gas	Breathing air EN 12021 - Nitrox 40% max O_2 - Helium - Nitrogen
Intake pressure	Atmospheric max 300 millibar
Nominal pressure	230 bar / 330 bar
Filling pressure	230 bar / 330 bar
Max working pressure	330 bar
Permissible ambient temperature range	-10° C ÷ +40° C
Permissible altitude	0 ÷ 2.000 m SLM
Max permissible tilt	6°
Design	Basic
Operating voltage, standard	400 V, 50 Hz
Other operating voltage	230 V, 50 Hz / 230 V, 60 Hz / 440 V, 60 Hz
Oil	Syntetic Coltri Oil ST 755
Oil change interval	1 year / 50 h
Frame	Steel - colour RAL 9005 - Powder coating painting - scratch proof

Compressor

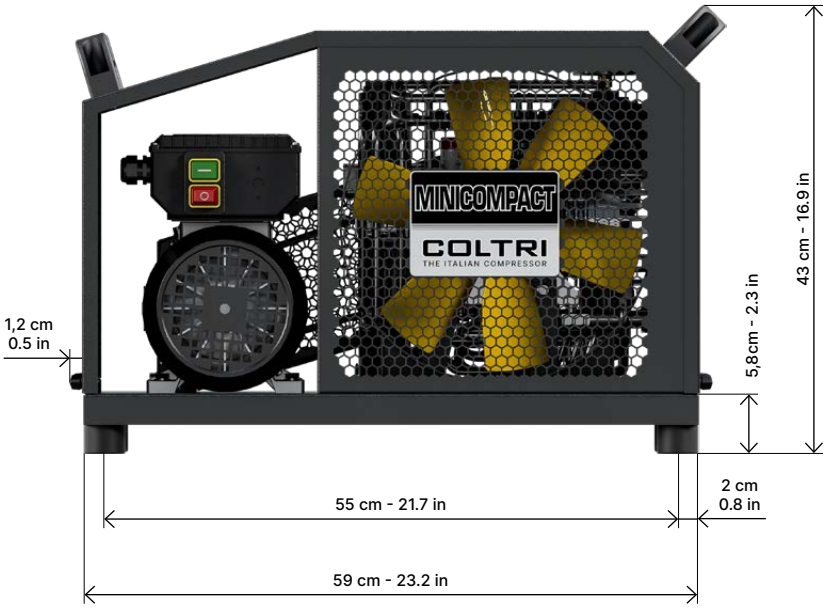
	MINI COMPACT 100 EM	MINI COMPACT 100 ET
Charging rate Measured during 10 liters cylinder filling from 0-200 bar tolerance +/- 5% at + 20 ° C ambient temperature.	100 l/min 6 m^3/h 3.5 cfm	
Purification System	Eco-filter	
Cooling air flow	990 m^3/h	
Weight[1]	47 kg - 103.6 lb	
Dimensions (W x D x H)[1]	62,4 × 38 × 43 cm 24.6 × 15 × 16.9 in	

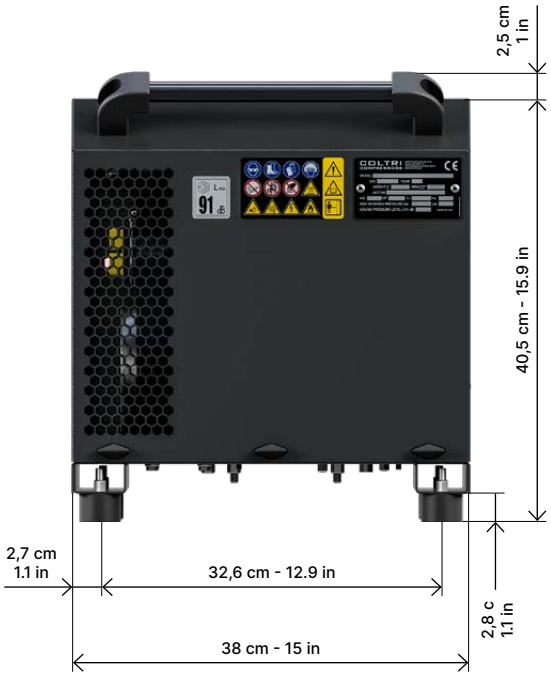
1 Standard model. Dimensions may vary depending on accessories.

Electric motor

	MINI COMPACT 100 EM			MINI COMPACT 100 ET	
Power	2,2 kW - 3 Hp			3 kW - 4 Hp	
Type	Single-phase electric			Three-phase electric	
Operating voltage/frequency Different voltage / frequency available on request.	110 V, 60 Hz	230 V, 50 Hz	220 V, 60 Hz	230 V, 50 Hz	400 V, 50 Hz
Rated current	34,5 A	16,5 A		13,3 A	7,7 A
Speed (RPM)	3.400	2.800	3.400	2.840	
Protection class	IP54				

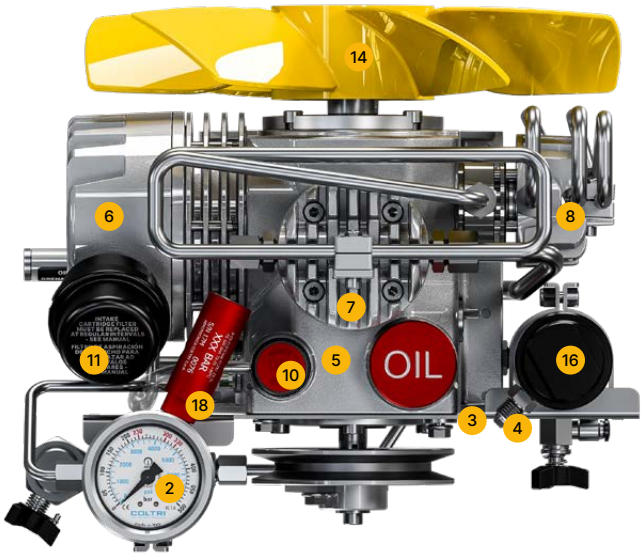
Dimensions

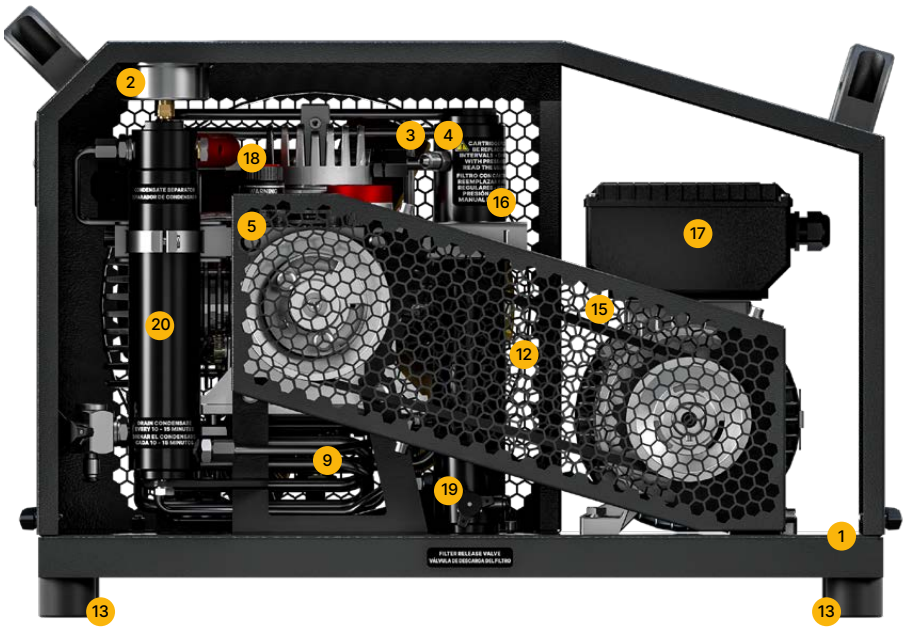

MINICOMPACT
COLTRI
THE ITALIAN COMPRESSOR
1,2 cm
0.5 in
43 cm - 16.9 in
5,8cm - 2.3 in
2 cm
0.8 in
55 cm - 21.7 in
59 cm - 23.2 in


2,5 cm
1 in
40,5 cm - 15.9 in
2,7 cm
1.1 in
32,6 cm - 12.9 in
2,8 c
1.1 in
38 cm - 15 in


COLTRI
38 cm - 15 in
59 cm - 23.2 in
62,4 cm - 24,6 in

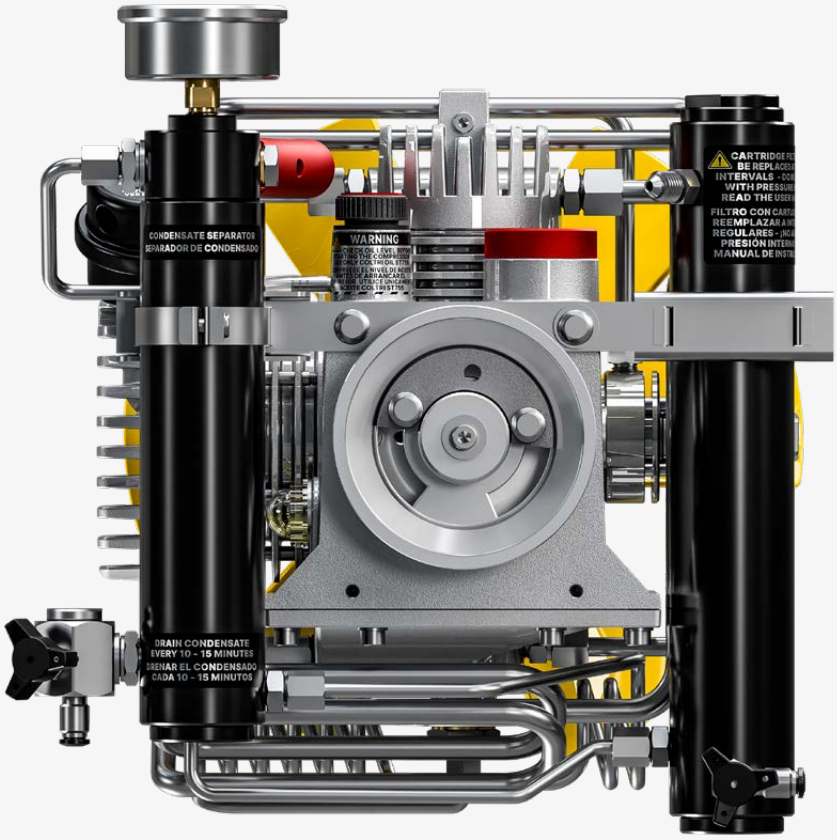
Components

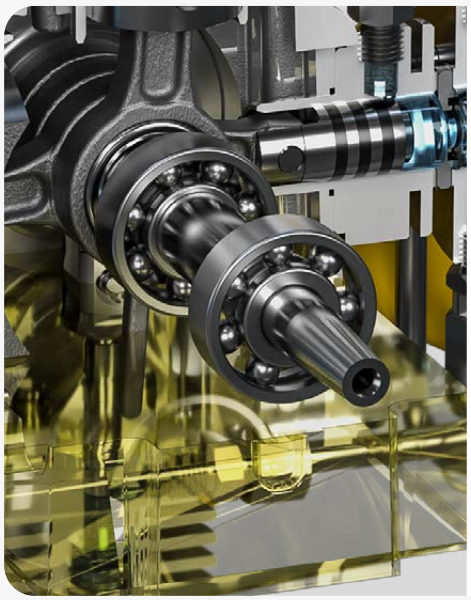




1. Frame
2. Pressure gauge
3. Refill hoses connection
4. High pressure air outlet
5. Pumping unit
6. 1st stage
7. 2nd stage
8. 3rd stage
9. 4th stage
10. Oil filler cap
11. Air filter
12. Safety mesh
13. Anti-vibration devices
14. Cooling fan
15. Belt
16. Purification system
17. Electric motor
18. Safety valve
19. Condensate drain
20. Condensate discharge

Pumping unit MCH 6

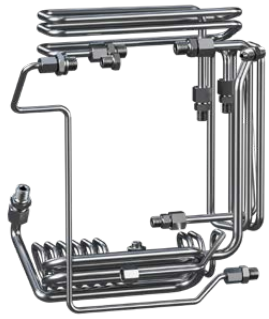




Splash lubrification with conrod pin immersed in oil

Suction filter:
10 µ micron





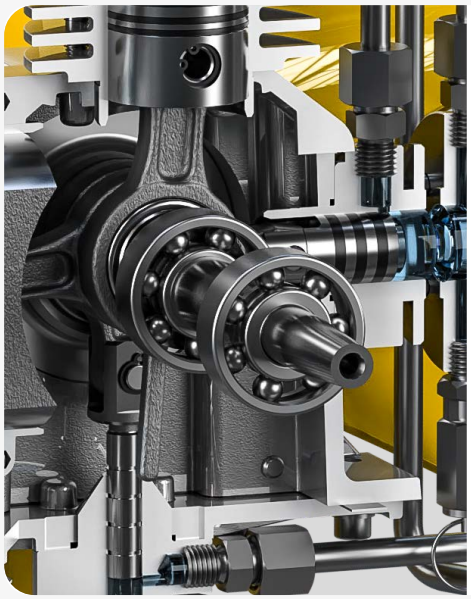
Pipes, fitting and nuts in stainless steel AISI 316



Forged aluminium connection rods

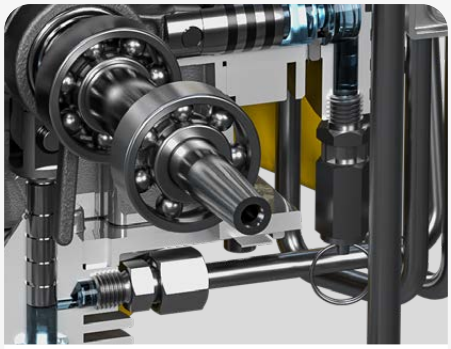


Aluminium crankcase machined on horizontal CNC machine to ensure maximum precision



Forged steel crankshaft with hardened rings





Safety valve on the third stage



Final safety valve PED certified

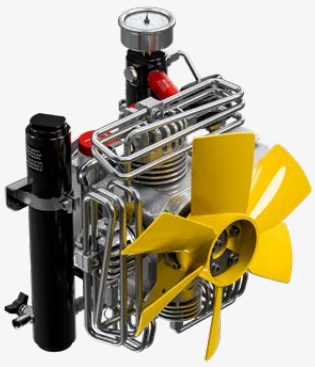


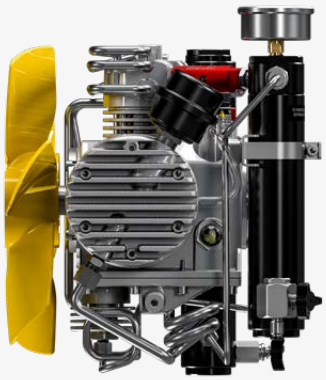
CE certification

Technical data pumping unit MCH 6

	MINI COMPACT 100 EM	MINI COMPACT 100 ET
Charging rate Measured during 10 liters cylinder filling from 0-200 bar tolerance +/- 5% at + 20 ° C ambient temperature.	100 l/min 6 m^3/h 3.5 cfm	
Speed (RPM)	2.250	
Number of stages	4	
Number of cylinders	4	
Cylinder bore 1st stage	78 mm	
Cylinder bore 2nd stage	38 mm	
Cylinder bore 3rd stage	19 mm	
Cylinder bore 4th stage	9,7 mm	
Stroke	13,5 mm	
Direction of rotation (from flywheel side)	Clockwise (right)	
Drive type	V-belt A type	
Intermediate pressure 1st stage	~ 4,5 bar	
Intermediate pressure 2nd stage	~ 16 bar	
Intermediate pressure 3rd stage	~ 75 bar	
Amount of oil	600 cc/ml	
Max intake pressure	1,3 bar_a – 300 millibar	



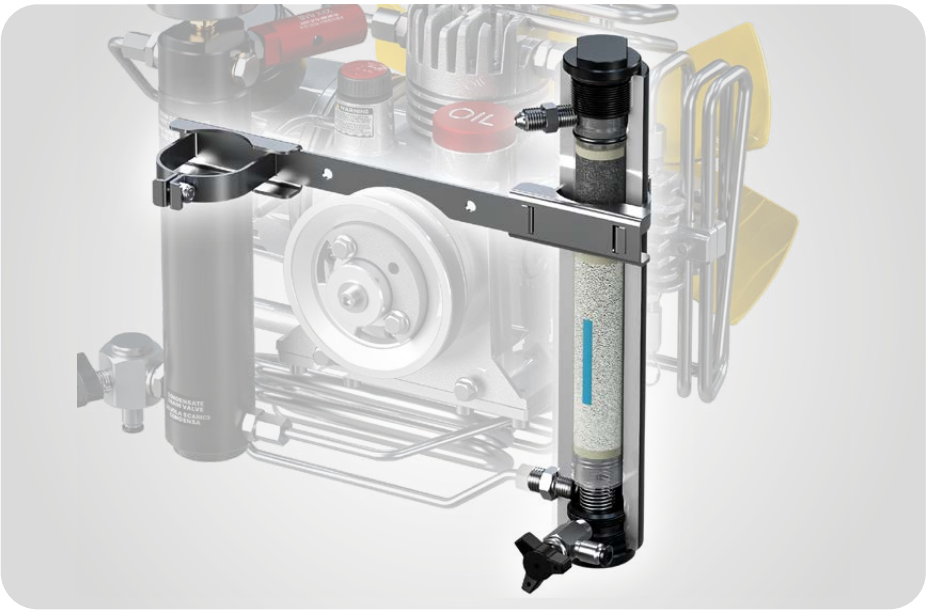




Standard equipment

Purification system ECO-FILTER

ECO-FILTER disposable cartridge



Purification system	Eco-Filter
Operating pressure (Standard)	232 bar / 330 bar
Operating pressure max. (PS)	360 bar
Processable air capacity (air inlet temperature in the filter 20° C at 300 bar)[1]	210 m^3

1 When using a filter cartridge without HOPCALITE CO CATALYST.
If a cartridge with CO removal is used, the process air capacity is reduced by about 20%.

Separator system

Final separator for removal of oil/water condensate
Final safety valve, mounted on the separator housing



Contamination	Maximum content as per DIN EN 12021:2014	Air quality*
H_2O	25 mg/m³	≤ 10 mg/m³
CO	5 ppm(v)	≤ 4
CO_2	500 ppm(v)	≤ 500
Oil	0,5 mg/m³	≤ 0,5 mg/m³

* Measured at our facility using ASCO HORA 160 ANALYZER.
1 Only with special filter cartridge with HOPCALITE CO CATALYST. and up to a maximum concentration of 25 ppm CO in intake air.
The compressed clean breathing air then contains a maximum of 5 ppm CO.
2 The level of CO2 in the intake air must not exceed the maximum level of CO2 as per EN 12021:2014
3 Reported values exceed ISO 8573-1 standards.

Filling connection

1 Filling connection to choose from: DIN 232 bar - INT and DIN 300 bar.



Filling connection DIN 232 bar

COD. 6-05-024



Filling connection DIN 300 bar

COD. 6-05-024/300



Filling connection INT

COD. 6-05-025

Filling device	DIN 232	DIN 300
Nominal pressure (NP)	250 bar	330 bar
Technical specification	Filling valve with cylinder connector G 5/8” according to EN 144-2 and 477 PN232	Filling valve with cylinder connector G 5/8” according to EN 144-2 and 477 PN300

Plugs available according to electric motor



230 V single-phase electric motor

6h/200 - 250V~

50÷60 Hz

32 A

2P+⏚



230 V three-phase electric motor

9h/200 - 250V~

50÷60 Hz

32 A

3P+⏚



400 V three-phase electric motor

6h/380 - 415V~

50÷60 Hz

16 A

3P+⏚



400 V three-phase electric motor

6h/380 - 415V~

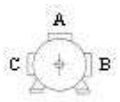
50÷60 Hz

32 A

3P+⏚

Data sheet single-phase electric motor 2,2 kW 110 V 60 Hz

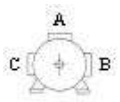
soga®	**SPECIFICA TECNICA MOTORE EL.** *Electric motor technical data sheet*	**Potenza/** *Power* (kW) **2,2**	**Poli/** Poles **2**
		Data 25/06/2015	Rev. 0

No	Descrizione/*Description*	Dati/Data			*U.d.m.*
1	**Codice Soga** / *ref.code*	125387			
2	**Modello /** *Motor type*	MMD1 90LA/2			
3	**Descrizione** / *Description*	Single-phase motor with starting capacitor 2,2kW 2 Poles 110V 60Hz			
4	**Carcassa motore** / *Framesize*	90L			
5	**Poli** / *Poles*	2			
6	**Forma di costruzione** / *Mounting type*	IM B3			
7	**Potenza nominale** / *Rated output*	2,2			[kW]
8	**Fattore di servizio** / *Service factor*	1.0			
9	**Tipo di servizio** / *Duty type*	S3-75%			
10	**Tensione** / *Rated voltage*	110			[V]
11	**Frequenza** / *Rated frequency*	60			[Hz]
12	**Corrente nominale** / *Rated current*	34,5			[A]
13	**Velocità nominale** / *Rated speed*	3400			[min^{-1}]
14	**Fattore di potenza** / *Power factor*	0,92			
15	**Coppia nominale motore**/ *Rated motor torque*	6,2			[Nm]
17	**Corrente avviamento / Corrente nominale** *Starting current / Rated current*	4,0			Isp/In
18	**Coppia avviamento / Coppia nominale** *Starting torque/Rated torque*	1,9			Msp/Mn
19	**Classe d'isolamento** / *Insulation class*	F			
20	**Grado di protezione** / *Enclosure*	IP54			
21	**Posizione scatola morsettiera** (motore con piedini) *Terminal box position (motor with feet)* 	A			
22	**Terminali potenza** / *Power leads terminal*	CAVO/ *CABLE*			
23	**Peso /** Weight	19			[kg]
24	**Cuscinetti** /bearings	Drive end	6205		
		Non drive end	6205		

Note/remarks:
Motore con condensatore permanente 160μF e disgiuntore elettromeccanico e condensatore di spunto 315-400μF. Il motore è anche provvisto di interruttore a pulsanti rosso-verde e protezione termica.
Motor with 160μF permanent capacitor and centrifugal switch plus 315-400μF starting capacitor. The motor is also provided with switch (red-green push-buttons) and thermal protectors.
Targa con logo Coltri Compressors.

Data sheet single-phase electric motor 2,2 kW 230 V 50 Hz

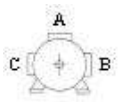
soga®	**SPECIFICA TECNICA MOTORE EL.** *Electric motor technical data sheet*	**Potenza/** *Power* (kW) **2,2**	**Poli/** Poles **2**
		Data 24/06/2015	Rev. 0

No	Descrizione/*Description*	Dati/Data			*U.d.m.*
1	**Codice Soga** / *ref.code*	159500			
2	**Modello /** *Motor type*	MMD1 90LA/2			
3	**Descrizione** / *Description*	Single-phase motor with starting capacitor 2,2kW 2 Poles 230V 50Hz			
4	**Carcassa motore** / *Framesize*	90L			
5	**Poli** / *Poles*	2			
6	**Forma di costruzione** / *Mounting type*	IM B3			
7	**Potenza nominale** / *Rated output*	2,2			[kW]
8	**Fattore di servizio** / *Service factor*	1.0			
9	**Tipo di servizio** / *Duty type*	S1			
10	**Tensione** / *Rated voltage*	230			[V]
11	**Frequenza** / *Rated frequency*	50			[Hz]
12	**Corrente nominale** / *Rated current*	16,5			[A]
13	**Velocità nominale** / *Rated speed*	2800			[min^{-1}]
14	**Fattore di potenza** / *Power factor*	0,97			
15	**Coppia nominale motore**/ *Rated motor torque*	7,5			[Nm]
17	**Corrente avviamento / Corrente nominale** *Starting current / Rated current*	4,0			Isp/In
18	**Coppia avviamento / Coppia nominale** *Starting torque/Rated torque*	2,1			Msp/Mn
19	**Classe d'isolamento** / *Insulation class*	F			
20	**Grado di protezione** / *Enclosure*	IP54			
21	**Posizione scatola morsettiera** (motore con piedini) *Terminal box position (motor with feet)* 	A			
22	**Terminali potenza** / *Power leads terminal*	CAVO CON PRESA SCHUKO/ *CABLE WITH SCHUKO PLUG*			
23	**Peso /** Weight	18			[kg]
24	**Cuscinetti** /bearings	Drive end	6205		
		Non drive end	6205		

Note/remarks:
Motore con condensatore permanente 60μF e disgiuntore elettromeccanico e condensatore di spunto 100μF. Il motore è anche provvisto di interruttore a pulsanti rosso-verde con protezione termica e contaore analogico.
Motor with 60μF permanent capacitor and centrifugal switch plus 100μF starting capacitor. The motor is also provided with switch (red-green push-buttons), thermal protectors and analogic hour meter.
Targa con logo Coltri Compressors.

Data sheet single-phase electric motor 2,2 kW 220 V 60 Hz

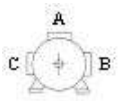
soga®	**SPECIFICA TECNICA MOTORE EL.** *Electric motor technical data sheet*	**Potenza/** *Power* (kW) **2,2**	**Poli/** Poles **2**
		Data 24/06/2015	Rev. 0

No	Descrizione/*Description*	Dati/Data			*U.d.m.*
1	**Codice Soga** / *ref.code*	125384			
2	**Modello /** *Motor type*	MMD1 90LA/2			
3	**Descrizione** / *Description*	Single-phase motor with starting capacitor 2,2kW 2 Poles 220V 60Hz			
4	**Carcassa motore** / *Framesize*	90L			
5	**Poli** / *Poles*	2			
6	**Forma di costruzione** / *Mounting type*	IM B3			
7	**Potenza nominale** / *Rated output*	2,2			[kW]
8	**Fattore di servizio** / *Service factor*	1.0			
9	**Tipo di servizio** / *Duty type*	S3-75%			
10	**Tensione** / *Rated voltage*	220			[V]
11	**Frequenza** / *Rated frequency*	60			[Hz]
12	**Corrente nominale** / *Rated current*	16,5			[A]
13	**Velocità nominale** / *Rated speed*	3400			[min^{-1}]
14	**Fattore di potenza** / *Power factor*	0,94			
15	**Coppia nominale motore**/ *Rated motor torque*	6,2			[Nm]
17	**Corrente avviamento / Corrente nominale** *Starting current / Rated current*	3,6			Isp/In
18	**Coppia avviamento / Coppia nominale** *Starting torque/Rated torque*	1,1			Msp/Mn
19	**Classe d'isolamento** / *Insulation class*	F			
20	**Grado di protezione** / *Enclosure*	IP54			
21	**Posizione scatola morsettiera** (motore con piedini) *Terminal box position (motor with feet)* 	A			
22	**Terminali potenza** / *Power leads terminal*	CAVO CON PRESA SCHUKO/ *CABLE WITH SCHUKO PLUG*			
23	**Peso /** Weight	18			[kg]
24	**Cuscinetti** /bearings	Drive end	6205		
		Non drive end	6205		

Note/remarks:
Motore con condensatore permanente 60μF e disgiuntore elettromeccanico e condensatore di spunto 100μF. Il motore è anche provvisto di interruttore.
Motor with 60μF permanent capacitor and centrifugal switch plus 100μF starting capacitor. The motor is also provided with switch.
Targa con logo Coltri Compressors.

Data sheet three-phase electric motor 3 kW 230 V 50 Hz

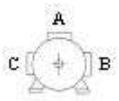
soga®	**SPECIFICA TECNICA MOTORE EL.** *Electric motor technical data sheet*	**Potenza/** *Power* (kW) **3**	**Poli/** Poles **2**
		Data 24/06/2015	Rev. 0

No	Descrizione/*Description*	Dati/Data			*U.d.m.*
1	**Codice Soga** / *ref.code*	124268			
2	**Modello /** *Motor type*	MT1 90LC/2			
3	**Descrizione** / *Description*	Three-phase asynchronous motor 3kW 2 Poles 230V 50Hz			
4	**Carcassa motore** / *Framesize*	90L			
5	**Poli** / *Poles*	2			
6	**Forma di costruzione** / *Mounting type*	IM B3			
7	**Potenza nominale** / *Rated output*	3	3	3,6	[kW]
8	**Fattore di servizio** / *Service factor*	1.0			
9	**Tipo di servizio** / *Duty type*	S3-75%			
10	**Tensione** / *Rated voltage*	Δ 230	Δ 230	Δ 255-280	[V]
11	**Frequenza** / *Rated frequency*	50	60	60	[Hz]
12	**Corrente nominale** / *Rated current*	13,3	13,3	13,3	[A]
13	**Velocità nominale** / *Rated speed*	2840	3410	3410	[min^{-1}]
14	**Fattore di potenza** / *Power factor*	0,84	0,84	0,84	
15	**Coppia nominale motore**/ *Rated motor torque*	10	8,4	10	[Nm]
17	**Corrente avviamento / Corrente nominale** *Starting current / Rated current*	7,4			Isp/In
18	**Coppia avviamento / Coppia nominale** *Starting torque/Rated torque*	3,5			Msp/Mn
19	**Classe d'isolamento** / *Insulation class*	F			
20	**Grado di protezione** / *Enclosure*	IP54			
21	**Posizione scatola morsettiera** (motore con piedini) *Terminal box position (motor with feet)* 	A			
22	**Terminali potenza** / *Power leads terminal*	CAVO / *CABLE*			
23	**Peso /** Weight	18			[kg]
24	**Cuscinetti** /bearings — Drive end	6205			
	Cuscinetti /bearings — Non drive end	6205			

Note/remarks:
MOTORE PROVVISTO DI INTERRUTTORE MAGNETOTERMICO 3P REGOLABILE 10-16A CON BOBINA DI MINIMA TENSIONE 220-240V
MOTOR PROVIDED WITH 3P CIRCUIT BREAKER (10-16A ADJUSTABLE) WITH MINIMUM VOLTAGE COIL (220-240V)
Targa con logo Coltri Compressors.

Data sheet three-phase electric motor 3 kW 400 V 50 Hz

soga®	**SPECIFICA TECNICA MOTORE EL.** *Electric motor technical data sheet*	**Potenza/** *Power* (kW) **3**	**Poli/** Poles **2**
		Data 24/06/2015	Rev. 0

No	Descrizione/*Description*	Dati/Data			*U.d.m.*
1	**Codice Soga** / *ref.code*	124297			
2	**Modello /** *Motor type*	MT1 90LC/2			
3	**Descrizione** / *Description*	Three-phase asynchronous motor 3kW 2 Poles 400V 50Hz			
4	**Carcassa motore** / *Framesize*	90L			
5	**Poli** / *Poles*	2			
6	**Forma di costruzione** / *Mounting type*	IM B3			
7	**Potenza nominale** / *Rated output*	3	3	3,6	[kW]
8	**Fattore di servizio** / *Service factor*	1.0			
9	**Tipo di servizio** / *Duty type*	S3-75%			
10	**Tensione** / *Rated voltage*	400 Y	400 Y	440-480 Y	[V]
11	**Frequenza** / *Rated frequency*	50	60	60	[Hz]
12	**Corrente nominale** / *Rated current*	7,7	7,7	7,7	[A]
13	**Velocità nominale** / *Rated speed*	2840	3410	3410	[min^{-1}]
14	**Fattore di potenza** / *Power factor*	0,84	0,84	0,84	
15	**Coppia nominale motore**/ *Rated motor torque*	10	8,4	10	[Nm]
17	**Corrente avviamento / Corrente nominale** *Starting current / Rated current*	7,4			Isp/In
18	**Coppia avviamento / Coppia nominale** *Starting torque/Rated torque*	3,5			Msp/Mn
19	**Classe d'isolamento** / *Insulation class*	F			
20	**Grado di protezione** / *Enclosure*	IP54			
21	**Posizione scatola morsettiera** (motore con piedini) *Terminal box position (motor with feet)* 	A			
22	**Terminali potenza** / *Power leads terminal*	CAVO / *CABLE*			
23	**Peso /** Weight	18			[kg]
24	**Cuscinetti** /bearings — Drive end	6205			
	Cuscinetti /bearings — Non drive end	6205			

Note/remarks:
MOTORE PROVVISTO DI INTERRUTTORE MAGNETOTERMICO 3P REGOLABILE 6,3-10A CON BOBINA DI MINIMA TENSIONE 380-400V
MOTOR PROVIDED WITH 3P CIRCUIT BREAKER (6,3-10A ADJUSTABLE) WITH MINIMUM VOLTAGE COIL (380-400V)
Targa con logo Coltri Compressors.

Optional

C - Monitor

Final filter monitoring system, oil change and technical interface.

The interface consists of an LCD display, a button and two indicators (○,●). The decimal points next to the digits are indicator lights to indicate alarms or warnings in progress. Each dot is associated with an explanatory icon (, ,). The icon ● indicates an alarm condition while the symbol ○ indicates normal operation. Press the button to scroll through the different functions of the menu. When pressed, the function is displayed the function and after two 2 seconds the related data.



COD. SC001200

1. Display
2. Cartridge saturation
3. Service indication
4. Battery charge level
5. Operation indicator

Automatic condensate drain with timer

The automatic condensate drain removes water from the
intermediate separator and the final separator automatically during operation (every 7 minutes).

Composed of:
- 1 x timer
- 1 x solenoid valve



Assembly
instruction

COD. SC000522

Autostop

Compressor automatically shuts off when it reaches final pressure.

Composed of:
1 x Pressure switch
• 230 bar (Safety valve 250 bar)
• 300 bar (Safety valve 330 bar)



Assembly instruction

COD. SC000521/232 - SC000521/300

Double pressure regulator 300/232 bar



COD. SC000531

Remote suction hose kit

1/2” adapter.
Hose length 3 meters.
Tube diameter 20 mm.



COD. HC010302

Suction filter cartridge



COD. SC000345

Pressure maintaining valve

Mandatory use of DRV filling connection



COD. 6-05-015-VMP-R

Filling connections optional



Filling connection DRV DIN 232 bar

COD. DRV232



Filling connection DRV DIN 300 bar

COD. DRV300



Filling connection DRV DIN 232 bar with gauge

COD. DRV232/MANOM



Filling connection DRV DIN 300 bar with gauge

COD. DRV300 /MANOM



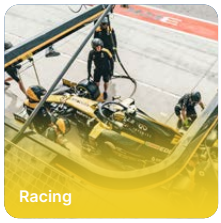
Adapter DIN 232/INT

COD. RE100350

Application fields













Aerotecnica Coltri S.p.A.

Via dei Colli Storici, 177
25015 Desenzano del Garda - Brescia - Italy

Tel. +39 030 9910301
+39 030 9910297

info@coltri.com

QUALITY SYSTEM CERTIFICATION DNV ISO 9001

ENVIRONMENTAL SYSTEM CERTIFICATION DNV ISO 14001

SAFETY SYSTEM CERTIFICATION DNV ISO 45001

DT-TDS-MINICOMPACT-25-V3

Printed on paper from
sustainably managed forests

Visit our showroom in Virtual Reality

coltri.com

coltri.com/showroom

COLTRI® COMPRESSORS