

Automatic intermittent piston pump

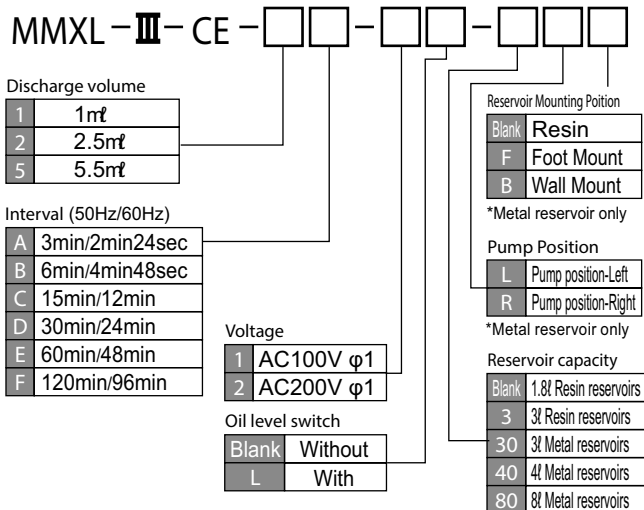
MMXL-III

Automatic intermittent pump incorporating a small energy-saving motor. Interval is controlled by the RPM of the motor so no external controllers or timers are needed. Widely used for small machines in many different industries.



[CE]

Model Reference



Specifications

Pump	Discharge volume	0.2-1.0ml/stroke 1.5-2.5ml/stroke 2.5-5.5ml/stroke
	Discharge pressure	0.3MPa
Motor (Other voltages available.)	Power	AC100Vφ1/50mA, AC200Vφ1/25mA (50Hz) AC100Vφ1/42mA, AC200Vφ1/18mA (60Hz)
	Output	3W Synchronous Motor
Emergency detection	Oil level switch	Contact type A contact (NO) ON at low level Contact capacity 0.5A, AC DC200V/30W smaller
Operation rating	Continuous	
Working viscosity range		32-1300mm ² /s
Reservoir capacity		1.8l, 3l (plastic) 3l, 4l, 8l (sheet metal)
Weight		1.8kg (With 1.8l Reservoirs)
Protection class		IP54 (CE Approved type)

Model

Model	Part Number	Model	Part Number	Model	Part Number
MMXL-III CE-1A-1	367001	MMXL-III CE-1D-1L	367058	MMXL-III CE-2A-2	367025
MMXL-III CE-1A-1L	367055	MMXL-III CE-1D-2	367010	MMXL-III CE-2A-2L	367079
MMXL-III CE-1A-2	367007	MMXL-III CE-1D-2L	367064	MMXL-III CE-2B-1	367020
MMXL-III CE-1A-2L	367061	MMXL-III CE-1E-1	367005	MMXL-III CE-2B-1L	367074
MMXL-III CE-1B-1	367002	MMXL-III CE-1E-1L	367059	MMXL-III CE-2B-2	367026
MMXL-III CE-1B-1L	367056	MMXL-III CE-1E-2	367011	MMXL-III CE-2B-2L	367080
MMXL-III CE-1B-2	367008	MMXL-III CE-1E-2L	367065	MMXL-III CE-2C-1	367021
MMXL-III CE-1B-2L	367062	MMXL-III CE-1F-1	367006	MMXL-III CE-2C-1L	367075
MMXL-III CE-1C-1	367003	MMXL-III CE-1F-1L	367060	MMXL-III CE-2C-2	367027
MMXL-III CE-1C-1L	367057	MMXL-III CE-1F-2	367012	MMXL-III CE-2C-2L	367081
MMXL-III CE-1C-2	367009	MMXL-III CE-1F-2L	367066	MMXL-III CE-2D-1	367022
MMXL-III CE-1C-2L	367063	MMXL-III CE-2A-1	367019	MMXL-III CE-2D-1L	367076
MMXL-III CE-1D-1	367004	MMXL-III CE-2A-1L	367073	MMXL-III CE-2D-2	367028

Related parts



Flow unit
: P.149



PJ junction
: P.164



Tubing
: P.203



Pressure gauge
: P.184



Filter FX1
: P.181



Filter FY20
: P.181



Pressure switch
: P.185



Compression parts
: P.201



Adapters
: P.207

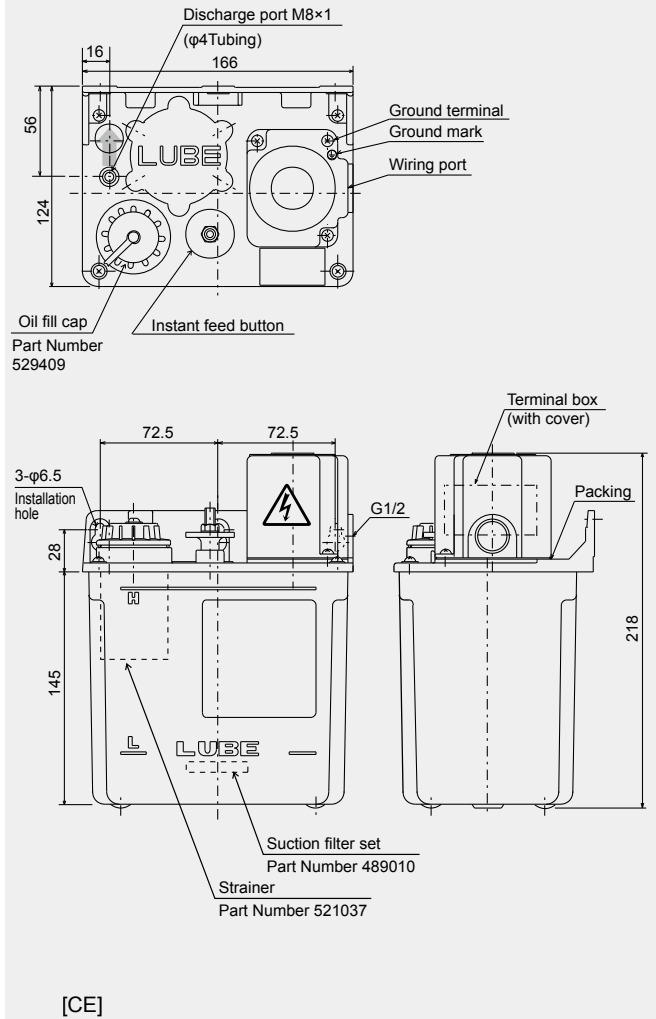


Reservoir
: P.168

Model

Model	Part Number
MMXL-III CE-2D-2L	367082
MMXL-III CE-2E-1	367023
MMXL-III CE-2E-1L	367077
MMXL-III CE-2E-2	367029
MMXL-III CE-2E-2L	367083
MMXL-III CE-2F-1	367024
MMXL-III CE-2F-1L	367078
MMXL-III CE-2F-2	367030
MMXL-III CE-2F-2L	367084
MMXL-III CE-5A-1	367037
MMXL-III CE-5A-1L	367091
MMXL-III CE-5A-2	367043
MMXL-III CE-5A-2L	367097
MMXL-III CE-5B-1	367038
MMXL-III CE-5B-1L	367092
MMXL-III CE-5B-2	367044
MMXL-III CE-5B-2L	367098
MMXL-III CE-5C-1	367039
MMXL-III CE-5C-1L	367093
MMXL-III CE-5C-2	367045
MMXL-III CE-5C-2L	367099
MMXL-III CE-5D-1	367040
MMXL-III CE-5D-1L	367094
MMXL-III CE-5D-2	367046
MMXL-III CE-5D-2L	367100
MMXL-III CE-5E-1	367041
MMXL-III CE-5E-1L	367095
MMXL-III CE-5E-2	367047
MMXL-III CE-5E-2L	367101
MMXL-III CE-5F-1	367042
MMXL-III CE-5F-1L	367096
MMXL-III CE-5F-2	367048
MMXL-III CE-5F-2L	367102

Dimensional drawing



(SLB) Single Line Resistance compact system for small machines with intermittent delivery

Improper handling can result in a death or serious injury

Electrical shock may be received under certain conditions

Be sure to ground.

Directions for use

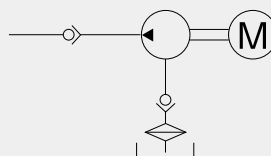
- Oil viscosity varies with oil temperature. Be sure to use oil within the working viscosity range. Refer to the viscosity table. (P.237)
- Do not use any oil containing special additives, water soluble oil, or solvent.
- Periodically check the oil in the reservoir for impurities. Replace with fresh oil immediately, if necessary. Be sure to clean the reservoir before oil adding new oil.
- Make sure that proper voltage is applied.
- Do not over tighten the discharge joint. Refer to the tightening torque table. (P.251)
- Do not press the discharge volume adjusting knob down by force.
- Adjust discharge volume only when the piston is fully relaxed (The knob is at the lowest position.).
- Replace the suction filter at least once a year.
- Do not remove the oil fill strainer in order to keep the pump clear of foreign matter.

* Should the pump malfunction, contact LUBE for consultation.

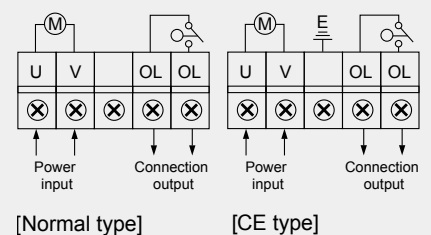
Replacement Motor Model

Interval		3min	6min	15min	30min	60min	120min	
Motor RPM (50Hz)		20	10	4	2	1	1/2	
Replacement Motor Model	100V	Model	M-A1	M-B1	M-C1	M-D1	M-E1	M-F1
		Part Number	521210	521194	521193	520062	520061	520060
	200V	Model	M-A2	M-B2	M-C2	M-D2	M-E2	M-F2
		Part Number	521328	521196	521195	520067	520066	520065

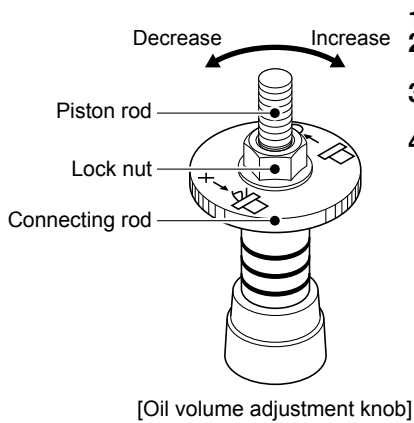
Hydraulic circuit drawing



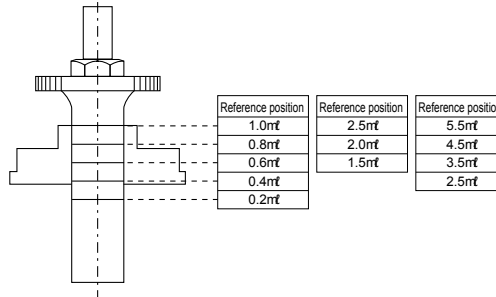
Wiring diagram



Discharge Volume Adjustment



1. Loosen lock-nut by turning it counter-clockwise.
2. After loosening lock-nut, turn and adjust the connecting rod to the desired discharge volume and tighten lock-nut.
3. Turn clockwise to increase discharge and turn counter-clockwise to decrease discharge.
4. Adjusting scale is shown below.



Automatic intermittent piston pump

MMX-II

Highly reliable pump with a long history of service.
Now Discontinued.



* Refer to MMXL-III for replacement

Directions for use

- Oil viscosity varies with oil temperature. Be sure to use oil within the working viscosity range. Refer to the viscosity table. (P.237)
- Do not use any oil containing special additives, water soluble oil, or solvent.
- Periodically check the oil in the reservoir for impurities. Replace with fresh oil immediately, if necessary. Be sure to clean the reservoir before oil adding new oil.
- Make sure that proper voltage is applied.
- Do not over tighten the discharge joint. Refer to the tightening torque table. (P.251)
- Do not press the discharge volume adjusting knob down by force.
- Adjust discharge volume only when the piston is fully relaxed (The knob is at the lowest position.).
- Replace the suction filter at least once a year.
- Do not remove the oil fill strainer in order to keep the pump clear of foreign matter.
- Check the direction of motor rotation. Change U and W of the three-phase connection to change the direction of rotation.
- Do not place the pump sideways or upside down.

Specifications

Pump	Discharge volume	1.5 - 2.5cc/stroke 2.5 - 5.5cc/stroke
	Discharge pressure	0.4MPa
Motor (Capable of coping with a different voltage)	Working voltage/ Working current	AC100Vφ1/0.23A AC200Vφ3/0.11A (50Hz) AC100Vφ1/0.23A AC200Vφ3/0.10A (60Hz)
	Output	5W Direction of rotation: CW Induction generator E-class
Anomaly detection	Oil level switch	Contact type: NO Contact capacity 0.5A, AC DC200V/30W Smaller one
Operation rate	Continuous	
Working viscosity range	32 - 1300cSt	
Reservoir capacity	1.8ℓ, 3ℓ (plastic) 3ℓ, 4ℓ, 8ℓ (sheet metal)	
Weight	3kg (1.8ℓ plastic reservoirs)	
Others	2μF condenser is built into the terminal box at 100V motor	

Replacement motor

Model	Working voltage
N-02	AC100Vφ1 5W
N-10	AC200Vφ3 5W
N-08	AC200Vφ1 5W

Hydraulic circuit drawing

