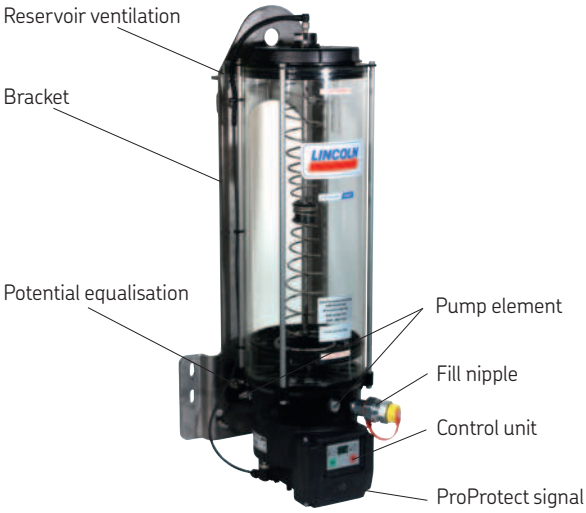
Electrically operated piston pump with lightning protection

Series P623

Meets latest Electromagnetic Compatibility (EMC) requirements



Model P623S

Lightning protection for single-line and progressive systems

The Lincoln P623S and P623M electrically operated pumps have been designed to withstand electromagnetic pulses caused by lightning strikes. An extension of the P603 pump series, the P623S is for use in single-line automatic lubrication systems, while the P623M is for use in progressive automatic lubrication systems.

Working closely with customers to develop product solutions that meet specific needs, SKF developed the P623S and P623M for onshore and offshore wind energy applications. In addition, these pump units are suitable for use in construction, mining and renewable energy applications where lightning protection must be considered.

The P623S and P623M pumps feature a power supply board that transfers 230 V to 24 V (control) with overvoltage protection to discharge 8 KV (electric grounding).

The pump units are available with a grease follower plate for rotating applications or a stirring paddle for stationary applications.

Advantages:

- Reduces operational risk compared to standard automatic lubrication
- Offers higher safety standards
- Brings lubrication system into compliance

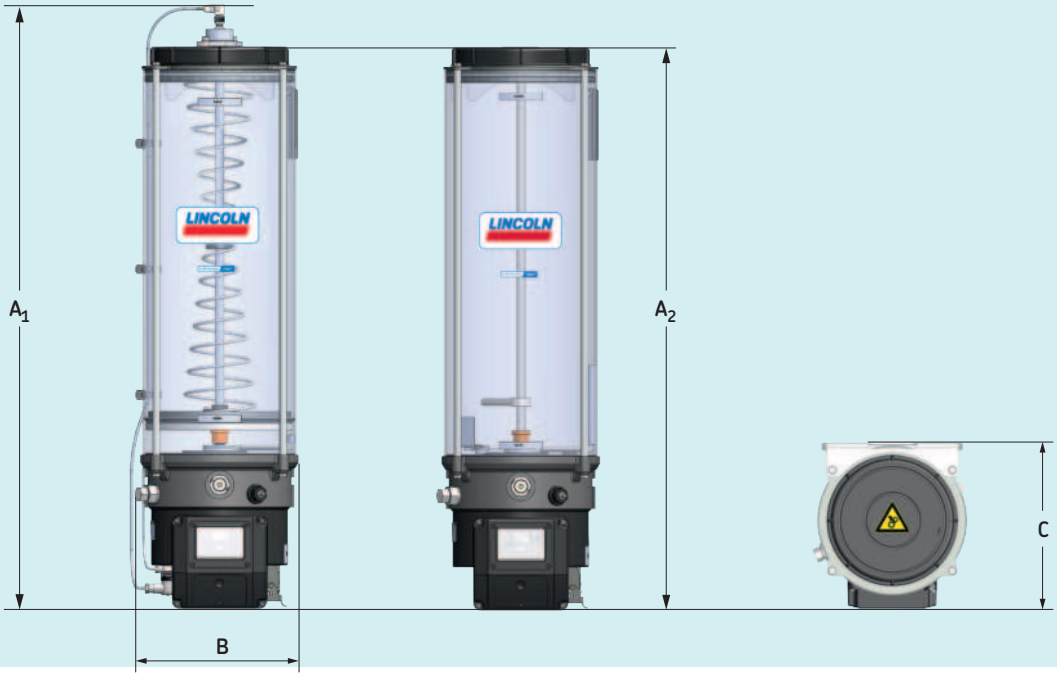
Technical data

Technical data

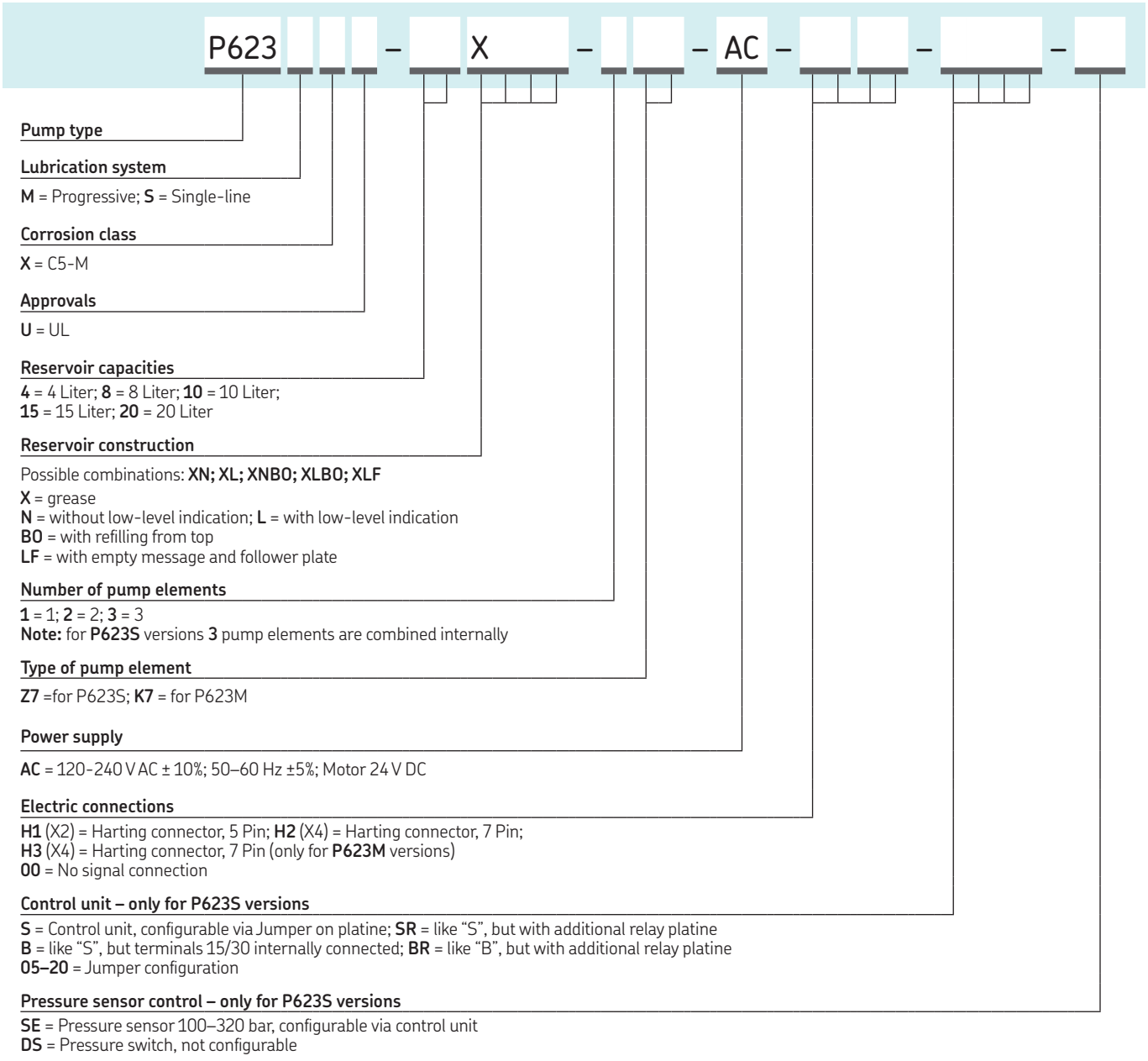
Function principle	Electrically operated piston pump	
Operating temperature	–25 to +55 °C	*–13 to +131 °F*
Operating pressure	max. 320 bar	*4 640 psi*
Delivery volume per pump element	0,22 cm³/stroke	*0,0134 in³/stroke*
Lubricants	Greases up to NLGI grade 2	
Capacity of the reservoir	4; 8; 10; 15; 20 l	*1,06; 2,11; 2,64; 3,96; 5,28 gal.*
Weight (empty pump)	8; 10; 12; 14; 19 kg	*17,64; 22,05; 26,45; 30,86; 41,89 lb.*
Filling		
models with follower plate	Filling nipple or filling connection (option)	
models with stirring paddel	Reservoir cover plate, filling nipple or filling connection (option)	
Number of pump elements	**P623M**: max. 3 **P623S**: 3 pump elements are combined internally	
Number of outlets	**P623M**: max. 3 **P623S**: 1	
Outlet connection	G 1/4	
Installation position	Vertical, i.e. lubricant reservoir at top Versions with follower plate: rotating	
Protection class acc. DIN EN 60529:2014 (Harting)	IP 67	
LPZ0 (Lightning Protection Zone) according generic standard EN61000-6-2	8 kV	
Electromagnetic compatibility (EMC)	2014/30/EU	

Installation space and dimensions

	Dimensions in mm Reservoir capacity in Liter					**Dimensions in inch** *Reservoir capacity in gallons*				
	4	8	10	15	20	*1,06*	*2,11*	*2,64*	*3,96*	*5,28*
A_1	498	598	658	841	976	*19,6*	*23,54*	*25,9*	*33,11*	*38,42*
A_2	439	539	599	782	917	*17,28*	*21,22*	*23,58*	*30,78*	*36,1*
B			220					*8,66*		
C			278					*10,94*		



How to configure



Pump type

Lubrication system

M = Progressive; **S** = Single-line

Corrosion class

X = C5-M

Approvals

U = UL

Reservoir capacities

4 = 4 Liter; **8** = 8 Liter; **10** = 10 Liter;
15 = 15 Liter; **20** = 20 Liter

Reservoir construction

Possible combinations: **XN; XL; XNBO; XLBO; XLF**

X = grease
N = without low-level indication; **L** = with low-level indication
BO = with refilling from top
LF = with empty message and follower plate

Number of pump elements

1 = 1; **2** = 2; **3** = 3
Note: for **P623S** versions **3** pump elements are combined internally

Type of pump element

Z7 =for P623S; **K7** = for P623M

Power supply

AC = 120-240 V AC ± 10%; 50–60 Hz ±5%; Motor 24 V DC

Electric connections

H1 (X2) = Harting connector, 5 Pin; **H2** (X4) = Harting connector, 7 Pin;
H3 (X4) = Harting connector, 7 Pin (only for **P623M** versions)
00 = No signal connection

Control unit – only for P623S versions

S = Control unit, configurable via Jumper on platine; **SR** = like "S", but with additional relay platine
B = like "S", but terminals 15/30 internally connected; **BR** = like "B", but with additional relay platine
05–20 = Jumper configuration

Pressure sensor control – only for P623S versions

SE = Pressure sensor 100–320 bar, configurable via control unit
DS = Pressure switch, not configurable

Configuration example

Type code	Description
P623M-20XLBO-3K7-AC-H1.H3	Pump for progressive lubrication systems, with 20 Liter reservoir for grease, with refilling from top; with 3 pump elements type K7; with AC power supply; Harting connection H1(X2) and H3 (X4); no control unit; no pressure control
P623S-15XLF-3Z7-AC-H1.H3-BR10-SE	Pump for single-line lubrication systems, with 15 Liter reservoir for grease, with follower plate and empty message 3 pump elements type Z7 are combined internally with AC power supply; Harting connection H1(X2) and H3 (X4); with control unit; with pressure sensor

Further configurations on request

skf.com | skf.com/P623 | lincolnindustrial.com

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