

Pump unit

P 203



Description

The P 203 lubrication pump is versatile, compact and economical and can supply up to 150 lubrication points, depending on the line length. It consists of a housing with integrated motor, reservoir with stirring paddle, pump element (optionally incl. pressure-relief valve), filling nipple and electrical connection parts. This powerful pump can drive up to three pump elements and can be equipped with a low-level control (with or without control board). For applications demanding high quantities of lubricant, a new series of 30–60 l reservoirs is available on request.

Features and benefits

- Optional control printed circuit boards with different operating settings
- Range of reservoir types offered
- For DC or AC applications
- Variety of pumping elements for different output available

Applications

- Small- and medium-sized machinery
- Combines, balers, forage harvesters
- Rotating applications (wind turbines)
- Mobile applications
- General industries
- Wheel loaders
- Excavators



Technical data

Function principle	electrically operated piston pump
Operating temperature	
V DC:	–40 to +70 °C; –40 to +158 °F
V AC:	–25 to +70 °C; –13 to +158 °F
Operating pressure	350 bar; 5 075 psi
Lubricant	grease: up to NLGI 2 oil: viscosity 40–1 500 mm ² /s
Outlets	up to 3
Metering quantity ¹⁾	depending on pump element: 0,6–4,4 cm ³ /min per outlet 0,036–0,268 in ³ /min per outlet
Reservoirs	2–60 l (4, 8, 11, 15, 30, 40, 50, 60 l) 1/2–15 gal
Connection main line	G 1/4
Operating voltage	12/24 V DC, 110–260 V AC; 50/60 Hz
Dimensions	min. 211 × 224 × 287 mm max. 211 × 250 × 774 mm min. 8.31 × 8.82 × 11.29 in max. 8.31 × 9.84 × 30.47 in
Integrated control board options	
V10–13, V20–23	for setting pause and lubrication times
M08–23, MS8	for setting pause and monitoring times
H	for trailers, application controlled lubrication intervals
Protection class	IP6K9K
Mounting position	upright, with follower plate any

¹⁾ The values for metering quantity applies for pump speeds of 20 min⁻¹.



NOTE

Further technical information, technical drawings, accessories, spare parts or product function descriptions are available on SKF.com/lubrication:

12401 EN



3D

skf-lubrication.partcommunity.com/3d-cad-models

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Order information

Order number ¹⁾	Designation	Reser- voir size		Lubri- cant	Fill level warning		Pre- filled rate ²⁾	Delivery rate ³⁾		Refilling	Voltage	Control board ⁴⁾
		l	gal		min	max		cm ³ /min	in ³ /min			
P203 for mobile applications												
644-41256-3	P203_E-2XL-600-12-00RG0000-V10A	2	0.53	grease	•	-	•	3,2	0.195	-	•	V10
644-41171-2	P203_E-2XLBO-600-12-A100F200-V10A	2	0.53	grease	•	-	•	2x3,2	2x0.195	•	-	V10
644-40810-4	P203_E-4XLBO-600-12-A100F200-V10A	4	1.05	grease	•	-	•	3,2	0.195	•	-	V10
644-41230-9	P203_E-8XLBO-600-12-A100F200-V10A	8	2.11	grease	•	-	•	3,2	0.195	•	-	V10
644-40985-2	P203_E-2XL-600-24-00RG0000-V10A	2	0.53	grease	•	-	•	3,2	0.195	-	•	V10
644-40641-4	P203_E-2XLBO-600-24-A100F200-V10A	2	0.53	grease	•	-	•	3,2	0.195	•	-	V10
6440-00000078	P203_E-4XL-600-24-00RG0000-V10A	4	1.05	grease	•	-	•	3,2	0.195	-	•	V10
644-40586-5	P203_E-4XLBO-600-24-A100F200-V10A	4	1.05	grease	•	-	•	3,2	0.195	•	-	V10
6440-00000079	P203_E-8XL-600-24-00RG0000-V10A	8	2.11	grease	•	-	•	3,2	0.195	-	•	V10
644-40691-3	P203_E-8XLBO-600-24-A100F200-V10A	8	2.11	grease	•	-	•	3,2	0.195	•	-	V10
644-41046-6	P203_E-15XLBO-600-24-A100F200-V10A	15	3.96	grease	•	-	•	3,2	0.195	•	-	V10
644-37478-1	P203_E-2XL-600-24-1A00GB00-___A	2	0.53	grease	•	-	•	3,2	0.195	-	•	-
644-40608-7	P203_E-2XLBO-600-24-1A00GB00-___A	2	0.53	grease	•	-	•	3,2	0.195	•	-	-
644-41058-5	P203_E-4XL-600-24-1A00GB00-___A	4	1.05	grease	•	-	•	3,2	0.195	-	•	-
644-37515-1	P203_E-4XLBO-600-24-1A00GB00-___A	4	1.05	grease	•	-	•	3,2	0.195	-	•	-
644-37491-1	P203_E-8XLBO-600-24-1A00GB00-___A	8	2.11	grease	•	-	•	3,2	0.195	•	-	-
644-41045-1	P203_E-15XLBO-700-24-1A00GB00-___A	15	3.96	grease	•	-	•	4,4	0.268	•	-	-
P203 for rotating applications (reservoir incl. grease follower plate)												
644-40975-7	P203_E-4XBF-600-24-A1000000-V10Z	4	1.05	grease	•	•	-	3,2	0.195	-	•	V10
644-41068-9	P203_E-8XBF-600-24-A1000000-V10A	8	2.11	grease	•	•	•	3,2	0.195	-	•	V10
644-41046-5	P203_E-15XBF-700-24-A1000000-V10A	15	3.96	grease	•	•	•	4,4	0.268	-	•	V10
644-46345-3	P203_E-4XBF-600-24-11000000-___A	4	1.05	grease	•	•	•	3,2	0.195	-	•	-
644-41082-1	P203_E-8XBF-600-24-11000000-___A	8	2.11	grease	•	•	•	3,2	0.195	-	•	-
644-41328-3	P203_E-15XBF-600-24-11000000-___Z	15	3.96	grease	•	•	-	3,2	0.195	-	•	-
644-36495-6	P203_-4XBF-600-AC-D1000000-V10Z	4	1.05	grease	•	•	-	3,2	0.195	-	•	110-260 V10
644-41215-6	P203_-8XBF-600-AC-D1000000-V10Z	8	2.11	grease	•	•	-	3,2	0.195	-	•	110-260 V10
644-41051-4	P203_-15XBF-606-AC-D1000000-V10Z	15	3.96	grease	•	•	-	2x3,2	2x0.195	-	•	110-260 V10
6440-00000055	P203_U-4XBF-700-AC-D1000000-___A	4	1.05	grease	•	•	•	4,4	0.268	-	•	110-260 -
644-41376-2	P203_-8XBF-600-AC-D1000000-___A	8	2.11	grease	•	•	•	3,2	0.195	-	•	110-260 -
644-41050-6	P203_-15XBF-700-AC-D1000000-___Z	15	3.96	grease	•	•	-	4,4	0.268	-	•	110-260 -
P203 for industrial applications												
644-40845-1	P203_-2XL-600-AC-D100G200-V10A	2	0.53	grease	•	-	•	3,2	0.195	-	•	110-260 V10
644-40716-9	P203_-2XLBO-600-AC-D100G200-V10A	2	0.53	grease	•	-	•	3,2	0.195	•	-	110-260 V10
644-41333-6	P203_-4XL-600-AC-D100G200-V10A	4	1.05	grease	•	-	•	3,2	0.195	-	•	110-260 V10
644-40799-1	P203_-4XLBO-600-AC-D100G200-V10A	4	1.05	grease	•	-	•	3,2	0.195	•	-	110-260 V10
644-40977-5	P203_-8XL-700-AC-D100G200-V10A	8	2.11	grease	•	-	•	4,4	0.268	-	•	110-260 V10
644-40762-2	P203_-8XLBO-600-AC-D100G200-V10A	8	2.11	grease	•	-	•	3,2	0.195	•	-	110-260 V10
644-41381-2	P203_-15XLBO-600-AC-D100G200-V10A	15	3.96	grease	•	-	•	3,2	0.195	•	-	110-260 V10
644-40849-3	P203_-2XL-600-AC-D100G200-___A	2	0.53	grease	•	-	•	3,2	0.195	-	•	110-260 -
644-40782-3	P203_-2XLBO-700-AC-D100G200-___A	2	0.53	grease	•	-	•	4,4	0.268	•	-	110-260 -
644-41194-5	P203_-4XL-600-AC-D100G200-___A	4	1.05	grease	•	-	•	3,2	0.195	-	•	110-260 -
644-40718-5	P203_-4XLBO-700-AC-D100G200-___A	4	1.05	grease	•	-	•	4,4	0.268	•	-	110-260 -
644-41164-8	P203_-8XL-600-AC-D100G200-___A	8	2.11	grease	•	-	•	3,2	0.195	-	•	110-260 -
644-40721-6	P203_-8XLBO-700-AC-D100G200-___A	8	2.11	grease	•	-	•	4,4	0.268	•	-	110-260 -
644-41050-1	P203_-15XLBO-700-AC-D100G200-___A	15	3.96	grease	•	-	•	4,4	0.268	•	-	110-260 -

¹⁾ Selection based on typical and available P203 designs. Further customized versions are available on request.

²⁾ Pumps are filled with following standard SKF Lincoln NLGI 2 grease quantities: 2L reservoir approx. 0,75kg / ≥ 4L reservoirs approx. 1,5kg grease

³⁾ The stated nominal outputs per minute and pump element refer to NLGI 2 lubrication greases at an ambient temperature of +20 °C [68 °F] and a backpressure of 100 bar [1450 psi] at the outlet of the pump element. Deviating operating conditions or deviating pump configuration result in a changed motor speed of 20 rpm and thus in a change of the output per time unit.

⁴⁾ Integrated control board V10 factory setting: pause time 6h / lubrication time 6min. For further information, please see P203 manuals on SKF.com

Accessories

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Pump elements¹⁾

Order number	Description	Material	Piston		Nominal output ⁶⁾	
			Ø mm		cm ³ /min	in ³ /min
600-78018-1	pump element L5 ²⁾	steel, gasnitro-carburized	5		0,6	0.036
600-26875-2	pump element K5	steel, gasnitro-carburized	5		2,0	0.122
600-26876-2	pump element K6	steel, gasnitro-carburized	6		3,2	0.195
600-26877-2	pump element K7	steel, gasnitro-carburized	7		4,4	0.268
655-28716-1	pump element KR	steel, gasnitro-carburized	7		0,8-3,6	0.0468-0.219
600-28750-1 ³⁾	pump element C7	steel, gasnitro-carburized	7		4,4	0.268
600-29303-1	pump element K5 DN	steel, nickel-plated ⁵⁾	5		2,0	0.122
600-29304-1	pump element K6 DN	steel, nickel-plated ⁵⁾	6		3,2	0.195
600-29305-1	pump element K7 DN	steel, nickel-plated ⁵⁾	7		4,4	0.268
600-29185-1 ⁴⁾	pump element B7 DN	steel, nickel-plated ⁵⁾	7		2,0	0.122

1) Male thread M 22 × 1,5; female thread G 1/4

2) L5 only permitted for application of NLGI 00 lubrication grease

3) Pump element for supplying of chisel paste

4) With bypass check valve

5) For application in beverage industry

6) The stated nominal outputs per minute and pump element refer to NLGI 2 lubrication greases at an ambient temperature of + 20 °C [68 °F] and a pressure of 100 bar [1450 psi] at the outlet of the pump element. Deviating operating conditions or deviating pump configuration result in a changed motor speed of 20 rpm and thus in a change of the output per time unit.

Return-line connector with filler fitting, screw type

Order number	Description	Filling nipple	Thread	Tube		Reservoir
				Ø mm		
504-30698-1	return-line connector	straight	R1/4	6		2 l
504-36071-5	return-line connector	straight, with adapter	R1/4	6		2 l flat-type, 4 and 8 l
504-36071-6	return-line connector-line	90°	R1/4	6		2 l flat-type, 4 and 8 l
304-16543-1	adapter		M 22 × 1,5 × G 1/4			

Reservoir conversion sets

Order number	Designation
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Conversion set from 2 to 4 l reservoir:

544-32787-1	2XN to 4XN
544-32022-1	2XN to 4XNBO

Conversion set from 2 to 8 l reservoir:

544-32788-1	2XN to 8XN
544-32023-1	2XN to 8XNBO

Quick filling connector

Order number	Description	Connection	Filter
544-36961-1	filler fitting with protective cap	G 1/4	-
504-32125-1	coupling plug with protective cap	G 1/4	-
233-10765-3	protective cap; for replacement	G 1/4	-
540-36753-5	filler fitting assembly	M22 × 1,5	•
540-31800-1	filler fitting	M22 × 1,5	•
504-36071-7	filler fitting	M22 × 1,5	-

Fuse holder with fuse

Order number	Description	Current load
237-13321-8	fuse holder	5 A
237-13426-1	fuse holder	8 A

Bracket for fixing pump and main metering device

Order number	Description
307-19644-1	bracket P203

Accessories

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Pressure relief valves

Order number	Designation	Description	Relief pressure		Connection pressure line
			bar	psi	
624-28891-1	VALVE SVTS -200-R1/4-D 6	pressure relief valve (PRV)	200	2900	screw type fitting D6
624-28859-1	VALVE SVTSV-270-R1/4-1/8NPTF+NIP00R	PRV with emergency lubrication fitting, right-hand	270	3915	thread 1/8 NPT female
270864	VALVE SVTSV-270-R1/4-1/8NPTF+NIP00R	PRV with emergency lubrication fitting, right-hand	270	3915	thread 1/8 NPT female
624-28894-1	VALVE SVTS -350-R1/4-D 6	pressure relief valve (PRV)	350	5075	screw type fitting D6
624-28896-1	VALVE SVTS -350-R1/4-D 6+NIP00L	PRV with emergency lubrication fitting, left-hand	350	5075	screw type fitting D6
624-28897-1	VALVE SVTS -350-R1/4D 6+NIP00R	PRV with emergency lubrication fitting, right-hand	350	5075	screw type fitting D6
624-29426-1	VALVE SVKSV-350-1/4-D6 +MANO 0-400BAR	PRV kit with pressure gauge 0-400bar	350	5075	screw type fitting D6
624-28895-1	VALVE SVTS -350-R1/4-D 8	pressure relief valve (PRV)	350	5075	screw type fitting D8
624-28861-1	VALVE SVTSV-200-R1/4- 6	pressure relief valve (PRV)	200	2900	push-in type fitting D6
624-29087-1	VALVE SVTSV-200-R1/4 -6+RETURN FITT.ASS	PRV kit with grease return to the reservoir	200	2900	push-in type fitting D6
624-77971-1	VALVE SVTSV-270-R1/4 -6+RETURN FITT.ASS	PRV kit with grease return to the reservoir	270	3915	push-in type fitting D6
624-28860-1	VALVE SVTSV-350-R1/4- 6	pressure relief valve (PRV)	350	5075	push-in type fitting D6
624-28858-1	VALVE SVTSV-350-R1/4- 6+NIP00R	PRV with emergency lubrication fitting, right-hand	350	5075	push-in type fitting D6
624-28867-1	VALVE SVTSV-350-R1/4- 6+NIP00L	PRV with emergency lubrication fitting, left-hand	350	5075	push-in type fitting D6
624-28931-1	VALVE SVTSV-350-R1/4 -6+RETURN FITT.ASS	PRV kit with grease return to the reservoir	350	5075	push-in type fitting D6
624-77911-1	VALVE SVTSV-350-R1/4 -6+RET.FITT.ASS VA	PRV kit with grease return to the reservoir VA	350	5075	push-in type fitting D6
226-14105-5	NIPPLE S2520-1/4-1/4-S01	PRV adapter for connection of 2L flat-type or 4 and 8l reservoir			screw type fitting D6
524-32231-1	REDESIGN-KIT:GREASE RET.FITT.SVTSV+SVTE	PRV redesign kit with grease return to the reservoir			push-in type fitting D6

Valve insert for pressure relief valves as replacement

Order number	Description	Relief pressure	
		bar	psi
235-14343-3	valve insert	350	5 075
235-14343-2	valve insert	270	3 915
235-14343-7	valve insert	250	3 625
235-14343-1	valve insert	200	2 900
235-14343-5	valve insert	120	1 740
235-14343-4	valve insert	80	1 160

Push-button illuminated

Order number	Description	Voltage	Light
664-85388-8	round	12/24 VDC	green
664-85388-9	round	12/24 VDC	red
664-85421-9	round	12/24 VDC	yellow
236-10280-6	rectangular	24 VDC	green

Connection socket and cable ¹⁾

Order number	Description	Cable		Protection class
		m	ft	
544-32850-1	connection socket with gasket and screw, black	–	–	IP65
544-33843-1	connection socket with gasket and screw, grey	–	–	IP65
664-36862-8	connection cable with connection socket, black	6	20	IP67
664-36078-7	connection cable with connection socket, black	10	30	IP67
664-36078-9	connection cable with connection socket, grey	10	30	IP67
664-36862-2	connection cable ADR with connection socket, grey	10	30	IP65
664-36862-1	connection cable ADR with connection socket, black	10	30	IP65
664-34167-2	connection cable with bayonet socket (7/5 pole)	10	30	IP 6K9K
664-34428-3	connection cable with bayonet socket (7/7 pole)	10	30	IP 6K9K
664-34167-6	connection cable with bayonet socket (4/3 pole)	10	30	IP 6K9K
664-34167-9	connection cable with bayonet socket (4/4 pole)	10	30	IP 6K9K

¹⁾ The type of connection sockets and cable depend on the equipment of the pump. Please refer to the assembly instruction of the respective pump.