

# Simba E7-series

Hydraulic long-hole production drill rig for medium to large size drifts,  
with excellent coverage area and hole range from 51 to 178 mm



# Precise and flexible production drilling

The drill rigs in the Simba E7-series are suited for production drilling in medium to large sized drifts, in the 51 to 178 mm range. Equipped with a boom-mounted drilling unit, these machines are versatile and adaptable to any challenge, for example drilling parallel holes upwards and downwards with up to 6.9 m spacing.

## + Main benefits

**Adaptable to all types of drilling** thanks to the boom mounted drilling unit and a boom that can handle large variety of drilling tools, including our most powerful rock drills

**Highly customizable** to suit your requirements in terms of performance, hole quality and drill steel economy

**Increased productivity** with tele-remote control capability and the Rig Control System (RCS) that features single/multi hole automated functions

Reverse camera gives the operator enhanced visibility when transporting the drill rig

ROPS and FOPS certified cabin for a safe and comfortable environment

Lower emission and cleaner environment with electric/hydraulic tramping

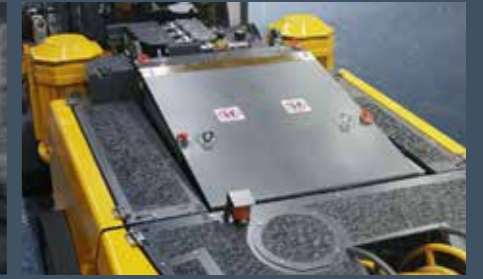
## + Battery driveline benefits



The 150 kW electric drive train of the Simba E7 Battery emits 80% less heat during tramming than its diesel-driven counterpart's 120 kW diesel engine.



The complete drive train and battery are based on commercial, well-tested components that enable high performance and efficiency.



Automatic battery management and the industry's safest battery solution make it ideal for optimal production in demanding underground work environments.



Four mounted stingers for a rock solid set up for drilling

Automated bit changer as option on top hammer drill rigs provides greater utilization of the single/multi hole automation and increased operator safety

BUT 45 heavy-duty boom for direct, fast and accurate positioning between holes

# Fast and precise rock drilling for increased productivity

The Simba E7-series is flexible, high-performance production drill rigs, with fast positioning and a high level of hole accuracy. The impressive level of intelligence simplifies the operator's work, which contributes to increased productivity.



## + Safety

The Simba E7-series has a strong focus on safety. The operator sits in a ROPS and FOPS certified cab with excellent visibility and comfort. Optional tele-remote control improves safety even further by removing the operator from the machine and potentially hazardous areas. Barrier sensors protect the operator and maintenance staff from rotation parts during automatic drilling.



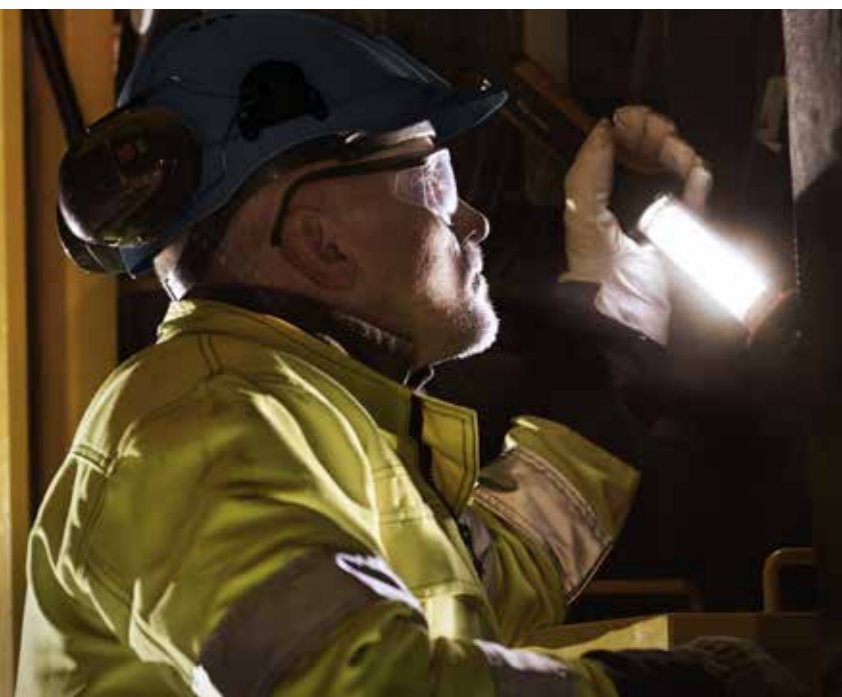
## + Automation

Higher equipment availability and enhanced overall productivity are benefits that come with the smart automation functions on the Simba. Operational efficiency is increased by allowing drilling through shift changes and breaks. The rig can be operated by remote control to increase productivity and operator safety and comfort.



## + Epiroc Rig Control System

We introduced the first version of our computerized drill rig control system in 1998 which took the market by storm. Throughout the years, the Rig Control System (RCS) has been refined and developed further to include increasingly sophisticated functions thanks to an ongoing dialogue with clients. More than 3 000 RCS-equipped rigs are currently in operation worldwide. At Epiroc, we continue to drive innovative development in the mining and tunneling industry.



## A comprehensive service offering

Even the best equipment needs to be serviced regularly to make sure it sustains peak performance. An Epiroc service solution offers peace of mind, maximizing availability and performance throughout the lifetime of your equipment. We focus on safety, productivity and reliability.

By combining genuine parts and an Epiroc service from our certified technicians, we safeguard your productivity – wherever you are.

## Technical specifications

● - Standard ○ - Option  
A - Simba ME7 B - Simba E7 C - Simba E7 ITH D - Simba with battery driveline

Drilling system	A	B	C	D	Hydraulic system	A	B	C	D
COP 1838*	○			○	Low oil level indicator and shut-down	●	●	●	●
COP 1838MUX*, COP 1838HUX*	○			○	Smart oil leakage shut-down system	●	●	●	●
COP 2550UX*	○			○	Oil temperature gauge on oil tank, electronically supervised	●	●	●	●
COP 3060MUX		○		○	Hydraulic oil thermostat	●	●	●	●
COP 44 to COP 64			○	○	Water/oil cooler in stainless steel	●	●	●	●
COP 35				○	Filtration 16 µm	●	●	●	●
Dry drilling system	○	○		○	Oil filter indicator	●	●	●	●
Collar Pipe Inserter (CPI)	○	○		○	Mineral hydraulic oil	●	●	●	●
Bit changer, only with MUX/HUX/UX	○	○		○	Electrical oil filling pump	●	●	●	●
Water mist flushing, external water and air supply (hydraulic oil cooled by water cooler)	○	○	●	○	Heater kit for hydraulic oil tank, diesel engine and electric motors	○	○	○	○
Water mist flushing, external water and air supply (hydraulic oil cooled by air fan)	○	○		○	Biodegradable hydraulic oil	○	○	○	○
Hole blowing kit	○	○		○	Ni-Cr plated piston rods (limitations exist)	●	●	●	●
Rock drill lubrication warning kit	●	●		●	<b>Control system</b>				
Thread lubrication kit	○	○	○	○	Kidney filter	●	●	●	●
<b>Boom/drilling unit</b>					Epiroc Rig Control System (RCS)	●	●	●	●
BUT 45 PDS		●	●	●	Advanced Boom Control (ABC) Regular	○	○	○	○
BUT 45 PDL	●				Advanced Boom Control (ABC) Total	○	○	○	○
Rod Handling System, RHS 17 (17*1 rods) mechanized drilling up to 30 m	●				Breakthrough automatic stop	○	○	○	○
Rod Handling System, RHS 27 (27*1 rods) mechanized drilling up to 51 m	○	●	●	●	Underground manager pro	○	○	○	○
Rod Handling System, RHS 35 (35*1 rods) mechanized drilling up to 63 m			○		Drill plan handling	○	○	○	○
Adaptable to 4', 5' and 6' rods	●	●		●	Drill plan handling with raise view	○	○	○	○
Adaptable to TDS 64, TDS 76 drill rods	○			○	Full drilling data handling	○	○	○	○
Adaptable to TDS 76, TDS 89		○	○	○	Measure While Drilling (MWD)	○	○	○	○
2 rear and 2 front stinger	●	●	●	●	Void detection	○	○	○	○
Automatic lubrication for positioning unit	○	○	○	○	Boom alignment laser	○	○	○	○
Central lubrication for drilling and positioning unit	●	●	●	●	Automatic parallel holding	○	○	○	○
<b>Electrical system</b>					Remote cradle control/remote feed control	○	○	○	○
Total installed drilling power 118 kW (main motors 2x55 kW)*	●	●		●	Rig Remote Access (RRA)	○	○	○	○
Total installed drilling power 63 kW (main motor 1x55 kW)			●	○	Mobile tele-remote/multi tele-remote	○	○	○	○
Total installed drilling power 158 kW (main motor 1x95 kW, equipped with booster compressor)			○	○	Remote operating kit	○	○	○	○
Total installed drilling power 158 kW (main motors 2x75 kW)**	○	○	○	○	Additional panel	○	○	○	○
24 V batteries 2x125 Ah	●	●	●	●	Remote controlled camera on tripod with monitor in cabin	○	○	○	○
Electric system 24 V	●	●	●	●	Total station navigation	○	○	○	○
700 V Battery 280 Ah				●	Certiq professional	○	○	○	○
Voltage 400-1 000 V 50/60 Hz	●	●	●	●	<b>Feed</b>				
Starting method star/delta (400-690 V)	●	●	●	●	BMH 200-series 3 143 mm, 3 448 mm, 3 753 mm	○	○		○
Soft start of main electrical motors (not for 1 000 V)	○	○	○	○	BMH 200-series (extractor) 3 348 mm, 3 653 mm, 3 958 mm*	○	○		○
Electronic overload protection for electric motors	●	●	●	●	BMH 200-series 3316 mm, 3621 mm, 3926 mm**			○	
Digital voltmeter/ampere meter in electric cabinet	○	○	○	○	* +55 mm for COP 2550 UX ** +138 mm for hammer guide				
Electric outlet for accessories, 16 A (CE)/32 A (CE)	○	○	○	○	<b>Air system</b>				
Extra transformer 8 kVA	●	●	●	●	Compressor: Epiroc GAR 5	●	●		●
Extra transformer 15 kVA	○	○	○	○	Compressor: Epiroc GAR 30	○	○		○
Transformer for charging 100 kW				●	Double GAR 30 compressor +air receiver	○			○
PC4 or PC5 plug/socket	○	○	○	○	On-board booster compressor, 25 bar/380 L/s			○	
Phase sequence and earth fault indicator	●	●	●	●	External air supply connection for hole blowing	●	●		●
Battery charger	●	●	●	●	HECL lubrication system with electric filling pump			●	
Dual controls for cable reel	●	●	●	●	<b>Water system</b>				
Limit switch for cable reel with signal lamp and brake connection	●	●	●	●	Minimum water inlet pressure 2 bar	●	●	●	●
Stainless steel electrical enclosure	○	○	○	○	Hydraulic water booster pump. Capacity at 15 bar 250 L/min	●	●		●
Tramming lights 8x22 LED, 2x70 W, 24 V DC	●	●	●	●	Water injection pump. Capacity 50 L/min	○		●	
Working lights 4x150 LED, 24 V DC	●	●	●	●	Water hose reel including hose*	○	○	○	○
Illuminated stairs for platform LED	●	●	●	●	* Not applicable when booster compressor is installed on ITH drill rigs				

\* Depending on selected rock drill.  
\*\* Only with COP 4050, or double GAR 30 compressors or when DCT installed.

# Technical specifications

● - Standard ○ - Option  
**A** - Simba ME7 **B** - Simba E7 **C** - Simba E7 ITH **D** - Simba with battery driveline

Carrier	A	B	C	D
Deutz TCD 2013 L04 1 V Stage III A Tier 3 (120 kW)	○	○	○	
Deutz TCD 4.1 L04 Stage III B Tier 4 i (115 kW)	○	○	○	
Deutz TCD 2012 L06 1 V Stage III A Tier 3 (155 kW)	○	○	○	
Deutz TCD 6.1 L06 Stage III B Tier 4 i (180 kW)**	○	○	○	
Traction motor 150 kW				●
Front axle DANA Spicer 123/90	○	○	○	○
Rear axle DANA Spicer 114/90 +-8 degree oscillation	○	○	○	○
Articulated steering ±38° steering angle		●	●	●
Articulated steering ±41° steering angle	●			
Four-wheel drive	●	●	●	●
Hose/cable guiding at water/cable reel	○	○	○	○
Automatic differential lock on front axle, limited slip	●	●	●	●
Tires 14.00xR24		●	●	●
Tires 12xR24	●			
Rig alignment laser	●	●	●	●
Front and rear hydraulic jacks	●	●	●	●
Fuel tank, volume 110 l	●	●	●	
Central grease point	●	●	●	●
Fire suppression system ANSUL (manual or automatic)	○	○	○	○
Fire suppression system FORREX (manual or automatic)	○	○	○	○
Hot climate tramming kit	○	○	○	○
E-tramming (electrical/hydraulic tramming)	○	○	○	○
Rig washing kit*	○	○	○	○
Manual lubrication kit	○	○	○	○
Boot washing kit*	○	○	○	○

\*Not applicable when equipped with dry drilling system  
 \*\*Maximum ambient temperature 25°

Cabin (optional)	A	B	C	D
ROPS and FOPS certified cabin, noise level <80 dB(A)	●	●	●	●
Mounting height -140 mm from standard height	○	○	○	○
Cabin lift/tilt system, 375 mm/15°	○	○	○	○
Swingable seat for drilling and tramming	○	○	○	○
Front window 22 mm (P8 B safety classified)	○	○	○	○
Reversing camera with monitor	○	○	○	○
12 V outlet	●	●	●	●
Joystick-controlled spotlights left and/or right, 70 W	○	○	○	○
FOPS-approved grizzly bar for front window	○	○	○	○
Low-designed cabin for seated operator, cabin height 2 735 mm	○			○
Low-designed cabin for seated operator, cabin height 2 823 mm		○	○	○
Mediaplayer	○	○	○	○
Air condition	●	●	●	●
Heating function for air conditioning (water transferred)	○	○	○	○
Electrical heater, 1.2 kW, 230 V (CE)	○	○	○	○
Electrical heater, 10 kW, 700 V DC (CE)				○
Cabin body made of stainless steel	○	○	○	○

Protective roof	A	B	C	D
Swingable seat for drilling and tramming	○	○	○	○
Stainless steel	○	○	○	○
FOPS certified	●	●	●	●
Joystick-controlled spotlights left and/or right, 70 W	○	○	○	○

Drifter rods/pipes	Rock drill	Rod/pipe	Guide tubes	Hole diameter (mm)
COP 1838+	R32 Speedrod	TDS 45	51-64	
COP 1838+MUX	T38 Speedrod	TDS 54/TDS 64	64-76	
	T45 Speedrod	TDS 64/TDS 76	76-89	
COP 1838+HUX	TDS 45	N/A	48-76	
	TDS 54	N/A	64-89	
	TDS 64	N/A	70-89	
	T51	TDS 76	89-115	
COP 2550UX	TDS 64	N/A	76-115	
	TDS 76	N/A	89-102	
	TDS 76	N/A	89-115 (ST58 shank adapter)	
COP 3060	TDS 76	N/A	89-102	
	TDS 87	N/A	102-115	
COP 35	TAC 76/89	N/A	88-105	
COP 44	TAC 76/89	N/A	110-125	
COP 54	TAC 89 (TDS102)	N/A	134-152	
COP 64	TAC 89 (TDS102)	N/A	156-178	

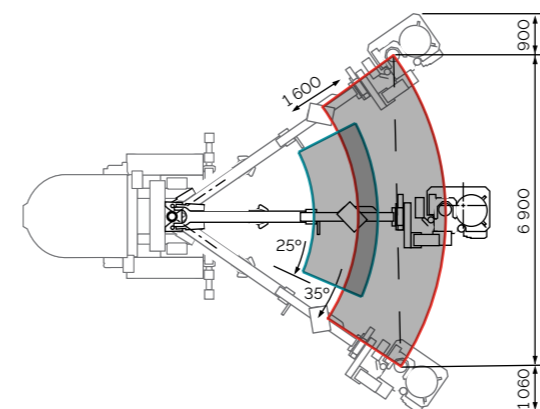
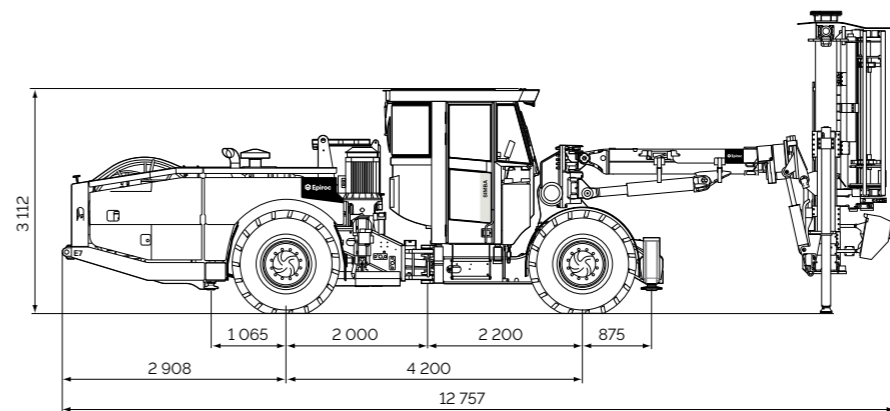
Recommended cable size and length	Voltage	Type	Dimension (mm²)	Diameter (mm)	Length (m)	Length ITH (m)
380-400 V	Buflex	3x185+3G35	56	80	65	
440-500 V	Buflex	3x150+3G25	52	120	70	
550 V	Buflex	3x120+3G25	46	120	95	
660-690 V	Buflex	3x95+3G16	45	150	125	
1 000 V	Buflex	3x50+3G10	33	200	200	

Recommendations are given for surrounding temperature of 40°C and up to a height of 2 000 m. Cable dimension for battery version depends on charging cycle.

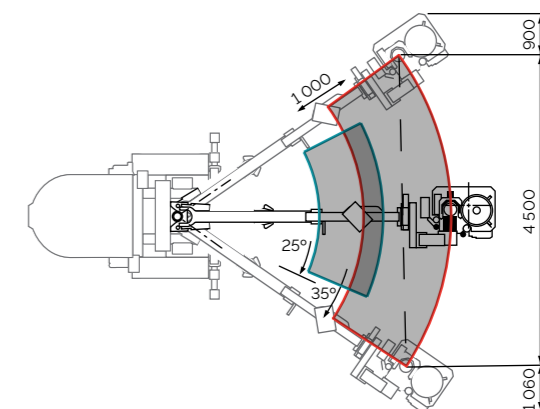
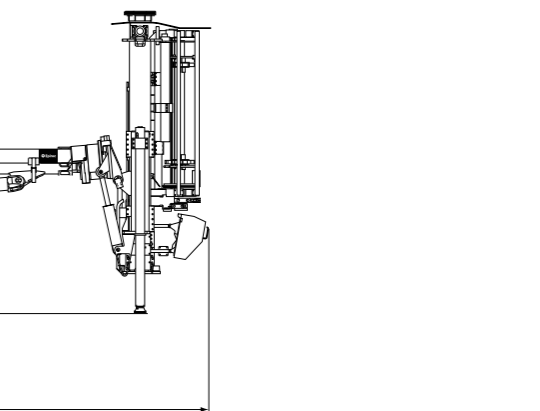
Noise and vibration	Operator sound pressure level in canopy, drilling, free field (ISO 11201)	Operator sound pressure level in cabin, drilling, free field (ISO 11201)	Operator sound pressure level working close to machine, drilling, free field	Sound power level (ISO 3744), drilling, free field	Peak C-weighted instantaneous sound pressure level (EN16228)	Vibration levels seated, drilling (ISO 2631-1) cabin	Vibration levels standing, drilling (ISO 2631-1) cabin	Vibration levels seated, drilling (ISO 2631-1) canopy	Vibration levels seated, drilling (ISO 2631-1) canopy
	106±6 dB(A) re 20 uPa	75±3 dB(A) re 20 uPa	106±6 dB(A) re 20 uPa	126 dB(A) re 1 pW	Less than 130 dB	0.07±0.07 m/s²	0.07±0.07 m/s²	0.1±0.15 m/s²	0.1±0.15 m/s²

Recommended drift size	Feed	Rod	Minimum HxW
BMH 214/234		1 220	3 600x3 600
BMH 215/235		1 525	3 900x3 900
BMH 216/236		1 830	4 200x4 200

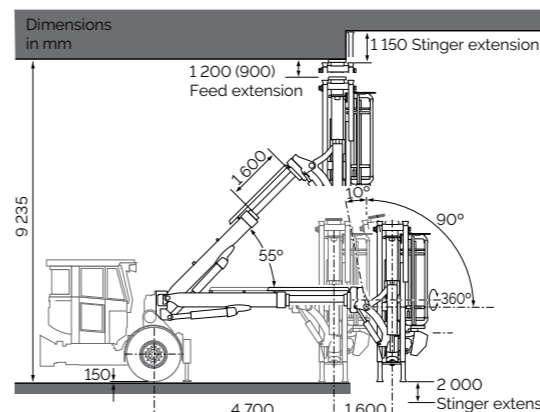
# Technical specifications



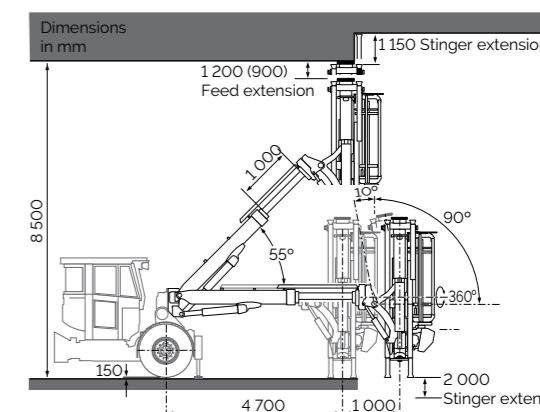
Simba ME7



Simba E7/Simba E7 ITH



Simba ME7



Simba E7/Simba E7 ITH

## Dimensions

Measurement	Simba ME7	Simba E7	Simba E7 ITH	Simba with battery driveline
Width	2 550 mm	2 550 mm	2 550 mm	2 550 mm
Length, tramming	12 700 mm	13 200 mm	13 700 mm	13 200 mm
Height with cabin	3 050 mm	3 100 mm	3 100 mm	3 100 mm
Height roof up/down	2 300/3 000 mm	2 350/3 050 mm	2 350/3 050 mm	2 350/3 050 mm
Ground clearance	265 mm	330 mm	330 mm	330 mm
Turning radius outer/inner	6 800/4 000 mm	7 200/4 300 mm	7 500/4 300 mm	7 200/4 300 mm

## Gross weight (depending on configuration)

Rig type	Total	Boom side	Engine side
Simba ME7	29 500 kg	20 000 kg	9 500 kg
Simba E7	31 500 kg	20 000 kg	11 500 kg
Simba E7-ITH	30 000 kg	19 000 kg	11 000 kg
Simba E7 Battery	31 500 kg	20 000 kg	11 500 kg

## Tramming speed

On flat ground (rolling resistance 0.05)*	>15 km/h
On incline 1:8	>5 km/h

\* Electric driveline >12 km/h

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