



# CAT® 320

## FEATURES:

The Cat 320 Z-line battery electric hydraulic excavator delivers maximum performance with zero emissions.

### ALL DAY COMFORT

Fully electric drivetrain, ensures low vibration and noise levels. Improving the operator experience beyond the already brilliant “Next generation” Cab. Preheat functionality ensures conditioned machine at startup in cold weather.

### EASY TO OPERATE

The only difference from an original Diesel fueled excavator, is an extra display informing the operator on the status of battery and drive train. Identical operation of the machine in all modes.

### CHARGE INTERFACE COMMONALITY

The Z-line excavators is utilizing the standardized CCS2 quick charging interface to ensure accessibility and versatility of charging equipment on site.\*\*

Z-line excavators can also be charged during night on a standard utility grid CEE connection with the charging cable supplied with the machine

### SAFETY

Your safety is our top priority. The Z-line excavators is designed to keep you safe on the job. Monitoring devices ensure safe operation in all conditions.

### LOWER OPERATING COSTS

Less moving parts, less fluids, less filters, lower energy consumption and longer service intervals boosts your TCO in the right direction.

### DEALER SUPPORT

Cat Z-line dealers offering the battery electric lineup is trained and certified to help you to reach your goals. From providing counseling in energy management on site to operator training, service needs, parts and beyond.

## SPECIFICATIONS

Electric drivetrain

Motor

Type	Permanent magnet	
Power	120kW/750Nm	
DCDC Converter (24V	4000W/150A	
HV Battery		
Chemistry	Lithium	
Capacity (installed)	300kWh	
On board charger	(standard)	40, 5 kW
	(optional)	60,5 kW
40,5 kW Charging time 5-95%	6hrs*	
60,5 kW Charging time 5-95%	4 hrs*	
CCS Charging max	150 kW	
Charging time 10-80%	<1,5 hrs**	

\* Estimated charging times are based on optimal temperature conditions

\*\* CCS2 Quick charger is not provided with excavator, and is a extra device that needs to be rented or purchased by supplier of these

### Runtime between charging.

Heavy excavation 5-6 hrs  
(Heavy soil, rock, bank mass. Moving mass from low level to high level. High boom utilization)

Fine grading, landscaping 6-8 hrs  
(Lighter excavation, loose mass. Medium to low boom utilization)

### Unlimited runtime when grid connected.

Grid-connected interface (optional)\*\*\*

\*\*\*requires optional charger

## DESCRIPTION

To ensure that customers get the most flexibility out of the Z-Line machine, we have chosen to adapt the next generation Z-Line excavator to existing charging standards as well as to further develop the built-in charger in the machine. The standard for external fast charging that is optional is CCS2 which today can reach up to 350kW up to 1000Vdc. Using the built-in charger requires that you have 400Vac available. 230Vac cannot be used.



### Charging via built-in charger.

The connection to the machine is made on the right side of the machine, using a Marechal type connector. This is then connected to a standard building power box via an adapter cable with plain red contact (IEC60309).



The machine is delivered with different charging performances from the built-in charger.

	Charging performance [kW]	Power supply [A]	Charging time 5-95% [h]
Standard	40	60,9	6
Optional	60	91,0	4

\*400AC supply

### Charging via CCS2

If you want to use an external fast charger, this must be a CCS2 charger that supports high-voltage batteries. When charging with CCS2, this is often to increase operating time in the shortest possible charging time, such as charging the battery during a lunch break or the like. The purpose of fast charging is rarely or never to charge the battery to 100% SOC. Ideal range for fast charging is 10-80% SOC.

Charging performance [kW]	Power supply [A]	Charging time 10-80% [h]
150	233	1,3



Figure 1: CCS2 connection on the machine



Figure 2 CCS2 connection on external charger