KTEG

ZE85 ELECTRIC EXCAVATOR

Special Challenges – Special Solutions

Moving the future with zero emissions

HYDRAULIC POWER OF A COMBUSTION ENGINE

It has power. It has endurance. It works with zero emissions. And adapts to your work rhythm. The ZE85 is the market's leading electric battery-powered hydraulic excavator in its class. It combines the best properties of two worlds: it is a high-performance construction machine – and leads users into the electrically mobile future.

UNIVERSAL, FLEXIBLE USE

Be it an urban construction site, outdoors or in closed spaces, the ZE85 is in its element. When tendering for municipal projects, use it to secure your competitive edge. You not only preserve the environment, but also rely on working completely efficiently and economically. Without any compromises at all, you can use it to electrify your business.

LOW-MAINTENANCE

Engine maintenance is a thing of the past. The electric powertrain and batteries are maintenance-free and require little daily inspection. That saves time and costs.

SUITABLE FOR DAILY USE

With an average of 5.5 hours, the ZE85 proves its excellent endurance. In fast charging mode, it is ready for use again in only 30 minutes – and it only takes 45 minutes to be fully charged.

KTEG ZE85

POWERFUL

Work without output losses. Electrical loads are fed from the battery. The full power of the engine is available to operate the hydraulic system.

EMISSION-FREE

Completely without emissions and extremely quiet. For construction site work that promotes worker health. And residents that can breathe deeply in their city again.

COMFORTABLE

The same cab – and with it, the same comfort as in the ZX85US-6. The seat with air springs and heating absorbs impacts and also protects against cold winter days. For sustained work.

ELECTRIFYING PERFORMANCE

In only 45 minutes, from 0 to 100%

ON AVERAGE, 5.5 HOURS WITH ONLY ONE BATTERY CHARGE

Without a power cable. The ZE85 works tirelessly, even if you use all the systems. With fully charged Li-ion batteries, experience says that you won't have to consider recharging until around 5.5 hours later. The typical break period is enough for fast charging. Very easily via its standard CCS2 plug with up to 150 kW at 217 A. With this, you can bring the batteries from 0 to 100% in only 45 minutes.

FAST – AND FASTER BACK IN USE

If you only have 30 minutes to charge, you can achieve around 80% of the charging capacity in that short period. This will keep the ZE85 going until the shift ends. Charge it over night to ensure that it is ready for use the next morning.

The ZE85 adapts perfectly to your work rhythm and is ready to perform when you need it.

Independent current supply

THE PERFECT TEAM

The Powertree from KTEG is the perfect partner for the ZE85. The mobile fast charging station is harmonised to the needs of machines and tools with electric drives. Alongside an 800-V system with a 125 kWh strong buffer battery that can be scaled to individual customer needs, it features a fast charging station with CCS2 standard connections.

MOBILE AND VERSATILE

Embedded in a 10-foot steel container, the Powertree from KTEG withstands all weather conditions and even most rough handling. It can be commissioned without an electrician and is very easy to operate. If the construction site moves from place to place, the Powertree will come along.

Also satisfied with the power on the site

AFTER ONLY 105 MINUTES, CABLE-FREE AGAIN

Depending on the charging device, currents of 16, 32 or 63 A are used. With a current of 63 A, the Li-ion batteries of the ZE85 are already fully charged after 105 minutes.

The component architecture is trendsetting. A heat pump keeps the battery modules warm when it's cold and cools them when it's hot or they've worked for a long time.
This ensures that you have high availability, efficiency and a long battery service life.

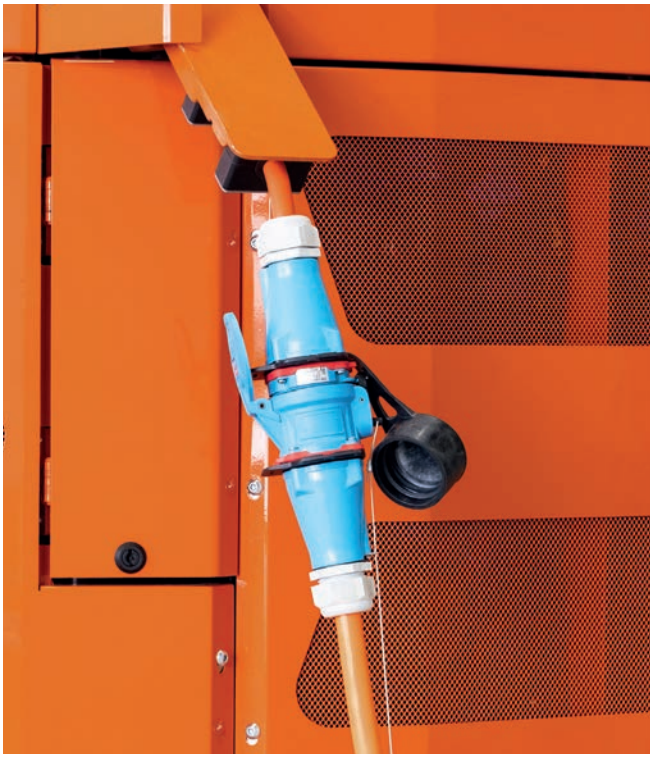
CHARGING AND WORKING AT THE SAME TIME, TOO

With a power cable if required. If there is no CCS connection for fast charging on the site, you can also operate this electric excavator with a power cable and charge it at the same time. For dual mode, simply connect it to the normal CEE three-phase current that is usually available at construction sites. To recharge the batteries, you only need a 400-V CEE mains connection.

SIMPLY EXTEND THE BATTERY LIFE

Would you like your ZE85 to work even longer without interruptions? Yes, at any time! The modular battery packs can be extended. As standard, 3 batteries of 33 kW/h each supply the required power. With a 4th battery, you will extend the machine's runtime significantly.

Charging type	Max. charging capacity	Charging duration
CCS2 fast charging	150 kW	45 minutes
CEE 400 V 63 A	44 kW	105 minutes
CEE 400 V 32 A	22 kW	210 minutes



Operated with a cable and charged at the same time – in intelligent dual mode, the ZE85 can do it easily.

GOOD FOR BOTH HUMANS AND THE CLIMATE

Carbon-free and pleasantly quiet

It also cuts a good figure indoors: The electric heart of the ZE85 beats as powerfully as a diesel, working quietly and without carbon emissions.

EXTRA ENDURANCE

The health of our climate and humans is the focus of this development. You protect both with the ZE85. It is so pleasantly quiet that the employees on the construction can converse at normal volume. Working in a relaxed environment without engine noise and from a comfortable cab increases the performance of your team. And complaints about noise pollution from residents are a thing of the past. In turn, this will make work pleasant for your back-office team.

LEVERAGE CALLS FOR TENDER

Municipalities worldwide are taking climate and health protection seriously. Calls for tender systematically include reductions in carbon and noise emissions. In some countries, construction machines with combustion engines are no longer allowed to be used. Construction companies that recognise these specifications as an opportunity can quickly set themselves apart from competitors and add future-proof services to their range. With the ZE85, you have the right cards in your hand. Carbon-free and as powerful as a diesel.

KTEG ZE85

THE E-CONNECTED MACHINE

STATE-OF-THE-ART TELEMATICS SYSTEM INCLUDED

Machine capacity utilisation. Energy consumption. Maintenance schedule. Early detection of possible failures. Service on the air. Intelligent sabotage management. And much more. The integrated telematics system functions via the cloud. It transforms data into valuable information. And turns the ZE85 into an e-connected machine for optimising your processes.

The multifunction monitor is actuated via the ergonomically positioned smart control (rotary-push button).

The Grammer comfort seat with seat heating and air springs can be moved for extra leg room.

As comfortable as possible

A MOTIVATING WORKPLACE

Hitachi designed the cab of the ZX85US-6 to ensure that working inside it is fun in every way. As the ZE85 is based on its diesel-driven counterpart, operators are assured of the same extraordinary cab experience in this electric excavator.

HAVE A SEAT, RELAX AND WORK

Drivers enter the sound-insulated cab thanks to an extra step and the large driver's door. On the Grammer comfort seat featuring air springs, hydraulic support and a seat belt, even large drivers have more than enough room. Automatic air conditioning electronically regulates the cab temperature, creating a good working climate. With seat heating, the winter stays outside and it is cosy and warm inside. Relaxed, sustained work is possible here.

EVERYTHING SAFELY AT HAND

All operating elements, shelves and storage compartments are arranged ergonomically and designed to be operated intuitively and sensitively. The proportional auxiliary functions integrated into the multifunction joystick enable the precise, infinitely variable control of attachments. With the 7-inch LCD multifunction colour monitor, all machine-relevant data and the rear view camera can be easily seen, even under poor lighting conditions. And thanks to panorama glazing, drivers always have a clear view of their work environment. For all-around safe working.

ELECTRIC POWER TO GO

High-quality and low-maintenance

CREATED FOR ROUGH DAILY ROUTINES

The ZE85 compact, agile 8-tonne electric excavator is based on one of the most high-performance Hitachi compact excavators: the ZX85US-6. With its 40 kW, it uncompromisingly achieves the same high performance standard as its diesel-driven counterpart. Unlike construction machines with combustion engines, the electric powertrain requires zero maintenance. This means that the machine offers you a high level of availability.

SAME HIGH TECH AS IN PREMIUM CARS

The 800 V lithium-ion battery and the air conditioning system in the ZE85 are state-of-the-art technologies. Since Porsche introduced the technology a few years ago, many other car series rely on it. Higher battery voltage has many advantages. Alongside significantly faster charging, this technology makes it possible to do without thicker, heavier cables. In turn, this reduces heat loss, machine mass and space requirements.

THE ALL-ROUNDER

Full power transmission from the engine to the hydraulic pump without output losses.

DESIGNED FOR FULL POWER

A 2.30-metre wide and 2.92-metre long powerhouse, the ZE85 is suitable for a range of projects in demolition, road construction and landscaping: breaking up base layers, excavating and moving earth masses, laying utility lines, levelling sites, placing boulders, removing roots, compacting soil, tearing down walls, smoothing over concrete surfaces or – with the right tool – milling through rocky substrates.

Electrification also makes it the ideal machine for special-purpose dismantling in closed spaces such as factory buildings. Or infrastructure work in low-noise zones.

FULL POWER

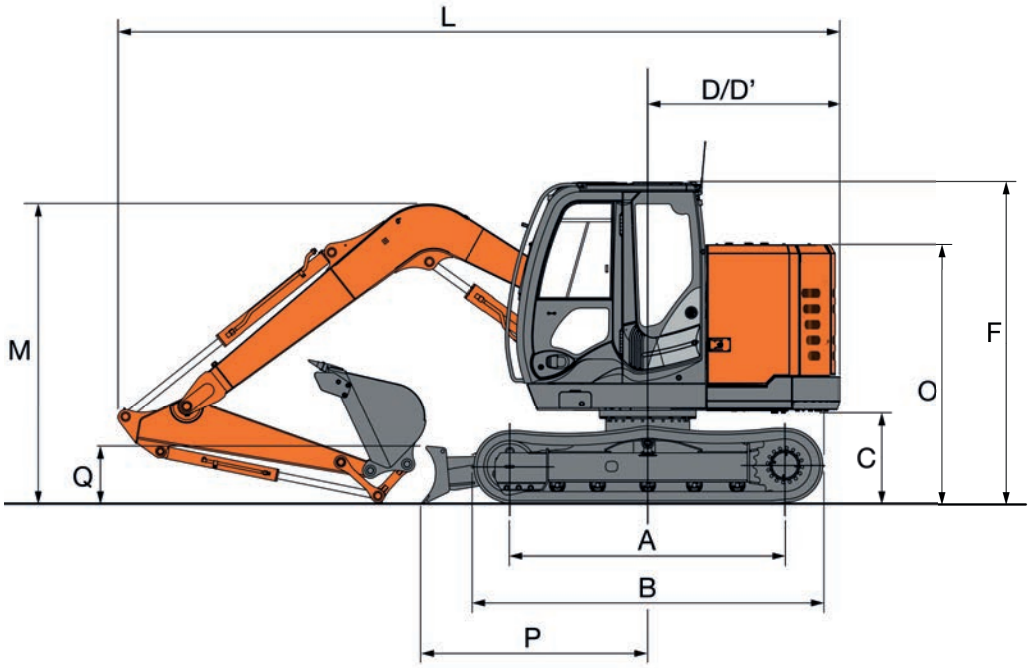
As compared to a diesel model, the ZE85 with an electric drive works at full power without output losses. Electric loads such as the lights, radio and air conditioning are fed directly from the battery. As a result, the full engine output is available for operating the hydraulic components.

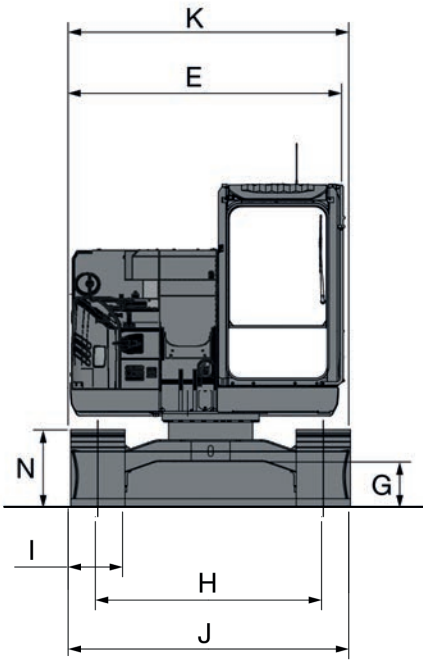
USING HYDRAULIC ATTACHMENTS

On the ZE85, hydraulic attachments are ideally operated via the QilQuick OQ45-5 quick coupler. This quick coupler works with up to five hydraulic couplings in parallel. Alongside tools such as low buckets, it enables a number of attachment tools for the 8 to 9 tonne class to be used. Grippers, swivel-mounted ditch cleaning buckets, cutters, attachment compactors and many more.

Technical data

SPECIFICATIONS



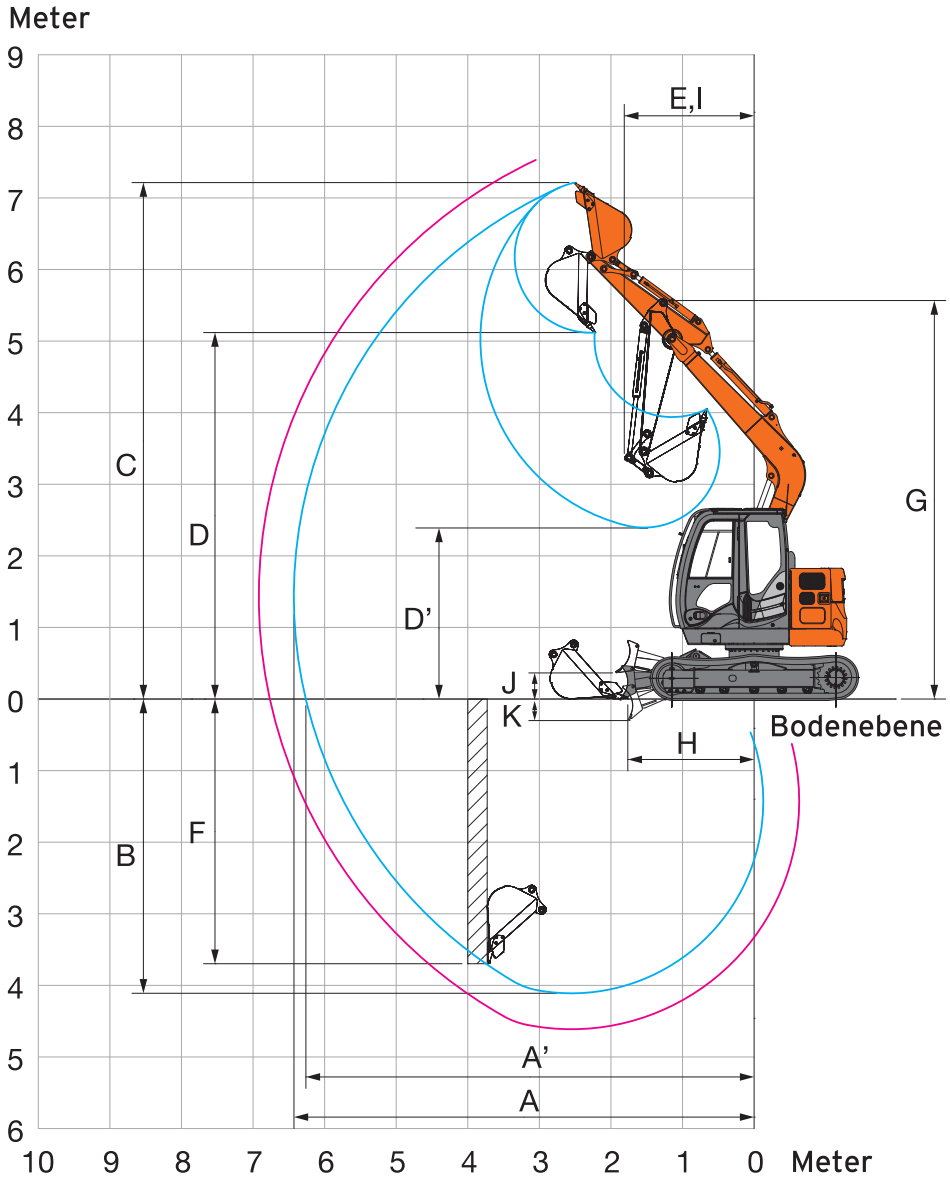


Dimensions	Designation	ZX85US-6	ZE85
A	Distance chain wheel centre to guide wheel centre	2,290 mm	→
B	Undercarriage length	2,920 mm	→
C	Counterweight clearance	730 mm	→
D / D'	Tail swing	1,290 mm	1,600 mm
E	Total width of upper structure	2,260 mm	→
F	Total height of cab	2,690 mm	→
G	Minimum ground clearance	360 mm	→
H	Track	1.870 mm	→
I	Chain plate width	450 mm	→
J	Undercarriage width	2,320 mm	→
K	Total width	2,320 mm	→
L	Total length with 2.12. m arm	6,370 mm	6,680 mm
M	Total height with 2.12 m arm	2,830 mm	→
N	Chain height	650 mm	→
O	(Engine) bonnet height	1,850 mm	2,100 mm
P	Horizontal distance to shield	1,890 mm	→
Q	Pusher blade height	480 mm	→

	Engine power	Battery capacity	On-board charging capacity	On-board charging duration	CCS2 fast charging capability	CCS2 Charging duration	Operating time	Weight
Maximum configuration	40 kW	100 kWh	44 kW	1.7 h	Given	45 min	4 h	Approx. 8,700 kg
50% charging capacity	↓	↓	22 kW	3.5 h	↓	↓	↓	↓
50% battery capacity	↓	50 kWh	↓	1.7 h	↓	↓	2 h	↓

KTEG ZE85

WORKING ENVELOPE



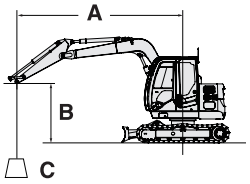
2.12 m arm length (referring to purple curve)		Dimensions
A	Max. reach	6,920 mm
A'	Max. reach (on ground)	6,760 mm
B	Max. digging depth	4,610 mm
C	Max. reach height	7,610 mm
D	Max. dumping height	5,510 mm
D'	Min. dumping height	2,410 mm
E	Min. swing radius	2,170 mm
F	Max. vertical wall	4,220 mm
G	Working device height for min. swing radius	5,610 mm
H	Arm head distance for max. working device retraction	1,670 mm
I	Working radius for min. front swing radius (max. boom swing angle)	-
J	Max. pusher blade stroke above ground	360 mm
K	Max. pusher blade intrusion	300 mm

Without grounding studs

LOADING CAPACITY TABLE

Notes:
1. The information is based on ISO 10567.
2. The stroke capacity equals max. 75% of the tilting load if the machine is on solid, even ground or 87% of the full hydraulic power.
3. The load point is the centre line of the bucket bolt on the arm.
4. *Marked values are limited by the hydraulic power.
5. 0 m = at ground level

To determine loading capacity, apply values under "Values for side or 360°" from the table with "Blade above ground" and subtract the weight of the installed attachment and the quick coupler.



A: Reach
B: Load point height
C: Stroke capacity

Values for front
Values for side or 360°

ZE85, Monoblock boom, blade above ground

Conditions	Load point height m	Reach										for max. reach		
		1.0 m		2.0 m		3.0 m		4.0 m		5.0 m				
														Metres
Boom 3.72 m	5							*1,400	*1,400			*1,360	*1,360	4.6
2.12 m arm	4							*1,450	*1,450	*1,520	1,290	*1,270	1,190	5.25
Steel chains	3			*2,320	*2,320	*1,880	*1,880	*1,680	*1,680	1,570	1,270	*1,260	1,040	5.64
450 mm	2					*2,580	*2,580	*2,010	1,730	1,530	1,230	1,210	970	5.83
	1					*3,220	2,510	2,080	1,650	1,490	1,190	1,190	950	5.84
	0 (ground)					3,150	2,420	2,020	1,590	1,460	1,160	1,220	980	5.67
	-1.0	*2,290	*2,290	*3,560	*3,560	3,110	2,380	1,990	1,560	1,450	1,150	1,340	1,060	5.31
Load bearing capacity in kg	-2,0	*3,710	*3,710	*5,040	4,890	3,120	2,390	1,990	1,570			1,590	1,260	4,7
	-3.0			*4,100	*4,100	*2,840	2,450					*2,120	1,790	3.73

ZE85, Monoblock boom, blade on ground

Conditions	Load point height m	Reach										for max. reach		
		1.0 m		2.0 m		3.0 m		4.0 m		5.0 m				
														Metres
Boom 3.72 m	5							*1,400	*1,400			*1,360	*1,360	4.6
2.12 m arm	4							*1,450	*1,450	*1,520	1,290	*1,270	1,190	5.25
Steel chains	3			*2,320	*2,320	*1,880	*1,880	*1,680	*1,680	*1,600	1,270	*1,260	1,040	5.64
450 mm	2					*2,580	*2,580	*2,010	1,730	*1,760	1,230	*1,290	970	5.83
	1					*3,220	2,510	*2,350	1,650	*1,930	1,190	*1,370	950	5.84
	0 (ground)					*3,570	2,420	*2,580	1,590	*2,060	1,160	*1,510	980	5.67
	-1.0	*2,290	*2,290	*3,560	*3,560	*3,640	2,380	*2,660	1,560	*2,080	1,150	*1,770	1,060	5.31
Load bearing capacity in kg	-2.0	*3,710	*3,710	*5,040	4,890	*3,440	2,390	*2,530	1,570			*2,020	1,260	4.7
	-3.0			*4,100	*4,100	*2,840	2,450					*2,120	1,790	3.73

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