

**ZAXIS 6 SERIES** 

## **HITACHI**

Reliable solutions

# ZAXIS17U/19U



#### **HYDRAULIC EXCAVATOR**

Model code: ZX17U-6 / ZX19U-6 Engine rated power: 11.5 kW (ISO14396)

Operating weight: ZX17U-6: 1760 kg ZX19U-6: 1880 kg

Bucket ISO heaped: 0.02-0.05 m<sup>3</sup>

# ZX17U-6 / ZX19U-6

# The user-friendly excavator



6. Efficient performance



8. Exceptional comfort



10. Easy to maintain

# No compromise









#### Comfortable cab

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Wide adjustable suspension seat, folding foot pedals and adjustable armrest.

# Perfect fit

Lightweight and compact, the ZX17U-6 and ZX19U-6 are easy to transport from one job site to another, and offer high levels of productivity, comfort and versatility. Easy to operate, they are ideal for rental, utilities, foundation work, landscaping, and indoor demolition and construction projects.



#### **Greater versatility**

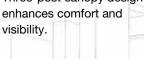
Adjustable crawler track is ideal in confined areas or if greater stability is required.

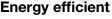


### Short-tail swing radius

The short-tail swing radius is ideal for urban areas, where space is limited.







Energy efficient
LED lights on the boom have a longer lifetime than halogen alternatives.



#### **Easy maintenance**

The radiator and oil cooler are conveniently positioned side by side.



**Added durability** 

Boom cylinder guard, V-shaped cylinder cover and D-frame enhance durability.

# Efficient performance

The Stage V-compliant engine and Hitachi hydraulic system ensure the ZX17U-6 and ZX19U-6 work productively and efficiently on any job site. They are exceptionally versatile for working in small spaces, thanks to their compact size, short-tail swing and adjustable tracks.

#### **High productivity**

The ZX17U-6 and ZX19U-6 deliver high levels of productivity, quick cycle time and an efficient hydraulic system.

#### **Outstanding versatility**

The crawler tracks can be retracted or widened – depending on the requirements of the job site – from 980mm, for working in small spaces or being loaded on to a truck, to 1,280mm for greater stability.

#### **Built to last**

Durable features of the ZX17U-6 and ZX19U-6 – such as a reinforced D-frame, V-shaped cylinder cover and boom cylinder guard – ensure a reliable performance, helping you to get the job done on time and on budget.





Quick cycle time and efficient hydraulics ensure high productivity.

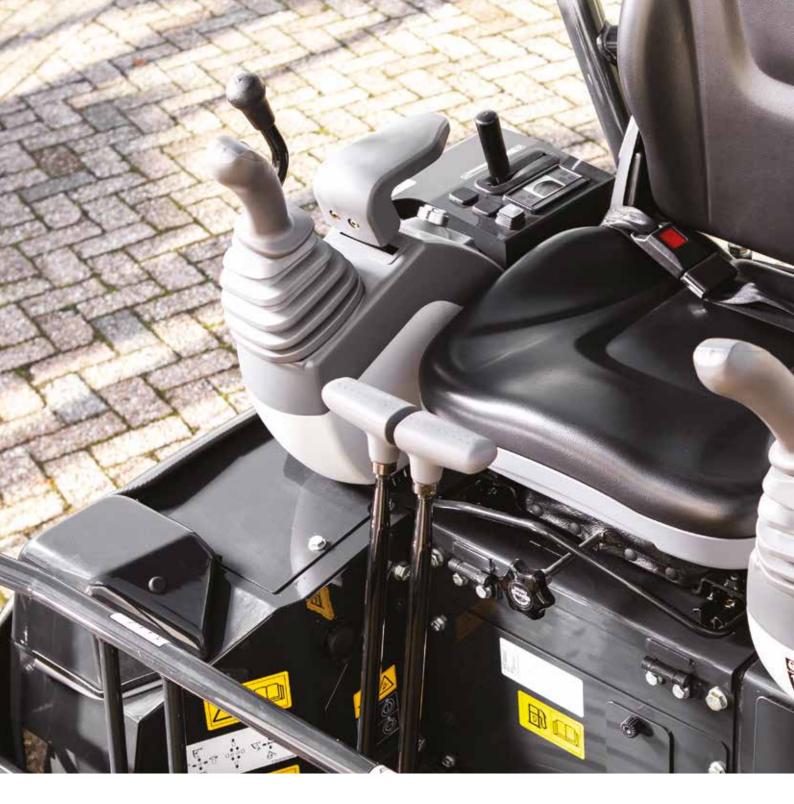




Expandable crawler tracks enhance versatility and stability.



Short-tail swing radius is ideal for working in narrow spaces.





Controls are within easy reach.



Three-post canopy design enhances visibility.



Wide adjustable suspension seat is comfortable for operators.

# Exceptional comfort

The ZX17U-6 and ZX19U-6 provide a spacious working environment for operators. They have also been designed to be easy to operate, even for first-time users.

#### **Spacious workspace**

Fitted with a wide and adjustable sliding suspension seat, folding foot pedals and adjustable arm rest, the ZX17U-6 and ZX19U-6 provide a high level of comfort for operators. The three-post canopy design enhances visibility of the job site and is compatible with ROPS and OPG top guard (Level 1).

#### **Easy operation**

User-friendly controls are in easy reach of the operator and the hydraulic pilot control levers ensure a smooth operation. Low noise levels, even with the canopy design, allow operators to work more comfortably.

#### **Enhanced design**

The ZX17U-6 and ZX19U-6 are equipped with new LED lights on the boom. These have a longer lifetime than halogen alternatives for efficient energy use.

# Easy to maintain

To guarantee a seamless operation, the ZX17U-6 and ZX19U-6 have been designed with several easy maintenance features that allow you to carry out cleaning and servicing quickly and effortlessly.

#### **Convenient access**

The engine and radiator covers have been designed to allow easy access. More space around the fuel tank opening makes the new mini excavators easier to refuel.

#### **Quick cleaning**

The back of the blade is slanted, and shaped to minimise the buildup of dirt and make it easier to remove.

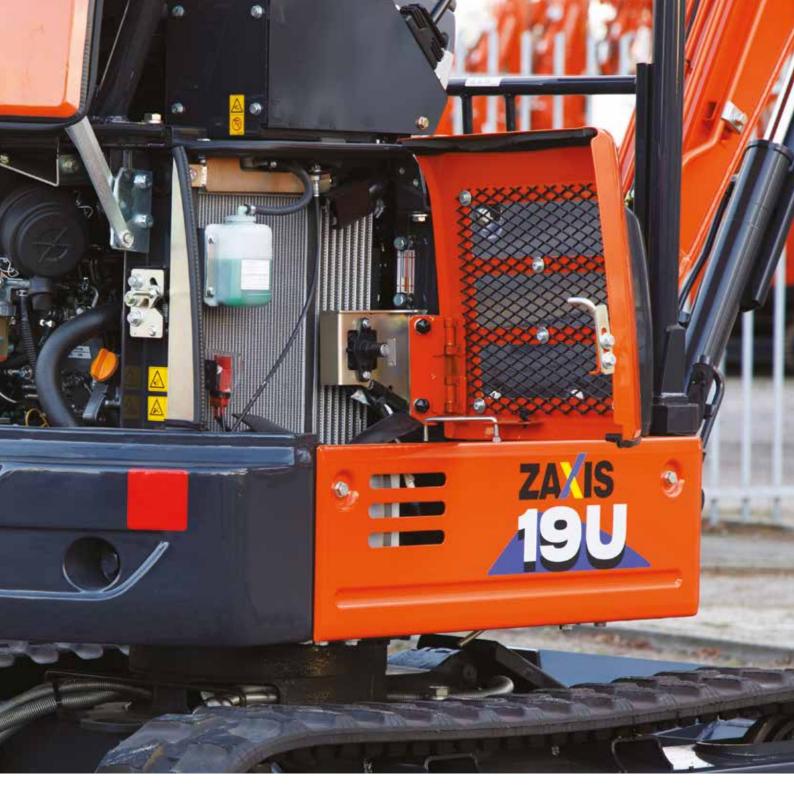
#### Safety first

The battery disconnect switch is now available as standard for safer and easier maintenance.





Daily inspection points are grouped together for convenience.





Easy to open covers provide quick access.



Sufficient space around the fuel tank opening for easy refuelling.

## **SPECIFICATIONS**

#### ENGINE

Model ...... 3TNV70

Type ...... Water-cooled, 4-cycle, swirl combustion chamber

injection type diesel engine

No. of cylinders ...... 3

Rated power

ISO 14396 ...... 11.5 kW at 2 400 min<sup>-1</sup> ISO 9249, net ...... 10.6 kW at 2 400 min<sup>-1</sup> SAE J1349, net .......... 10.6 kW at 2 400 min-1 Maximum torque .......... 48.8 Nm at 1 800 min<sup>-1</sup>

Piston displacement ..... 0.854 L

Bore and stroke .......... 70 mm x 74 mm Battery ...... 1 x 12 V / 36 Ah

#### HYDRAULIC SYSTEM

#### **Hydraulic Pumps**

Main pumps ...... 2 variable displacement axial piston pumps

1 gear pump

Maximum oil flow ...... 2 x 19.2 L/min

1 x 10.8 L/min

Pilot pump ...... 1 gear pump Maximum oil flow ...... 6.5 L/min

#### **Hydraulic Motors**

Swing ...... 1 gear pump

#### **Relief Valve Settings**

Implement circuit ....... 20.6 Mpa Swing circuit ...... 13.7 Mpa Travel circuit ...... 20.6 Mpa Pilot circuit ...... 3.9 Mpa

#### **Hydraulic Cylinders**

#### **ZAXIS 17U**

	Quantity	Bore	Rod diameter	Stroke
Boom (3-Pillar canopy)	1	60 mm	35 mm	435 mm
Arm	1	55 mm	30 mm	406 mm
Bucket	1	55 mm	30 mm	311 mm
Blade	1	65 mm	35 mm	94 mm
Boom swing	1	60 mm	30 mm	298 mm
Span	1	50 mm	30 mm	312 mm

#### **ZAXIS 19U**

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#### UPPERSTRUCTURE

#### **Swing Device**

Axial piston motor with planetary reduction gear is bathed in oil. Swing circle is single-row. Swing parking brake is spring-set/hydraulic-released disc type.

Swing speed ...... 9.4 min<sup>-1</sup> Swing torque ...... 1.4 kNm

#### UNDERCARRIAGE

#### **Tracks**

Tractor-type undercarriage. Welded track frame using selected materials. Side frame extended by cylinder span.

#### Numbers of Rollers on Each Side

Lower rollers ...... 3

#### **Operator's Cab**

Each track driven by 2-speed axial piston motor. Parking brake is spring-set/hydraulic-released disc type.

Travel speeds ...... High: 0 to 4.2 km/h

Low: 0 to 2.4 km/h

Maximum traction force... 11.4 kN (1 160 kgf)

#### **SOUND LEVEL**

Sound level canopy according to ISO 6396	LpA 76 dB(A)
External sound level according to ISO 6395 and	
EU Directive 2000/14/EC	LwA 93 dB(A)

#### **SERVICE REFILL CAPACITIES**

Fuel tank	20.0 L
Engine coolant	2.7 L
Engine oil	
Travel device (each side)	
Hydraulic system	
Hydraulic oil tank	
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#### **WEIGHTS AND GROUND PRESSURE**

#### **Operating Weight and Ground Pressure ZAXIS 17U**

#### 3-PILLAR CANOPY

Shoe type	Shoe width	Arm length	kg	kPa (kgf/cm²)
Rubber shoe	230 mm	0.93 m	1 760 *	26.6 (0.27)

Including 1.82 m boom and 0.044 m<sup>3</sup> bucket (ISO heaped).

#### **ZAXIS 19U**

#### 3-PILLAR CANOPY

Shoe type	Shoe width	Arm length	kg	kPa (kgf/cm²)
Rubber shoe	230 mm	1.13 m	1 880 *	28.3 (0.29)

Including 1.82 m boom and 0.044 m<sup>3</sup> bucket (ISO heaped).

<sup>\* (</sup>Operating weight with 0.044 m³ bucket, fully serviced, +80 kg operator ISO 6016).

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### BUCKET AND ARM DIGGING FORCE

#### **ZAXIS 17U**

0,5 mm	0.93 m
Bucket digging force ISO	16.0 kN (1 630 kgf)
Bucket digging force SAE : PCSA	12.5 kN (1 270 kgf)
Arm crowd force ISO	8.6 kN (880 kgf)
Arm crowd force SAE : PCSA	7.9 kN (810 kgf)

#### **ZAXIS 19U**

0,5 mm	1.13 m
Bucket digging force ISO	16.0 kN (1 630 kgf)
Bucket digging force SAE : PCSA	12.6 kN (1 280 kgf)
Arm crowd force ISO	9.2 kN (940 kgf)
Arm crowd force SAE : PCSA	8.5 kN (870 kgf)

#### BACKHOE ATTACHMENTS

Boom and arms are of welded, box-section design. 1.82 m boom, 0.93 m arm is available.

#### **Buckets**

Capacity	Width		No. of teeth	Maight	Recommendation
ISO heaped	Without side cutters	With side cutters	No. or teeth	Weight	Arm 0.93 m
0.020 m <sup>3</sup>	250 mm	300 mm	3	32.0 kg	0
0.035 m <sup>3</sup>	300 mm	350 mm	3	34.6 kg	0
0.040 m <sup>3</sup>	350 mm	400 mm	3	36.6 kg	0
0.044 m <sup>3</sup>	400 mm	450 mm	3	38.6 kg	0
0.050 m <sup>3</sup>	450 mm	500 mm	3	40.9 kg	

<sup>○</sup> Suitable for materials with density of 2 000 kg/m³ or less □ Suitable for materials with density of 1 600 kg/m³ or less

**ZAXIS 19U**Boom and arms are of welded, box-section design. 1.82 m boom, 1.13 m arm is available.

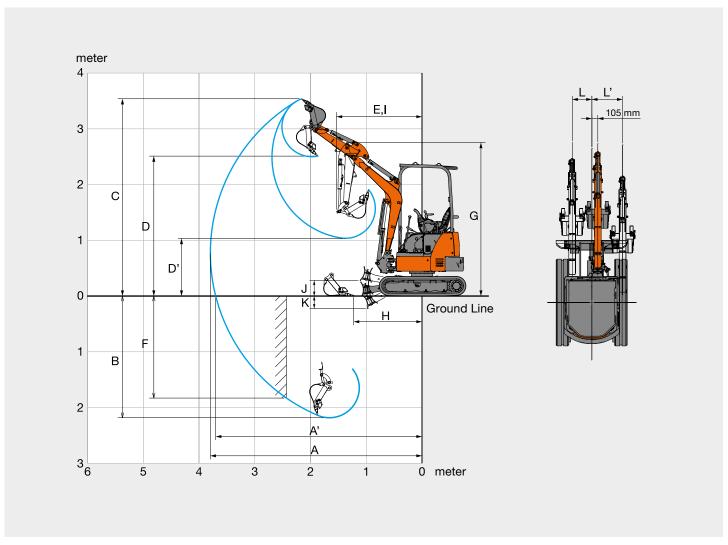
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ISO heaped	Without side cutters	With side cutters	No. or teeth	Weight	Arm 1.13 m
0.020 m <sup>3</sup>	250 mm	300 mm	3	32.0 kg	0
0.035 m <sup>3</sup>	300 mm	350 mm	3	34.6 kg	0
0.040 m <sup>3</sup>	350 mm	400 mm	3	36.6 kg	0
0.044 m <sup>3</sup>	400 mm	450 mm	3	38.6 kg	
0.050 m <sup>3</sup>	450 mm	500 mm	3	40.9 kg	Δ

<sup>○</sup> Suitable for materials with density of 2 000 kg/m³ or less
□ Suitable for materials with density of 1 600 kg/m³ or less
△ Suitable for materials with density of 1 100 kg/m³ or less

# **SPECIFICATIONS**

## WORKING RANGES

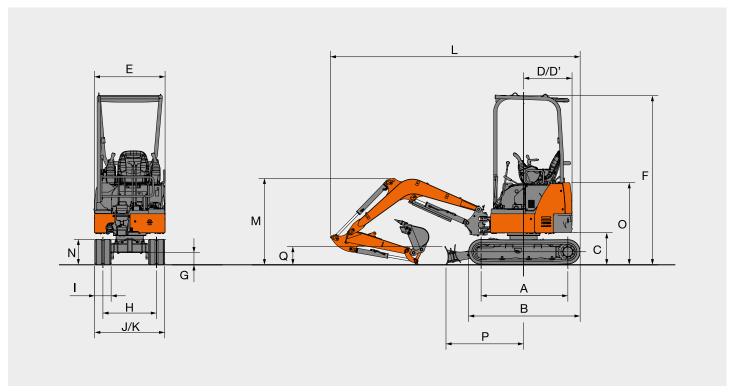


This illustration shows with 0.93 m arm, 0.044  $\ensuremath{\text{m}}^{3}$  bucket and 230 mm rubber shoes.

Unit:	mm

	Offit. Hilli
	ZAXIS 17U
	0.93 m arm
	3-Pillar Canopy
A Max. digging reach	3 810
A' Max. digging reach (on ground)	3 720
B Max. digging depth	2 190
C Max. cutting height	3 540
D Max. dumping height	2 510
D' Min. dumping height	1 040
E Min. swing radius	1 530
F Max. vertical wall digging depth	1 840
G Front height at Min. swing radius	2 770
H Min. level crowding distance	1 230
I Working radius at Min. swing radius (Max. boom-swing angle)	1 060
J Blade bottom highest position above ground	230
K Blade bottom lowest position above ground	260
L/L' Offset distance	355 / 555
Max. boom-swing angle (deg.)	70 / 50

### DIMENSIONS



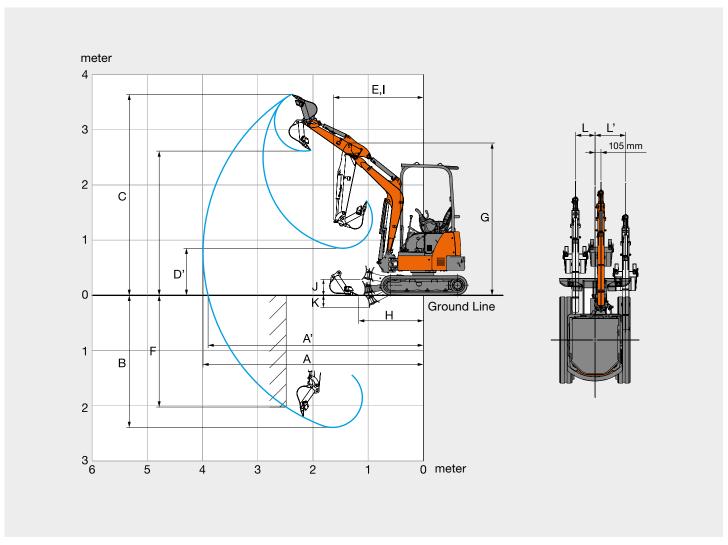
This illustration shows with 0.93 m arm, 0.044  $\rm m^3$  bucket and 230 mm rubber shoes.

Unit: mm

	ZAXIS 17U
	3-Pillar Canopy
A Distance between tumblers	1 210
B Undercarriage length	1 570
C Counterweight clearance	450
D Rear-end swing radius	680
D' Rear-end length	680
E Overall width of upperstructure	990
F Overall height of cab	2 380
G Min. ground clearance	165
H Track gauge (Retract / Extend)	750 / 1 050
I Track shoe width	230
J Undercarriage (Blade) width (Retract / Extend)	980 / 1 280
K Overall width (Retract / Extend)	990 / 1 280
L Overall length	3 500
M Overall height of boom	1 210
N Track height	360
O Engine cover-height	1 150
P Horizontal distance to blade	1 090
Q Blade height	220

# **SPECIFICATIONS**

## WORKING RANGES

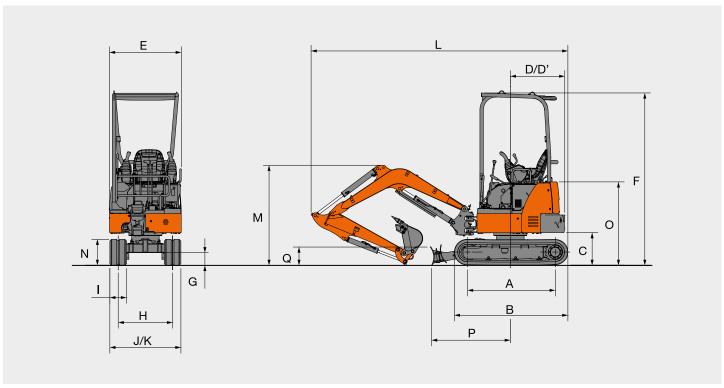


This illustration shows with 1.13 m arm, 0.044  $\mathrm{m}^3$  bucket and 230 mm rubber shoes.

Unit:	mm

	Offic. Hilli
	ZAXIS 19U
	1.13 m arm
	3-Pillar Canopy
A Max. digging reach	3 990
A' Max. digging reach (on ground)	3 900
B Max. digging depth	2 390
C Max. cutting height	3 640
D Max. dumping height	2 610
D' Min. dumping height	850
E Min. swing radius	1 620
F Max. vertical wall digging depth	2 020
G Front height at Min. swing radius	2 770
H Min. level crowding distance	1 170
I Working radius at Min. swing radius (Max. boom-swing angle)	1 060
J Blade bottom highest position above ground	230
K Blade bottom lowest position above ground	260
L/L' Offset distance	355 / 555
Max. boom-swing angle (deg.)	70 / 50

### DIMENSIONS



This illustration shows with 1.13 m arm, 0.044  $\rm m^3$  bucket and 230 mm rubber shoes.

	Unit: mm
	ZAXIS 19U
	3-Pillar Canopy
A Distance between tumblers	1 210
B Undercarriage length	1 570
C Counterweight clearance	450
D Rear-end swing radius	755
D' Rear-end length	755
E Overall width of upperstructure	990
F Overall height of cab	2 380
G Min. ground clearance	165
H Track gauge (Retract / Extend)	750 / 1 050
I Track shoe width	230
J Undercarriage (Blade) width (Retract / Extend)	980 / 1 280
K Overall width (Retract / Extend)	990 / 1 280
L Overall length	3 540
M Overall height of boom	1 390
N Track height	360
O Engine cover-height	1 150
P Horizontal distance to blade	1 090
Q Blade height	220

## **MACHINE CAPACITIES**

230 mm

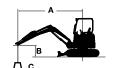
- Notes: 1. Ratings are based on ISO 10567.
  - 2. Lifting capacity does not exceed 75% of tipping load with the machine on firm, level ground or 87% full hydraulic capacity.

    3. The load point is the center-line of the bucket pivot mounting pin on the arm.

    4. \*Indicates load limited by hydraulic capacity.

  - 5.0 m = Ground.

To determine lifting capacities, apply "Rating over-side or 360 degrees" machine capacities from table with "Blade above Ground" and deduct weight of installed attachment and quick hitch.



A: Load radius B: Load point height

C: Lifting capacity

#### ZAXIS 17U 3-Pillar Canopy Version, Blade above Ground

Rating over-front	<b>⊕</b> Ra	iting over-side or	360 degrees	Unit: 1	000 k

Conditions	Load	Load radius							At max. reach		
	point	1.0 m		2.0 m		3.0 m		At max. reach			
	height m	ů		ů	<b>-</b>	ů	<b>-</b>	ů	<b>-</b>	meter	
Boom 1.82 m Arm 0.93 m	2.0							0.26	0.24	2.98	
Counterweight	1.0			0.45	0.42	0.25	0.23	0.22	0.2	3.27	
120 kg Rubber shoe 230 mm	0 (Ground)			0.42	0.39	0.24	0.22	0.22	0.21	3.15	
	-1.0	*1.12	*1.12	0.42	0.39			0.29	0.28	2.58	

ZAXIS 17U 3-Pillar Canopy Version, Blade on Ground					Rating over	-front 🗀 Ra	ating over-side o	360 degrees	Unit : 1 000 kg	
Conditions	Load		Load radius						At may reach	
	point	1.0 m		2.0 m		3.0 m		- At max. reach		
	height m	ů		ů	<b>©</b>	ů	<b>©</b>	ů	<b>©</b>	meter
Boom 1.82 m Arm 0.93 m Counterweight 120 kg Rubber shoe	2.0							*0.40	0.24	2.98
	1.0			*0.70	0.42	*0.44	0.23	*0.41	0.2	3.27
	0 (Ground)			*0.81	0.39	*0.46	0.22	*0.42	0.21	3.15

0.39

#### ZAXIS 19U 3-Pillar Canopy Version, Blade above Ground

\*1.12

\*1.12

\*0.63

-1.0

Rating over-front	Rating over-side or 360 degrees	Unit : 1 000 k
natiliu over-ironi	LEP halling over-side of 300 degrees	UIIIL. I UUU K

\*0.42

0.28

Conditions	Load	Load radius						At max. reach			
	point			2.0	.0 m 3.0		3.0 m		At max. reach		
	height m	ů		ů	<b>-</b>	ů	<b>@</b>	ů	<b>-</b>	meter	
Boom 1.82 m Arm 1.13 m Counterweight 240 kg Rubber shoe 230 mm	2.0					0.3	0.28	0.27	0.26	3.18	
	1.0			0.53	0.49	0.29	0.27	0.24	0.22	3.44	
	0 (Ground)			0.49	0.46	0.28	0.26	0.24	0.23	3.34	
	-1.0	*0.94	*0.94	0.49	0.46			0.3	0.29	2.81	

#### ZAXIS 19U 3-Pillar Canopy Version. Blade on Ground

ZAXIS 19U 3-Pillar Canopy Version, Blade on Ground						Rating over	-front 🗀 Ra	ont Rating over-side or 360 degrees		
Conditions	Load Load radius								At max, reach	
	point	1.0 m		2.0 m		3.0 m		At max. reach		
	height m	ů	<b>©</b>	ů	<b>©</b>	ů	<b>@</b>	ů	<b>©</b>	meter
Boom 1.82 m Arm 1.13 m Counterweight 240 kg Rubber shoe	2.0					*0.36	0.28	*0.36	0.26	3.18
	1.0			*0.64	0.49	*0.42	0.27	*0.38	0.22	3.44
	0 (Ground)			*0.81	0.46	*0.46	0.26	*0.39	0.23	3.34
230 mm	-1.0	*0.94	*0.94	*0.69	0.46			*0.41	0.29	2.81



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