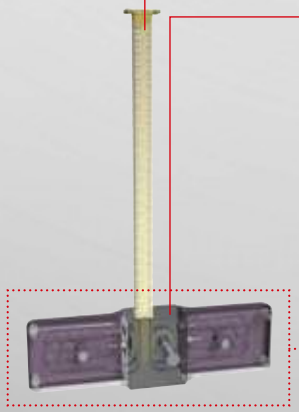
ZIP CHAIN ACTUATOR

The ability to store Zip Chains in a compact case helps save overall space compared with conventional linear actuators. With support for high-speed, high-frequency operation, Zip Chain Actuators consume significantly less power than hydraulic/pneumatic cylinders. Multi-point stopping with high precision is also possible, and installation direction is not limited.



Zip Chain End fitting

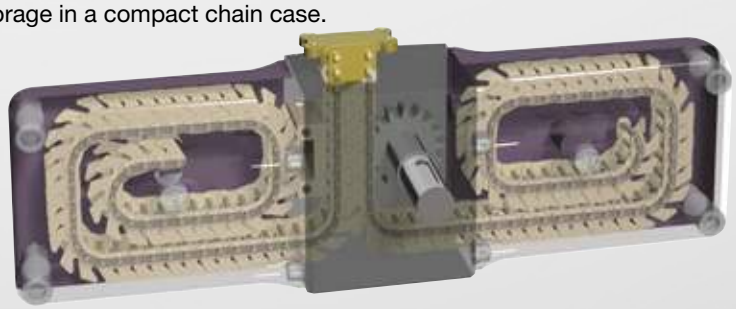
End fitting is integrated with the Zip Chain. This enables mounting for lifting or suspending.

Drive section

The engagement of the Zip Chain and Tsubaki's special sprocket ensures sufficient power transmission.

Housing section

The plastic surface interface between chain and housing facilitates smooth storage in a compact chain case.



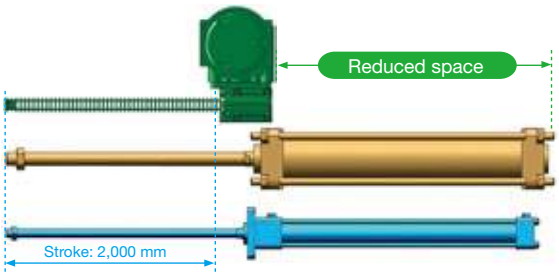
Features

Compact design

The height of the chain case is about 1/10 of the stroke, and with its integrated drive structure this compact unit can be installed in narrow spaces.

Up to 90% smaller than the stroke

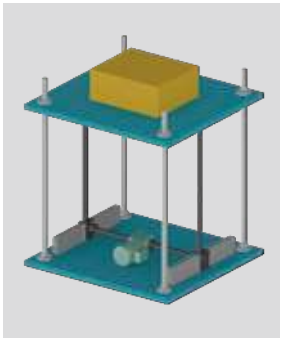
- Model: ZCA45M200EL040H60
- Pneumatic cylinder
- Hydraulic cylinder



High speed

Achieves a maximum speed of 1,000mm/sec during high speed operation, which far exceeds the speeds seen in screw type cylinders and hydraulic/pneumatic cylinders.

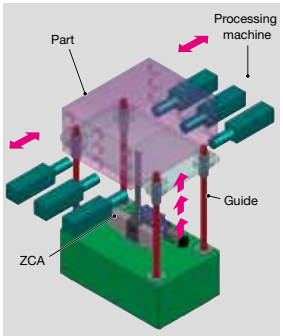
Maximum speed
1,000mm/sec



Multi-point stopping

Servo motors enable high precision multi-point stopping and continuous operation.

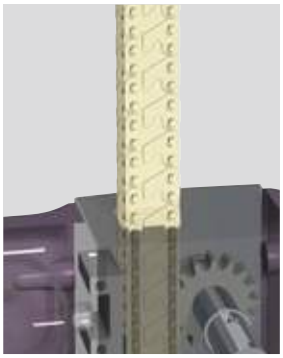
Duty factor
100%ED



Longer life

Features superb wear resistance and low chain elongation, which gives it an expected travel distance of 4,000 km.

Expected travel distance
4,000km



Installation in any direction

Can be freely installed in any direction to meet any customer need; such as lifting, horizontal movement, and suspending.

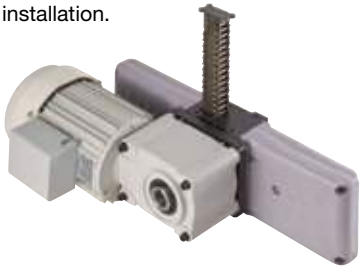
*** Be sure to always install a linear guide along the direction of travel.**

No limitation
on installation direction

Product lineup

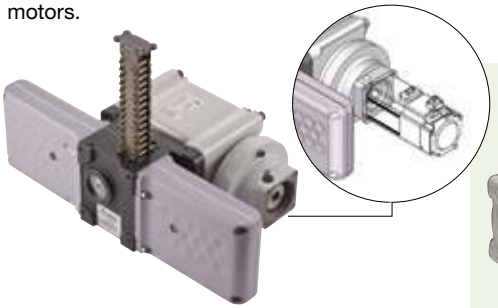
With hypoid motor

Zip Chain Actuators with integrated hypoid motors are available in any size. The reduced number of parts allows for easy selection and installation.



With Tsubaki TERVO reducer for servo motors

Enables a compact structure and high-speed positioning with servo motors.



TERVO reducer for servo motors

APPLICATIONS

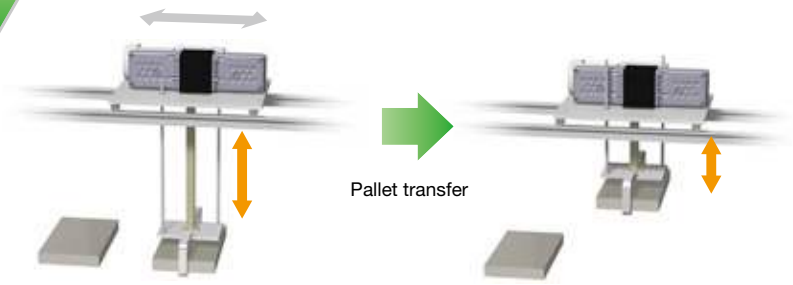
Compact design ideal for low height application and saving space

The compact structure of the Zip Chain Actuator enables various installation options—including lifting, horizontal, and suspending installation.
Use for a wide range of applications requiring linear operation.

Pallet transfer device

High speed
High frequency
Compact

Workpieces are raised and lowered for transferring using an arm powered by the Zip Chain Actuator.



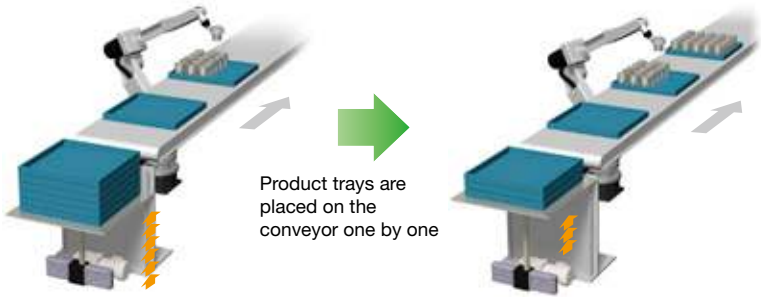
Benefit

- Can be installed in the small space on the ceiling side.
- Reduces the cycle time for conveyance by allowing for lifting at high speed

Parts tray lift

Compact
Multi-point stopping

Part trays are sequentially processed on the conveyor.



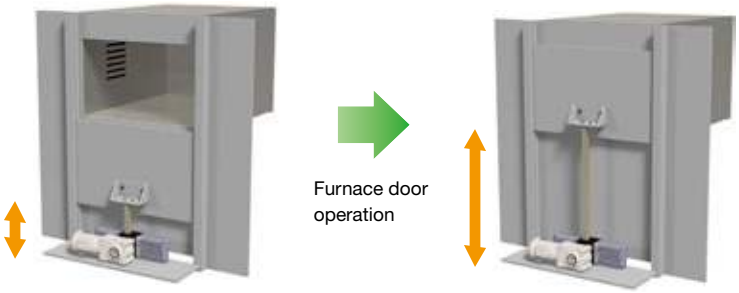
Benefit

- Large number of trays can be stacked since it is low to the floor and compact.
- Highly accurate multi-point stopping at any desired position means it can handle trays of various heights.

Furnace door

High speed
Compact
Economical

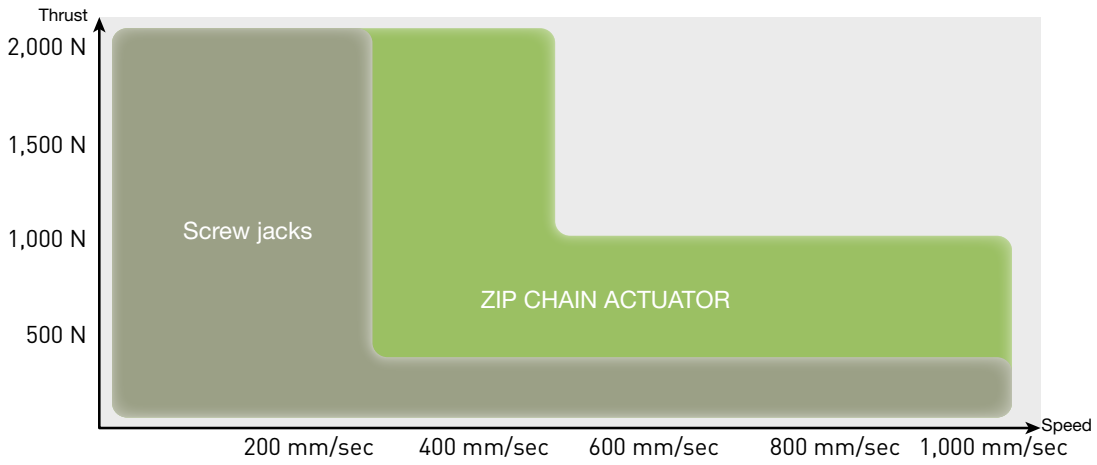
Zip Chain Actuators can be used to open and close furnace doors.



Benefit

- Can be installed without protruding from the equipment.
- High speed operation prevents temperatures inside the furnace from changing.
- Environmentally friendly with less noise compared to pneumatic cylinders and no oil mist

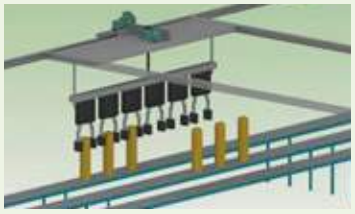
Speed/
Thrust Range

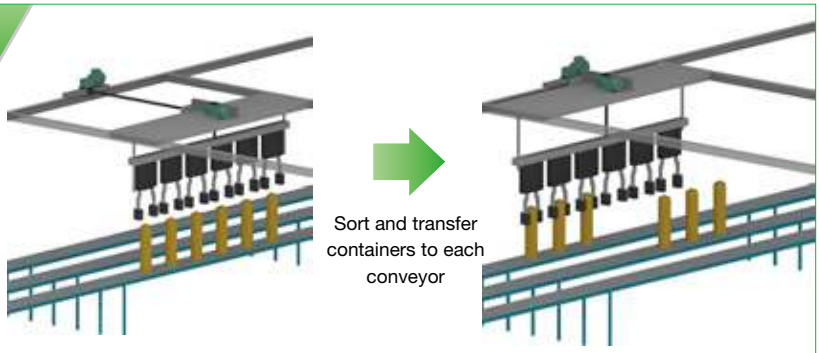


Container sorting equipment

High speed
Compact

Zip Chain Actuators can be used to move traversers horizontally and to raise or lower chucking units vertically.





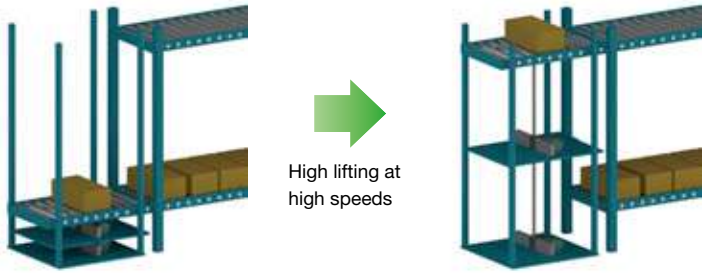
Benefit

- Horizontal and suspending installations are possible without protruding parts, enabling a lower overall height.
- Accurate multi-point stopping even with horizontal transfers

High lifting equipment

High speed
Compact

Workpieces on a lower conveyor can be pushed up to an upper conveyor using the Zip Chain Actuator.



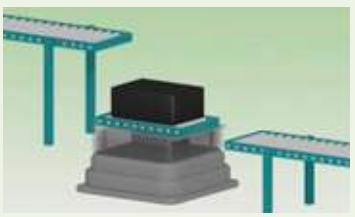
Benefit

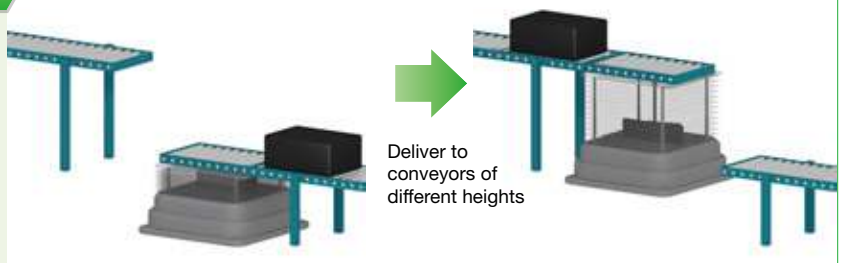
- Users can arrange two units in tandem when the required stroke for one unit is not enough. Furthermore, lift speed will double when operating two units at the same time.
- Can be installed compactly, even with two units overlapping

AGV (Automated Guided Vehicle)

Compact
High precision

Workpieces are transferred between conveyors at different heights using the Zip Chain Actuator mounted on AGV.





Benefit

- Lift unit can be accommodated compactly in the AGV
- Height can be adjusted according to the conveyor height of the next process

ZIP CHAIN ACTUATOR With No Drive Section

Model

ZCA 35 N 050 E L - J1F

Series | Size | Drive section | Stroke | Mounting | Shaft arrangement | Options

Size

25
35
45

Drive section

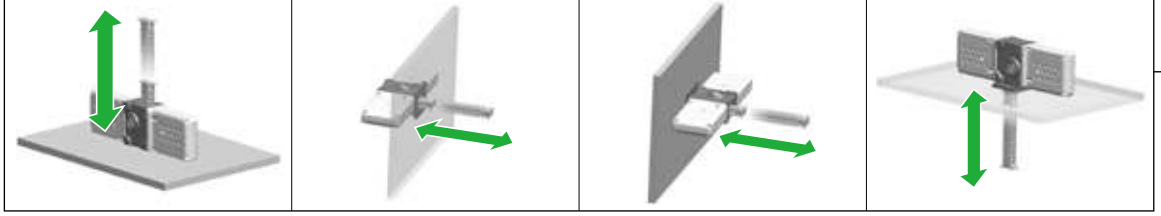
N	With No Drive Section

Stroke

Size	25		35			45		
Code	030	050	050	075	100	100	150	200
Allowable stroke mm	300	500	500	750	1,000	1,000	1,500	2,000

Mounting

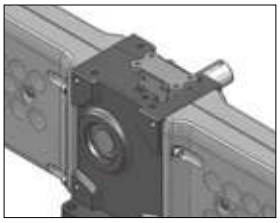
E		D
Lifting installation	Horizontal installation	Suspending installation (MTO)



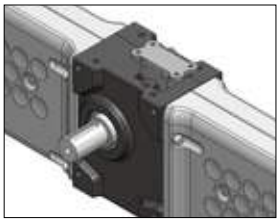
Be sure to always install a linear guide along the direction of travel.

Shaft arrangement

L: Input shaft



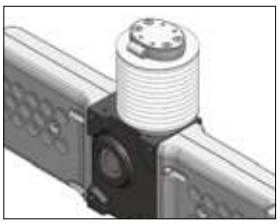
R: Input shaft on opposite side

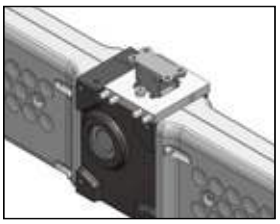


T: Dual input shaft

Options

Bellows		Grease plates
J1: For lifting, suspending	J2: For horizontal	F

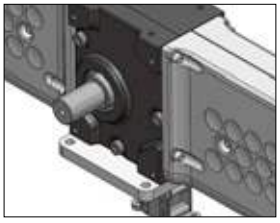




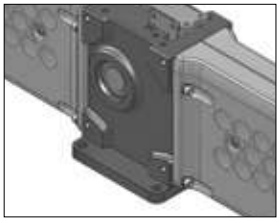
* Option J2 (bellows for horizontal installation) is a made to order product.

Attachable options

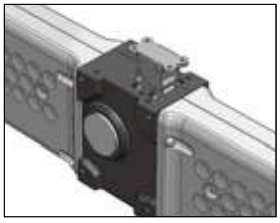
Mounting base



Bottom mounting base



Cap (ZCA35N and ZCA45N only)



●Bases and caps are available as options. These options must be ordered individually.
See page 41 for more information.

Lineup

○: Standard △: Made to order

Size	Stroke	Mounting method: E Shaft arrangement			Mounting method: D Shaft arrangement		
	mm	L	R	T	L	R	T
ZCA25N	300	○	○	○	△	△	△
	500	○	○	○	△	△	△
ZCA35N	500	○	○	○	△	△	△
	750	○	○	○	△	△	△
	1,000	○	○	○	△	△	△
ZCA45N	1,000	○	○	○	△	△	△
	1,500	○	○	○	△	△	△
	2,000	○	○	○	△	△	△

Specifications and Environmental Requirements

ZCA main unit		ZCA25N	ZCA35N	ZCA45N
Drive section	Material	Forged steel		
	Coating color	Black, Munsell N2.0 equivalent		
Housing section	Material	Polyacetal		Iron
	Coating color	Purple grey Munsell 0.8P6.3/3.0 equivalent (molded)		Black, Munsell N2.0 equivalent
Chain	Material	Iron		
	Lubricant	Shell Alvania EP Grease 2 [Shell Lubricants Japan K.K.] * This grease is applied before shipment.		
Environmental requirements	Operating temperature	0 to 60°C		
	Relative humidity	85% or less (no condensation)		
	Ambient atmosphere	Typical rain-free indoor environment with dust levels kept at a general factory level.		
	Installation direction	ZCA can be installed with any direction, be sure to mount a linear guide in the direction of travel. A mounting base is required to suspending installation. See page 42 for more information.		

Characteristics

Without bellows

Model		Allowable stroke*1	Allowable thrust*2		Input shaft: Allowable torque		Input shaft: Allowable OHL		Maximum speed: Thrust direction	Maximum speed: Input shaft rotation	Zip Chain travel distance per input shaft rotation	Approximate mass: Input shaft Standard/reverse shaft	Approximate mass: Input shaft Dual shafts	Approximate mass: Suspending installation
		mm	N	{kgf}	N·m	{kgf·m}	N	{kgf}	mm/sec	(r/min)	mm	kg		
ZCA25N	030	300	400	{40.8}	9.41	{0.96}	638	{65.0}	1,000	630	95.3	1.9	2.0	2.5
	050	500	330	{33.6}								2.5	2.6	3.1
ZCA35N	050	500	1,000	{102.0}	34.7	{3.53}	946	{96.4}	1,000	420	142.9	5.1	5.5	6.0
	075	750										6.5	7.0	7.5
	100	1,000	600	{61.2}								7.5	8.0	8.5
ZCA45N	100	1,000	2,000	{204.0}	116.6	{11.9}	2,065	{210.5}	500	125	240	21	21	22
	150	1,500										25	25	27
	200	2,000	1,200	{122.5}								30	30	31

With bellows

Model		Allowable stroke*1	Allowable thrust*2		Input shaft: Allowable torque		Input shaft: Allowable OHL		Maximum speed: Thrust direction	Maximum speed: Input shaft rotation	Zip Chain travel distance per input shaft rotation	Approximate mass: Input shaft Standard/reverse shaft	Approximate mass: Input shaft Dual shafts	Approximate mass: Suspending installation
		mm	N	{kgf}	N·m	{kgf·m}	N	{kgf}	mm/sec	(r/min)	mm	kg		
ZCA25N	030	300	400	{40.8}	9.41	{0.96}	638	{65.0}	1,000	630	95.3	2.5	2.6	3.1
	050	500	300	{30.6}								3.1	3.2	3.7
ZCA35N	050	500	1,000	{102.0}	34.7	{3.53}	946	{96.4}	1,000	420	142.9	5.5	6.0	6.5
	075	750										7.0	7.5	8.0
	100	1,000	431	{44.0}								8.0	8.5	9.0
ZCA45N	100	1,000	2,000	{204.0}	116.6	{11.9}	2,065	{210.5}	500	125	240	22	22	23
	150	1,500										27	27	28
	200	2,000	900	{91.8}								32	32	33

*1 Use the unit within the allowable stroke range. Also, be sure to always attach a linear guide in the direction of travel.
*2 Values are obtained when operated at a maximum acceleration of 0.35 G (upper limit) with the end fitting attached.
These values are applicable regardless of the type of installation (vertical, horizontal, suspending).

Characteristics

Without bellows

Model		Allowable stroke*1	Allowable thrust*2		Input shaft				Maximum speed		Zip Chain travel distance per input shaft rotation	Approximate mass		
					Allowable torque		Allowable OHL		Thrust direction	Input shaft rotation		Input shaft Standard/reverse shaft	Input shaft Dual shafts	Suspending installation
		mm	N	{kgf}	N·m	{kgf·m}	N	{kgf}	mm/sec	(r/min)	mm	kg		
ZCA25N	030	300	400	{40.8}	9.41	{0.96}	638	{65.0}	1,000	630	95.3	1.9	2.0	2.5
	050	500	330	{33.6} *3								2.5	2.6	3.1

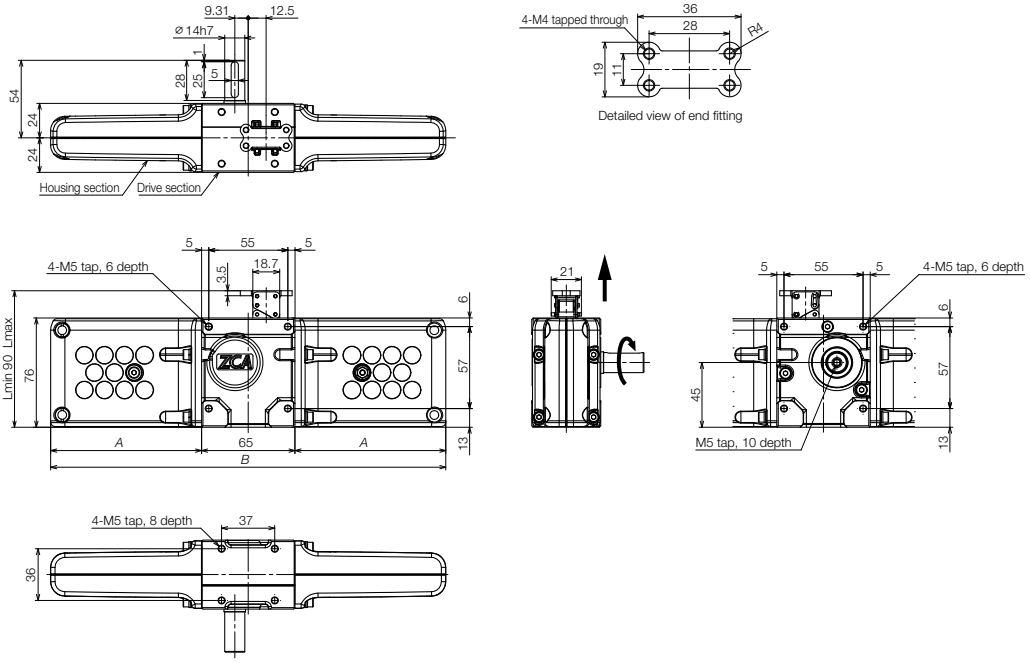
With bellows

Model		Allowable stroke*1	Allowable thrust*2		Input shaft				Maximum speed		Zip Chain travel distance per input shaft rotation	Approximate mass		
					Allowable torque		Allowable OHL		Thrust direction	Input shaft rotation		Input shaft Standard/reverse shaft	Input shaft Dual shafts	Suspending installation
		mm	N	{kgf}	N·m	{kgf·m}	N	{kgf}	mm/sec	(r/min)	mm	kg		
ZCA25N	030	300	400	{40.8}	9.41	{0.96}	638	{65.0}	1,000	630	95.3	2.5	2.6	3.1
	050	500	300	{30.6} *3								3.1	3.2	3.7

*1 Use the unit within the allowable stroke range. Also, be sure to always attach a linear guide in the direction of travel.
*2 Values are obtained when operated at a maximum acceleration of 0.35 G (upper limit) with the end fitting attached.
These values are applicable regardless of the type of installation (vertical, horizontal, suspending).
*3 Please contact Tsubaki, if the stroke is 500mm for suspending application.

Dimensions

ZCA25N□□□EL (Standard input shaft)



Above is ZCA25N030EL dimension.
See Table 1 for ZCA25N050EL housing dimensions A, B, and L.

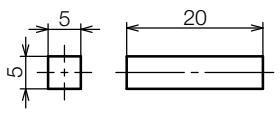
Table 1: ZCA25N□□□EL·ER·ET

Stroke code	*A* mm	*B* mm	*Lmax* mm
030	105	275	390
050	149	363	590

Table 2: ZCA25N□□□D

Stroke code	*A* mm	*B* mm	*Lmax* mm
030	105	275	405
050	149	363	605

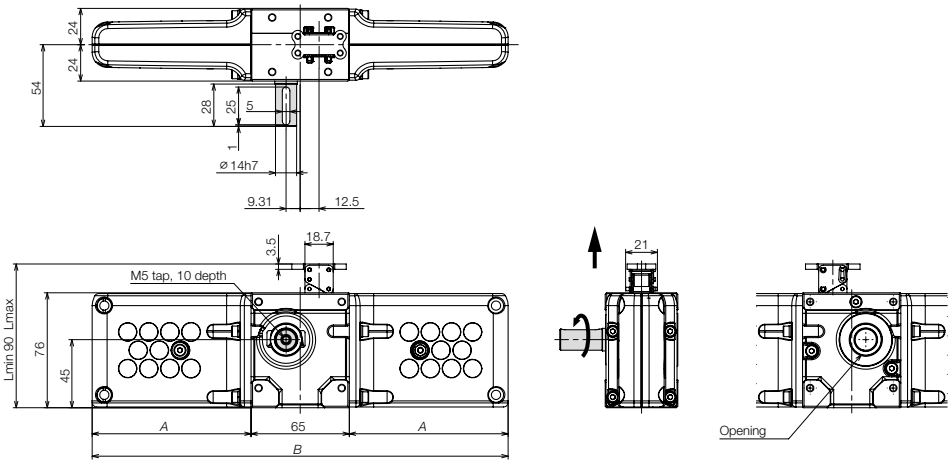
Input shaft key



Input shaft key
(Shipped with instruction manual)
JIS B 1301- 1996

ZCA25N□□□ER (Input shaft on opposite side)

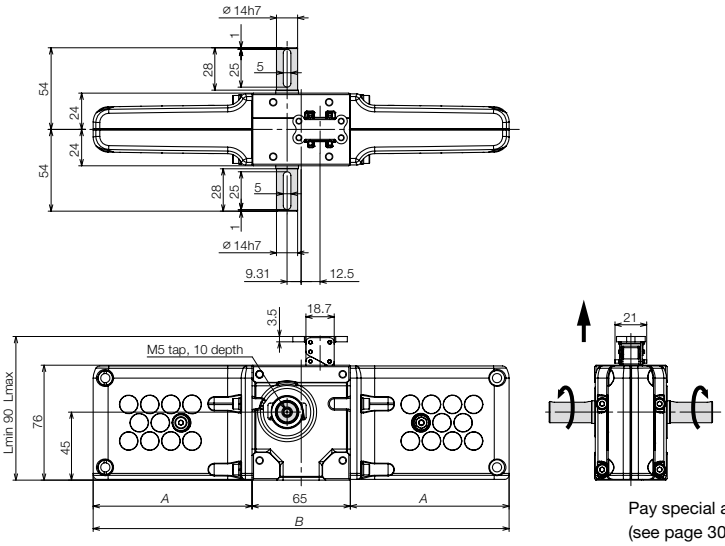
The mounting taps on the drive section base are the same as those on the basic model.



Above is ZCA25N030ER dimension.
See Table 1 for ZCA25N050ER housing dimensions A, B, and L.

ZCA25N□□□ET (Dual input shaft)

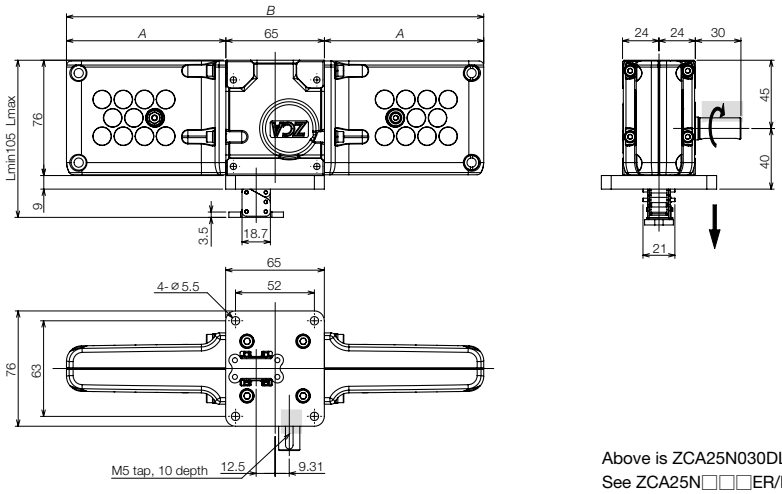
The mounting taps on the drive section base are the same as those on the basic model.



Above is ZCA25N030ET dimension.

Pay special attention to the input torque when operating multiple ZCAs are aligned (see page 30). See Table 1 for ZCA25N050ET housing dimensions A, B, and L.

ZCA25N□□□D (Suspending installation)



Above is ZCA25N030DL dimension.
See ZCA25N□□□ER/ET dimensions on input shaft for shaft arrangement R and T.
See Table 2 for ZCA25N050DL housing dimensions A, B, and L.

Characteristics

Without bellows

Model		Allowable stroke*1	Allowable thrust*2		Input shaft				Maximum speed		Zip Chain travel distance per input shaft rotation	Approximate mass		
					Allowable torque		Allowable OHL		Thrust direction	Input shaft rotation		Input shaft Standard/reverse shaft	Input shaft Dual shafts	Suspending installation
		mm	N	{kgf}	N·m	{kgf·m}	N	{kgf}	mm/sec	(r/min)	mm	kg		
ZCA35N	050	500	1,000	{102.0}	34.7	{3.53}	946	{96.4}	1,000	420	142.9	5.1	5.5	6.0
	075	750										6.5	7.0	7.5
	100	1,000	600	{61.2}*3								7.5	8.0	8.5

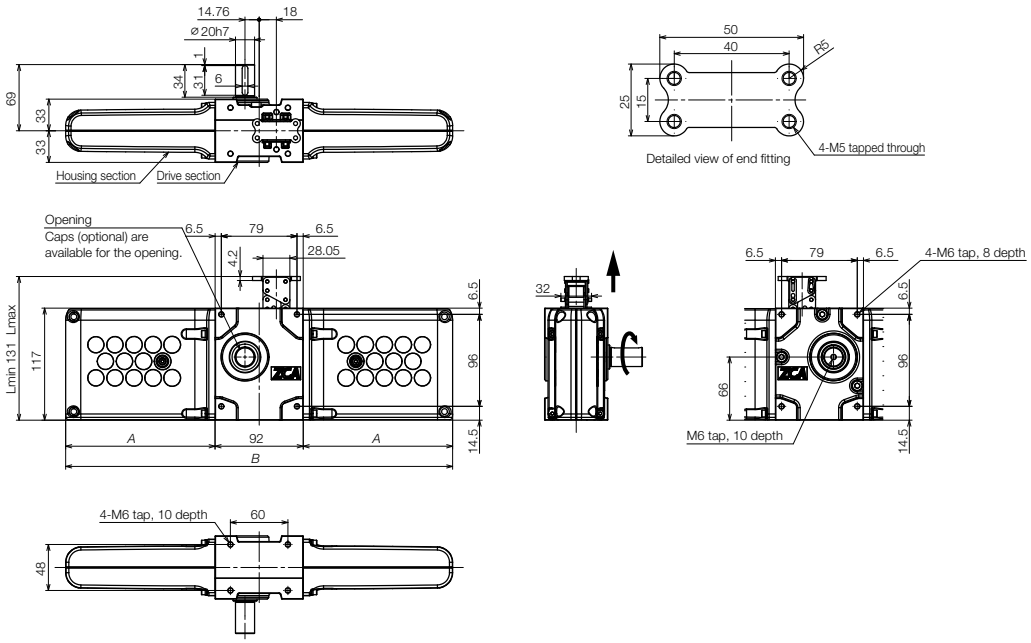
With bellows

Model		Allowable stroke*1	Allowable thrust*2		Input shaft				Maximum speed		Zip Chain travel distance per input shaft rotation	Approximate mass		
					Allowable torque		Allowable OHL		Thrust direction	Input shaft rotation		Input shaft Standard/reverse shaft	Input shaft Dual shafts	Suspending installation
		mm	N	{kgf}	N·m	{kgf·m}	N	{kgf}	mm/sec	(r/min)	mm	kg		
ZCA35N	050	500	1,000	{102.0}	34.7	{3.53}	946	{96.4}	1,000	420	142.9	5.5	6.0	6.5
	075	750										7.0	7.5	8.0
	100	1,000	431	{44.0}*3								8.0	8.5	9.0

*1 Use the unit within the allowable stroke range. Also, be sure to always attach a linear guide in the direction of travel.
*2 Values are obtained when operated at a maximum acceleration of 0.35 G (upper limit) with the end fitting attached.
These values are applicable regardless of the type of installation (vertical, horizontal, suspending).
*3 Please contact Tsubaki, if the stroke is 1000mm for suspending application.

Dimensions

ZCA35N□□□EL (Standard input shaft)



Above is ZCA35N050EL dimension.
See Table 1 for ZCA35N075/100EL housing dimensions A, B, and L.

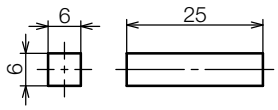
Table 1: ZCA35N□□□EL·ER·ET

Stroke code	*A* mm	*B* mm	*Lmax* mm
050	156	404	631
075	218.5	529	881
100	281	654	1,131

Table 2: ZCA35N□□□D

Stroke code	*A* mm	*B* mm	*Lmax* mm
050	156	404	649
075	218.5	529	899
100	281	654	1,149

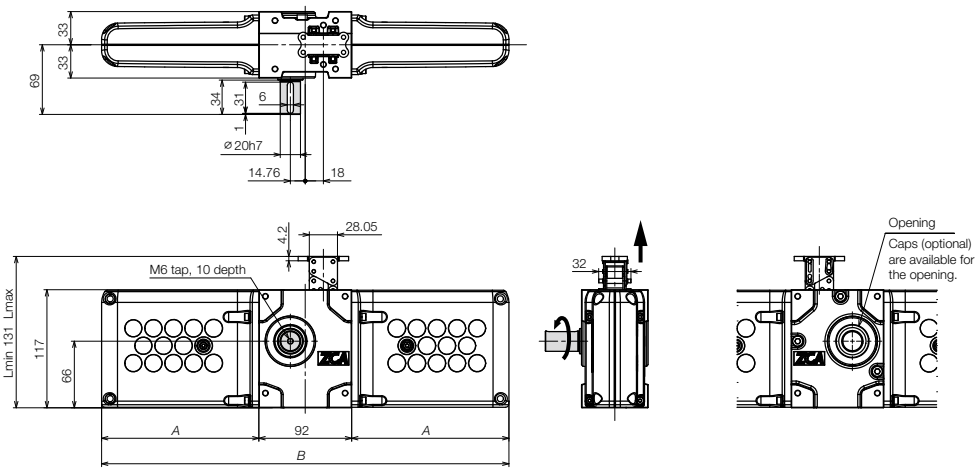
Input shaft key



Input shaft key
(Shipped with instruction manual)
JIS B 1301- 1996

ZCA35N□□□ER (Input shaft on opposite side)

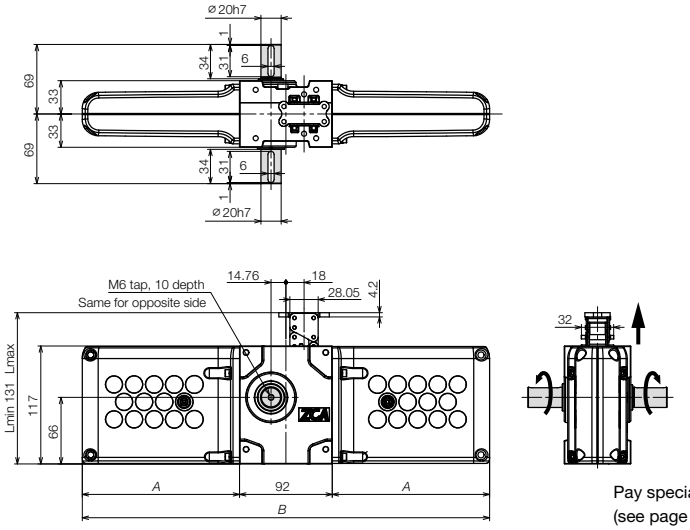
The mounting taps on the drive section base are the same as those on the basic model.



Above is ZCA35N050ER dimension.
See Table 1 for ZCA35N075/100ER housing dimensions A, B, and L.

ZCA35N□□□ET (Dual input shaft)

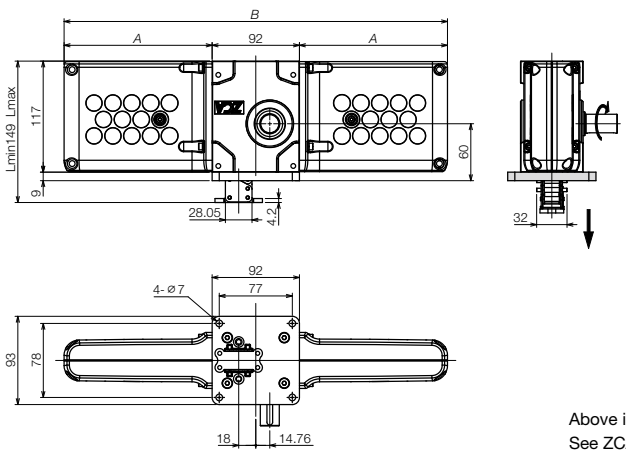
The mounting taps on the drive section base are the same as those on the basic model.



Above is ZCA35N050ET dimension.

Pay special attention to the input torque when operating multiple ZCAs are aligned (see page 30). See Table 1 for ZCA35N075/100ET housing dimensions A, B, and L.

ZCA35N□□□D (Suspending installation)



Above is ZCA35N050DL dimension.
See ZCA35N□□□ER/ET dimensions on input shaft for shaft arrangement R and T.
See Table 2 for ZCA35N075/100DL housing dimensions A, B, and L.

Characteristics

Without bellows

Model		Allowable stroke*1	Allowable thrust*2		Input shaft				Maximum speed		Zip Chain travel distance per input shaft rotation	Approximate mass		
					Allowable torque		Allowable OHL		Thrust direction	Input shaft rotation		Input shaft Standard/reverse shaft	Input shaft Dual shafts	Suspending installation
		mm	N	{kgf}	N·m	{kgf·m}	N	{kgf}	mm/sec	(r/min)	mm	kg		
ZCA45N	100	1,000	2,000	{204.0}	116.6	{11.9}	2,065	{210.5}	500	125	240	21	21	22
	150	1,500										25	25	27
	200	2,000	1,200	{122.5}*3								30	30	31

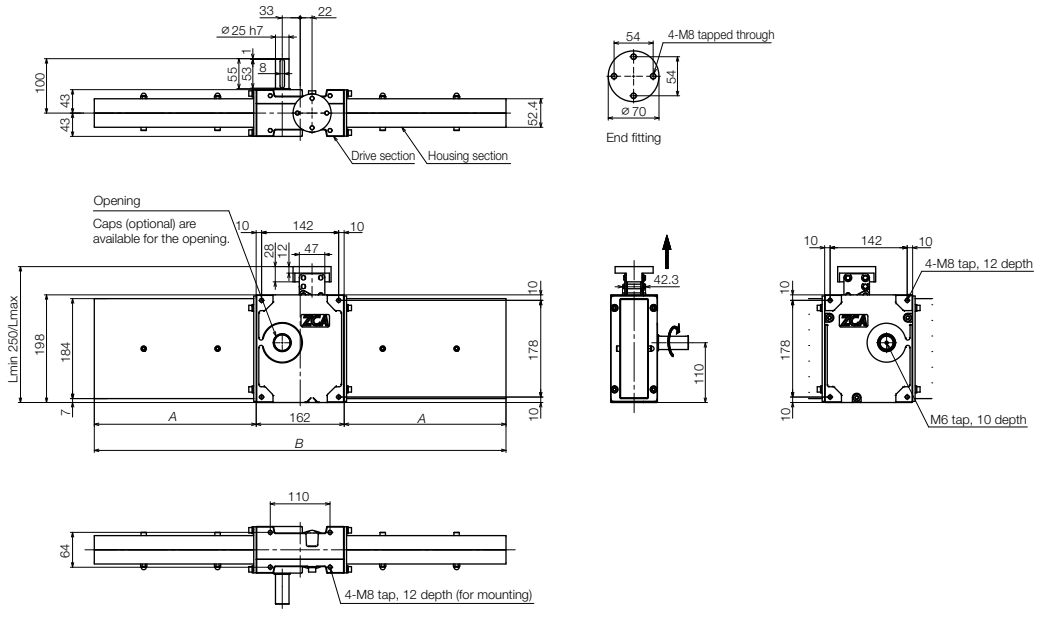
With bellows

Model		Allowable stroke*1	Allowable thrust*2		Input shaft				Maximum speed		Zip Chain travel distance per input shaft rotation	Approximate mass		
					Allowable torque		Allowable OHL		Thrust direction	Input shaft rotation		Input shaft Standard/reverse shaft	Input shaft Dual shafts	Suspending installation
		mm	N	{kgf}	N·m	{kgf·m}	N	{kgf}	mm/sec	(r/min)	mm	kg		
ZCA45N	100	1,000	2,000	{204.0}	116.6	{11.9}	2,065	{210.5}	500	125	240	22	22	23
	150	1,500										27	27	28
	200	2,000	900	{91.8}*3								32	32	33

*1 Use the unit within the allowable stroke range. Also, be sure to always attach a linear guide in the direction of travel.
*2 Values are obtained when operated at a maximum acceleration of 0.35 G (upper limit) with the end fitting attached.
These values are applicable regardless of the type of installation (vertical, horizontal, suspending).
*3 Please contact Tsubaki, if the stroke is 2000mm for suspending application.

Dimensions

ZCA45N□□□EL (Standard shaft)



See Table 1 for dimensions A, B, and L.

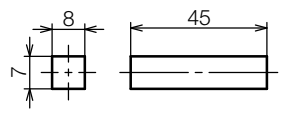
Table 1: ZCA45N□□□EL·ER·ET

Stroke code	*A* mm	*B* mm	*Lmax* mm
100	298	758	1,250
150	423	1,008	1,750
200	548	1,258	2,250

Table 2: ZCA45N□□□D

Stroke code	*A* mm	*B* mm	*Lmax* mm
100	298	758	1,274
150	423	1,008	1,774
200	548	1,258	2,274

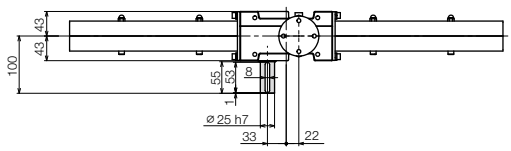
Input shaft key

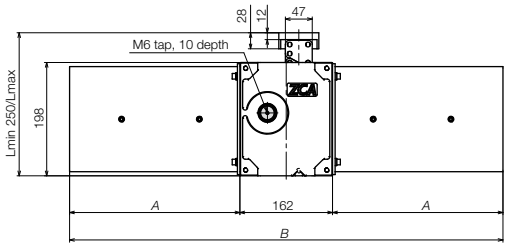


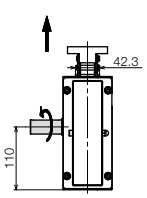
Input shaft key
(Shipped with instruction manual)
JIS B 1301- 1996

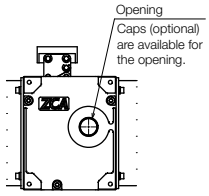
ZCA45N□□□ER (Input shaft on opposite side)

The mounting taps on the drive section base are the same as those on the basic model.





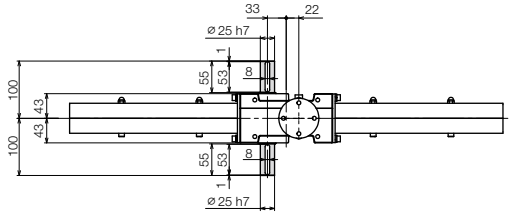


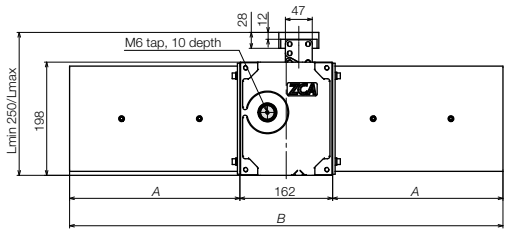


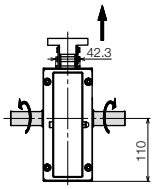
See Table 1 for dimensions A, B, and L.

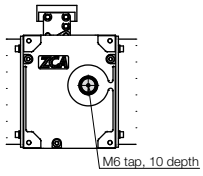
ZCA45N□□□ET (Dual input shaft)

The mounting taps on the drive section base are the same as those on the basic model.



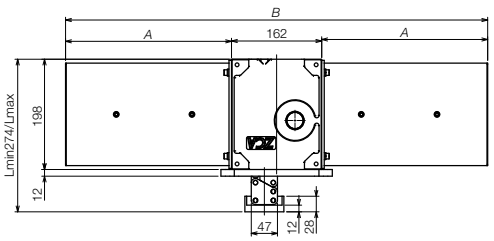


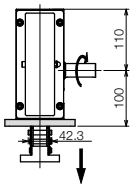


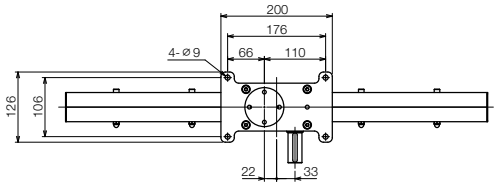


Pay special attention to the input torque when operating multiple ZCAs are aligned (see page 30). See Table 1 for dimensions A, B, and L.

ZCA45N□□□D (Suspending installation)







See ZCA45N□□□ER/ET dimensions on input shaft for shaft arrangement R and T.
See Table 2 for dimensions A, B, and L.

ZIP CHAIN ACTUATOR With Hypoid Motor

Model

ZCA 35 M 075 E T 040 H 15 - J1F

ZCA	35	M	075	E	T	040	H	15	-	J1F
Series	Size	Drive section	Stroke	Mounting	Shaft arrangement	Motor size	Hypoid	Reduction ratio		Options

See page 18

See page 18

Size

25
35
45

Drive section

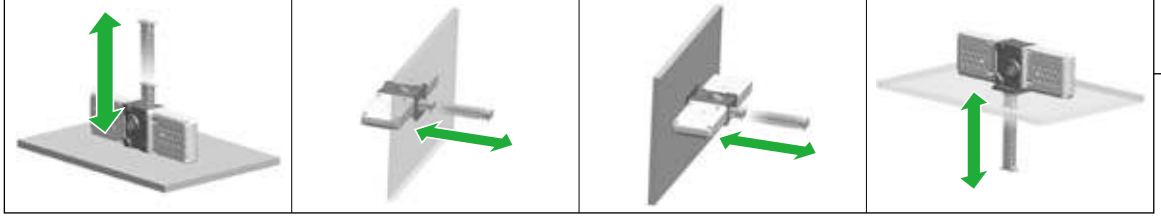
M	With Hypoid Motor

Stroke

Size	25		35			45		
Code	030	050	050	075	100	100	150	200
Allowable stroke mm	300	500	500	750	1,000	1,000	1,500	2,000

Mounting

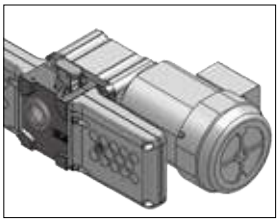
E		D
Lifting installation	Horizontal installation	Suspending installation (MTO)



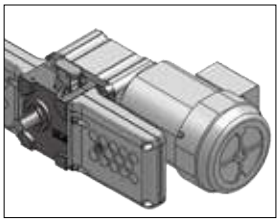
Be sure to always install a linear guide along the direction of travel.

Shaft arrangement

L: Input shaft

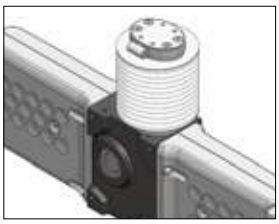


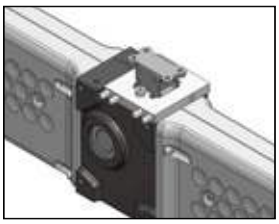
T: Dual input shaft



Options

Bellows		Grease plates
J1: For lifting, suspending	J2: For horizontal (MTO)	F

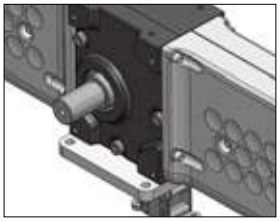




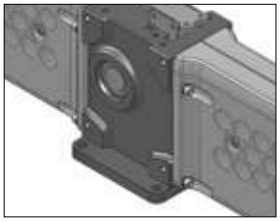
* Option J2 (bellows for horizontal installation) is made to order.

Attachable options

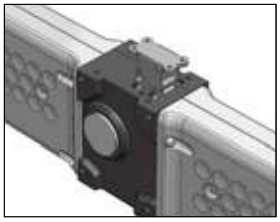
Mounting base



Bottom mounting base



Cap (ZCA35M and ZCA45M only)



●Bases and caps are available as options. See page 41 for more information.

Lineup (with motor size and reduction ratio)

○: Standard △: Made to order

Size	Motor size	Reduction ratio	Stroke	Mounting method: E Shaft arrangement		Mounting method: D Shaft arrangement	
			mm	L	T	L	T
ZCA25M	006 (60 W)	40 50 60	300	○	○	△	△
			500	○	○	△	△
	009 (90 W)	10 15 20 25 30	300	○	○	△	△
			500	○	○	△	△
ZCA35M	020 (0.2 kW)	40 50 60	500	○	○	△	△
			750	○	○	△	△
			1,000	○	○	△	△
	040 (0.4 kW)	10 12.5 15 20 25 30	500	○	○	△	△
			750	○	○	△	△
			1,000	○	○	△	△
ZCA45M	040 (0.4 kW)	60 80 100	1,000	○	○	△	△
			1,500	○	○	△	△
			2,000	○	○	△	△
	075 (0.75 kW)	10 12.5 15 20 25 30 40 50	1,000	○	○	△	△
			1,500	○	○	△	△
			2,000	○	○	△	△

Contact Tsubaki representative for motor size combinations not listed above.

Specifications and Environmental Requirements

ZCA main unit		ZCA25M	ZCA35M	ZCA45M
Drive section	Material	Forged steel		
	Coating color	Black, Munsell N2.0 equivalent		
Housing section	Material	Polyacetal		Iron
	Coating color	Purple grey Munsell 0.8P6.3/3.0 equivalent (molded)		Black, Munsell N2.0 equivalent
Chain	Material	Iron		
	Lubricant	Shell Alvania EP Grease 2 [Shell Lubricants Japan K.K.] * This grease is applied before shipment.		
Environmental requirements	Operating temperature	0 to 40°C		
	Relative humidity	85% or less (no condensation)		
	Ambient atmosphere	Typical rain-free indoor environment with dust levels kept at a general factory level.		
	Installation direction	The unit can be hung or mounted vertically or horizontally. However, regardless of the installation direction, be sure to mount a linear guide in the direction of travel. A mounting base is required to hang the unit. See page 42 for more information.		

Hypoid motor		ZCA25M	ZCA35M ZCA45M
Motor	Output	Three-phase: 60, 90 W	Three-phase: (1) 0.2, 0.4 kW: With brake (2) 0.75 kW: With brake
	Power source*	200/200/220 V 50/60/60 Hz	0.2 0.4 0.75 kW 200/200/220 V 50/60/60 Hz
	Number of poles	4	
	Protection	Totally enclosed (IP30)	0.2/0.4/0.75 kW(IP20)
	Cooling	Air-cooled	0.2/0.4/0.75 kW(IC411)
	Rating	S1 (continuous)	
	Heat-resistance class	120(E)	0.2/0.4 kW-120(E) 0.75 kW-155(F)
	Type of brake	Power-off type, DC electromagnetic brake	
Reducer	Lubrication system	Grease lubrication	
Ambient conditions	Installation location	Indoors, free of dust and water	
	Altitude	1,000 m or less above sea level	
	Atmosphere	Area must be free of corrosive and explosive gases, and steam.	
	Coating color	Munsell N7.5 / Light gray	Munsell 2.5G6/3

* 400 V class also available. Contact a Tsubaki representative for more information.

Characteristics

Model			Hypoid motor		Rated thrust N {kgf}		Speed mm/sec		Allowable start-up frequency Times/min		Approximate mass kg		
Size	Drive section	Stroke mm	(Motor size)	Reduction ratio			50 Hz	60 Hz	50 Hz	60 Hz	Single input shaft	Dual input shafts	Suspending installation
ZCA25	M	300	006 (60 W)	40	400	{ 40.8 }	60	73	10	10	10	10	11
				50	400	{ 40.8 }	48	58	9	10	10	10	11
				60	400	{ 40.8 }	40	48	8	9	10	10	11
			009 (90 W)	10	166	{ 17.0 }	243	292	10	10	10.5	10.5	11.5
				15	274	{ 28.0 }	162	195	10	10	10.5	10.5	11.5
				20	382	{ 39.0 }	122	145	10	10	10.5	10.5	11.5
				25	400	{ 40.8 }	97	117	10	10	10.5	10.5	11.5
				30	400	{ 40.8 }	82	97	10	10	10.5	10.5	11.5
		500	006 (60 W)	40	*330	{ *33.6 }	60	73	10	10	10.5	10.5	11.5
				50	*330	{ *33.6 }	48	58	9	10	10.5	10.5	11.5
				60	*330	{ *33.6 }	40	48	8	9	10.5	10.5	11.5
			009 (90 W)	10	166	{ 17.0 }	243	292	10	10	11	11	12
				15	274	{ 28.0 }	162	195	10	10	11	11	12
				20	*330	{ *33.6 }	122	145	10	10	11	11	12
				25	*330	{ *33.6 }	97	117	10	10	11	11	12
				30	*330	{ *33.6 }	82	97	10	10	11	11	12
ZCA35	M	500	020 (0.2 kW)	40	1,000	{ 102.0 }	91	110	10	10	14	14	15.5
				50	1,000	{ 102.0 }	73	88	8	10	14	14	15.5
				60	1,000	{ 102.0 }	61	73	7	8	14	14	15.5
			040 (0.4 kW)	10	617	{ 63.0 }	365	438	3	5	18	18	19.5
				12.5	794	{ 81.0 }	292	351	8	10	18	18	19.5
				15	941	{ 96.0 }	243	292	10	10	18	18	19.5
				20	1,000	{ 102.0 }	183	219	10	10	18	18	19.5
				25	1,000	{ 102.0 }	146	175	10	10	18	18	19.5
				30	1,000	{ 102.0 }	122	146	10	10	18	18	19.5
		750	020 (0.2 kW)	40	1,000	{ 102.0 }	91	110	10	10	15	15.5	16.5
				50	1,000	{ 102.0 }	73	88	8	10	15	15.5	16.5
				60	1,000	{ 102.0 }	61	73	7	8	15	15.5	16.5
			040 (0.4 kW)	10	617	{ 63.0 }	365	438	3	5	19	19.5	21
				12.5	794	{ 81.0 }	292	351	8	10	19	19.5	21
				15	941	{ 96.0 }	243	292	10	10	19	19.5	21
				20	1,000	{ 102.0 }	183	219	10	10	19	19.5	21
				25	1,000	{ 102.0 }	146	175	10	10	19	19.5	21
				30	1,000	{ 102.0 }	122	146	10	10	19	19.5	21
		1,000	020 (0.2 kW)	40	*600	{ *61.2 }	91	110	10	10	16	16	17.5
				50	*600	{ *61.2 }	73	88	8	10	16	16	17.5
				60	*600	{ *61.2 }	61	73	7	8	16	16	17.5
			040 (0.4 kW)	10	*600	{ *61.2 }	365	438	3	5	20	20	21.5
				12.5	*600	{ *61.2 }	292	351	8	10	20	20	21.5
				15	*600	{ *61.2 }	243	292	10	10	20	20	21.5
				20	*600	{ *61.2 }	183	219	10	10	20	20	21.5
				25	*600	{ *61.2 }	146	175	10	10	20	20	21.5
				30	*600	{ *61.2 }	122	146	10	10	20	20	21.5

Rated thrust values are for operation at 60 Hz.
* Models marked with have torque limits.

Model			Hypoid motor		Rated thrust N {kgf}		Speed mm/sec		Allowable start-up frequency Times/min		Approximate mass kg		
Size	Drive section	Stroke mm	(Motor size)	Reduction ratio			50 Hz	60 Hz	50 Hz	60 Hz	Single input shaft	Dual input shafts	Suspending installation
ZCA45	M	1,000	040 (0.4 kW)	60	2,000	{ 204 }	102	122	6	7	35.5	36	37.5
				80	2,000	{ 204 }	76	91	4.5	5.5	35.5	36	37.5
				100	2,000	{ 204 }	61	73	4	4.5	35.5	36	37.5
			075 (0.75 kW)	10	617	{ 63 }	500	500	0.5	1	47.5	47.5	49
				12.5	813	{ 83 }	490	500	1	2	47.5	47.5	49
				15	980	{ 100 }	408	490	2	4.5	47.5	47.5	49
				20	2,000	{ 204 }	306	367	5	9	47.5	47.5	49
				25	2,000	{ 204 }	245	294	10	10	47.5	47.5	49
				30	2,000	{ 204 }	204	245	10	10	47.5	47.5	49
				40	2,000	{ 204 }	153	183	9	10	47.5	47.5	49
				50	2,000	{ 204 }	122	147	7	8	47.5	47.5	49
		1,500	040 (0.4 kW)	60	2,000	{ 204 }	102	122	6	7	40	40.5	42
				80	2,000	{ 204 }	76	91	4.5	5.5	40	40.5	42
				100	2,000	{ 204 }	61	73	4	4.5	40	40.5	42
			075 (0.75 kW)	10	617	{ 63 }	500	500	0.5	1	51.5	52	53.5
				12.5	813	{ 83 }	490	500	1	2	51.5	52	53.5
				15	980	{ 100 }	408	490	2	4.5	51.5	52	53.5
				20	1,392	{ 142 }	306	367	5	9	51.5	52	53.5
				25	1,765	{ 180 }	245	294	10	10	51.5	52	53.5
				30	2,000	{ 204 }	204	245	10	10	51.5	52	53.5
				40	2,000	{ 204 }	153	183	9	10	51.5	52	53.5
				50	2,000	{ 204 }	122	147	7	8	51.5	52	53.5
		2,000	040 (0.4 kW)	60	*1,200	{ *122 }	102	122	6	7	44.5	44.5	46
				80	*1,200	{ *122 }	76	91	4.5	5.5	44.5	44.5	46
				100	*1,200	{ *122 }	61	73	4	4.5	44.5	44.5	46
			075 (0.75 kW)	10	617	{ 63 }	500	500	0.5	1	56	56.5	58
				12.5	813	{ 83 }	490	500	1	2	56	56.5	58
				15	980	{ 100 }	408	490	2	4.5	56	56.5	58
				20	*1,200	{ *122 }	306	367	5	9	56	56.5	58
				25	*1,200	{ *122 }	245	294	10	10	56	56.5	58
				30	*1,200	{ *122 }	204	245	10	10	56	56.5	58
				40	*1,200	{ *122 }	153	183	9	10	56	56.5	58
				50	*1,200	{ *122 }	122	147	7	8	56	56.5	58

Rated thrust values are for operation at 60 Hz.
* Models marked with have torque limits.

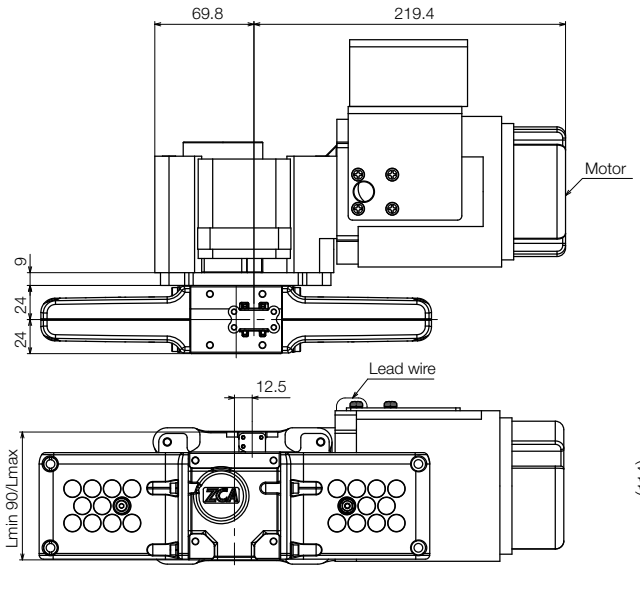
Characteristics

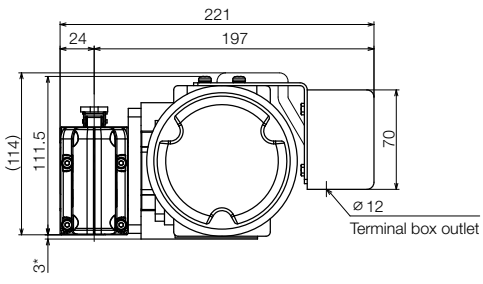
Model			Hypoid motor		Rated thrust N {kgf}		Speed mm/sec		Allowable start-up frequency Times/min		Approximate mass kg		
Size	Drive section	Stroke mm	(Motor size)	Reduction ratio			50 Hz	60 Hz	50 Hz	60 Hz	Single input shaft	Dual input shafts	Suspending installation
ZCA25	M	300	006 (60 W)	40	400	{ 40.8 }	60	73	10	10	10	10	11
				50	400	{ 40.8 }	48	58	9	10	10	10	11
				60	400	{ 40.8 }	40	48	8	9	10	10	11
			009 (90 W)	10	166	{ 17.0 }	243	292	10	10	10.5	10.5	11.5
				15	274	{ 28.0 }	162	195	10	10	10.5	10.5	11.5
				20	382	{ 39.0 }	122	145	10	10	10.5	10.5	11.5
				25	400	{ 40.8 }	97	117	10	10	10.5	10.5	11.5
				30	400	{ 40.8 }	82	97	10	10	10.5	10.5	11.5
		500	006 (60 W)	40	*330	{ *33.6 }	60	73	10	10	10.5	10.5	11.5
				50	*330	{ *33.6 }	48	58	9	10	10.5	10.5	11.5
				60	*330	{ *33.6 }	40	48	8	9	10.5	10.5	11.5
			009 (90 W)	10	166	{ 17.0 }	243	292	10	10	11	11	12
				15	274	{ 28.0 }	162	195	10	10	11	11	12
				20	*330	{ *33.6 }	122	145	10	10	11	11	12
				25	*330	{ *33.6 }	97	117	10	10	11	11	12
				30	*330	{ *33.6 }	82	97	10	10	11	11	12

Rated thrust values are for operation at 60 Hz.
* Models marked with have torque limits.

Dimensions

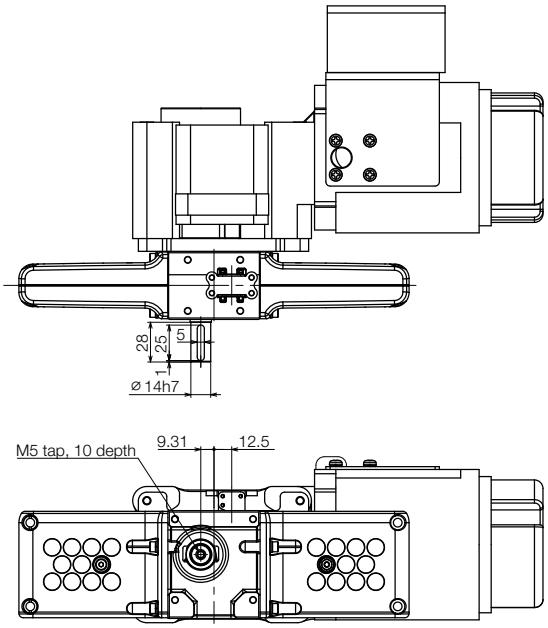
ZCA25M□□□EL (Standard input shaft)

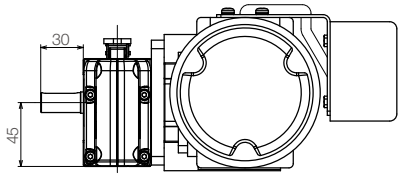




*1 The mounting taps on the drive section base are the same with ZCA25N with no drive (page 11).
*2 Be aware that the motor unit is larger than the drive section base.
*3 The Lmin and Lmax dimensions are the same as with the ZCA25N (without drive section).

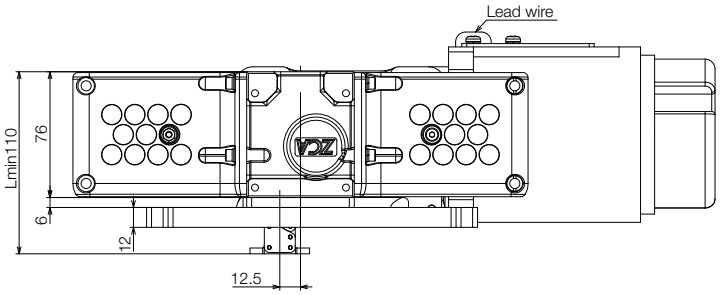
ZCA25M□□□ET (Dual input shaft)

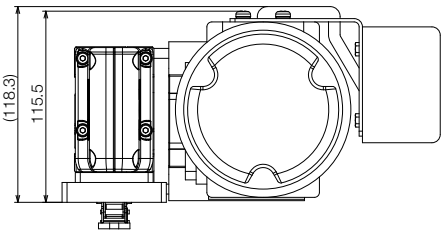


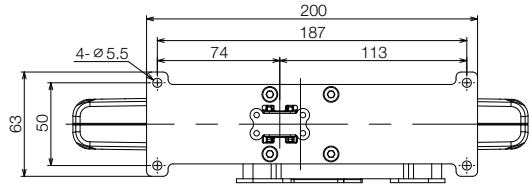


*1 The mounting taps on the drive section base are the same with ZCA25N with no drive (page 11).
*2 Be aware that the motor unit is larger than the drive section base.
*3 The Lmin and Lmax dimensions are the same as with the ZCA25N (without drive section).
*4 See ZCA25M□□□EL with standard input shaft dimension for the motor dimensions.

ZCA25M□□□D (Suspending installation)







*1 The mounting taps on the drive section base are the same with ZCA25N with no drive (page 11).
*2 The Lmin and Lmax dimensions are the same as with the ZCA25N (without drive section).
*3 See ZCA25M□□□EL with standard input shaft dimension for the motor dimensions.

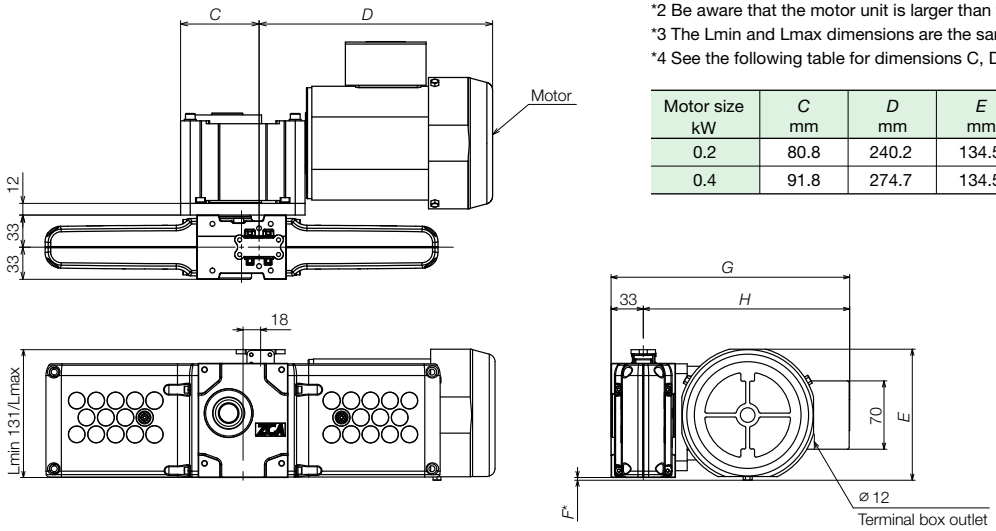
Characteristics

Model			Hypoid motor		Rated thrust N {kgf}		Speed mm/sec		Allowable start-up frequency Times/min		Approximate mass kg		
Size	Drive section	Stroke mm	(Motor size)	Reduction ratio			50 Hz	60 Hz	50 Hz	60 Hz	Single input shaft	Dual input shafts	Suspending installation
ZCA35	M	500	020 (0.2 kW)	40	1,000	{ 102.0 }	91	110	10	10	14	14	15.5
				50	1,000	{ 102.0 }	73	88	8	10	14	14	15.5
				60	1,000	{ 102.0 }	61	73	7	8	14	14	15.5
			040 (0.4 kW)	10	617	{ 63.0 }	365	438	3	5	18	18	19.5
				12.5	794	{ 81.0 }	292	351	8	10	18	18	19.5
				15	941	{ 96.0 }	243	292	10	10	18	18	19.5
				20	1,000	{ 102.0 }	183	219	10	10	18	18	19.5
				25	1,000	{ 102.0 }	146	175	10	10	18	18	19.5
				30	1,000	{ 102.0 }	122	146	10	10	18	18	19.5
		750	020 (0.2 kW)	40	1,000	{ 102.0 }	91	110	10	10	15	15.5	16.5
				50	1,000	{ 102.0 }	73	88	8	10	15	15.5	16.5
				60	1,000	{ 102.0 }	61	73	7	8	15	15.5	16.5
			040 (0.4 kW)	10	617	{ 63.0 }	365	438	3	5	19	19.5	21
				12.5	794	{ 81.0 }	292	351	8	10	19	19.5	21
				15	941	{ 96.0 }	243	292	10	10	19	19.5	21
				20	1,000	{ 102.0 }	183	219	10	10	19	19.5	21
				25	1,000	{ 102.0 }	146	175	10	10	19	19.5	21
				30	1,000	{ 102.0 }	122	146	10	10	19	19.5	21
		1,000	020 (0.2 kW)	40	*600	{ *61.2 }	91	110	10	10	16	16	17.5
				50	*600	{ *61.2 }	73	88	8	10	16	16	17.5
				60	*600	{ *61.2 }	61	73	7	8	16	16	17.5
			040 (0.4 kW)	10	*600	{ *61.2 }	365	438	3	5	20	20	21.5
				12.5	*600	{ *61.2 }	292	351	8	10	20	20	21.5
				15	*600	{ *61.2 }	243	292	10	10	20	20	21.5
				20	*600	{ *61.2 }	183	219	10	10	20	20	21.5
				25	*600	{ *61.2 }	146	175	10	10	20	20	21.5
				30	*600	{ *61.2 }	122	146	10	10	20	20	21.5

Rated thrust values are for operation at 60 Hz.
* Models marked with have torque limits.

Dimensions

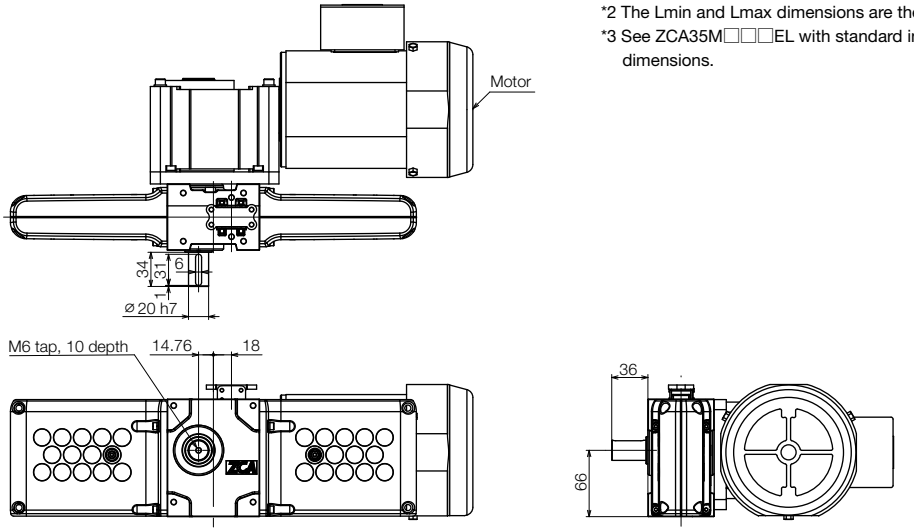
ZCA35M□□□EL (Standard input shaft)



*1 The mounting taps on the drive section base are the same with ZCA35N with no drive (page 13).
*2 Be aware that the motor unit is larger than the drive section base.
*3 The Lmin and Lmax dimensions are the same with ZCA35N with no drive.
*4 See the following table for dimensions C, D, E, F, G, and H.

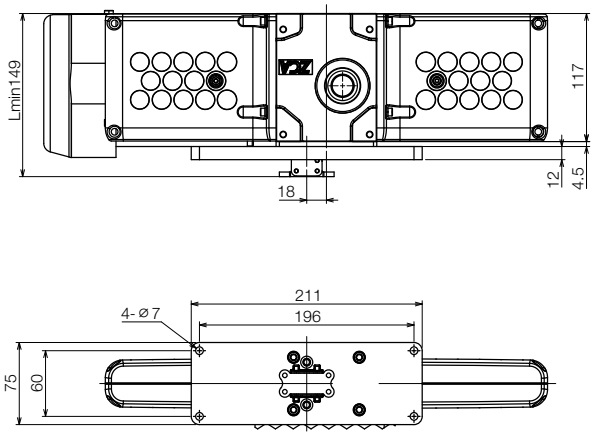
Motor size kW	C mm	D mm	E mm	F mm	G mm	H mm
0.2	80.8	240.2	134.5	3.5	244.5	211.5
0.4	91.8	274.7	134.5	11.5	248.5	215.5

ZCA35M□□□ET (Dual input shaft)



*1 The mounting taps on the drive section base are the same with ZCA35N with no drive (page 13).
*2 The Lmin and Lmax dimensions are the same with ZCA35N.
*3 See ZCA35M□□□EL with standard input shaft dimension for the motor dimensions.

ZCA35M□□□D (Suspending installation)



*1 The mounting taps on the drive section base are the same with ZCA35N with no drive (page 13).
*2 The Lmin and Lmax dimensions are the same with ZCA35N.
*3 See ZCA35M□□□EL with standard input shaft dimension for the motor dimensions.

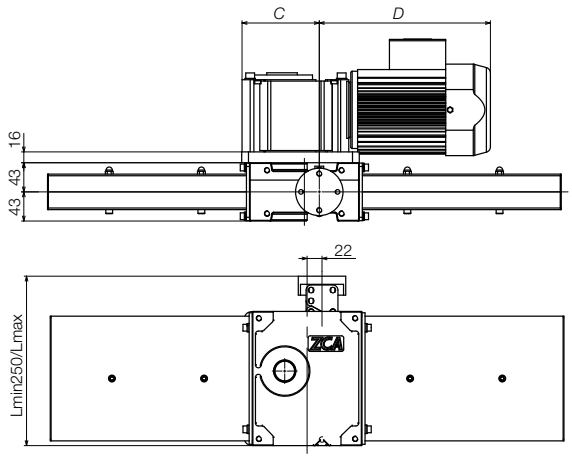
Characteristics

Model			Hypoid motor		Rated thrust N {kgf}		Speed mm/sec		Allowable start-up frequency Times/min		Approximate mass kg		
Size	Drive section	Stroke mm	(Motor size)	Reduction ratio			50 Hz	60 Hz	50 Hz	60 Hz	Single input shaft	Dual input shafts	Suspending installation
ZCA45	M	1,000	040 (0.4 kW)	60	2,000	{ 204 }	102	122	6	7	35.5	36	37.5
				80	2,000	{ 204 }	76	91	4.5	5.5	35.5	36	37.5
				100	2,000	{ 204 }	61	73	4	4.5	35.5	36	37.5
			075 (0.75 kW)	10	617	{ 63 }	♦500	♦500	0.5	1	47.5	47.5	49
				12.5	813	{ 83 }	490	♦500	1	2	47.5	47.5	49
				15	980	{ 100 }	408	490	2	4.5	47.5	47.5	49
				20	2,000	{ 204 }	306	367	5	9	47.5	47.5	49
				25	2,000	{ 204 }	245	294	10	10	47.5	47.5	49
				30	2,000	{ 204 }	204	245	10	10	47.5	47.5	49
				40	2,000	{ 204 }	153	183	9	10	47.5	47.5	49
				50	2,000	{ 204 }	122	147	7	8	47.5	47.5	49
		1,500	040 (0.4 kW)	60	2,000	{ 204 }	102	122	6	7	40	40.5	42
				80	2,000	{ 204 }	76	91	4.5	5.5	40	40.5	42
				100	2,000	{ 204 }	61	73	4	4.5	40	40.5	42
			075 (0.75 kW)	10	617	{ 63 }	♦500	♦500	0.5	1	51.5	52	53.5
				12.5	813	{ 83 }	490	♦500	1	2	51.5	52	53.5
				15	980	{ 100 }	408	490	2	4.5	51.5	52	53.5
				20	1,392	{ 142 }	306	367	5	9	51.5	52	53.5
				25	1,765	{ 180 }	245	294	10	10	51.5	52	53.5
				30	2,000	{ 204 }	204	245	10	10	51.5	52	53.5
				40	2,000	{ 204 }	153	183	9	10	51.5	52	53.5
				50	2,000	{ 204 }	122	147	7	8	51.5	52	53.5
		2,000	040 (0.4 kW)	60	*1,200	{ *122 }	102	122	6	7	44.5	44.5	46
				80	*1,200	{ *122 }	76	91	4.5	5.5	44.5	44.5	46
				100	*1,200	{ *122 }	61	73	4	4.5	44.5	44.5	46
			075 (0.75 kW)	10	617	{ 63 }	♦500	♦500	0.5	1	56	56.5	58
				12.5	813	{ 83 }	490	♦500	1	2	56	56.5	58
				15	980	{ 100 }	408	490	2	4.5	56	56.5	58
				20	*1,200	{ *122 }	306	367	5	9	56	56.5	58
				25	*1,200	{ *122 }	245	294	10	10	56	56.5	58
				30	*1,200	{ *122 }	204	245	10	10	56	56.5	58
				40	*1,200	{ *122 }	153	183	9	10	56	56.5	58
				50	*1,200	{ *122 }	122	147	7	8	56	56.5	58

Rated thrust values are for operation at 60 Hz.
* Models marked with have torque limits.
* Models marked with ♦ have speed limits.

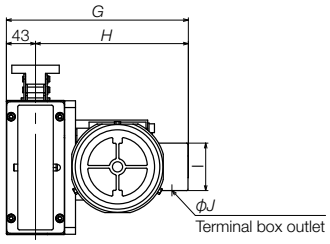
Dimensions

ZCA45M□□□EL (Standard input shaft)

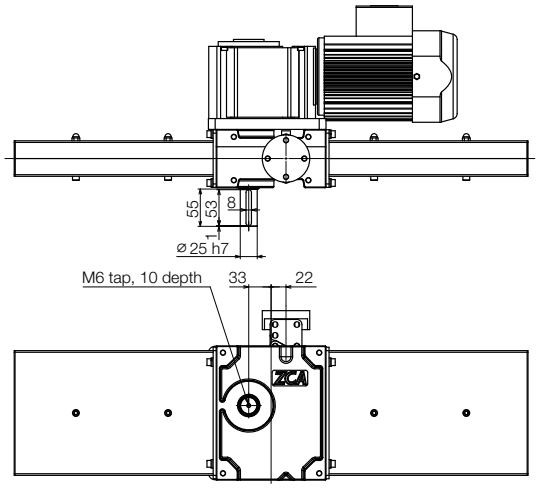


*1 The mounting taps on the drive section base are the same with ZCA45N with no drive (page 15).
*2 The Lmin and Lmax dimensions are the same with ZCA45N.
*3 See the following table for dimensions C, D, G, H, I, and J.

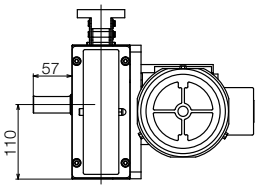
Motor size kW	C mm	D mm	G mm	H mm	I mm	J ϕ
0.4	125	271.5	281.5	238.5	70	ϕ12
0.75	125	330	300	257	70	ϕ12



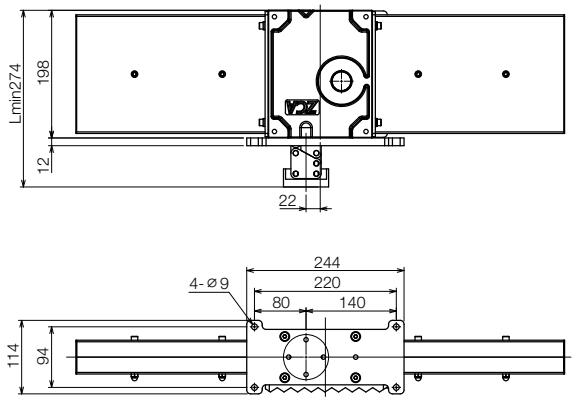
ZCA45M□□□ET (Dual input shaft)



*1 The mounting taps on the drive section base are the same with ZCA45N with no drive (page 15).
*2 The Lmin and Lmax dimensions are the same with ZCA45N.
*3 See ZCA45M□□□EL with standard input shaft dimension for the motor dimensions.



ZCA45M□□□D (Suspending installation)



*1 The mounting taps on the drive section base are the same with ZCA45N with no drive (page 15).
*2 The Lmin and Lmax dimensions are the same with ZCA45N.
*3 See ZCA45M□□□EL with standard input shaft dimension for the motor dimensions.

Innovation in Motion

TSUBAKI

MASA JAYA

PT. MASA JAYA PERKASA

info@masajayaperkasa.com

Jl. Hayam Wuruk No. 76,
Jakarta Barat,DKI Jakarta 11160

(+62)21-649-6496

(+62)852-1116-7713