



Doosan Infracore  
Forklifts

## 4 Wheel Electric Forklift Trucks

B40X / B45X / B50X-5

4,000kg to 5,000kg Capacity



**PRO5**  
SERIES



**B40X / B45X / B50X-5**  
4,000kg to 5,000kg Capacity  
80 VOLT  
Solid Soft Rider Tire



**PRO5**  
SERIES

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AUTHORIZED DEALER

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## *B40X / 45X / 50X-5 ELECTRIC 4 WHEEL TRUCK*

*High Performance, Great Productivity, Energy Efficiency, Superior Ergonomics and Easy Service You Only Get All with A New Generation of Doosan Electric Forklifts*



- Optimized operator compartment, especially FCU (Front Corkpit Unit), provide driving & operating comfort.
- A.C.T. (Active Control Technology) incorporated into full AC (Drive and Hydraulic) system provides smooth & perfect control.
- Proven and durable component provide enhanced maintenance interval and reliability
- Operator-friendly features provide operating pleasure.
- AC Motors & OCDB provide incredible and outstanding productivity.
- ISO 3691 regulation introduced in control valve and O.S.S. (Operator Sensing System) provide industry best driving & operating safety
- Tool-less side cover and wide open hood provide great serviceability

**Satisfaction comes Standard !**

*Due to Enhanced Comfort Features Designed to Be Simple and Easily Adjustable, The Operator Compartment Will Make You Feel Right At Home.*



- **Auto Tilt Leveling (Optional).**  
Easily returns mast to upright vertical position with simply pushing the button.

- **Finger-tip Controlled Hydraulic Control Valve (Optional)**  
Permits precise controlled load movement by literally lifting only a finger to significantly reduce operator movement and expended effort. It is engaged with lift and tilt locking when the operator leaves seat or puts key in 'OFF' position.

- **Deluxe Suspension Seat (Optional) with OSS**  
A comfortable deluxe suspension seat with OSS(operator sensing system), a large seatback angle, longer seat travel length and operator's weight resistance on front side allow multiple adjustments for optimum seating comfort.



- **Convenience Tray**  
Easily handles refreshments, paperwork, small tools and etc for operator efficiency.



- **Spacious Operator compartment**  
Wide open leg room, stepless tiltable steering column and ergonomically located operator pedals with low cowl height facilitates anti fatigue operating.



- **High Visibility Overhead Guard and Front-end**  
Wider mast window, repositioned hydraulic hoses and flat bar style overhead guard optimizes operator sight lines forward, up and to the load.



# Productive, But Energy Efficient !



Productivity Comes Standard

The bottom line for evaluating a lift truck is PRODUCTIVITY... and that's where the Pro5 Series really stands out. Productivity of an electric truck is a combination of speed, control and energy consumption --- which have all been achieved through several exclusive Doosan design innovations.

## ● DOOSAN Exclusive ACT (Active Control Technology)

This innovative system provides several productivity advantages:



- Active Performance Control : self-adjusts performance criteria to changes in operating conditions
- Active Energy control : maintains consistent performance through 80% of battery charge life
- Active Comfort Control : customizes operating parameters to match driver's style for increased comfort, confidence & control
- Active Heat Control : system self protects when overheating detected to correct temperature imbalance

## ● Operator-Centric Performance Selection

Operator controls the truck's performance capability and can optimize productivity and battery consumption rate to match application requirements.



- H-mode (High Performance)
- S-mode (Standard Performance)
- E-mode (Energy Efficient Performance)
- Turtle mode (Reduces Travel Speed while maintaining lift speed)

## ● More Work per Battery Charge

Programmable operating functions customize truck performance for energy efficiency to achieve more run time per battery charge.

## ● ITC (Intelligent Torque Control)

Closed-loop feedback system monitors loads on drive and hydraulic motors to maintain speed consistency whether the truck is empty or loaded.

It also provides :

- Responsive acceleration
- Excellent gradeability
- Full protection against short / open circuits
- Continuous temperature monitoring of panel and motors to maximize material handling productivity.



DRIVE THE DIFFERENCE...

DRIVE DOOSAN !

**Safety Comes First!**



**Doosan's Goal Is to Make Your Driving Pleasure As Safe And Stable As Possible!**

● **Lift Lock and Tilt Lock Function (ISO 3691)**

Lift and tilt function are locked when operator leave truck or truck is key off condition which minimize any risks.

● **OSS (Operator Sensing System)**

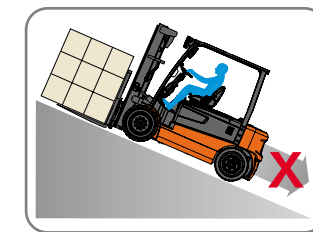
Audible alarm will sound when operator leaves from seat without parking brake applied.

Truck is not moving with directional switch in either forward or reverse when operator leaves the truck without parking brake applied. (automatically return to neutral position)



● **Parking Brake with Stopper**

Prevent parking brake release from external shock



● **Anti Roll Back & Down**

Stop on ramp, anti roll back & down system protects truck's slip.



● **Steering Angle Sensing System**

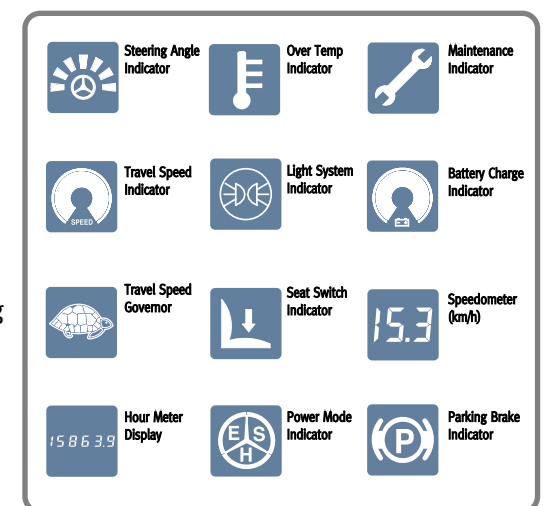
The angle sensing information controls the travel speed at turning operation. It automatically reduces the travel speed to the optimum speed at the cornering.

● **Intelligent Instrument and Control Panels**



The combination of LED displays and 7-digit graphic LCD display intelligently provides operators with all the details they need, including operational information, diagnostics, and programmable settings.

The 4 display buttons offers a choice of four power modes; heavy duty, standard duty, economic duty and slow travel speed mode. Standard instrument images are displayed at the right.



**DRIVE THE DIFFERENCE...**

**DRIVE DOOSAN!**

## Minimized Maintenance and Easy serviceability is One of Doosan's Top Priorities



**Oil- Cooled Disc Brakes(ODB)**  
Virtually maintenance-free, ODB is standard equipment on the PRO5 Series, B45X-5. The enclosed brake system eliminates outside contamination significantly extending the brake life up to 5 times longer when compared to conventional shoe brakes.



**Maintenance Free Electric Motors**  
Our innovative AC technology of drive and hydraulic motors eliminates motor brushes, commutators and directional contactors, thus reducing maintenance and decreasing overall operating costs. The large, 10kw drive motor provides outstanding power capability throughout the operating shift.

### AC Controller has power to B45X-5

The Command Center of the B45X PRO 5 Series is our AC Controller consisting of a main logic board and independent power modules with direct links to drive motor and the hydraulic motor to manage, direct and monitor every operating system on the truck.

This control unit regulates and monitors the following functions :



- Anti-Roll Back and Anti-Roll Down with adjustable ramp stop time
- Regenerative Braking
- Electrically Assisted Braking
- Static Return to Off (SRO)
- Drive Speed Compensation (Load/Unload)
- Drive Speed Acceleration/Deceleration/Reduction
- Continuous Lift Speed Control/ Pump Motor Speed Compensation
- Battery Discharge Indicator with Adjustable Reset Value
- Over Temperature Protection for power modules and Motors
- Low and High Voltage Limit
- Diagnostics and Stored Error Codes
- Power Line Fault Detection (Fuse/Contactor)
- Continuous Temperature Measuring (Controller, Motor)
- Full Protection against Short or Open Circuits

DRIVE THE DIFFERENCE...

**Rugged and Durable Twin Drive Axle**  
Doosan unique designed twin drive axle is installed on PRO5 Series, B45X-5. It is controlled by integrated drive controller and the twin drive axle effectively transfers the power and torque of the drive motor to the final drive for smooth and quiet operation.

**Run Time and Trouble shooting Diagnostics**  
Our truck talks to you!  
The Controller provides both run-time and trouble-shooting diagnostic capability to tell you the source of a problem so it can be corrected quickly and easily.  
In addition all controller programming can be locked in to guard against tampering.

## Intelligent Technology Provides Industry Best Maneuverability !

Option Availability

● : Standard ○ : Optional

Options	B40X / B45X / B50X-5
Lift and Tilt Locking Hydraulic Control Valve	●
Finger Tip Control Hydraulic Valve	○
Solid Soft Tires	●
Non-marking Tires	○
Full Suspension Deluxe Seat - Vinyl	○
Full Suspension Deluxe Seat with Armrest	○
Modular Operator Cabs	○
Mono-ped Foot Direction and Acceleration Control	○
Emergency Switch	○
Cold Storage Package	○
Keyless Ignition Switch	○
Knob - Steering Wheel	○
Two Front and Rear Combination Lights	○
One Rear Flood Light	○
Back-up Alarm	○
Rear Strobe Light	○
Rear View Mirror	○
Integral Sideshifter	○
Integral Sideshifting Fork Positioner	○
Quad Mast	○
Hydraulic Accumulator	○



DRIVE DOOSAN !



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Forklifts

# TECHNICAL SPECIFICATIONS

## 4 Wheel Electric Forklift Trucks

B40X / B45X / B50X-5

4,000kg to 5,000kg Capacity

**PRO5**  
SERIES



# 4,000/4,500/4,900 kg Capacities

## 3 Wheel Electric Forklift Trucks

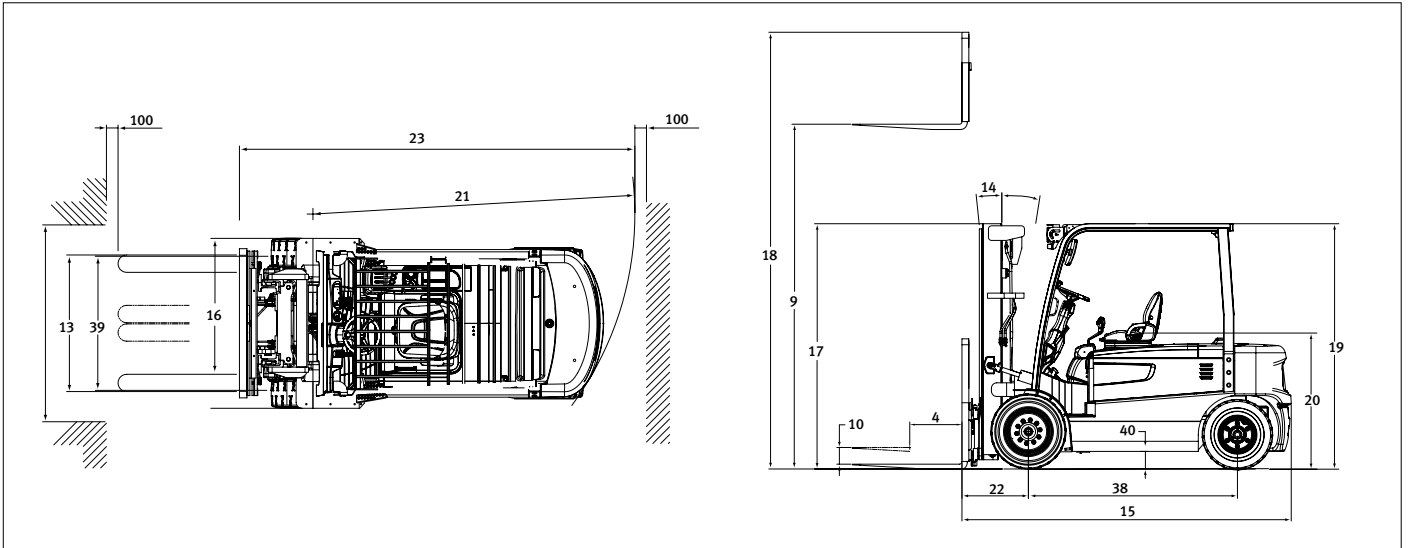
### MAIN VEHICLE SPECIFICATIONS

CHARACTERISTICS	1	Manufacture		DOOSAN	DOOSAN	DOOSAN	
	2	Model		B40X-ac	B45X-ac	B50X-ac	
	3	Load Capacity	at rated load center	kg	4000	4500	4990
	4	Load Center		mm	500	500	500
	5	Power type			electric	electric	electric
	6	Operator type			rider seated	rider seated	rider seated
	7	Tire type	P:Pnu, E:Solid Soft, C: Cush		E	E	E
	8	Wheels (x=Driven)			2x/2	2x/2	2x/2
DIMENSIONS	9	Max. Fork Height	with STD 2-stage mast	mm	3300	3300	3300
	10	Free Lift		mm	150	160	160
	12	Fork Carriage	ISO Class		III	III	IV
	13	Forks	Length x Width x Thickness	mm	50x150x1050	50x150x1050	50x150x1050
			Fork Spacing(Min x Max)	mm	310x1182	310x1182	340x1290
	14	Tilt of Mast	Forward/Backward	deg	6/9	6/9	6/9
	15	Overall Dimensions	Length to Fork Face	mm	3062	3062	3092
			Overall Width	mm	1470	1470	1470
			Mast Lowered Height	mm	2330	2340	2340
			Mast Extended Height	mm	4170	4180	4205
			Overhead Guard Height	mm	2330	2335	2335
	19	Seat Height		mm	1282	1288	1288
	21	Turning Radius	Minimum outside	mm	2760	2760	2785
	22	Load Moment Center		mm	577	577	577
	23	Aisle 90 degree stacking(add load length & clearance)		mm	4537	4537	4562
PERFORMANCE	24	Travel Speed	Loaded/Unloaded	km/h	15/16	15/16	15/16
	25	Lifting Speed	Loaded/Unloaded	mm/s	350/470	330/450	310/450
	26	Lowering Speed	Loaded/Unloaded	mm/s	480/450	480/450	480/450
	28	Max. drawbar pull	Loaded/Unloaded(5 min. rating)	kgf	20496/21300	19496/20496	19496/20496
	30	Max. gradeability	Loaded/Unloaded(5 min. rating)	%	19/ 31	17/ 29	15/ 25
	WEIGHT	32	Total Service Weight	with minimum weight of battery	kg	6990	7370
33		Axle Load at Loaded	Front/Rear	kg	9756/1234	10151/1719	11099/1651
34		Axle Load at Unloaded	Front/Rear	kg	3602/3388	3228/4142	3422/4338
CHASSIS		35	Tires	Number of wheels(F/R)		2/2	2/2
	36	Size, Front		mm	250-15	28x12.5-15	28x12.5-15
	37	Size, Rear		mm	7.00-12	7.00-12	7.00-12
	38	Wheel Base	Distance	mm	2000	2000	2000
	39	Tread Width	Front	mm	1168	1160	1160
			Rear	mm	1111	1111	1111
	40	Ground Clearance	at the lowest point	mm	130	130	130
			at center of wheelbase	mm	160	160	160
42	Brakes	Service		HYD	HYD	HYD	
		Parking		HAND	HAND	HAND	
POWER TRAIN	45	Battery	Type		DIN43536A	DIN43536A	DIN43536A
			Capacity (5 Hours Rating)	AH	720	720	720
			Battery compartment sizes(WxLxH)	mm	1028x990x784	1028x990x784	1028x990x784
			Weight (Minimum)	kg	2160	2160	2160
	47	Electric Motors	Drive motor(1 HR Rating)	kW	11X2	11X2	11X2
			Hyd. Motor(15% Duty)	kW	26	26	26
	54	Control Type	Drive and hydraulic		AC	AC	AC
57	Relief Pressure	System	bar	155	155	155	
		Attachment	bar	155	155	155	

Note: Specification values quoted in this specification sheet has been rounded. Performance may vary due to operation conditions.  
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# DIMENSIONAL DRAWING



## MAST SPECIFICATIONS and RATED CAPACITIES

### B40X-5

Mast type	Maximum Fork Height	Fully Lowered Height	Fully Extended Height		Free Lift		Pneumatic Tire	
			With Load Backrest	W/O Load Backrest	With Load Backrest	W/O Load Backrest	Tilt Angle	Load Capacities
							FWD/BWD	LC500mm
	mm	mm	mm	mm	mm	mm	deg	kg
STD	3000	2180	4255	3870	150	150	6/9	4000
STD	3300	2330	4555	4170	150	150	6/9	4000
STD	3650	2505	4905	4520	150	150	6/9	4000
STD	4000	2830	5255	4870	150	150	6/9	4000
STD	4250	2955	5505	5120	150	150	6/9	4000
STD	4850	3405	6105	5720	150	150	6/5	4000
FF	3000	2160	4240	3765	960	1435	6/9	4000
FFT	4000	2040	5255	4765	840	1335	6/9	4000
FFT	4250	2130	5520	5030	930	1425	6/9	4000
FFT	4700	2280	5970	5480	1080	1575	6/9	4000
FFT	5150	2430	6420	5930	1230	1725	6/5	4000
FFT	5600	2580	6870	6380	1380	1875	6/3	3875
FFT	6050	2730	7320	6830	1530	2025	6/3	3750

### B45X-5

Mast type	Maximum Fork Height	Fully Lowered Height	Fully Extended Height		Free Lift		Pneumatic Tire	
			With Load Backrest	W/O Load Backrest	With Load Backrest	W/O Load Backrest	Tilt Angle	Load Capacities
							FWD/BWD	LC500mm
	mm	mm	mm	mm	mm	mm	deg	kg
STD	3000	2190	4265	3880	160	160	6/9	4500
STD	3300	2340	4565	4180	160	160	6/9	4500
STD	3650	2515	4915	4530	160	160	6/9	4500
STD	4000	2840	5265	4880	160	160	6/9	4500
STD	4250	2965	5515	5130	160	160	6/9	4500
STD	4850	3415	6115	5730	160	160	6/5	4500
FF	3000	2170	4250	3775	970	1440	6/9	4500
FFT	4000	2050	5265	4770	850	1345	6/9	4500
FFT	4250	2140	5530	5035	940	1430	6/9	4500
FFT	4700	2290	5980	5485	1090	1580	6/9	4500
FFT	5150	2440	6430	5935	1240	1730	6/5	4500
FFT	5600	2590	6880	6385	1390	1880	6/3	4350
FFT	6050	2740	7330	6835	1540	2030	6/3	4225



**B50X-5**

Mast type	Maximum Fork Height	Fully Lowered Height	Fully Extended Height		Free Lift		Pneumatic Tire	
			With Load Backrest	W/O Load Backrest	With Load Backrest	W/O Load Backrest	Tilt Angle	Load Capacities
							FWD/BWD	LC500mm
		mm	mm	mm	mm	deg	kg	
STD	3000	2190	4415	3905	160	160	6/9	5000
STD	3300	2340	4715	4205	160	160	6/9	5000
STD	3650	2515	5065	4555	160	160	6/9	5000
STD	4000	2840	5415	4905	160	160	6/9	5000
STD	4250	2965	5665	5155	160	160	6/9	5000
STD	4850	3415	6265	5755	160	160	6/5	5000
FF	3000	2170	4395	3860	820	1355	6/9	5000
FFT	4000	2050	5410	4870	700	1240	6/9	5000
FFT	4250	2140	5675	5135	790	1330	6/9	5000
FFT	4700	2290	6125	5585	940	1480	6/9	5000
FFT	5150	2440	6575	6035	1090	1630	6/5	5000
FFT	5600	2590	7025	6485	1240	1780	6/3	4825
FFT	6050	2740	7475	6935	1390	1930	6/3	4675

(Mar.2007)



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