



**PRO5**  
SERIES

## 4Wheels Electric Forklift Trucks 2,200kg to 3,500kg capacity

B22X  
B25X  
B30X  
B35X



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AUTHORIZED DEALER

Product and specifications are subject to improvement and change without notice.



## A CUSTOMER-DRIVEN DESIGN



## .... To GUARANTEE CUSTOMER SATISFACTION

Extensive marketplace research kept our design team focused on providing a new generation of Doosan electrics geared to surpass customer expectations for Performance, Productivity, and Energy Efficiency. The result is a complete package of a revolutionary 3-phase AC control technology that effectively directs the trucks' Drive, and Hydraulic systems.

The PRO5 Series integrates AC technological advances with user comfort and performance needs to provide:

- **Faster** travel and lift **speeds** to ensure peak performance
- **Energy** consumption **efficiency** that translates into more run time per battery charge
- Closed loop speed control system that maintains **consistent** operating **speeds** whether truck is loaded or not
- **Easily programmable** performance selection that optimizes productivity while conserving energy
- **Enhanced driver awareness** of all operating and performance characteristics of the machine to enable ongoing productive operation throughout the shift
- **Reduced operating costs** achieved by the elimination of motor brushes, commutators, directional & hydraulic contactors which reduces maintenance and increases uptime

These hard-working electrics will handle the toughest of application challenges including ramps, grades and rough underfoot conditions to provide customers with a complete package of speed, power and efficiency guaranteed to meet all their material handling needs.

PRODUCTIVITY COMES STANDARD

DRIVE DOOSAN !



**DOOSAN INFRACORE....  
YOUR PRODUCTIVITY PARTNER**

**PRODUCTIVITY COMES STANDARD**

**ac power**  
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 Heat Control :  
system self protects when overheating detected to correct temperature imbalance
- 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



● **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 DOOSAN !**

**OPERATOR FRIENDLY DESIGN**  
**....GUARANTEES FRIENDLY OPERATORS!**



**PRODUCTIVITY COMES STANDARD**

## **A COMFORTABLE OPERATOR ENHANCES TRUCK PERFORMANCE**

Our ergonomically designed and spacious operator compartment combined with a variety of operational enhancements will facilitate ease of operation and help boost output in any application.

Operator friendly features include:



### **Intelligent Instrument and Control Panel**

The combination of LED and LCD instrument display intelligently provides operators with the vehicle's operational readiness at a glance, including diagnostics and programmable settings.

### **Spacious Operator Compartment**

Designed for comfort, with enhanced pedal positions, an infinitely adjustable steering column, deck mounted hydraulic levers, and increased foot room all add up to a more productive operator.

### **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.

### **Deluxe Suspension Seat with OSS (Operator Sensing System)**

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.

### **Steering Angle Sensor**

Communicates information back to LCD display informing operator of steer axle angle and activates main logic to control drive motor speed. It informs the operator of steer wheel angle at all times and compensates truck travel speed through the differential drive during aggressive cornering.

### **Finger-tip Controlled Hydraulic Control Valve**

Permit 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.



**DRIVE DOOSAN !**

**DESIGNED TO HANDLE THE TOUGHEST APPLICATIONS WITHOUT COMPROMISING SERVICEABILITY EASE.**



**PRODUCTIVITY COMES STANDARD**

## **A HALLMARK OF DURABILITY, RELIABILITY AND SERVICEABILITY**

Doosan's goal is to make your material handling organization as efficient and reliable as possible. The durability and reliability of our trucks will aid in minimizing your truck down time and will help reduce total maintenance cost.



### ● 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.



### ● Oil- Cooled Disc Brakes(ODB)

Virtually maintenance-free, ODB is standard equipment on the PRO5 Series, B25X-5. The enclosed brake system eliminates outside contamination significantly extending the brake life up to 5 times longer when compared to conventional shoe brakes. That's why they come with our industry exclusive warranty.

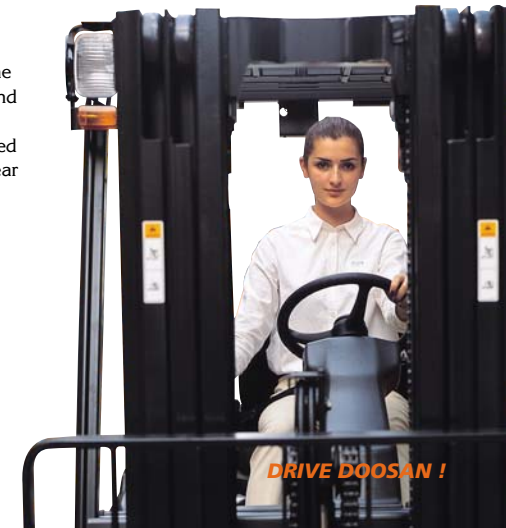
### ● Rugged and Durable Twin Drive Axle

Doosan unique designed twin drive axle is installed on PRO5 series, B22/25/35X-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 both smooth and quiet operation. The simplified twin drive axle have a helical and planetary gear transmission unit with an integrated, hydraulically and mechanically actuated wet disc brake.



### ● 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.



**DRIVE DOOSAN !**

# Intelligent Instrument and Control Panels ... at the head of the class!



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.



## AC MOTOR AND CONTROLLER



...control Drive and Hydraulic functions. Utilizes 3 inverters to convert current in the truck battery to smooth, precise and productive operation. Hydraulic motor and twin drive motors are brushless making them virtually maintenance free.

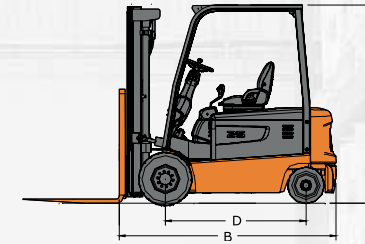
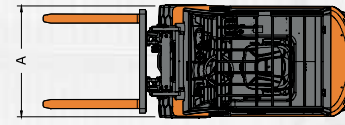
## AC CONTROLLER HAS POWER TO SPARE

The Command Center of the 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 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

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## Option Availability

Options	●: Standard	○: Optional
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		○
Auto Tilt Leveling		○
Integral Sideshifter		○
Integral Sideshifting Fork Positioner		○
Quad Mast		○
Hydraulic Accumulator		○

## Main Specification

● 4 Wheel Electric Counterbalanced ,Pneumatic Tire

	Sales Model	B22X-5	B25X-5	B30X-5	B35X-5
Rated Load Capacity	kg	2,200	2,500	3,000	3,500
Load Center	mm	500	500	500	500
Truck Overall Width	(A) mm	1,245	1,245	1,245	1,245
Overall Length to Fork Face	(B) mm	2,380	2,380	2,505	2,600
Height to Overhead Guard	(C) mm	2,185	2,185	2,210	2,210
Wheelbase	(D) mm	1,535	1,400	1,679	1,679
Travel Speed, Loaded	kg/h	16.0	16.0	16.0	16.0
Lifting Speed, Loaded	mm/sec	500	480	420	380
Drive Motor (1 Hour rating)	kw	10.0 x 2	10.0 x 2	10.0 x 2	10.0 x 2
Hydraulic Motor (15% Duty)	kw	21.0	21.0	21.0	21.0
Battery Compartment Sizes (W x L x H)	mm	1040 x 723 x 825		1040 x 868 x 825	
System Voltage	V	80	80	80	80

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