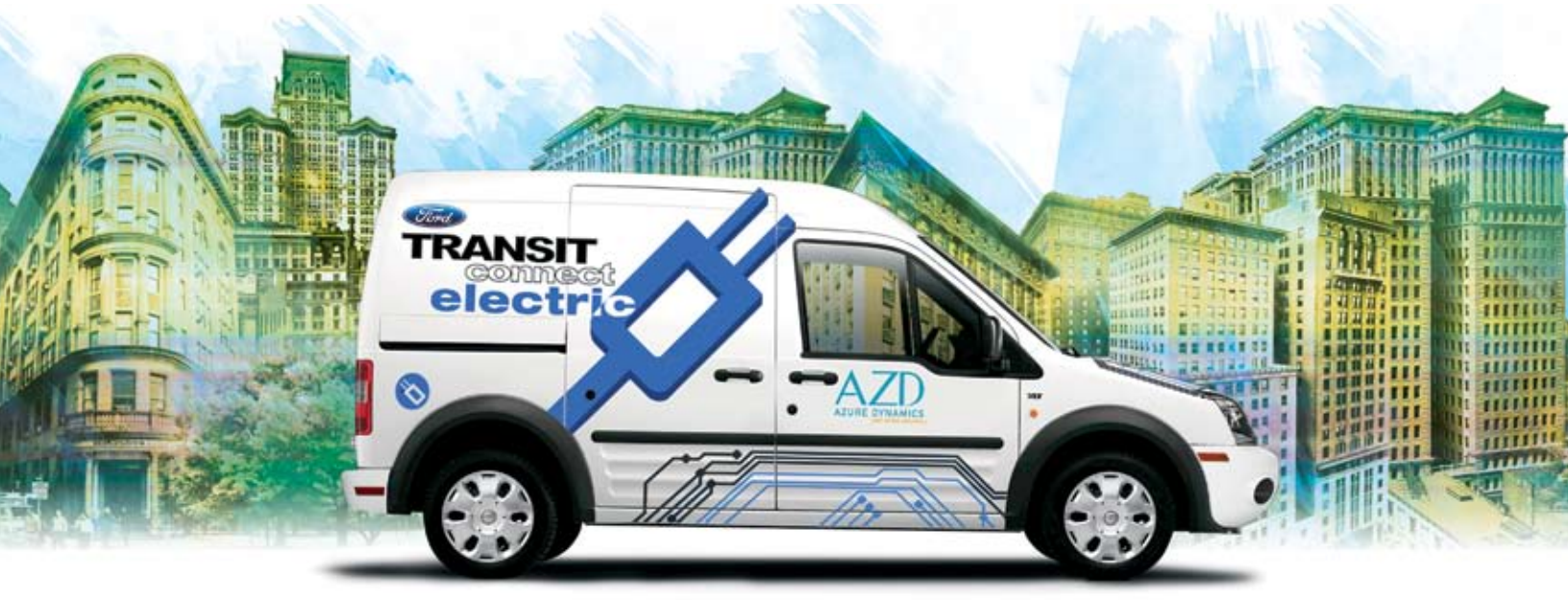
transit connect electric



SPECIFICATIONS & ORDERING GUIDE

AZURE DYNAMICS TRANSIT CONNECT ELECTRIC VEHICLE
2011 & 2012 XLT VAN OR XLT WAGON

SPC501074-B
JANUARY 2012

AZD
AZURE DYNAMICS
part of the solution™

Driving a world of difference in a light-duty electric vehicle.

TRANSIT CONNECT ELECTRIC

To create the Transit Connect Electric, Azure integrates its proven Force Drive™ electric powertrain into the award-winning Ford Transit Connect. Utilizing an advanced lithium-ion battery from Johnson Controls-Saft, the Transit Connect Electric can achieve a range of 50-80 miles depending on auxiliary usage and drive cycle, and has a top speed of 75 mph. The battery is rechargeable using either a 240-volt or standard 120-volt outlet. Azure Dynamics will also provide its Force Drive™ electric powertrain for the Transit Connect Electric in Europe.

ABOUT AZURE DYNAMICS

Azure Dynamics Corporation (TSX: AZD) (OTC: AZDDF) is a world leader in the development and production of hybrid electric and electric components and powertrain systems for commercial vehicles. Azure products have over 35 million miles of on-the-road experience and offer vastly improved fuel economy and lower operating costs while significantly reducing, or in the case of electric vehicles, eliminating, vehicle emissions.

what are people saying about the

transit connect electric?

“One of the most historic cars ever made.”
—FOX NEWS

“Very cool—it’s a good application of the technology—smart move.”
—BLOOMBERG

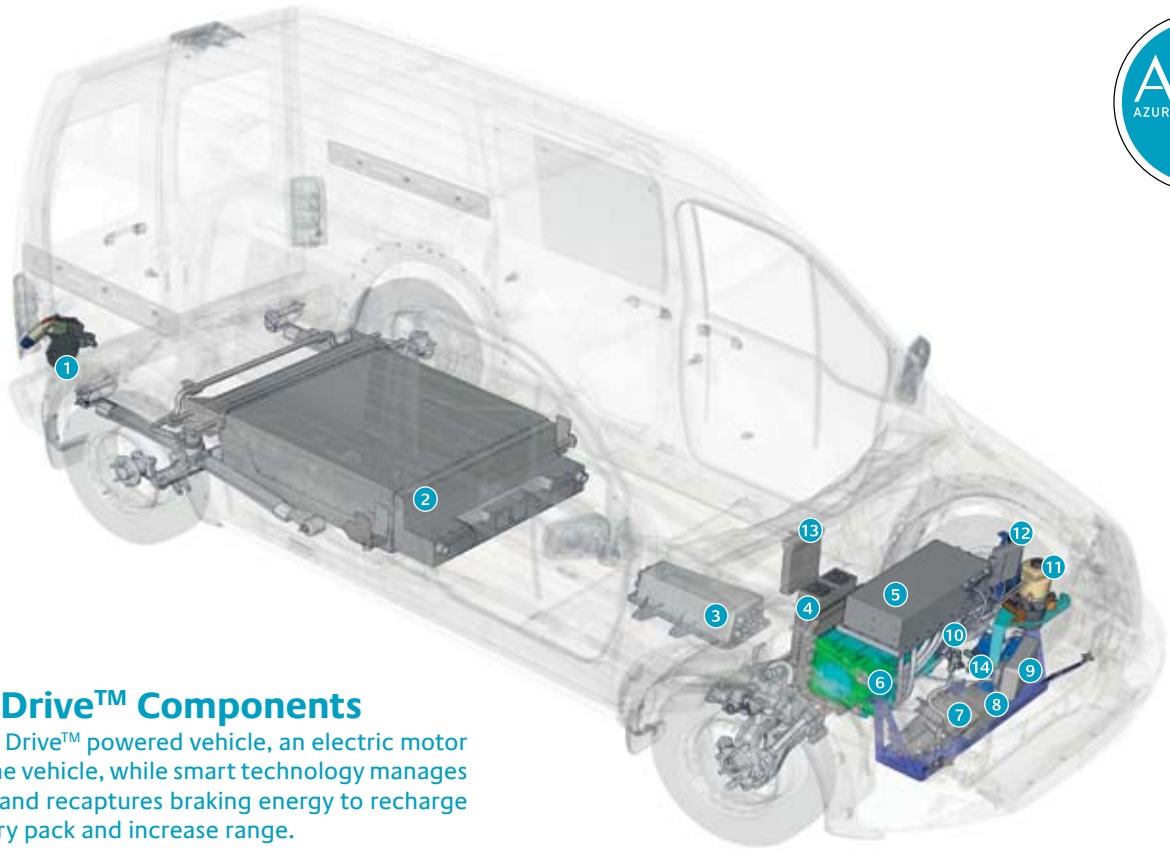
“The Transit Connect Electric feels like a utility car, electric or otherwise, should feel. Ford and its partner on the project, Azure Dynamics, have created a winner.”
—AUTO BLOG GREEN

AZD AZURE DYNAMICS Force Drive

Ford

E-LECTRIC

Johnson Controls



Force Drive™ Components

In a Force Drive™ powered vehicle, an electric motor propels the vehicle, while smart technology manages batteries and recaptures braking energy to recharge the battery pack and increase range.

1. **LEVEL 2 CHARGE PORT**
   The vehicle is connected to the electrical grid through this port when charging. Capable of 120V or 240V AC charging.
2. **HIGH-VOLTAGE BATTERY**
   Liquid cooled 28 kWh lithium-ion battery pack with internal sensors and controller.
3. **HIGH-VOLTAGE JUNCTION BOX**
   Distributes DC power from battery to components and contains high-voltage fuses.
4. **LEVEL 2 CHARGER**
   Uses 120V or 240V AC input from charge port. Converts AC power to DC power to charge battery in 6 to 8 hours at 240V.
5. **MOTOR CONTROLLER & INVERTER**
   Converts DC from the battery to 3 phase AC for the traction motor. Controls the speed and torque of the traction motor.
6. **TRACTION MOTOR**
   Converts electrical energy to wheel torque. Speed & torque outputs are based on accelerator input.
7. **A/C COMPRESSOR**
   Integrated motor, compressor and controller powered by high-voltage DC. Used for interior air conditioning.
8. **ELECTRIC VACUUM PUMP**
   Provides vacuum for the power brake booster.
9. **DC/DC CONVERTER**
   Converts high-voltage DC power to keep the 12V battery charged and to supply power for 12V accessories.
10. **GEARBOX**
    Fixed-ratio gear reduction increases torque and has integrated park pawl.
11. **ELECTRIC POWER STEERING**
    12V powered smart system takes information from vehicle speed and steering sensors to provide the correct amount of assist, reducing energy consumption.
12. **VEHICLE CONTROL UNIT (VCU)**
    Processes all driver and component inputs to control vehicle operation.
13. **PTC ELECTRIC HEATER**
    Converts high-voltage DC power to heat fluid. Used for interior heating and windshield defrosting.
14. **ELECTRIC COOLANT PUMPS**
    12V powered pumps circulate coolant through battery pack, traction system, DC/DC converter and heat exchanger.

Exterior Dimensions (in.)

Front Track	59.3
Overall Width With Mirrors	83.2
Rear Door Opening Height	52.1
Rear Door Opening Width at Floor	50.2
Rear Track	61.1
Side Door Opening Height	46.9
Overall Height (at curb weight)	79.3
Ground Clearance (at rear axle)	7.9
Loadfloor Height (at curb weight)	23.1
Wheelbase	114.6
Overall Length	180.7
Turning Diameter (ft.)	39

Interior Dimensions (in.)

PASSENGER AREA	FIRST ROW	SECOND ROW (WAGON[1] ONLY)
Head Room	51.1	48.5
Shoulder Room	54.4	59
Hip Room	50.8	59
Leg Room	40.5	38.5
CARGO AREA	**VAN**	**WAGON[1]**
Cargo Length at Floor	81	81
Cargo Length (rear door to front seat backs)	72.6	72.6
Cargo Width Between Wheelhouse	48.1	48.1
Cargo Height Maximum	59	59

Capacities (cu. ft.)

PASSENGER AREA	VAN	WAGON[1]
Passenger Volume	65	130
Cargo Volume Behind First Row with 2nd row seat folded	–	117.7
Cargo Volume Behind Second Row	–	77.1
Cargo Volume Behind First Row (no 2nd row seat)	134.3	134.3

Capacities (lbs.)

	VAN	WAGON[1]
GVWR	5005	5005
Maximum Payload (estimated)	1,020	850
Curb Weight	3,985	4,115

[1] 2012 model only.

Force Drive™ Components

Motor	AC induction
Charge Port	Level 2, capable of 120V or 240V charging
High Voltage Battery	Liquid-cooled 28kWh lithium-ion battery pack with internal sensors and controller, supplied by Johnson Controls-Saft
Air Conditioning	Integrated motor, compressor and controller powered by high-voltage DC power
Power Brakes	Vacuum provided by electric pump
12V Auxiliaries	DC-DC converter converts high-voltage DC power to 12V to keep the 12V battery charged and supply power to 12V loads
Power Steering	12V-powered “smart” system uses real-time vehicle data to provide correct amount of power steering assist
Heating	Electric fluid heater converts high-voltage DC power for windshield defrosting and interior heating
Electric Coolant Pump	12V-powered pump circulates coolant through battery pack, powertrain components, DC-DC converter and heat exchanger

Performance

Driving Range	50–80 miles depending on auxiliary usage and drive cycle
Maximum Speed	75 mph
Maximum Gradeability	20%
Operating Temperatures	–30°F to 120°F (some power reduction may occur above 110°F and lower temperatures require pre-conditioning)
Charging Time	6-8 hours at 240V/30A
Motor Power/Torque	140 hp (105 kW) peak, 70 hp (52 kW) continuous / 215 lb ft (292 Nm) peak, 86 lb ft (117 Nm) continuous

Mechanical

Drivetrain	Front-wheel drive (FWD)
Transmission	Fixed-ratio gear reduction with integrated parking pawl
Front Suspension	Front independent MacPherson strut suspension w/stabilizer bar
Rear Suspension	Rear multileaf spring suspension w/stabilizer bar
Brakes	Four wheel power front disc/rear drum with anti-lock brake system (ABS)
Steering	Power rack-and-pinion

Safety & Security

Airbags	Driver and front-passenger front and front-seat side
Steering Column	Collapsible
Doors	Side-intrusion door beams
Tire Pressure	Monitoring system (excludes spare tire)
Stability	AdvanceTrac® with RSC® (Roll Stability Control™)
Horn	Single note
Reverse Sensing System	Non-disabling

Interior

Seating	Driver and Front-passenger Bucket Seats, Cloth-Covered
Color	Dark gray
Onboard Power	12V single front powerpoint
Floor Covering	Vinyl flooring
Floor Mats	All-weather front (van); all weather front and rear (wagon)
Wheel Cover	Standard full
Center Console	2 cupholders, 2 stowage bins, 1 additional folding cupholder
Mirrors	Day/night rearview (van requires rear glass)
Dome Lighting	Front, middle, rear
Sun Visors	Driver side with note strap, passenger side with mirror
Front Overhead Storage	Shelf with net
Headliner	Full length molded cloth
Air Conditioning	Manual
Instrument Panel	Speedometer, range/miles-to-empty gauge, battery state-of-charge, drive system coolant temperature gauge
Map Pocket	Driver and front-passenger doors
Steering Column	Tilt/telescopic

Exterior

Side Doors	Dual sliding
Wheels	15 inch steel with 6-spoke wheel covers
Tires	P205/65R15 BSW
Bodyside Moldings	Gray
Spare Tire	Not included; inflator kit only
Charge Port Door	Locking
Fog Lamps	Rear
Wheel-Lip Moldings	Gray
Windshield Wipers	Front variable speed; rear 2-speed
Lights	Daytime running lights (standard feature)

Door Glass

	VAN	WAGON[1]
Rear Door Privacy Glass	Standard[2]	Standard[2]
Side Door Privacy Glass	Optional	Standard

Options

	VAN	WAGON[1]
Rear Cargo Doors - 255 Degree Hinged Opening	Option	Option
Rear View Camera	Option	Option
Color: Torch Red, Silver Metallic, Panther Black Metallic, Dark Blue, Frozen White[3]	Option	Option

[1] 2012 model only.
[2] Solid panel optional for rear doors.
[3] Any color other than Frozen White may increase lead time for order.

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