

TOYOTA YARIS CROSS 1.5S HEV & 1.5S

Toyota's First non-national B-segment 5-seater crossover SUV

UMW Toyota Motor (UMWT) introduces the all-new Toyota Yaris Cross as another choice in its Hybrid Electric Vehicle (HEV) range. The Toyota's first B-segment 5-seater crossover SUV, the Yaris Cross continues the electrification journey by UMWT.

Available in two variants with HEV technology or a petrol engine alone, the Yaris Cross is another example of Toyota's Multi-Pathway approach to carbon neutrality. With this approach, no customer is left behind as there is a choice of mobility options to suit personal requirements as well as local conditions.

HEV technology is seen as the ideal starting point to electric mobility for Malaysians and UMWT has been expanding its electrified range since launching the locally-assembled Corolla Cross Hybrid Electric in 2022. This was joined by the new Vios HEV this year, and the Yaris Cross is now added to the assembly line at the UMWT-owned factory in Bukit Raja, Selangor.

Besides the locally assembled models, UMWT also offers imported CBU (completely built up) HEV variants of the Vellfire, Harrier, Camry and Innova Zenix. The broad range reflects the aim of making HEV technology – pioneered by Toyota – accessible to more Malaysians.

The Yaris Cross, developed for the regional market, builds on the reputation of the Yaris compact hatchback with the added versatility of a crossover SUV in the B segment. Targeting the younger demographic of buyers, it offers a blend of safety, status, and practical functionality to support their active and adventurous lifestyles.

EXTERIOR DESIGN

The front design features a trapezoid silhouette paired with dual trapezoid grilles, creating a solid and stable stance. The upper grille leans forward, and this forward-leaning stance is not only stylistic but also contributes to a more spacious interior.

The side profile is characterised by sharp and distinctive character lines that express dynamism and strength. Solid-looking fender and door volumes further enhance the SUV's rugged frame. 18-inch machined alloy wheels with 215/55R18 tyres at the corners emphasise its solid foundation and SUV-like frame.

At the rear, the slanted cabin and flared fenders combine to create a stable, trapezoid silhouette. The rear combination lamps extend to the very edge of the body to visually emphasise the vehicle's width. High-quality lighting elements, including LED DRLs, ensure visibility and a premium appearance.

The headlamps feature aluminium vacuum metallising for a refined finish. The lighting signature includes integrated turn signal lamps and high/low beam functions within the slim unit. This attention to detail extends to the rear, where the brake lamps, tail lamps, and rear fog lamps are integrated.

Customers can choose from 5 exterior colours – Spicy Scarlet S.E., Dark Turquoise S.E., Platinum Pearl White, Silver Metallic and Attitude Black.

INTERIOR DESIGN & FEATURES

The design brief for the interior called for a roomy environment that expresses an authentic SUV feel. High-quality materials are used throughout the cabin, including a genuine leather-wrapped steering wheel. Soft-touch surfaces on key touchpoints provide a premium and tactile experience. Satin-plated ornamentation is adopted in the cockpit area to give an advanced and high-quality impression.

The cabin also features full LED interior lighting, including in the luggage compartment and for the vanity mirrors. Illumination is provided for the console box and front door trim, with 4 adjustable brightness levels.

The interior colour coordination features a Blue-Black theme that expresses a high-quality and modern feel. Blue accent colours are used for the instrument panel and seat stitching, creating a sporty impression. Incidentally, the blue colour has traditionally been used to identify Toyota models with electrified powertrains.

The seat upholstery for the HEV variant is crafted from synthetic leather featuring a breathable mesh pattern on the seatback. This design choice ensures passenger comfort during long drives in tropical climates. The use of black synthetic leather with blue accent stitching reinforces the vehicle's premium interior positioning.

For the driver, an 8-way power-adjustable seat is provided to ensure an ergonomic and comfortable driving position. A 7-inch digital TFT meter with a digital LED speedometer has a display that can be customised with four different layouts to suit individual user preferences. Instead of a tachometer, there is a meter that indicates energy usage and driving conditions (economy or power). This can help the driver to operate the vehicle in a more efficient manner.

A 10.1-inch centre display serves as the 'command centre' for the infotainment system. With connectivity by wireless Apple CarPlay and Android Auto, Waze, Google Maps, Spotify and other favourite apps can be mirrored on the display and accessed from there. The connected driving experience combines hands-free operation (with voice commands), navigation and media control to make motoring safer and more convenient.

With a length of 4310 mm and width of 1770 mm, the interior space of the Yaris Cross offers comfortable seating and versatile loading capabilities, rivalling models in higher segments. The height of 1655 mm with a raised seating position gives a high eye point of 1340 mm (higher than many competitors) which ensures that the driver has a clear view of the surroundings.

Convenience features include a wireless charging pad for compatible smartphones located in the lower tray of the centre console. Dual USB Type-C ports are provided for rear passengers so they can keep their devices powered or recharged.

The Yaris Cross has an exceptionally spacious luggage compartment, with a length of up to 955 mm when the rear backrests are folded. A maximum volume of up to 471 litres is available, supplemented by a 200 mm deep underfloor compartment, that houses a temporary 16-inch spare tyre. Depending on size, it can accommodate up to 6 suitcases, or even a bicycle. For young parents, the cargo area can easily accommodate a stroller.

Once only found on expensive premium models, the powered back door is standard on the Yaris Cross. It can be opened with a 'kick' sensor whereby placing a foot under the rear bumper will raise

the door. Additionally, a 'close & lock' switch allows closing the back door and locking the entire vehicle with a single operation.

BODY & CHASSIS

The Yaris Cross is engineered to deliver a stable and confident driving experience across a wide range of everyday conditions. Whether navigating urban roads or longer highway journeys, the vehicle maintains a composed and predictable character that gives drivers greater assurance behind the wheel.

This sense of control is supported by a well-balanced body structure and careful chassis tuning, which help to minimise body roll during cornering while maintaining overall stability. The result is a ride that remains smooth and composed, even when road conditions vary.

The suspension system is designed to provide a harmonious blend of agility and comfort. At the front is a MacPherson strut set-up, which is a tried-and-tested configuration known for its compact size and effective absorption of road irregularities. For the rear, a torsion beam suspension is employed, providing a space-efficient solution that contributes to the vehicle's generous luggage capacity. The set-up is engineered to maintain wheel alignment and stability under various load conditions, ensuring that the vehicle remains predictable and safe.

The combination of front and rear suspension tuning allows for a refined ride that filters out harsh vibrations while keeping the driver connected to the road.

As with many modern Toyota models, the Yaris Cross has an Electric Power Steering (EPS) system, eliminating the power-robbing disadvantage of the hydraulic system. The EPS is calibrated for both urban ease and highway precision. In city environments, the steering effort is light, making it effortless to navigate through tight traffic and to manoeuvre into parking spaces. As vehicle speed increases, the system provides more feedback and weight, giving the driver greater confidence during high-speed cruising.

One of the strong points of the Yaris Cross is its superior manoeuvrability, highlighted by a minimum turning radius of just 5.2 meters. This class-leading turning circle allows the driver to execute U-turns easily, which drivers would welcome when driving on narrow roads. The steering rack and pinion design further ensure that the vehicle responds naturally to every input.

To ensure reliable stopping power, the Yaris Cross is equipped with a disc brake system consisting of ventilated discs at the front and solid discs at the rear.

The body packaging of the Yaris Cross is specifically designed to meet the functional needs of an SUV user. High ground clearance of 210 mm gives the vehicle a 'go-anywhere' capability that includes crossing flooded stretches of road up to 600 mm deep. Additionally, the relatively high approach and departure angles allow the Yaris Cross to handle sharp inclines and rough terrain without damaging the front or rear bumpers.

PERFORMANCE AND DRIVETRAIN

The Yaris Cross HEV uses Toyota's 4th generation hybrid electric drivetrain which is an evolution of the Toyota Hybrid Synergy Drive that was developed in the late 1990s for the world's first mass-produced HEV sedan, the Prius.

The drivetrain comprises two electric motors and a 1.5-litre 4-cylinder engine (2NR-VEX), and a P910 transaxle. One of the electric motors (the other is for starting and charging the battery) generates 59

kW (80 PS) of power and 141 Nm of torque. It works with the 16-valve DOHC VVT-i (variable valve timing with intelligence) petrol engine which produces 91 ps at 5,500 rpm with 121 Nm of torque at between 4,000 and 4,800 rpm. Through the combined use of the motor and engine, the driver will enjoy the benefits of the HEV system, including strong acceleration, a **total system output of 111 PS**, and reduced fuel consumption of between 27.8 kms/litre and 33.3 kms/litre (Toyota factory tests).

Use of the motor and engine are intelligently shared according to drive conditions. Fuel savings are achieved whenever the electric motor is used. Besides starting off, it is possible to run on just the electric motor for a short distance in EV mode, which gives a smooth and noiseless experience similar to a fully electric vehicle. During cruising, when there is no strong acceleration needed or on flat terrain, less of the engine power might be needed so the electric motor will be used more to maintain the desired speed.

One of the advantages of Toyota's HEV technology is that the battery powering the motor does not need manual recharging. It is self-charging as the vehicle moves, which means that the driver never has to worry about finding a charging station. During deceleration or braking, the second motor acts as a generator to recapture energy that is channeled to the battery.

This advantage makes HEV technology ideal for Malaysia where the charging station infrastructure is still being developed. Maintenance for a HEV is essentially the same as a conventional vehicle, requiring only standard service like oil changes.

The battery (assembled locally) for the Yaris Cross HEV is a lithium-ion type with 48 cells and a total power output of 763.7 kWh. Drawing on over 2 decades of experience in HEV battery technology, the engineers have made the unit compact, lightweight and efficient yet powerful. With its operating temperature optimised by cooling air drawn from the cabin, the 20.7 kg HEV battery has very good long-term reliability and is designed to last as long as the vehicle.

The second Yaris Cross variant has a 1.5-litre petrol engine (2NR-VE) and CVT, similar to that used in the Veloz. As with most Toyota engines today, it has 16 valves, DOHC and VVT-i (variable valve timing with intelligence) to increase efficiency. The power output of 106 ps and maximum torque of 138 Nm provides ample performance while maintaining low running costs with proven excellent fuel economy.

TOYOTA SAFETY SENSE

Safety is a core priority for the Toyota and the Yaris Cross comes equipped with the Toyota Safety Sense (TSS) advanced driver assistance system. TSS, which uses a stereoscopic camera (instead of a monocular camera and radar) to scan the road ahead. It consists of 9 active safety systems – Pre-Collision System, Pre-Collision Braking, Full Speed Adaptive Cruise Control, Lane Departure Warning, Lane Departure Prevention, Lane Keeping Control, Front Departure Alert, Pedal Misoperation Control and Automatic High Beam.

Additionally, sensors at the rear of the vehicle also support the Blind Spot Monitor and Rear Cross Traffic Alert system. A Panoramic View Monitor and Clearance Sonar system help with parking manoeuvres.

All these systems help to improve driver awareness and enhance driving safety. Working together, they address three key areas: preventing collisions with other vehicles or road-users, keeping the vehicle in its lane, and enhancing motoring safety at night. Certain functions of TSS can be switched off to reduce unnecessary alerts in certain situations.

Integrated into the braking system are independent active systems such as ABS and Electronic Brake-force Distribution (EBD) which optimise control during emergency situations.

Besides the strong and intelligently engineered structure that absorbs and disperses collision energy, passive safety is complemented by 6 SRS airbags at the front and sides of the cabin that help to reduce injuries. The front airbags work in tandem with the vehicle's seat belts to ensure maximum protection in a serious crash. All 5 occupants, including the one in the middle of the rear seat, have 3-point seat belts, with ISOFIX points for secure installation of childseats.

WARRANTY & AFTERSALES SUPPORT

The Yaris Cross comes with a 5-year vehicle warranty with no limit on mileage. For the Yaris Cross HEV, the hybrid battery has a separate warranty of up to 8 years, also with unlimited mileage. Furthermore, unlike the warranties for hybrid batteries of some other brands, UMWT's warranty package includes the Inverter and Power Management Control ECU for the same length of time.

Customers can also opt to extend the warranty for the battery pack and related hybrid components for another 2 years, making for a total of 10 years. This longer warranty, which is transferable, will enhance resale value and give more peace of mind to owners who plan to keep the vehicle for a long period.

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