95

KOENIGSEGG REGERA

The hypercar that eliminated the gearbox, 2016-2022 - eighty customer cars, bought on battery health, Direct Drive calibration and factory-current software

80

Customer cars - Koenigsegg's official count; registry data records 84 chassis including three development cars and one crash-test tub

~1,500 hp

Twin-turbo V8 plus three axial-flux motors on the world's first 800-volt production battery (4.5 kWh, 66 kg) - and no gearbox at all

31.49 s

The 0-400-0 km/h world record set in 2019 - one gear, torque management and hybridisation doing what shifting used to do

€2.5-3.3M

The working core mid-2026 - a 2,123 km Ghost Package car carries a €2.45-3.0M estimate at RM Monterey 2026, against ~€2M at launch

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01 EXECUTIVE SUMMARY

The Regera is arguably the most radical production car Koenigsegg has ever built - and it is not an evolution of the One:1. The One:1 asked how to make the ultimate track megacar; the Regera asked what would happen if the gearbox were removed altogether, and that single decision changed virtually everything. Koenigsegg Direct Drive replaces the multi-speed transmission with a hydraulic coupling, a fixed final drive and three axial-flux electric motors: the motors supply the low-speed torque that lower gears used to provide, and as speed rises the coupling progressively locks the combustion engine straight to the wheels. Around it sits the world's first 800-volt production battery (4.5 kWh, 66 kg including cooling fluid), roughly 1,500 hp of combined output, AutoSkin hydraulic body closures and the most luxurious cabin the company had ever made. The central thesis: the Regera is not the successor to the One:1 - it is Koenigsegg's alternative vision of the hypercar, replacing shifting with torque management and hybridisation, produced deliberately in parallel with the Agera RS as a second philosophy.

Two coined rules carry the paper. The Direct-Drive Rule: the Regera replaced gears with torque management, and its custody follows - the health of the KDD coupling, the three motors and the battery is the health of the car, with no mechanical fallback layer beneath the software. And the High-Voltage Rule: the Regera adds an inspection category no earlier Koenigsegg had - high-voltage safety and battery health are documented by factory diagnostics, never assumed from a mechanical PPI. The buyer's line, in the paper's own arithmetic: a cheaper Regera with uncertain hybrid history is the most expensive Regera - the premium for a fully documented car is the bargain.

Key Finding

The production arithmetic needs both conventions: Koenigsegg officially markets 80 Regeras (all slots reportedly sold by mid-2017), while registry data records 84 total chassis - 80 customer cars, three factory development cars and one crash-test chassis. As everywhere in this marque, the individual chassis file decides what any car is.

There is no verified evidence of a universal drivetrain design defect across the fleet - most reported concerns relate to complexity, not engine durability: high-voltage electronics and software, hydraulics (AutoSkin, KDD coupling, ride height), battery cooling, and the familiar low-voltage trap where a weak 12-volt side triggers cascades of unrelated warnings.

The market's message is measured: launch money around €1.9-2.1M has become a €2.5-3.3M working core - steadier than the One:1's curve because eighty cars exist, usability is high and some collectors still hesitate before hybrids. The technological significance has not finished compounding, and the paper says so carefully.

02 THE HYPERCAR WITHOUT A GEARBOX

Two philosophies sold side by side - the Agera RS kept shifting; the Regera abolished it.

The philosophy is Christian von Koenigsegg's observation made physical: electric motors deliver instant, seamless, uninterrupted torque, while conventional gearboxes add weight, interrupt acceleration, consume power and introduce complexity - so instead of designing a better

gearbox, Koenigsegg designed no gearbox. Uniquely in the company's timeline, the Regera was produced in parallel with the Agera RS rather than replacing it: two answers offered simultaneously, the RS for the record-focused traditionalist, the Regera for the owner who wanted one gear and 1,500 hp of seamlessness. Production ran from 2016 into the early 2020s (Koenigsegg's 80 cars; catalogue conventions cite 2016-2020 while final registry builds extend later), at launch prices around €1.9-2.1M before taxes and bespoke content - exposed carbon, the Ghost Package and custom interiors moved delivered prices substantially. Allocation was already modern: existing customers, collector relationships, dealer recommendation and market allocation, with all eighty slots reportedly committed by mid-2017.

The innovation list reads like a preview of the industry's next decade: Koenigsegg Direct Drive, the 800-volt architecture years before mainstream EVs adopted it, three axial-flux motors with torque vectoring, regenerative braking blended with ceramics, AutoSkin, active engine mounts and a luxury-focused interior in a megacar. Several of these ideas influenced later high-performance hybrid development across the industry - which is precisely the collector argument this paper returns to in section 07: the Regera's significance is historical and architectural, not a lap time.

REGERA VERSUS AGERA RS - TWO PHILOSOPHIES, ONE FACTORY	
Philosophy	Regera: torque management and hybrid seamlessness · Agera RS: the record-focused conventional drivetrain, sold in parallel
Drivetrain	Regera: KDD, one gear, three motors, 800 V · RS: 5.0 twin-turbo with the seven-speed and every shift
Character	Regera: the luxury megacar, quiet and seamless · RS: the aero-led record instrument
Custody accent	Regera: battery health, software, hydraulics, HV diagnostics · RS: conventional Koenigsegg disciplines at record loading
Production	Regera: 80 customer cars · RS: 25 - the rarity argument runs the other way from the technology argument

(The RS is treated fully in Paper 96 - the comparison here exists because the two cars were deliberately offered simultaneously, and buyers still choose between exactly these philosophies on the secondary market.)

03 KOENIGSEGG DIRECT DRIVE EXPLAINED

A hydraulic coupling, a fixed final drive, three motors - and 0-400 km/h in one gear.

KOENIGSEGG REGERA - SPECIFICATION	
Drivetrain	Koenigsegg Direct Drive: hydraulic coupling, fixed final drive, no multi-speed transmission - electric motors provide low-speed torque; the coupling progressively locks the V8 to the wheels at speed; reverse is electric, because there is no reverse gear
Combustion engine	5.0-litre twin-turbo V8 (Agera-family: dry sump, carbon intake, Inconel exhaust) - recalibrated, because the motors remove the need for aggressive low-speed turbo response
Electric system	Three axial-flux motors - one on the crankshaft, one per rear wheel: propulsion, torque fill, torque vectoring, regeneration, reverse · ~700 hp electric-only capability
Battery	800-volt, 4.5 kWh, ~66 kg including cooling fluid - the world's first 800 V production-car system at its 2015 launch; 525 kW discharge, 200 kW recharge
Output	~1,500 hp combined - torque quoted differently by source and era: the current factory page lists 1,280 Nm maximum, period material described combined delivery beyond 2,000 Nm with electric fill
Comfort & body	AutoSkin - the first car operating all body closures automatically (doors, front compartment, rear clamshell), with proximity sensors and soft-close · luxury cabin, removable roof, and cup holders Koenigsegg is openly proud of · ~1,590 kg curb
The record	0-400-0 km/h in 31.49 s (2019) - one gear throughout; beaten only by Koenigsegg's own Jesko Absolut in 2024

(Factory figures; the torque nuance is stated openly because both numbers circulate - the paper uses ~1,500 hp combined as the anchor. Production 80 customer cars; registry 84 chassis with development and crash-test cars.)

The KDD coupling is arguably the single most important mechanical component in the car, and its inspection is factory territory: hydraulic pressure, engagement quality, software calibration, slip behaviour, pump operation, seals, temperature, vibration and fault logs - read together, because KDD is unique to Koenigsegg and no independent gearbox specialist has a reference for it. The combustion side carries the familiar Agera disciplines (turbos, cooling, dry sump) at a gentler calibration - and the cooling system as a whole is substantially more complex than any Agera's, with circuits for engine, battery, inverters, motors, charge air, the coupling and engine oil: pumps, radiators, valves, heat exchangers and battery cooling all pressure-tested, because thermal management is where complexity lives on this car.

04 THE WORLD'S FIRST 800-VOLT HYPERCAR

The High-Voltage Rule - a category of inspection no earlier Koenigsegg needed.

The Regera introduces high-voltage safety as a purchase discipline. The battery file: cell balance, cooling circuit, isolation resistance, charging history, coolant pumps, connectors, HV cabling, software, battery-management system, crash history - and because only eighty customer cars exist, battery replacement strategy is always discussed with Koenigsegg, never improvised.

The wider HV file: isolation, contactors, cooling, inverter, DC/DC converter, charging electronics, insulation, emergency disconnect - all documented by factory diagnostics, because an ordinary mechanical inspection cannot see any of it. The three motors add their own checks (torque vectoring function, regeneration, reverse operation), and the regenerative-friction blending is verified on the road, since braking on this car is a negotiation between systems. The low-voltage side keeps its marque-wide role: a weak 12-volt battery triggers cascades of unrelated warnings, and voltage is checked before any module is condemned. AutoSkin completes the hydraulic map - cylinders, seals, pump, pressure, control modules, position sensors and alignment - convenience bought with complexity, and inspected as such.

05 THE FIRST LUXURY MEGACAR

The most comfortable Koenigsegg - seamless, quiet, usable, and deliberately so.

The ownership experience is the Regera's second thesis: seamless acceleration without gear changes, a quieter cabin, improved ride from the more GT-oriented suspension (Triplex retained, hydraulic lift, softer calibration than the One:1), a genuinely luxurious interior, AutoSkin convenience, useful luggage space and excellent long-distance usability - far easier to live with than a One:1, and intended to be. The suspension and brake files follow the family standard: dampers, Triplex, lift hydraulics, ride-height sensors, wishbones, joints, alignment - and carbon-ceramics inspected for wear and heat history with the regeneration blending checked in the same session. The AirCore wheels carry the family law unchanged: factory inspection, no conventional repair. Driven properly, the Regera is the Koenigsegg for distance: full heat cycles, documented charging discipline, and the same 750-3,000 km annual rhythm this library recommends across the marque - with the note that regular gentle use exercises the hybrid system far better than storage ever will.

06 COMPLEXITY AS THE RISK MAP

No universal defect - but four system families where the Regera's radicalism must be maintained.

Most reported ownership concerns relate to complexity rather than fundamental durability, and no verified evidence exists of a universal drivetrain defect - most issues appear chassis-specific and resolved through factory updates. The four families: high-voltage electronics (software, communication, battery management); hydraulic systems (AutoSkin, the KDD coupling, ride height); battery cooling (pumps, valves, sensors); and the low-voltage electrical system with its cascade behaviour. The support model is the most factory-centric in the marque so far: remote diagnostics, software updates, travelling technicians, battery diagnostics, KDD calibration and factory recommissioning - this is not a car maintained outside the Koenigsegg ecosystem except for basic consumables. The warranty question resolves as ever, with hybrid emphasis: written confirmation of battery support, software version, hybrid updates, campaign completion and current configuration - documented factory support is worth more on this model than on any conventional Koenigsegg.

CUSTODY ECONOMICS - PLANNING ALLOWANCES	
Servicing	Annual €15,000-30,000 · major scheduled service €35,000-70,000 - annual rhythm regardless of mileage, with battery health report and software verification every time
Hydraulics	AutoSkin, coupling and ride-height work €20,000-60,000 - three hydraulic systems, one discipline
Hybrid systems	Battery-cooling repairs €20,000-60,000 · high-voltage electronics €30,000-150,000 · battery replacement by factory quotation only
Majors	KDD repairs €75,000-250,000+ · engine rebuild €150,000-350,000 · structural carbon €200,000-750,000+

(Planning allowances, not tariffs. Five-year reserves: documented, exercised car €150,000-300,000 · deferred or low-use car €250,000-450,000 · uncertain hybrid history €400,000-800,000+ - the cheap Regera with an unclear battery file is the expensive one. Insurance: agreed value with HV, carbon and AirCore cover - roughly €20-50K restricted, €40-90K road use, €80-150K+ international, at €2.5-3.5M values.)

07 CURRENT MARKET AND COLLECTABILITY

Gradual, robust appreciation - the price of building eighty usable cars.

From roughly €2 million at launch to a €2.5-3.3 million working core today: the Regera has appreciated more gradually than the One:1 because eighty cars exist, more examples circulate, some collectors still hesitate before hybrid complexity, and high usability softens perceived exclusivity. The current public anchor: a 2020 car with 2,123 km, blue-tinted carbon, Ghost Package and single ownership carries a $2.8-3.4M / €2.45-3.0M estimate at RM Sotheby's Monterey 2026 - an estimate, therefore a position. The collectability case is historical rather than performance-led: only 80 customer cars, the first Koenigsegg hybrid, the first KDD, the first production 800-volt battery, the first gearbox-free production hypercar - the car that proved there was another way to build a hypercar besides chasing ever-faster gearchanges. Whether it has peaked: probably not over the long term - pioneering architecture, fixed supply and growing appreciation of early hybrid hypercars argue forward; ageing hybrid components, the necessity of continued battery support and a smaller buyer pool than V8-only cars argue caution. Both sides belong in the file.

REGERA - WORKING VALUATION FRAMEWORK, MID-2026	
Cars with open hybrid questions	€2.2-2.5M - uncertain battery or software history, lapsed factory relationship; priced for the diagnostics they still need
Strong documented cars	€2.5-3.3M - the working core: battery health reports, current software, KDD calibrated, factory-continuous (the Monterey 2026 estimate sits here)
Exceptional cars	€3.3-4.0M+ - exceptional specification (Ghost Package, bespoke carbon), provenance and delivery-condition files beyond challenge

(Analytical estimates around the input core of €2.5-3.3M - eighty cars trade thinly but more visibly than any seven-car Koenigsegg market; estimates remain positions until hammered.)

OWNERSHIP VERDICT - THE RATINGS		
Reliability	□□□□□	Modern, integrated and chassis-specific - complexity is the risk, not the V8; factory updates resolve most reported issues
Maintenance costs	□□□□□	€15-30K annual services and six-figure hybrid or KDD events - the most software-dependent custody in the marque to date
Parts availability	□□□□□	KDD, axial-flux motors, 800 V battery - unique to Koenigsegg, factory-quoted, and meaningless outside the ecosystem
Investment potential	□□□□□	Eighty cars and four world-firsts - gradual, robust appreciation with the hybrid-heritage story still compounding

MARQUE BUYING SCORE - KOENIGSEGG REGERA			
Category	**Documented hybrid-current car**	**Driver example (used, serviced)**	**Uncertain hybrid history**
Reliability	7 / 10	7 / 10	4 / 10
Driving experience	9.5 / 10	9.5 / 10	9 / 10
Ownership cost	2 / 10	2 / 10	1.5 / 10
Parts availability	1.5 / 10	1.5 / 10	1 / 10
Long-term collectability	9 / 10	8.5 / 10	5.5 / 10
Investment potential	8 / 10	7.5 / 10	4 / 10

Scored on the fixed series rubric: an 8 in Reliability means the same across every marque and paper. The third column prices this model's defining trap - the visually perfect Regera whose battery health, software state and KDD calibration nobody can document.

METHODOLOGY AND A NOTE ON VALUES

Built from public sources: Koenigsegg documentation (80 Regeras; KDD replacing the transmission entirely - hydraulic coupling, fixed final drive, direct drive from the ICE; three axial-flux motors, one per rear wheel and one on the crank; ~1,500 hp combined, ~700 hp electric-only; torque quoted 1,280 Nm on the current factory page against period combined figures beyond 2,000 Nm - both stated; 800 V, 4.5 kWh, ~66 kg battery, world's first 800 V production system at 2015 launch, 525 kW discharge / 200 kW recharge; AutoSkin as the first fully automatic body closures with proximity sensing; ~1,590 kg curb; 0-400 km/h in one gear), the 0-400-0 record (31.49 s, 2019; beaten by the Jesko Absolut in 2024), registry data (84 total chassis: 80 customer, 3 development, 1 crash-test), launch pricing ~€1.9-2.1M with slots reportedly sold out by mid-2017, and RM Sotheby's Monterey 2026 (2020 Regera, chassis 7228, 2,123 km, blue-tinted carbon, Ghost Package, single owner, estimate $2.8-3.4M / €2.45-3.0M; catalogue production convention '2016 to 2020' noted against the wider 2016-2022 span). Working bands are analytical estimates around a €2.5-3.3M input core. Assumptions are stated as assumptions, in brackets, where they occur. Nothing here is investment advice.

08 THE BUYING PROTOCOL - AND SYNTHESIS

The premium for the documented car is the bargain - buy battery health, software state and KDD calibration before anything visible.

The answer to 'buy now?' is broadly yes - provided the battery has documented health reports, the software is current, KDD operates correctly, the hydraulic systems function flawlessly and factory support is confirmed in writing. The protocol: provenance (chassis verification against the 80/84 conventions, original specification, service and software history, campaign completion); engine (cold start, oil pressure, turbos, cooling, diagnostics); hybrid (battery health report, inverter, motors, isolation, charging, BMS - factory diagnostics, not mechanical inspection); KDD (coupling, calibration, hydraulic pressure, engagement, telemetry); chassis (tub, underbody, suspension, brakes with regeneration blending, AirCore wheels, AutoSkin operation through every closure). Then the transaction, with agreed-value insurance including high-voltage and carbon cover bound before completion.

THE DIRECT-DRIVE RULE · THE HIGH-VOLTAGE RULE

The Regera replaced gears with torque management: the health of the KDD coupling, the three motors and the battery is the health of the car - there is no mechanical fallback layer beneath the software, and no independent specialist has a reference for any of it.

And the Regera adds an inspection category no earlier Koenigsegg had: high-voltage safety and battery health are documented by factory diagnostics, never assumed from a mechanical PPI. A cheaper Regera with uncertain hybrid history is the most expensive Regera.

WALK AWAY - THE NON-NEGOTIABLES

Undocumented battery repairs · unresolved high-voltage faults · poor battery-health reports · KDD calibration issues · incomplete factory support history · structural carbon damage · undocumented hybrid modifications · repeated electrical fault history without diagnosis · seller resistance to factory diagnostics · agreed-value insurance with HV cover unobtainable. And the most dangerous assumption: 'the battery is fine because the car drives' - hybrid health is documented, never inferred.

WHO SHOULD BUY THIS CAR

The technology collector: four world-firsts in one chassis - KDD, 800 volts, axial-flux vectoring, gearbox-free production - bought on the documented hybrid file.

The distance driver: the most comfortable, usable Koenigsegg - seamless, quiet, luggage-capable, and healthiest when regularly exercised within its programme.

The value-focused Koenigsegg buyer: eighty cars price below the seven-car collectibles while carrying more innovation than most of them - the relative discount is the argument.

Not: the buyer who wants analogue purity (Papers 92-94 serve better), fears software dependence, or is tempted by the cheap car with the uncertain battery file - this model's defining trap.

BOTTOM LINE

Eighty customer cars, 2016-2022: a hydraulic coupling instead of a gearbox, three motors instead of low gears, 800 volts before anyone else, and the 0-400-0 record in one gear. No universal defect - complexity is the custody: battery, software, hydraulics, KDD. €2.2-4.0M analytical bands around a €2.5-3.3M core. Buy the documented hybrid file, the current software and the factory relationship - the premium car is the cheap one.

ONE-SENTENCE VERDICT

The Regera is Koenigsegg's alternative answer to the hypercar question - eighty gearbox-free machines whose value lives in battery health, KDD calibration and factory-current software, and whose place in history as the first of its kind is still being priced in.

SOURCES

Koenigsegg documentation: Regera - 80 produced; Koenigsegg Direct Drive (hydraulic coupling, fixed final drive, no multi-speed transmission, direct ICE drive, electric reverse); three axial-flux motors (crankshaft plus one per rear wheel) with torque vectoring and regeneration; ~1,500 hp combined, ~700 hp electric-only; torque 1,280 Nm (current factory page) against period combined figures beyond 2,000 Nm - both conventions stated; 800 V / 4.5 kWh / ~66 kg battery, world's first 800 V production-car system (2015), 525 kW discharge, 200 kW recharge; AutoSkin fully automatic body closures with proximity sensing and soft-close; luxury cabin with removable roof; ~1,590 kg curb; 0-400 km/h in one gear. Record: 0-400-0 km/h in 31.49 s (2019), beaten by the Jesko Absolut (2024). Production conventions: 80 customer cars (Koenigsegg), 84 total chassis per registry (3 development, 1 crash-test); slots reportedly sold out by mid-2017; launch ~€1.9-2.1M before taxes and options. Market: RM Sotheby's Monterey 2026 - 2020 Regera, chassis YT9NN1U18LA007228, 2,123 km, blue-tinted carbon with platinum accents, Ghost Package, white leather, single owner (Mexico City/Miami), January 2024 service, estimate $2.8-3.4M / €2.45-3.0M; catalogue cites '80 examples produced from 2016 to 2020' - the wider 2016-2022 span reflects final builds. Working bands €2.2-2.5M / €2.5-3.3M / €3.3-4.0M+ are analytical estimates. Support: the most factory-centric custody in the marque - remote diagnostics, software updates, battery diagnostics, KDD calibration; annual service regardless of mileage. Companion documents: Buyer's Checklist No. 93 and Model File 93; Papers 88-94 for context. Values are indicative frameworks, not valuations; nothing here is investment advice.