G-FORCE
HYBRID DRIVE SYSTEM

THE FUTURE OF VEHICLE HYBRIDIZATION

Why G-Force?

Improved Fuel Savings
Heavy vehicles consume massive amounts of fuel during acceleration.
A little boost while accelerating can provides roughly 20% in fuel savings depending on the application.

Reduced Engine Wear
The reduced load on the engine during acceleration helps to ensure that your truck will run properly for as long as possible. Not to mention the fact that running the G-Force as an auxiliary power unit keeps engine idle time to a minimum.

Higher Performance
An 80 to 130 horsepower boost, delivered instantly, by the G-Force's DC motor significantly reduces your vehicle's acceleration time.

G-Force applies an additional 80 to 130 horsepower (60 to 97 KW) of force to a truck chassis through the PTO port to aid in acceleration. This reduces the load from the combustion engine when the largest fuel use occurs: during stop and go. Regenerative braking recharges the system efficiently.

Additionally, the G-Force can be recharged while driving or idling with no plug-in charging required.
The G-Force includes options such as the ability to operate truck environmental systems (HVAC) without running chassis and inverter power generation, essentially acting as an auxiliary power unit (APU).

The ease of adaptability and fitment, environmental support, rapid battery charge capability, reduced heat signature (not required to idle engine to provide cooling, heating, battery charging or power) and reduced fuel consumption make it ideal for a multitude of municipal and military applications.

ECO-CLEAN TECHNOLOGY™

Use Cases of G-Force

Municipal Fleets
Vehicles such as garbage trucks and utility service vehicles benefit from constant stop-and-go efficiency. G-Force lowers both operating noise and emissions—ideal for urban service areas with strict environmental standards.

Transit Systems
City buses equipped with G-Force see enhanced ride quality through smoother acceleration, quieter operation, and increased uptime due to less engine stress. It improves both driver and passenger experience.

Military Vehicles
Tactical advantages include reduced acoustic and thermal signatures, idle-free power generation for onboard electronics, and the ability to operate silently in sensitive environments—all while maintaining rugged field performance.

Technical Specs

Horsepower Boost
Delivers between 80–130 HP (60–97 kW) through a high-torque DC motor directly to the PTO shaft.

Fuel Savings
Reduces consumption by up to 20% depending on application and duty cycle.

Charging Methods
Regeneratively charged via braking energy and rotational input from the PTO shaft, no plug-in required.

Battery System
High-efficiency capacitor bank designed for fast discharge and recharge cycles with minimal thermal output.

APU Capability
Optional configuration allows operation of HVAC systems, auxiliary tools, and onboard electronics without engine idling.

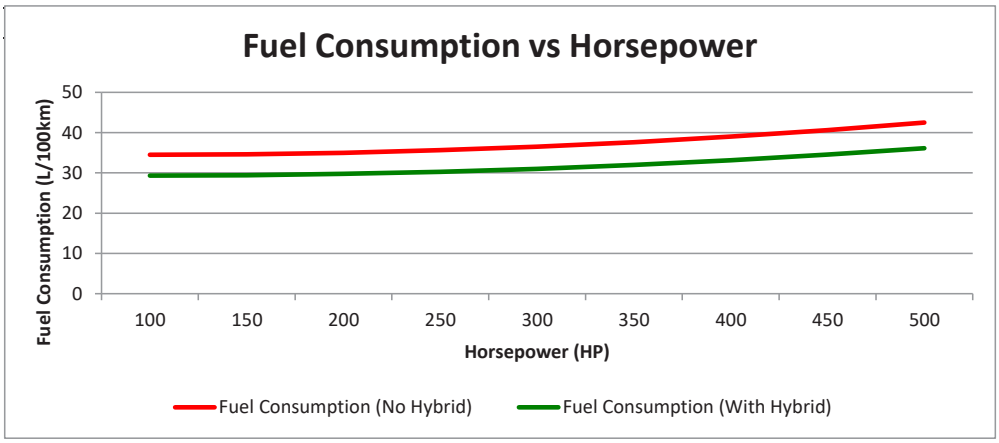
Enclosure
Lightweight, corrosion-resistant aluminum housing optimized for durability and thermal management.

Data is tentative and acting as a placeholder

G-FORCE in Numbers

Fuel Savings Through Power

Total Horsepower (Engine + G-Force)	Fuel Consumption (No Hybrid) [L/100km]	Fuel Consumption (With Hybrid) [L/100km]
100	34.5	29.325
150	34.625	29.43125
200	35	29.75
250	35.625	30.28125
300	36.5	31.025
350	37.625	31.98125
400	39	33.15
450	40.625	34.53125
500	42.5	36.125



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G-FORCE in Numbers

Fuel Savings Through Acceleration

Time (sec)	Speed (km/h)	Engine Power (No Hybrid) (HP)	L/100km (No Hybrid)	Cummulitive Fuel (No Hybrid) (L)	Engine Power (With Hybrid) (HP)	Electric Motor Output (HP)	Cummulitive Fuel (With Hybrid) (L)	L/100km (With Hybrid)
0	0	0	0	0	0	0	0	0
2	5	29	216	0.003	4	25	0	0
4	10	57	162	0.009	24	33	0.003	54
6	15	86	136	0.017	46	40	0.007	56
8	20	114	130.5	0.029	62	52	0.014	63
10	25	143	123.8	0.043	88	55	0.023	66.2
12	30	171	120	0.06	139	32	0.036	72
14	35	200	117.6	0.08	184	16	0.055	80.8
16	40	229	115.9	0.103	225	4	0.078	87.8
18	45	257	114.7	0.129	257	0	0.104	92.4
20	50	286	113.8	0.158	286	0	0.133	95.8

MANUFACTURER	SOLUTION TYPE	COST	CUSTOMER SEGMENTS	COMPETITIVE EDGE	INSTALLATION COMPLEXITY	LIMITATION
G-FORCE HYBRID	ELECTRONIC ASSISTED HYBRID	$$	MUNICIPAL FLEETS, (WASTE MANAGEMENT, PUBLIC TRANSIT, UTILITY VEHICLES), MILITARY APPLICATIONS[1], AND COMMERCIAL FLEETS	PATENTED, COST EFFECTIVE, EASILY TRANSFERRABLE TO OTHER VEHICLES, HIGH PERFORMANCE, REDUCED BRAKE WEAR, OPTIONAL APU[2]	LOW	REQUIRES PTO PORT ON TRANSMISSION
FONTAINE MODIFICATION	EV CONVERSION WITH DIESEL BACK-UP	$$$$$	MUNICIPAL FLEETS, UTILITY FLEETS	FULL ELECTRIC CONVERSION[3]	HIGH	APPLICABLE TO FORD F450 / BATTERY RELIANT, WEIGHT
RMA SPECIAL VEHICLES	PLUG - IN HYBRID	$$$$	GLOBAL MUNICIPAL FLEETS, COMMERCIAL FLEETS	GEOGRAPHY (ASIA, AFRICA, AND AUSTRALIA)	MEDIUM	LITTLE INFORMATION PROVIDED, INSTALLATION MUST BE PERFORMED IN THAILAND
FLUX HYBRIDS	PLUG-IN HYBRID	$$$	COMMERCIAL FLEETS, SOME MUNICIPAL FLEETS	FITS A WIDE RANGE OF VEHICLES	MEDIUM	LIMITED TO LIGHT - DUTY VEHICLES / 5 DAY INSTALL / LARGE BATTERY REQUIRED
ODYNE SYSTEMS	ELECTRONIC ASSISTED HYBRID	$$$$	MUNICIPAL FLEETS, UTILITY FLEETS	E - PTO CAN POWER VARIOUS KINDS OF EQUIPMENT	MEDIUM	REQUIRES PTO PORT ON TRANSMISSION / COMPLEX INSTALLATION
EDISON MOTORS	EV CONVERSION WITH DIESEL GENERATOR BACK-UP	$$$	LOGGING, HEAVY DUTY, RETAIL OFF-ROAD	FULL ELECTRIC CONVERSION[4]	HIGH	REQUIRES DIESEL GENERATOR, ADDITIONAL MAINTENANCE, CONVERSION FOR LIGHT DUTY VEHICLES, KITS NOT YET AVAILABLE

1 Reduces vehicle noise and heat signature
2 G-Force's APU can be used to power all kinds of hydrualic pumps and vehicle powered equipment
3 Vehicle can run entirely off of the installed batteries, but maintains an engine-driven drivetrain as a backup
4 Vehicle is run exclusively off of electricity, and relies on a diesel generator as a backup to recharge the system