2018 Challenger Light Sport X Series - XL-65 & XS-65 Overview & Comparison	X SERIES Challenger Light Sport XL-65	X SERIES Challenger Light Sport XS-65
Overall Design Objective	Max Capability, Max Versatility	Max Capability, Max Versatility
Configuration Optimization Goals	Max Lift, Max Utility	Max Speed, Max Maneuverability
Ideal Target Missions = Max Versatility	Max Loads, Max Altitudes Wheels, Tundra Tires, Skis, Wheel/Skis, Straight Floats, Amphibious Floats	Heavy Loads, High Altitudes Wheels, Tundra Tires, Skis, Wheel/Skis, n/a
Key Design Elements	New Larger Light Sport Tapered Tail New Light Sport Differential Ailerons New Light Sport Easy Entry Cabin New Light Sport Heavy Load Saddles New Highest Gross Weight New Dual Wing Tanks (Std) New Fuselage Baggage Area (Std)	New Larger Light Sport Tapered Tail New Light Sport Differential Ailerons New Light Sport Easy Entry Cabin New Light Sport Heavy Load Saddles New Highest Gross Weight New Dual Wing Tanks (Std) New Fuselage Baggage Area (Std)
Power Pack - Engine - Dual Electronic Ignition - ASTM Certified	New Bombardier-Rotax 582 Mod 99 Blue Head	New Bombardier-Rotax 582 Mod 99 Blue Head
Power Pack - Ancillary Systems - Purpose-Built for Challenger	Oil Injection, High Cap Rad, Louvres, Cabin Heat	Oil Injection, High Cap Rad, Louvres, Cabin Heat
Power Pack - Reduction Drive - 2.6:1 Purpose-Built for Challenger	No Slippage, No Side Loads, No Drive Train Lash	No Slippage, No Side Loads, No Drive Train Lash
Power Pack - Prop - Matched to Engine & Airframe & Missions	Warp 60" 3-Blade Carbon Fibre Ground Adjustable	Warp 60" 3-Blade Carbon Fibre Ground Adjustable
Oil Injection - Standard = No More Premixing	Dual Oil Tanks Give 10-12 Hours Cruise	Dual Oil Tanks Give 10-12 Hours Cruise
Fuel - Flexibility = Minimize Cost / Maximize Convenience	Auto Gas (Regular or Super), AvGas (100LL), Boat Gas	Auto Gas (Regular or Super), AvGas (100LL), Boat Gas
Fuel - Flexibility = No Sourcing Worries	Up To 10% Ethanol	Up To 10% Ethanol
Wing Design - Determines Lift, Speed, Maneuverability, Ride	New X Series 29.5 ft Long Wing	New X Series 26 ft Clip Wing
Wing Area - Wide 5.625 ft Chord - More Lift for Less Engine Cost	166 sq ft	144 sq ft
Wing Tips - Increased Speed & Increased Roll Rates	Hoerner Fibreglass Wing Tips	Hoerner Fibreglass Wing Tips
Leading Edge Wrap - Increased Lift & Increased Roll Rates	Straight Leading Edge with New Channel Wrap	Straight Leading Edge with New Channel Wrap
Flaperons - Increased Roll Control & Decreased Stall Speed	7.5 in Chord x 12 ft Span (Each)	7.5 in Chord x 10 ft Span (Each)
Vertical Tail - Increased Directional Stability = Less Rudder Work	New Larger X Series Tapered Tail	New Larger X Series Tapered Tail
Differential Ailerons - Reduced Adverse Yaw = Easier Handling	New Light Sport Differential Bellcranks	New Light Sport Differential Bellcranks
Dorsal - Balanced Stability / Maneuverability	New X Series Fillet with North American Dorsal	New X Series Fillet with North American Dorsal
Easy Entry Cabin - New Light Sport Design - Width is per Person	Width 32 in / Head Room 43 in / Leg Room 46 in	Width 32 in / Head Room 43 in / Leg Room 46 in
Internal Baggage Area - Fuselage - Requires Wing Tanks	100 lbs / 2.7 cu ft / 18"x15" base	100 lbs / 2.7 cu ft / 18"x15" base
External Baggage Carrier - Belly Bag and/or Cargo Pod	Aftermarket Suppliers	Aftermarket Suppliers
Landing Gear Designed for Short, Rough Strips	New Heavy Duty X Series Internal Carry Through New Heavy Duty X Series Solid Legs No Cables Oversize Hegar Wheels + Hydraulic Disc Brakes	New Heavy Duty X Series Internal Carry Through New Heavy Duty X Series Solid Legs No Cables Oversize Hegar Wheels + Hydraulic Disc Brakes

2018 Challenger Light Sport X Series - XL-65 & XS-65 Overview & Comparison	X SERIES Challenger Light Sport XL-65	X SERIES Challenger Light Sport XS-65
Load Factors at Max Gross Weight	+6G / -3G	+6G / -3G
Max Gross Weight	1060 lbs	1060 lbs
Empty Weight - Wheels or Skis	475 lbs	470
Empty Weight - Amphib Floats	575 lbs	n/a
Takeoff / Landing - Typical Conditions - STOL Technique	75 - 200 ft	125 - 250 ft
Maximum Demonstrated Crosswind	20 mph	20 mph
Rate of Climb - Vy - Standard Conditions	> 1000 fpm	> 1000 fpm
Service Ceiling - Standard Conditions	12,500 - 14,000 ft	12,500 - 14,000 ft
Minimum Sink Rate - Engine Off	350 - 450 fpm	350 - 450 fpm
Glide Ratio - Engine Off	11 to 1	11 to 1
Stall Speed (Flaperons Down)	34 mph IAS	39 mph IAS
Max Speed (Vne)	105 mph IAS	120 mph IAS
Max Cruise (Wheels)	95 mph TAS	100+ mph TAS
Fuel Economy - No Wind	20 - 25 mpg	20 - 25 mpg
Standard Fuel Tankage	20 USgal Wing Tanks	20 USgal Wing Tanks
Optional Fuel Tankage	Additional 10 or 17 USgal in Fuselage	Additional 10 or 17 USgal in Fuselage
Fuel Consumption at Typical Cruise Power	3.0 - 4.0 USgph = 12 - 16 L/hr	3.0 - 4.0 USgph = 12 - 16 L/hr
Endurance at Typical Cruise Power	5 - 7 hrs with Standard 20 USgal Wing Tanks	5 - 7 hrs with Standard 20 USgal Wing Tanks
Range at Typical Cruise Power	400 - 500 sm with Standard 20 USgal Wing Tanks	400 - 500 sm with Standard 20 USgal Wing Tanks
Oil Injection System - Dual Tanks - Capacity	10 -12 hrs	10 -12 hrs
Electric Start + Electrical System w/ Regulator/Rectifier	12V DC 170W	12V DC 170W
Aircraft Grade 6061-T6 Aluminum & Certified AN Hardware	Standard	Standard
Quick-Build Kit - Factory Built Tail, Wings, Fuselage	Standard - No Extra Charge	Standard - No Extra Charge
Factory Installed Full Dual Controls - Sticks, Rudders, Throttles	Standard - No Extra Charge	Standard - No Extra Charge
Factory Presewn / Precut Superflite Fabric	Standard - No Extra Charge	Standard - No Extra Charge
Simple Assembly - No Parts Fabrication Required - Realistic Time	+/- 300 hrs	+/- 300 hrs
Price for Airframe: Tail, Wings, Fuselage, Instruments, Fabric	Contact Us For Quote	Contact Us For Quote
Price for Power Pack: Engine, Cooling, EStart, Redrive, Prop	Contact Us For Quote	Contact Us For Quote
Price for Complete Package: Just Add Paint & Pilot	Package Discount Available	Package Discount Available
Kit By Section Program - Four Subkits to Spread Out Cash Flow	Tail, Wings, Fuselage, Engine	Tail, Wings, Fuselage, Engine
Typical Operating Cost	$15-20 per hour	$15-20 per hour
Price vs Competition	WOW!	WOW!