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25 YEARS JETCAT



JetCat PRO Engines

JetCat PRO ENGINES

Functional description

JetCat-PRO engines feature a single-stage radial compressor, an annular combustion chamber, a single-stage axial engine, and a fixed exhaust nozzle. Positioned at the compressor intake is the engine starting system, which, in certain engine models, can also be used as an electrical generator.

The intake air undergoes compression in the radial compressor stage, then flows through the radial and axial diffusers into the combustion chamber, where it combines with vaporized fuel. The resulting combustion gases, produced by fuel burning in the combustion chamber, expand through the single-stage axial engine and exit through the exhaust nozzle into the atmosphere, generating the necessary thrust.

The engine shaft is supported by two ceramic ball bearings, lubricated either by the fuel/oil mixture or via an optional oil feeder pump with an oil reservoir, thereby eliminating the need to mix oil with the fuel. With the external oil feeder pump, the average oil consumption is only between 30 to 55 ml per hour.

Control system

The engine's control system (ECU) consists of a 32-bit microprocessor, driver circuitry for pumps and solenoids, and an optional AC/DC converter. It is responsible for ensuring the safe operation of the engine, which includes tasks such as engine starting, maintaining the required speed, stopping, and cooling the engine after shutdown.

The ECU has inputs for :

- Engine RPM
- Exhaust Gas Temperature (thermocouple)
- optional inlet air temperature sensor (TO)
- The barometric pressure sensor enables automatic engine tuning upon reaching the operational altitude.
- Airspeed sensor
- Engine/ECU power, On/Off via voltage control signal
- No external power switches are needed for immediate engine shutdown via the termination system. This system cuts power to the fuel pump, closes safety solenoid valves, and stops the engine with multiple redundancies in place. Meanwhile, the ECU can remain powered on (for continued data reporting and/or engine cooldown).

The ECU has outputs to control:

- The brushless starter system
- The brushless fuel pump(s)
- A set of solenoid valves
- Power and driving of the ignition system
- Control of the optional AC/DC converter system on generator type engines

The automatic fuel purge feature facilitates automatic filling and purging of fuel feed lines. Once fuel reaches the engine, the purging process concludes automatically. All these functionalities and devices are integrated into the engine's front housing, eliminating the need for external equipment.

ECU monitoring and control

The ECU enables controlled acceleration and deceleration of the engine under all operating conditions. Engine operation can be managed and monitored through a serial bus or CAN bus from a master control system. This facilitates access to Total Built-On (TBO) statistics, real-time parameter monitoring including RPM, EGT, fuel flow, remaining fuel, voltage, currents, and more. Additionally, engine start/stop control is also accessible and monitored.

Fuel system for Fuel /Oil :

Jet A1 or equivalent, as well as diesel or synthetic diesel-based fuels, are compatible with the engine. Fuel purity must adhere to class 10-11 according to GOST 17216-71 or 7-8 according to NAS 1638 standards.

Regarding oil types, Compatible options include JetCat engine oil, Mobil Jet Oil II, Aero Shell 500, or Exxon 2388 (or equivalents). By default, a mixture of 3-5% oil must be combined with the fuel.

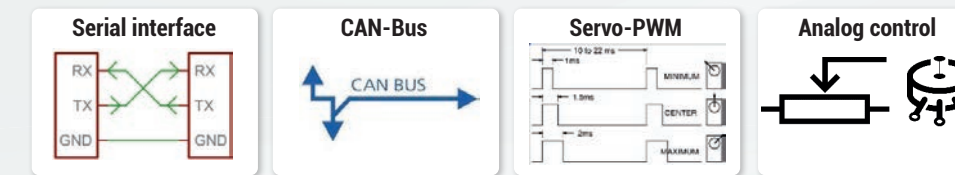
Fuel is drawn from an external tank, eliminating the need for additional external fuel shut-off valves. From the engine's fuel inlet port, the fuel is directly routed to the fuel pump and passes through an integrated post filter before entering a set of solenoid valves. One of these valves manages fuel supply to the main combustion chamber as well as the bearing lubrication system.

The operation of the pump/solenoids is regulated by the ECU, based on the current operational conditions. The front-mounted engine fuel supply manifold, comprising the fuel inlet, fuel pump, post filter, and solenoids, is machined from a single piece of solid metal, eliminating the need for additional pipes or tubing.

Easy installation / Highest level of integration

The JetCat-PRO engine series offers the highest level of integration and effortless installation. Unlike conventional engines, there's no need for additional external peripherals such as an ECU, pump, valves, or ignition system. These components are seamlessly integrated into the front section of the engine itself! This exceptional design greatly simplifies the installation process, reduces system complexity, and liberates valuable space for user payloads that would otherwise be occupied by engine peripheral systems. As a result, apart from the supply battery and fuel tank, no further external subsystems are necessary!

Control options / electrical interface for engine control, by default, there are a variety of control interface options already present, such as:



- Via GSU (Ground support unit). GSU is a handheld device used for setup and control of the engine.
- Serial communication interface Rx/Tx (3,3V TTL or +/-12V RS232). Baud rate: 2.4-115k
- CAN-Bus (2.0A-11bit or 2.0B-19bit. Bitrate: 125K-1Mbit/s adjustable)
- 2x Servo PWM inputs for throttle/engine control
- Analog input for engine control (Start/Stop/Thrust control)



The system permits the assignment of one of the Above-mentioned control sources for engine management and enables seamless switching between these sources. Additionally, data reporting can also be done through one or multiple digital interfaces.

Optional generator function and integrated AC/DC power supply / converter

The optional integrated power supply unit for „generator“ type engines comprises an integrated three-phase generator, a rectifier, and a switched step-up/down DC-DC power converter. This system efficiently provides power to all internal engine components (ECU, pumps, solenoids) once the engine is in operation. Any Excess power is automatically utilized to recharge the supply battery.

During engine operation, no power is drawn from the supply battery. The generator's output is rectified and precisely regulated to maintain a constant output voltage via the integrated DC/DC converter. The output voltage and current are automatically adjusted to match the selected (programmed) battery type and size. Hence, the output voltage of the DC/DC converter is adjustable by the system control board within a range of 9 to 30VDC. The DC/DC converter can deliver a maximum current of 7.8A (P1000: 15.6A), maintaining a constant output voltage up to this limit. If the current exceeds this limit or a lower programmable threshold, the output voltage will decrease.

Output current limiting function: The system monitors the current in the supply line based on the selected battery type/size to prevent overcurrent during charging. This feature also ensures that current flow back to the supply battery is limited to a safe charging level.

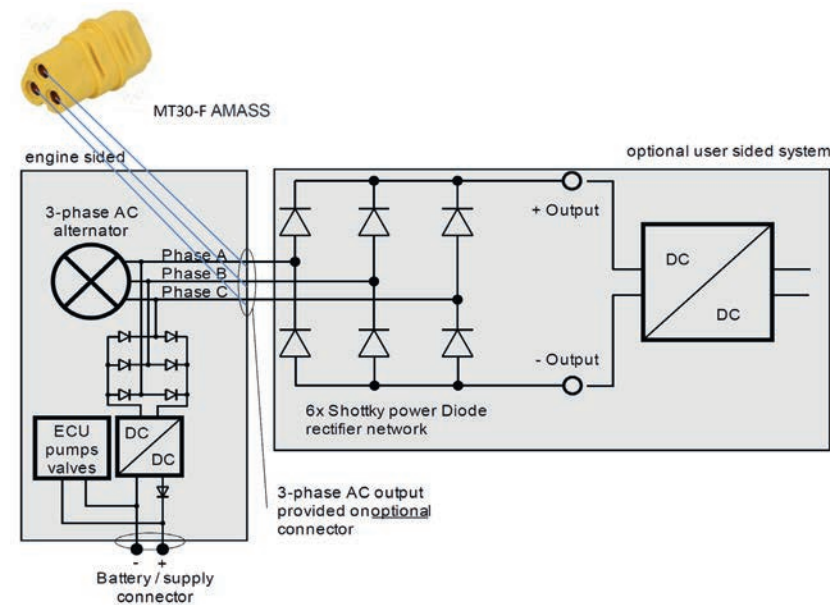
The generator is installed in the compressor intake, while the rectifier and DC/DC converter are integral components of the front-mounted ECU.

Optional high-power AC output: In addition to the integrated AC/DC converter, the three-phase AC generator output is accessible via a connector on „GH“ type engines, allowing for customized utilization of the generator power.

JetCat PRO ENGINES

Functional description

MT30-F AMASS connector



Bleed-air port, option for fuel tank pressurization

The optional bleed-air port can supply compressed air sourced from the engine's compressor stage. The pressure at the bleed-air port is depends on the engine's operational RPM. At full power a pressure of up to 3,5 bars is reached!

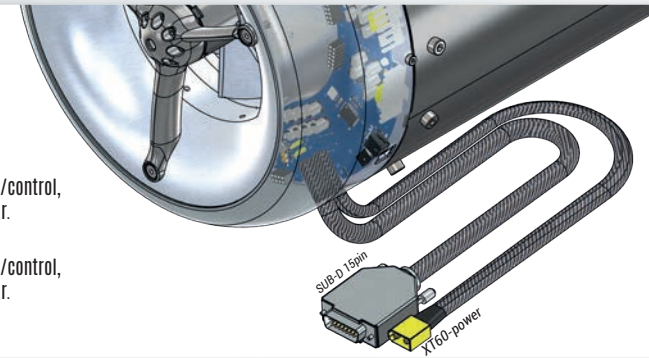
Bleed-air is commonly utilized to pressurize the onboard fuel system, preventing fuel degassing or bubbling during high-altitude engine operation (above 5000m). To fully utilize this feature, an additional pressure relief valve must be installed in front of the fuel tank to prevent over-pressurization.

Electrical connectors

Power / Data connectors

Connector A:
SUB-D 15pin connector for data/control, or a customer-specific connector.

Connector B:
XT60-power connector for data/control, or a customer-specific connector.



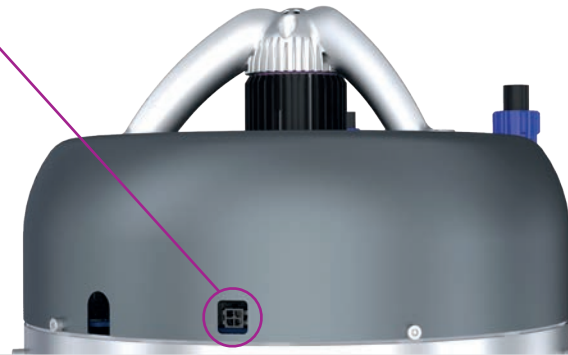
Expansion output (4-pin Molex, combining data and power) for connecting external devices such as smoke/oil pumps, feeder pumps, light control systems, GSU, etc.

Expansion connector C 4-pin Molex connector.

The 4-pin Molex expansion connector on the front side of the engine provides data and switched power to other optional

JetCat accessories like:

- Smoker pump (Bus Type)
- Light control unit (LCU)
- GSU (via special bus adaptor)
- Oil feeder pump



Customer-Specific Modifications:

Our engines can be customized to your specific requirements, whether it's adjusting for different operating/installation and mounting needs. Additionally, we offer customized connectors for data/power upon request. Furthermore, if necessary for seamless integration into your systems, the engine's effective nozzle length can also be modified.

Typical engine control I/O signals:

Description Info	Info
GND	Signal Ground
+5V out, max 200mA	+5V output to GSU
Power On Signal (4-14V)	Apply a positive voltage to power up ECU/engine
Throttle PWM input	RC-PWM Signal (THR)
AUX PWM input	RC-PWM Signal (AUX)
CAN-H/L	CAN-BUS
GSU-Bus-D	GSU bus (do not use!)
GSU-Bus-C	GSU-bus (do not use!)
RXD 3,3V TTL or RS232 (COM1)	Serial interface receive line
TXD 3,3V TTL or RS232 (COM1)	Serial interface transmit line
RXD-Cross Check, COM2	Secondary serial interface receive signal
TXD-Cross Check, COM2	Secondary serial interface transmit signal
	Safety shut down input.
Safety Shutdown input / engine "kill" signal	This is an input for additional flight termination systems. This input pin should not be used to stop the engine under normal conditions. Needs to be connected to GND to allow engine to run.
Airspeed / Analogue input	0-2,5V Airspeed Sensor or Analog input

Connection chart Option A

JetCat PRO-Interface V2:
The system's SUB-D15 connector furnishes all essential signals for engine control and operation. By utilizing the JetCat PRO interface adapters, not only can all PRO engines be quickly and easily deployed in model aircraft applications, but it also offers a comprehensive solution and an easily accessible point for stationary and industrial applications. Furthermore, it delivers the complete functionality of our JetCat telemetry adapter.

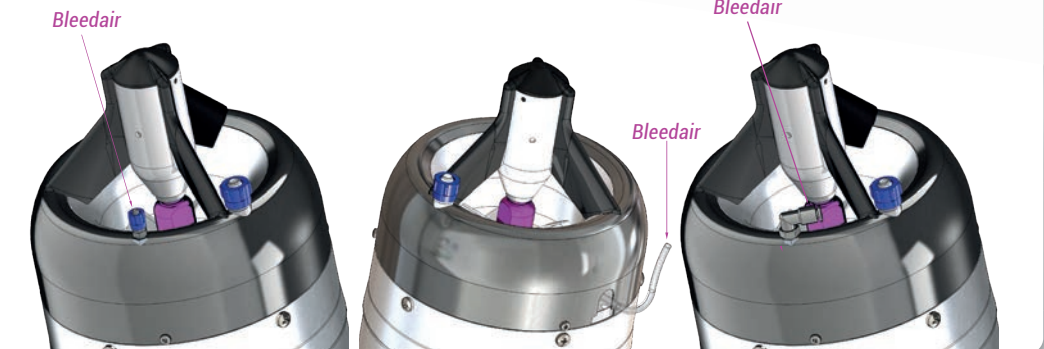


Fuel inlet, pump inside engine!
Avoid using a filter in the suction line; instead, utilize a UAT air trap or a large felt clunk.

Bleed air output port (OPTIONAL)

Can be utilized to pressurize the fuel tank for high altitude operation. Inside the engine, a one-way valve is installed to prevent reverse flow into the engine. If the bleed air function is not required, please block this port using a piece of tubing.

Engine sided ports: Bleedair Overview



JetCat PRO-S Engines

High altitude, high flight speed in-air restart capability

In air restart capable due to completely new kerosene start system

Engine ignites within 1.5 seconds from the start command and is at idle after typically 15 seconds (20 seconds max.)

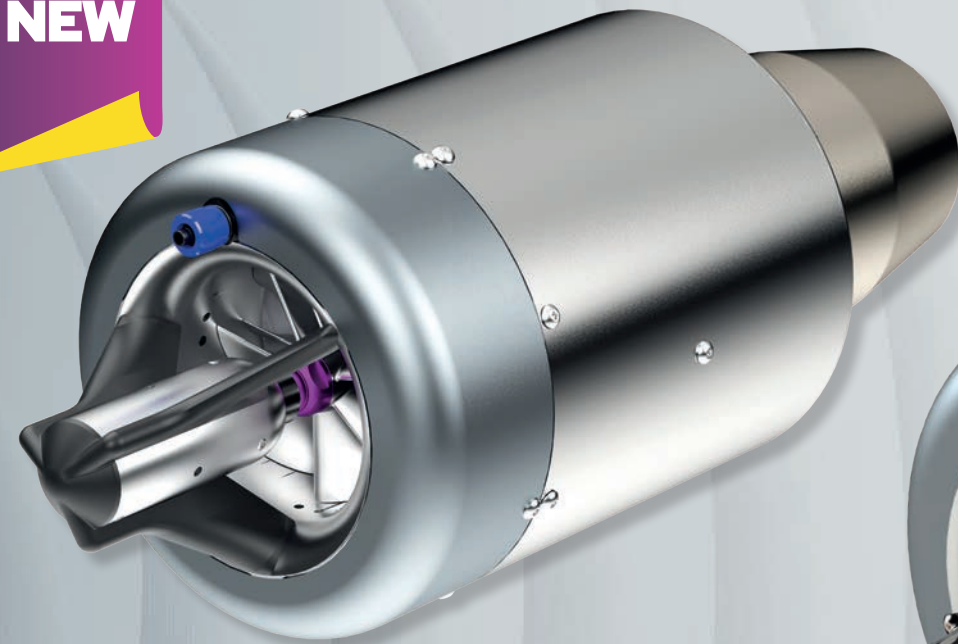
Direct quick start on kerosene via integrated high speed / low current ignition system

No pre-glow, no glow plug subject to wear, minimal current requirement for the ignition system (only a few mA)

P250/ P350-PRO-S HIGHLIGHTS

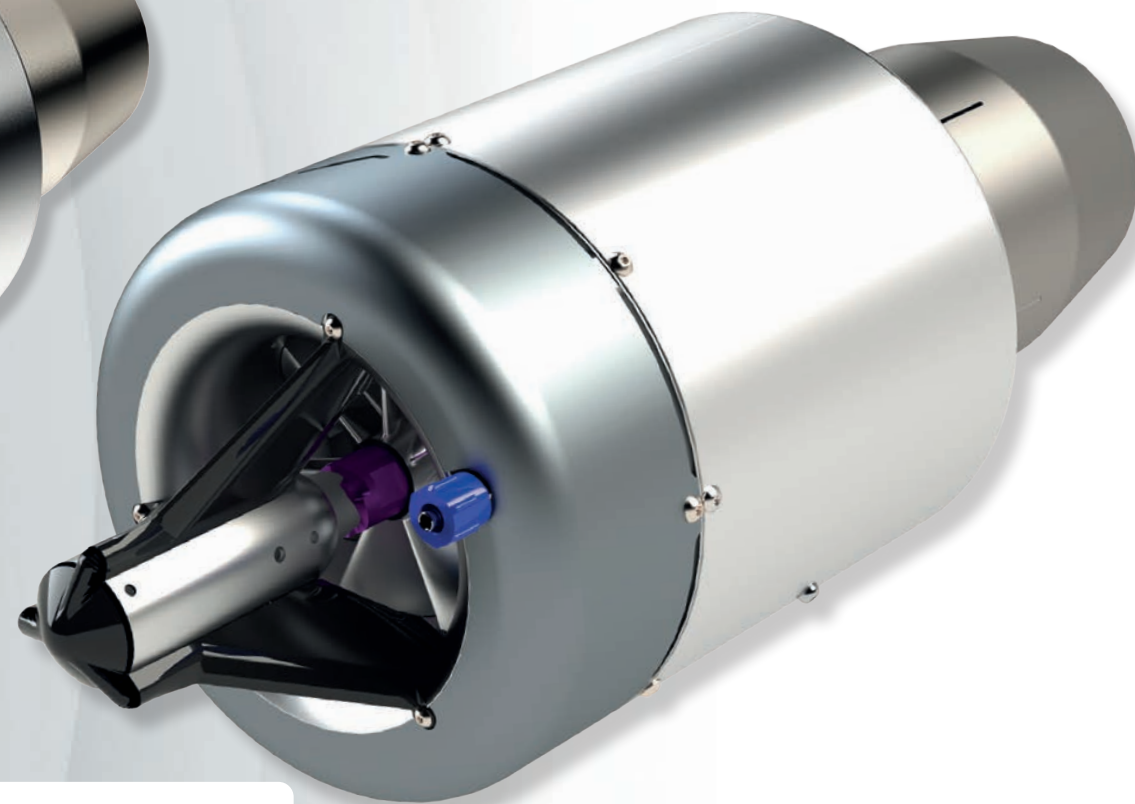


NEW



JetCat
P250-PRO-S V2
71152-0280

JetCat
P250-PRO-S V2 RC-Set
81152-0280



JetCat
P350-PRO-S
71153-0300

JetCat
P350-PRO-S RC-Set
81153-0300

The JetCat P250-PRO-S-V2 and P350-PRO-S turbo-jet engines are meticulously engineered propulsion units for RC aircraft/UAVs or various industrial applications. Each engine is meticulously crafted with a BLDC starter, 1x BLDC fuel pump, 2x fuel solenoids, and a fully integrated ECU. The stand-out feature of the P250-PRO-S-V2 is its high-speed/low-current start system, enabling rocket-fast startups of well under 15 seconds from OFF to engine idle. Only the supply battery and fuel tank are required, with no additional external subsystems needed.

These engines have advanced functionalities, including no pre-glow and no wear-prone glow plug, along with a minimal current requirement for the ignition system (only a few mA). They offer direct quick starts on kerosene via an integrated high-speed/low-current ignition system. Ignition takes place within 1.5 seconds of the start command., and the engine typically reaches idle within 15 seconds (max. 20 seconds). Moreover, they are equipped for air restarts thanks to a revolutionary kerosene start system, operable either manually or automatically. These engines excel particularly in their ability to perform in-air restarts at high altitudes and speeds.

ENGINESTART



JetCat PRO Engines

JetCat PRO Engine Variants and Features for P300-PRO/ P400-PRO/ P500-PRO/ P550-PRO

Seamless Integration and Streamlined Installation:

The JetCat PRO engines offer effortless integration and streamlined installation. All necessary system components for engine operation are fully incorporated beneath the engine hood. With the exception of the supply battery, fuel tank, and control signals, no additional external subsystems are needed. Control signals are transmitted through a data cable terminated with a 15-pin SUB-D connector, while power can be optionally supplied via the power cable with an XT60 plug for direct battery connection.

Standard Version (PRO):

The standard PRO engines come equipped with a conventional starter motor, omitting a generator to optimize costs when power generation isn't essential. However, with our „JetCat PRO-Interface V2, these engines can effortlessly adapt to RC model applications.

Generator Version PRO-GL:

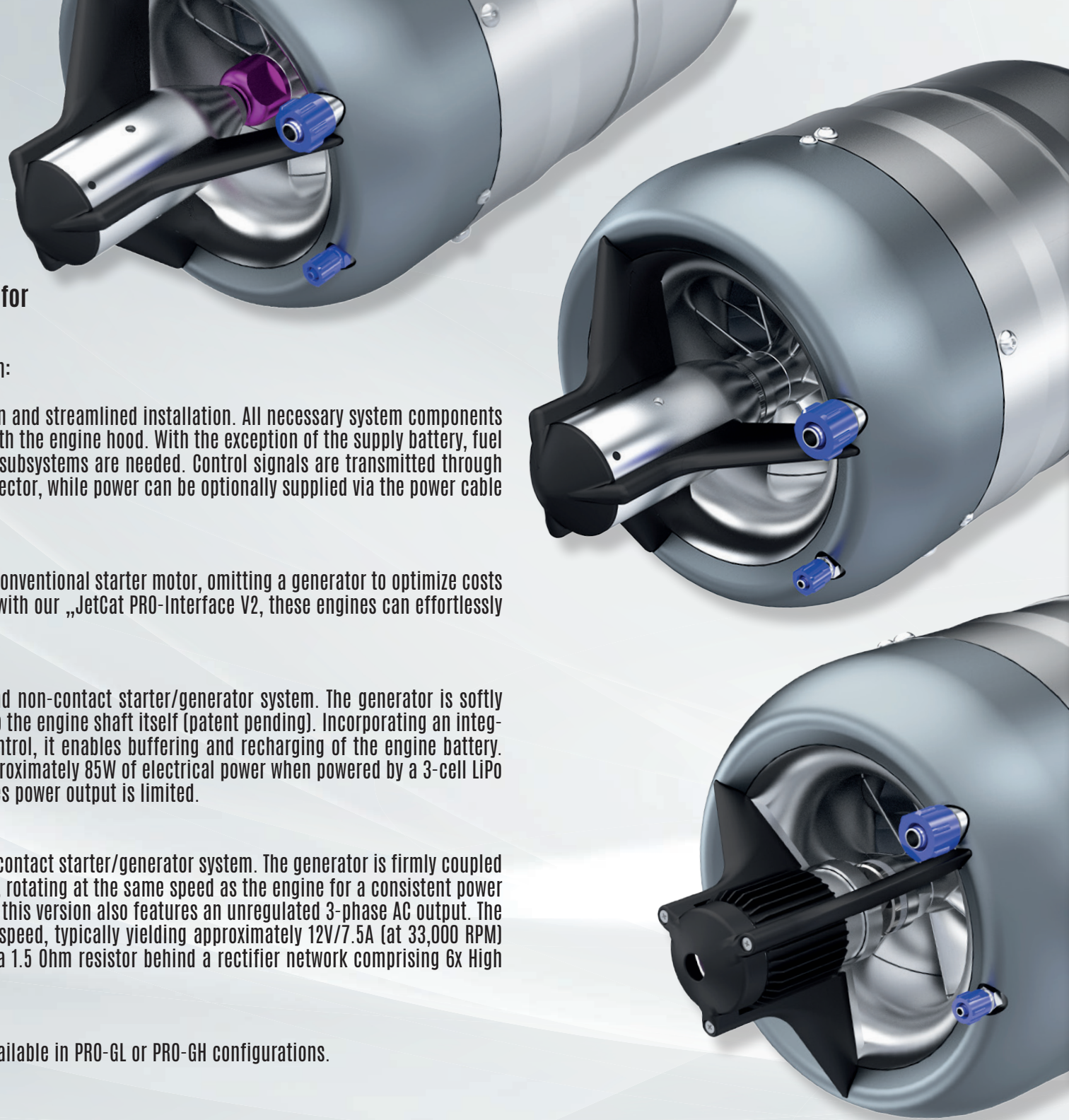
These variants feature an advanced brushless and non-contact starter/generator system. The generator is softly coupled, rotating at a reduced speed compared to the engine shaft itself (patent pending). Incorporating an integrated DC/DC converter with additional charge control, it enables buffering and recharging of the engine battery. Even at idle, the charging system can provide approximately 85W of electrical power when powered by a 3-cell LiPo battery. The soft coupling of the generator ensures power output is limited.

Generator Version PRO-GH:

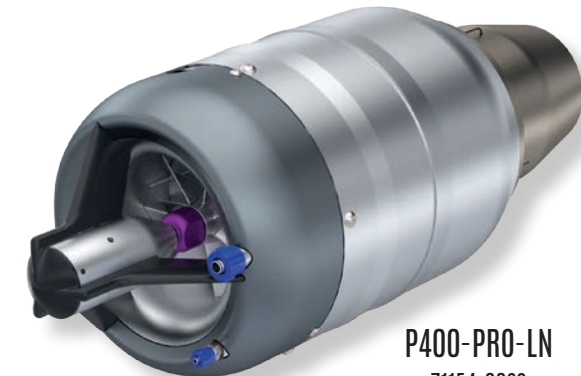
This version employs a robust brushless and non-contact starter/generator system. The generator is firmly coupled to the engine shaft (without mechanical contact), rotating at the same speed as the engine for a consistent power output. With a remarkable power output of 900W, this version also features an unregulated 3-phase AC output. The AC voltage varies proportionally with the engine speed, typically yielding approximately 12V/7.5A (at 33,000 RPM) and 35V/22A (at 100,000 RPM) when loaded with a 1.5 Ohm resistor behind a rectifier network comprising 6x High Power Schottky diodes.

Note:

The JetCat P500/P550-PRO series is exclusively available in PRO-GL or PRO-GH configurations.



P300-PRO
71153-0070



P400-PRO-LN
71154-0069



P500-PRO-GL
71155-0069

P550-PRO-GL
71155-0070



P300-PRO-GL
71153-0071



P400-PRO-GL-LN
71154-0073



P500-PRO-GH
71155-0071

P550-PRO-GH
71155-0072



P300-PRO-GH
71153-0072



P400-PRO-GH-LN
71154-0074

JetCat P1000-PRO

Maximum integration level for professional / industrial use

The JetCat-P1000-PRO ensures seamless integration for effortless installation. All essential peripheral systems required for operation are fully integrated under the engine's front cover, eliminating the need for additional external peripheral devices such as ECU, valves, or ignition systems. Hence, apart from the supply battery, fuel tank, and necessary external control signals, no further external subsystems are necessary. Control signals are transmitted via a cable equipped with a 15-pin SUB-D connector, while power is supplied through a secondary cable featuring an XT60 connector for direct battery connection (other connector types available upon request).

JetCat-P1000-PRO engines functions: Engine-side integrated components in the front end of the engines:

- ECU (electronic control unit)
- Brushless starter / generator (contactless to engine shaft)
- 2x integrated brushless fuel pumps
- 3x fuel and kerosene start valves
- Fuel filter
- Barometric altitude/pressure sensor for automatic adjustment to operational altitude
- 4-pole Molex expansion connection (e.g. for smoke pumps / fuel pumps)
- Bleed Air outlet with integrated check valve (e.g. for pressurizing the fuel system)
- In-Flight Restart Capability
- Re-Start possibility in flight
- Automatic cooling cycle after shutdown
- Direct kerosene start with dual ignition system. The ignition elements can be exchanged by the user
- Switching on the power supply via external control signal
- Safety shutdown input for immediate shutdown of the engine by means of a compatible flight abort system. This interrupts the fuel pump power supply and closes the safety valves. The ECU can remain switched on (e.g. for continuous data transmission and/or after-cooling of the engine)
- Transmission and logging of all important data such as speed / exhaust temperature / fuel consumption / fuel consumption / current / charging current / voltages etc
- High-performance ceramic ball bearings

Power supply:

- Supply voltage range: 10-35VDC e.g. via 3-cell LiPo battery / XT60 power connection / capacity 3000mAh or higher
- Programmable supply battery type and cell count. Max. (Peak) electrical starting power: ~ 300W

Generator:

- Max. output power 500W, 3-phase AC output optional. 1600W on GH version, via 3-phase AC output

Integrated DC/DC converter:

Output voltage: 9-30V, programmable, typically the output voltage is automatically applied to the power supply battery at the required level

Output power: 180W / 16A max ; Integrated output current limiter.

- Facilitates charging/buffering of the supply battery. No energy is drawn from the battery during engine operation; instead, it is automatically charged/buffered.

Data connector:

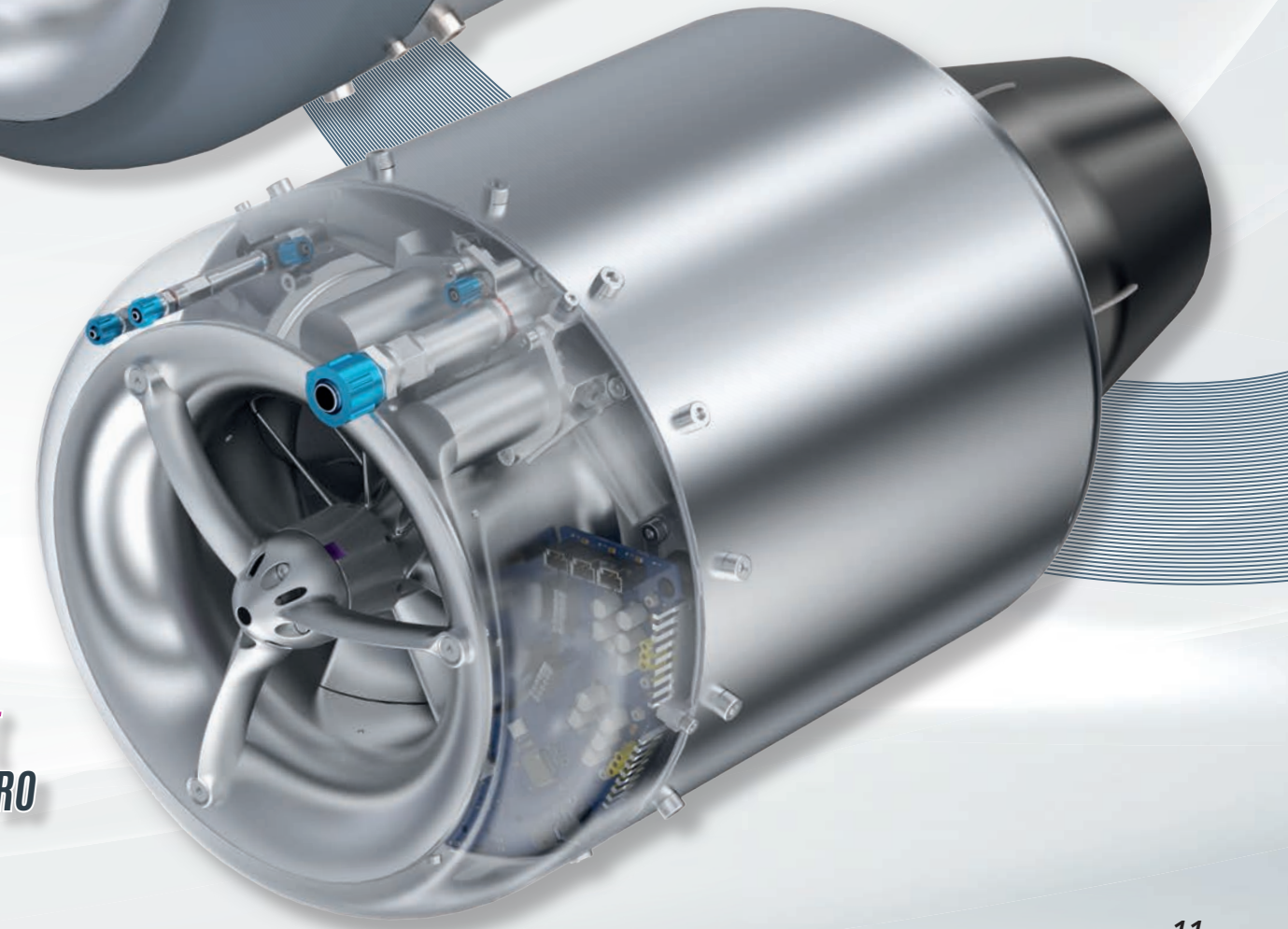
The 15pin SUB-D (male) offers the following control options:

- 1x PowerOn control signal
- 2x PWM input channels (e.g. for RC servo signals; THR / AUX)
- 2x independent serial TTL interfaces (baud rate: 9600 to 115000 bps) for computer control, data reporting and/or connection of several engines, RS232 signal level possible on request. The data protocol allows the addressing/control of several engines via the same serial interface
- 1x analog input for the speed presetting/engine control or as sensor input for the airspeed
- 1x JetCat bus interface, for connection of GSU and/or other JetCat accessories (LCU / Flow Sensor / BMS System etc.)
- CAN bus interface for control and reporting

Customer-specific connectors on request.



JetCat
P1000-PRO-GH
71157-0010



JetCat
P1000-PRO
71157-0000

Accessories

NEW



PRO-Interface V2
61168-0020

- One or two channel RC control (from receiver)
- Telemetry output for: Jeti, Graupner Hott, Multiplex M-BUS, Powerbox Core and Futaba SBUS-2RJ12 socket for connection of GSU
- Airspeed sensor connector and 6 / 8-pin ERNI flat cable connectors (e.g. for connection of LCU / Mini GSU)
- RS-232 header for computer control
- CAN-Bus Header
- 1-Wire Bus
- Header to JetCat BMS (Battery Management System)
- Cross-check communication port (For connecting/synchronizing two engines)
- 3x Status LEDs
- Analog and digital inputs for:
 - Power on/off
 - Engine On/Off control
 - Engine RPM command/control via a connected potentiometer



OnBoard RC-Charger
61108-0065

The OnBoard RC-Charger enables the charging/buffering of up to two RC receiver batteries from the engine's main supply battery. This system is particularly useful in connection with generator-type engines. The engine's onboard generator ensures that the engine's supply battery remains fully charged during engine operation, making it the ideal power source to also maintain the receiver batteries at a fully charged level.

The OnBoard RC-Charger will connect to the 4-pin Molex expansion connector of the engine and transferconditioned/regulated electrical energy to the receiver batteries. For this, two independent voltage and current regulated outputs are provided which would directly connect to the receiver batteries.

The outputs are optimized for 2s LiPo or 2s Lilon RC batteries (other setups on request).

- ECU battery voltage range: 9-24V (=input)
- 2x regulated outputs with 8,4V/2500mAh max each.
- Ideally suited for 2s LiPo or 2s Lilon RC batteries (>1500mAh ideal)



BUS-Smokerpumpe (E16)
71167-0000

- Compatible for ECU's from V10.0
- Max. allowed ECU supply voltage: 15V!
- Is looped directly into the BUS pump output
- Automatic supply via ECU battery
- Smoke pump output can be adjusted with GSU
- Flow rate up to 1800ml/min, programmable



GSU
61101-0010



Mini-GSU
61161-0000

The JetCat Mini-GSU is an optional miniaturized Ground Support Unit (GSU). The Mini-GSU is so small that it can easily remain in the model if desired. The 2-line, backlit, alphanumeric LCD display and the 10 function keys offer the same operations as the "large" GSU. The connection to V6 and lower ECUs is done via an 8-pin ribbon cable and connector directly to the LED-I/O interface.

The connection to V10 & up ECUs is made either directly to the ECU or to the standard LED-I/O interface via a 6-pin ribbon cable or via an 8-pin ribbon cable and connector to the JetCat I/O interface with charging input.



LCU-PRO V2
61162-0031

- 2 independent RC inputs
- All RC - inputs galvanically isolated by optocouplers
- 1 input for control/power supply of the LCU via a JetCat - ECU v6
- 1 input for control/power supply of the LCU via a JetCat ECU v10 and higher
- 12 outputs; 12 multifunction, output 11 and 12 can be set as afterburner
- Automatic switching to the current corresponding to the function
- 10x 1W - emitters connectable
- 2 independent afterburner rings directly connectable (regulated to 6,6V)
- Each (light) output has a control LED
- Switches on and off with RC or ECU, no switch necessary (only for JetCat engines!)
- Battery connection via MOLEX - plug for RC - operation without JetCat- engine
- In ECU - operation the voltage can be taken from the engine battery.
- Each output function can be freely assigned to an RC - input
- Extensive adjustment and combination possibilities with the JetCat GSU
- Software can be updated by the user
- Automatic detection of RC or ECU mode
- In ECU mode the switching on of the flasher, the position lights ect. and the afterburner is controlled by the ECU. Battery undervoltage, empty tank or failsafe is indicated by the lights.

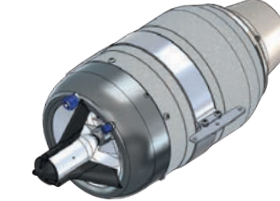
Engine mounting clamps



P250-PRO-S, P250-PRO-S-V2
41152-0248
P350-PRO-S
41153-0349



P300 PRO, P300 PRO-GL, P300 PRO-GH
41117-0048



P400 PRO-NL, P400 PRO-GL-NL, P400 PRO-GH-NL
41154-0048



P500 PRO-GL, P500 PRO-GH, P550 PRO-GL, P550 PRO-GH
41155-0048



P1000-PRO, P1000-PRO-GH
41157-0048

Basic-Technical-Information



Typ	P250-PRO-S-V2	P300-PRO	P300-PRO-GL	P300-PRO-GH	P350-PRO-S	P400-PRO-LN	P400-PRO-GL-LN	P400-PRO-GH-LN
Idle rpm (1/min)	35000	35000	35000	35000	30000	30000	30000	30000
Max rpm (1/min)	117000	106000	106000	106000	105000	98000	98000	98000
Thrust at idle (N)	11,8	14	14	14	15,5	14	14	14
Maximum thrust (N)	250	300	300	300	360	425	425	425
Exhaust gas temperature (°C)	480-750	480-750	480-750	480-750	480-750	480-750	480-750	480-750
Pressure ratio	3,8	3,55	3,55	3,55	3,8	3,8	3,8	3,8
Mass flow (kg/s)	0,47	0,5	0,5	0,5	0,65	0,67	0,67	0,67
Exhaust gas velocity (km/h)	1860	2160	2160	2160	2000	2122	2122	2122
Exhaust gas power output (kW)	75	90	90	90	100	116,4	116,4	116,4
Battery charging power (W)	-	-	85	85	-	-	85	85
3 Phase AC (W) / Voltage (V)	-	-	[*]	900 (W) / 10 - 36 (V)	-	-	[*]	900 (W) / 10 - 36 (V)
Fuel consumption idle (ml/min)	138	179	179	179	148	200	200	200
Fuel consumption @max rpm(ml/min)	820	980	980	980	1185	1392	1392	1392
Fuel consumption idle (kg/min)	0,110	0,143	0,143	0,143	0,118	0,16	0,16	0,16
Fuel consumption @max rpm (kg/min)	0,656	0,784	0,784	0,784	0,948	1,040	1,040	1,040
SFC @max rpm (kg/(N*h))	0,158	0,157	0,157	0,157	0,158	0,158	0,158	0,158
Weight (g)	2155	2870	2870	2870	2890	4010	4060	4140
Diameter (mm)	121	132	132	132	136	148,4	148,4	148,4
Length (mm) incl. starter motor	322	381	381	377	350	390	380	376
Battery recommendation	LiPo 3s >> 1500mAh	LiPo 3s >> 2000mAh	LiPo 3s >> 2000mAh	LiPo 3s >> 2000mAh	LiPo 3s >> 1500mAh	LiPo 3s >> 2000mAh	LiPo 3s >> 2000mAh	LiPo 3s >> 2000mAh
Operating conditions								
Maximum start altitude	6000m (@STP)	2600m (@STP)						
Maximum operating altitude	10000m / 32800ft							
Fuel	Jet-A1, Jet TS-1, Premium Diesel Aral Ultimate, with 3% - 5% oil (MIL-L-23 699)							
Max. axial (forward-) acceleration	25g							

[*] Phase voltage depending on engine speed; approx. 10 - 40VAC, all data at STP +/- 3%; STP: Standard temperature and pressure: 15 °C, 1013 mbar



Typ	P500-PRO-GL	P500-PRO-GH	P550-PRO-GL	P550-PRO-GH	P1000-PRO	P1000-PRO-GH
Idle rpm (1/min)	26000	26000	26000	26000	19000	19000
Max rpm (1/min)	80000	80000	83000	83000	61500	61500
Thrust at idle (N)	28	28	28	28	45	45
Maximum thrust (N)	492	492	550	550	1100	1100
Exhaust gas temperature (°C)	480-740	480-740	480-750	480-750	480-720	480-720
Pressure ratio	3,6	3,6	3,8	3,8	4	4
Mass flow (kg/s)	0,9	0,9	0,93	0,93	1,8	1,8
Exhaust gas velocity (km/h)	1968	1968	2129	2129	2200	2200
Exhaust gas power output (kW)	134,5	134,5	162,6	162,6	336,1	336,1
Battery charging power (W)	85	85	85	85	160	160
3 Phase AC (W) / Voltage (V)	-	900 (W) / 10 - 36 (V)	[*]	900 (W) / 10 - 36 (V)	500 (W) / 10 - 36 (V)	1600 (W) / 10 - 36 (V)
Fuel consumption idle (ml/min)	300	300	300	300	550	550
Fuel consumption @max rpm(ml/min)	1550	1550	1650	1650	2900	2900
Fuel consumption idle (kg/min)	0,240	0,240	0,240	0,240	0,440	0,440
Fuel consumption @max rpm (kg/min)	1,188	1,188	1,320	1,320	2,320	2,320
SFC @max rpm (kg/(N*h))	0,151	0,151	0,144	0,144	0,127	0,127
Weight (g)	4900	4900	5305	4900	11350	11570
Diameter (mm)	178,6	178,6	178,6	178,6	234	234
Length (mm) incl. starter motor	419	416	419	416	444	505
Battery recommendation	LiPo 3s >> 3000mAh	LiPo 3s >> 3000mAh	LiPo 3s >> 3000mAh	LiPo 3s >> 3000mAh	LiPo 3s >> 3000-5000mAh	LiPo 3s >> 3000-5000mAh
Operating conditions						
Maximum start altitude	2600m (@STP)				6000m	
Maximum operating altitude	10000m / 32800ft					
Fuel	Jet-A1, Jet TS-1, Premium Diesel Aral Ultimate, with 3% - 5% oil (MIL-L-23 699)					
Max. axial (forward-) acceleration	25g					

[*] Phase voltage depending on engine speed; approx. 10 - 40VAC, all data at STP +/- 3%; STP: Standard temperature and pressure: 15 °C, 1013 mbar



Subject to change and delivery possibility. No liability for misprints and mistakes. 4/2024

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