ARMA
POWER SOLUTIONS

NERO
INDUSTRIES
Advanced Reliability

OUR FACTORIES

NERO Endüstri Savunma Sanayi A.Ş. which operates in United States of America, Bulgaria and Turkey at Ankara headquarters, is one of the largest subsystem manufacturers in Defence Industry in Turkey. Our company which is located on a plot of 12.000 m2 in Anatolia Organized Industrial Zone; has been performing hundred percent domestic design, manufacture and provide system solutions since its foundation in 2009. More than 100 engineers are assigned within its staff of 210 people. Besides, it imports 30 different countries in the world. While our group companies operate in Space Aviation field, Defence Industry, it also comprises one of the largest test centres of Turkey regarding Defence Industry

NERO INDUSTRIES
Advanced Reliability

ARES · ARMA · MARS · UMAY

By combining design, production, monitoring, control and improvement methods conforming to ISO9001 and AS9100 standards with quality engineering and test infrastructure, it successfully competes with its global competitors and accomplishes outstanding projects together with world leaders of the sector.

Nero Industry has started project designing phase of the factory for the project which is worth 1.6 billion TL together with project-based investment incentive support on Presidential decree published in official gazette on 20th April, 2020 in order to establish Turkey's first semiconductor production factory. Turkey's first semi-conductor serial production facility which will be established on 300.000 m2 plot, will bring our country to the level where we will be able to compete with semiconductor companies at global level. Nero Industry, together with its high qualified employees will create first investment phase of Turkey in this field with this project.

Within the scope of designed and qualified systems,

ARES – Fire Suppression Systems,
MARS – CBRN Detection and Filtration Systems,
ARMA – Power Systems,
UMAY – Laser Detection/Warning and Smoke Grenade Launcher Systems are included.

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NERO INDUSTRY SYSTEMS IMPORT TO 35 COUNTRIES

- Germany
- Israel
- Ukraine
- Brasil
- USA
- Azerbaijan
- Bahrain
- China
- Indonesia
- Kuwait
- Malaysia
- Oman
- Pakistan
- Qatar
- Singapore
- France
- Spain
- England
- Peru
- Saudi Arabia
- Turkmenistan
- United Arab Emirates
- Canada
- India
- Thailand
- Kazakhstan
- Latvia
- Estonia
- Lithuania
- S. Korea
- Poland
- Belarus
- Bangladesh
- Czech Republic
- Iraq

ARMA POWER SYSTEMS

All military vehicles and military platforms need extra power to keep their systems active, apart from the power produced by the vehicle. These powers are provided by a different power generating system or from the grid electricity at the location of the vehicle. Some platforms need such high power that they have to use all the power generating systems they have.

Nero Industry Arma Power Systems provides Military Generator, APU, PTO Alternator and AC/DC Converter (rectifier) systems for military vehicles and military platforms to provide the power needed by the platform and the capability systems on the vehicle. These systems provide the military vehicle with extra power as AC - DC in the required feature and volume. Thanks to this power, the military platform; It achieves capabilities such as silent operation capability and high reliability rate on the vehicle platform.

At the same time, there are dozens of systems on the vehicle, but the power generating systems are on average 4-5. There are power units in order for the systems to distribute and control these power needs automatically and to receive the errors and feedbacks that occur in the system and deliver them to the user via ethernet and remote connection. These power distribution units are systems that automatically distribute and control the power produced by the platforms on the vehicle as needed by the platform and systems. These smart power solutions are fully qualified systems that have passed the MIL-STD-810G, MIL-STD-461E tests and can operate in all harsh environmental conditions.

GENERATOR FAMILY

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3 KVA - G3M

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15KVA - G15M

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25 KVA - G25MC

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28KVA - G28M

APU FAMILY

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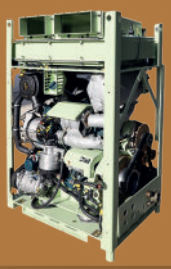
APU - A151K



Page-31
APU - A12011

Page-38
NL-1628 Control Unit

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A20-F Control Unit

POWER DISTRIBUTION UNITS

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Equipment Container Shelter

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GDU 336 Power Dist. Unit

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PDU 80 Power Dist. Unit

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PDU70 Power Dist. Unit

PTO, MANAGEMENT AND DISTRIBUTION UNITS

Page-49
PTO P40 Alternator

Page-49
PTO P50 Alternator

Page-51
AC/DC Converter

ARMA POWER SYSTEMS SUBPRODUCT CATEGORY GENERAL SPECIFICATIONS

2-1000 kW Power Capacity

Smart Control Units

Super Silent and Compact Design

24 Hours Continuous Power

100% Reliability at Extreme Circum-stances

Dual-Mobile-Platform

Remote Access

High Efficiency

Tailor-Made Design

MILITARY GENERATOR GENERAL CAPABILITIES

MIL-STD-1275E conformant
MIL-STD-810G tests completed
MIL-STD-461 EMI tests completed

It can be designed and applied as Dual – Mobile – Platform

Specially developed electronic cards and control unit instead of electronic board panel to reduce weight and dimensions 30%

Silent : 55 db at 7 meters

Ability to operate at 55°C without overheat

Capability to develop military generators between 2KW and 1000KW

Design for special dimensions

MILITARY GENERATOR 3 KVA - G3M

TECHNICAL SPECIFICATIONS

GENERATOR TYPE
Mobile Generator

STAND BY POWER
3 KVA

CONTINUOUS POWER
2,5 KVA

FREQUENCY
50 Hz

COOLING SYSTEM
Water Cooling System

VOLTAGE PHASE NUMBER
1

CONNECTION TYPE
RS422 – TCP

SOUND LEVEL
75 Db in 7 Meters

WEIGHT
156 KG

OPERATING TEMPERATURE
-32 / +55 °C

STORAGE TEMPERATURE
-40 / +60 °C

FUEL TYPE - CONSUMPTION
Diesel - 3 LT/H

BATTERY CAPACITY
40 AH

DIMENSIONS (L x W x H)
882×525×603 ±5 mm

ENGINE SPECIFICATIONS

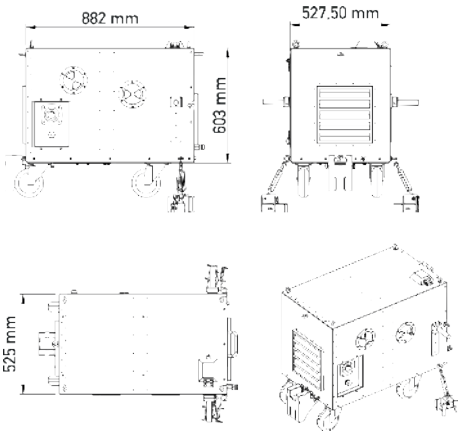
ENGINE	Kubota
OUTPUT POWER	9,3 kW
ENGINE TYPE	Water Cooling Vertical Diesel Engine
NUMBER OF CYLINDERS	2
MAXIMUM SPEED	3000 RPM
STARTING SYSTEM	Electrical Starting System

ALTERNATOR SPECIFICATIONS

OUTPUT POWER	7 KVA
PROTECTION CLASS	IP23
VOLTAGE SENSITIVITY	± 2% V
MAXIMUM SPEED	3000 RPM

MILITARY STANDARDS

MIL-STD-461F	MIL-STD-810G
High Temprature	Low Temprature
Humidity Test	Vibration Test



MILITARY GENERATOR 5 KVA - G5M

TECHNICAL SPECIFICATIONS

GENERATOR TYPE
Mobile Generator

STAND BY POWER
5 KVA

CONTINUOUS POWER
4 KVA

FREQUENCY
50 Hz

COOLING SYSTEM
Water Cooling System

VOLTAGE PHASE NUMBER
1

CONNECTION TYPE
CANBUS/Serial/Ethernet

SOUND LEVEL
75 Db in 7 Meters

WEIGHT
230 KG ±5

OPERATING TEMPERATURE
-32 / +55 °C

STORAGE TEMPERATURE
-40 / +60 °C

FUEL TYPE - CONSUMPTION
Diesel - 3 LT/H

BATTERY CAPACITY
70 AH

DIMENSIONS (L x W x H)
922x635x917 ±5 mm

ENGINE SPECIFICATIONS

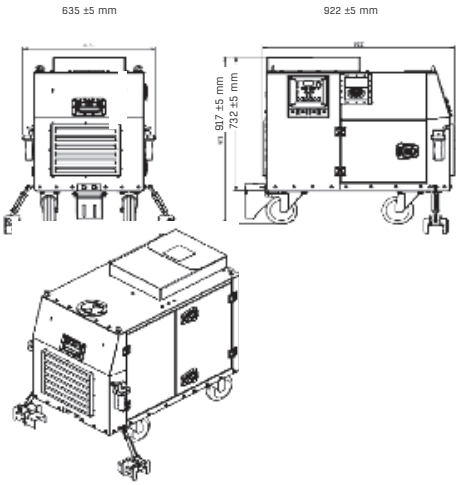
ENGINE	Kubota
OUTPUT POWER	9,3 kW
ENGINE TYPE	Water Cooling Vertical Diesel Engine
NUMBER OF CYLINDERS	2
MAXIMUM SPEED	3000 RPM
STARTING SYSTEM	Electrical Starting System

ALTERNATOR SPECIFICATIONS

OUTPUT POWER	7 KVA
PROTECTION CLASS	IP23
VOLTAGE SENSITIVITY	± 2% V
MAXIMUM SPEED	3000 RPM

MILITARY STANDARDS

MIL-STD-461F	MIL-STD-810G
High Temprature	Low Temprature
Humidity Test	Vibration Test



MILITARY GENERATOR 6 KVA - A5

TECHNICAL SPECIFICATIONS

GENERATOR TYPE
Platform Generator

STAND BY POWER
7,5 KVA

CONTINUOUS POWER
6 KVA

FREQUENCY
50 Hz

COOLING SYSTEM
Water Cooling System

VOLTAGE PHASE NUMBER
1

CONNECTION TYPE
RS422 – TCP

SOUND LEVEL
75 Db in 7 Meters

WEIGHT
270 KG

OPERATING TEMPERATURE
-32 / +55 °C

STORAGE TEMPERATURE
-40 / +60 °C

FUEL TYPE - CONSUMPTION
Diesel - 3 LT/H

BATTERY CAPACITY
70 AH @12V

DIMENSIONS (L x W x H)
1198×575×990 ±5 mm

ENGINE SPECIFICATIONS

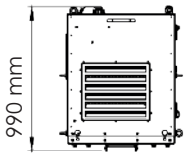
ENGINE	Kubota
OUTPUT POWER	9,3 kW
ENGINE TYPE	Water Cooling Vertical Diesel Engine
NUMBER OF CYLINDERS	2
MAXIMUM SPEED	3000 RPM
STARTING SYSTEM	Electrical Starting System

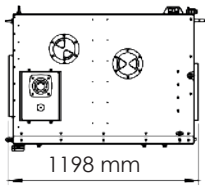
ALTERNATOR SPECIFICATIONS

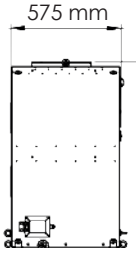
OUTPUT POWER	7 KVA
PROTECTION CLASS	IP23
VOLTAGE SENSITIVITY	± 2% V
MAXIMUM SPEED	3000 RPM

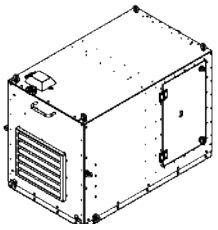
MILITARY STANDARDS

MIL-STD-461F	MIL-STD-810G
High Temprature	Low Temprature
Humidity Test	Vibration Test









MILITARY GENERATOR 7 KVA - G7M

TECHNICAL SPECIFICATIONS

GENERATOR TYPE
Platform Generator

STAND BY POWER
7 KVA

CONTINUOUS POWER
5 KVA

FREQUENCY
50 Hz

COOLING SYSTEM
Water Cooling System

VOLTAGE PHASE NUMBER
1

CONNECTION TYPE
RS422 – TCP

SOUND LEVEL
75 Db in 7 Meters

WEIGHT
170 KG

OPERATING TEMPERATURE
-32 / +55 °C

STORAGE TEMPERATURE
-40 / +60 °C

FUEL TYPE - CONSUMPTION
Diesel - 3 LT/H

BATTERY CAPACITY
70 AH @12V

DIMENSIONS (L x W x H)
922×538×701 ±5 mm

ENGINE SPECIFICATIONS

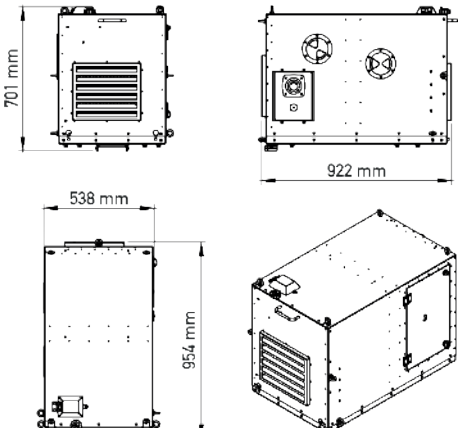
ENGINE	Kubota
OUTPUT POWER	9,3 kW
ENGINE TYPE	Water Cooling Vertical Diesel Engine
NUMBER OF CYLINDERS	2
MAXIMUM SPEED	3000 RPM
STARTING SYSTEM	Electrical Starting System

ALTERNATOR SPECIFICATIONS

OUTPUT POWER	7 KVA
PROTECTION CLASS	IP23
VOLTAGE SENSITIVITY	± 2% V
MAXIMUM SPEED	3000 RPM

MILITARY STANDARDS

MIL-STD-461F	MIL-STD-810G
High Temprature	Low Temprature
Humidity Test	Vibration Test



MILITARY GENERATOR 15 KVA-G15M

TECHNICAL SPECIFICATIONS

GENERATOR TYPE
Platform Generator

STAND BY POWER
15 KVA

CONTINUOUS POWER
12,5 KVA

FREQUENCY
50 Hz

COOLING SYSTEM
Water Cooling System

VOLTAGE PHASE NUMBER
3

CONNECTION TYPE
RS422 – TCP

SOUND LEVEL
75 Db in 7 Meters

WEIGHT
700 KG ±5

OPERATING TEMPERATURE
-32 / +55 °C

STORAGE TEMPERATURE
-40 / +60 °C

FUEL TYPE - CONSUMPTION
Diesel - 5 LT/H

BATTERY CAPACITY
95 AH @12V

DIMENSIONS (L x W x H)
882x 525 x 527,50 ±5 mm

ENGINE SPECIFICATIONS

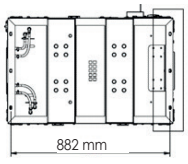
ENGINE	Kubota
OUTPUT POWER	24,5 kW
ENGINE TYPE	Water Cooling Vertical Diesel Engine
NUMBER OF CYLINDERS	3
MAXIMUM SPEED	3000 RPM
STARTING SYSTEM	Electrical Starting System

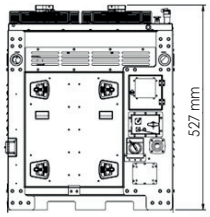
ALTERNATOR SPECIFICATIONS

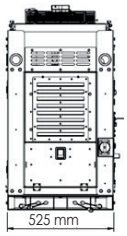
OUTPUT POWER	20 KVA
PROTECTION CLASS	IP23
VOLTAGE SENSITIVITY	± 2% V
MAXIMUM SPEED	3000 RPM

MILITARY STANDARDS

MIL-STD-461F	MIL-STD-810G
High Temprature	Low Temprature
Humidity Test	Vibration Test







MILITARY GENERATOR 17 KVA - G17M

TECHNICAL SPECIFICATIONS

GENERATOR TYPE
Platform Generator

STAND BY POWER
17 KVA

CONTINUOUS POWER
12,5 KVA (10KW)

FREQUENCY
50 Hz

COOLING SYSTEM
Water Cooling System

VOLTAGE PHASE NUMBER
1

CONNECTION TYPE
RS422 – TCP

SOUND LEVEL
75 Db in 7 Meters

WEIGHT
863 KG ±5

OPERATING TEMPERATURE
-32 / +55 °C

STORAGE TEMPERATURE
-40 / +60 °C

FUEL TYPE - CONSUMPTION
Diesel - 5 LT/H

BATTERY CAPACITY
95 AH @12V

DIMENSIONS (L x W x H)
1125x1167x748 ±5 mm

ENGINE SPECIFICATIONS

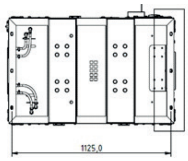
ENGINE	Kubota
OUTPUT POWER	24,5 kW
ENGINE TYPE	Water Cooling Vertical Diesel Engine
NUMBER OF CYLINDERS	3
MAXIMUM SPEED	3000 RPM
STARTING SYSTEM	Electrical Starting System

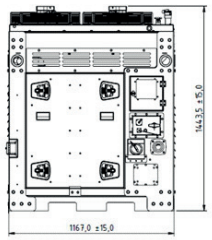
ALTERNATOR SPECIFICATIONS

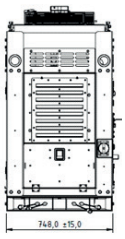
OUTPUT POWER	17 KVA
PROTECTION CLASS	IP23
VOLTAGE SENSITIVITY	± 2% V
MAXIMUM SPEED	3000 RPM

MILITARY STANDARDS

MIL-STD-461F	MIL-STD-810G
High Temprature	Low Temprature
Humidity Test	Vibration Test







MILITARY GENERATOR 20 KVA - G20M

TECHNICAL SPECIFICATIONS

GENERATOR TYPE
H class

STAND BY POWER
20 KVA

CONTINUOUS POWER
16 KVA

FREQUENCY
50 Hz

COOLING SYSTEM
Water Cooling System

VOLTAGE PHASE NUMBER
3

CONNECTION TYPE
RS422 – TCP

SOUND LEVEL
70 Db in 7 Meters

WEIGHT
900 KG ±5

OPERATING TEMPERATURE
-32 / +55 °C

STORAGE TEMPERATURE
-40 / +60 °C

FUEL TYPE - CONSUMPTION
Diesel - 8,6 LT/H

BATTERY CAPACITY
95 AH @12V

DIMENSIONS (L x W x H)
1484x1318x791 ±5 mm

ENGINE SPECIFICATIONS

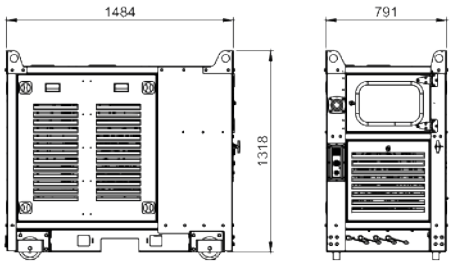
ENGINE	Perkins
OUTPUT POWER	33 kW
ENGINE TYPE	Water Cooling Vertical Diesel Engine
NUMBER OF CYLINDERS	4
MAXIMUM SPEED	1500 RPM
STARTING SYSTEM	Electrical Starting System

ALTERNATOR SPECIFICATIONS

OUTPUT POWER	20 KVA
PROTECTION CLASS	IP23
VOLTAGE SENSITIVITY	± 2,5 % V
MAXIMUM SPEED	3000 RPM

MILITARY STANDARDS

MIL-STD-461F	MIL-STD-810G
High Temprature	Low Temprature
Humidity Test	Vibration Test



MILITARY GENERATOR 22,5 KVA - G22D

TECHNICAL SPECIFICATIONS

GENERATOR TYPE
Platform/Rail/Dual

STAND BY POWER
22,5 KVA

CONTINUOUS POWER
18,5 KVA

FREQUENCY
50 Hz

COOLING SYSTEM
Water Cooling System

VOLTAGE PHASE NUMBER
3

CONNECTION TYPE
RS422 – TCP/ IP-CANBUS

SOUND LEVEL
75 Db in 7 Meters

WEIGHT
1000 KG ±5

OPERATING TEMPERATURE
-32 / +55 °C

STORAGE TEMPERATURE
-40 / +60 °C

FUEL TYPE - CONSUMPTION
Diesel - 8,6 LT/H

BATTERY CAPACITY
95 AH @12V

DIMENSIONS (L x W x H)
2456×678×1734 ±5 mm

ENGINE SPECIFICATIONS

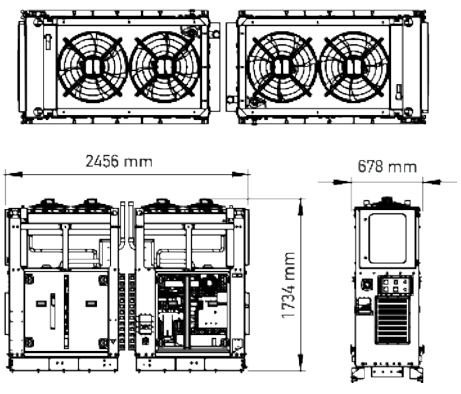
ENGINE	Kubota
OUTPUT POWER	9,3 kW
ENGINE TYPE	Water Cooling Vertical Diesel Engine
NUMBER OF CYLINDERS	4
MAXIMUM SPEED	3000 RPM
STARTING SYSTEM	Electrical Starting System

ALTERNATOR SPECIFICATIONS

OUTPUT POWER	33 KVA
PROTECTION CLASS	IP23
VOLTAGE SENSITIVITY	± 2% V
MAXIMUM SPEED	3000 RPM

MILITARY STANDARDS

MIL-STD-461F	MIL-STD-810G
High Temprature	Low Temprature
Humidity Test	Vibration Test



MILITARY GENERATOR 25 KVA - G25DM

TECHNICAL SPECIFICATIONS

GENERATOR TYPE
Platform/Rail/Dual/Synchron

STAND BY POWER
25 KVA

CONTINUOUS POWER
20 KVA

FREQUENCY
50 Hz

COOLING SYSTEM
Water Cooling System

VOLTAGE PHASE NUMBER
3

CONNECTION TYPE
RS422 – TCP/ IP-CANBUS

SOUND LEVEL
75 Db in 7 Meters

WEIGHT
800 KG ±5

OPERATING TEMPERATURE
-32 / +55 °C

STORAGE TEMPERATURE
-40 / +60 °C

FUEL TYPE - CONSUMPTION
Diesel - 6,1 LT/H

BATTERY CAPACITY
95 AH @12V

DIMENSIONS (L x W x H)
1655×793×1318 ±5 mm

ENGINE SPECIFICATIONS

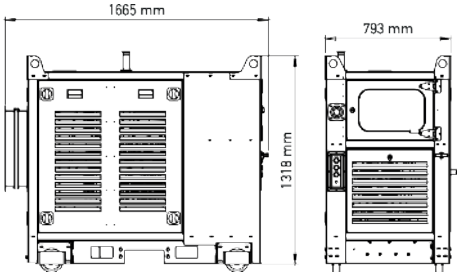
ENGINE	Perkins
OUTPUT POWER	33 kW
ENGINE TYPE	Water Cooling Vertical Diesel Engine
NUMBER OF CYLINDERS	4
MAXIMUM SPEED	1500 RPM
STARTING SYSTEM	Electrical Starting System

ALTERNATOR SPECIFICATIONS

OUTPUT POWER	25 KVA
PROTECTION CLASS	IP23
VOLTAGE SENSITIVITY	± 2,5 % V
MAXIMUM SPEED	1500 RPM

MILITARY STANDARDS

MIL-STD-461F	MIL-STD-810G
High Temprature	Low Temprature
Humidity Test	Vibration Test



MILITARY GENERATOR 25 KVA - G25M

TECHNICAL SPECIFICATIONS

GENERATOR TYPE
Platform / Synchron

STAND BY POWER
25 KVA

CONTINUOUS POWER
20 KVA

FREQUENCY
50 Hz

COOLING SYSTEM
Water Cooling System

VOLTAGE PHASE NUMBER
3

CONNECTION TYPE
RS422 – TCP/ IP-CANBUS

SOUND LEVEL
7 Metrede 64 dB

WEIGHT
860 KG ±5

OPERATING TEMPERATURE
-32 / +55 °C

STORAGE TEMPERATURE
-40 / +60 °C

FUEL TYPE - CONSUMPTION
Diesel - 8,6 LT/H

BATTERY CAPACITY
95 AH @24V

DIMENSIONS (L x W x H)
1907×600×1406 ±5 mm

ENGINE SPECIFICATIONS

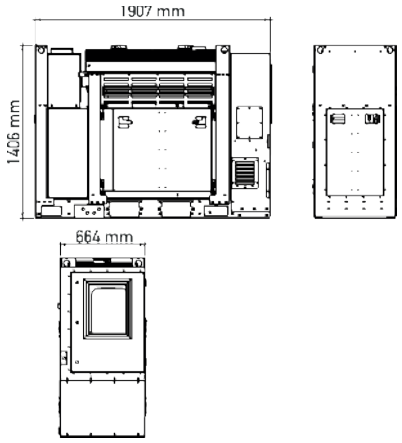
ENGINE	Perkins
MODEL	404D-22TG
OUTPUT POWER	36 kW
ENGINE TYPE	Water Cooling Vertical Diesel Engine
NUMBER OF CYLINDERS	4
MAXIMUM SPEED	3000 RPM
STARTING SYSTEM	Electrical Starting System

ALTERNATOR SPECIFICATIONS

OUTPUT POWER	30 KVA
PROTECTION CLASS	IP23
VOLTAGE SENSITIVITY	± 2,5 % V
MAXIMUM SPEED	1500 RPM

MILITARY STANDARDS

MIL-STD-461F	MIL-STD-810G
High Temprature	Low Temprature
Humidity Test	Vibration Test



MILITARY GENERATOR 25 KVA - G25MC

TECHNICAL SPECIFICATIONS

GENERATOR TYPE
Platform / Synchron

STAND BY POWER
25 KVA

CONTINUOUS POWER
22,5 KVA

FREQUENCY
50 Hz

COOLING SYSTEM
Water Cooling System

VOLTAGE PHASE NUMBER
3

CONNECTION TYPE
RS422 – TCP/ IP-CANBUS

SOUND LEVEL
64 Db in 7 Meters

WEIGHT
1000 KG ±5

OPERATING TEMPERATURE
-32 / +55 °C

STORAGE TEMPERATURE
-40 / +60 °C

FUEL TYPE - CONSUMPTION
Diesel - 8,6 LT/H

BATTERY CAPACITY
120 AH @24V

DIMENSIONS (L x W x H)
2001×600×1107 ±5 mm

ENGINE SPECIFICATIONS

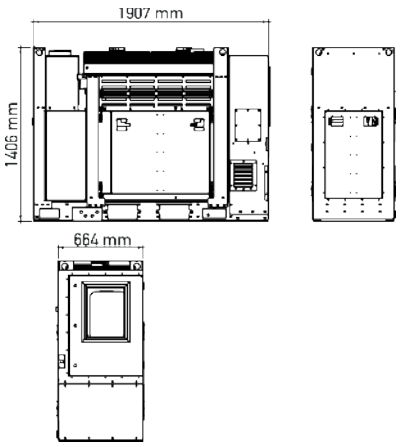
ENGINE	Kubota
OUTPUT POWER	33 kW
ENGINE TYPE	Water Cooling Vertical Diesel Engine
NUMBER OF CYLINDERS	4
MAXIMUM SPEED	3000 RPM
STARTING SYSTEM	Electrical Starting System

ALTERNATOR SPECIFICATIONS

OUTPUT POWER	28,8 KVA
PROTECTION CLASS	IP23
VOLTAGE SENSITIVITY	± 2,5 % V
MAXIMUM SPEED	3000 RPM

MILITARY STANDARDS

MIL-STD-461F	MIL-STD-810G
High Temprature	Low Temprature
Humidity Test	Vibration Test



MILITARY GENERATOR 25 KVA – G255

TECHNICAL SPECIFICATIONS

GENERATOR TYPE
Platform/ Synchron

STAND BY POWER
25 KVA

CONTINUOUS POWER
22,5 KVA

FREQUENCY
50 Hz

COOLING SYSTEM
Water Cooling System

VOLTAGE PHASE NUMBER
3

CONNECTION TYPE
RS422 – TCP/ IP-CANBUS

SOUND LEVEL
64 Db in 7 Meters

WEIGHT
1000 KG ±5

OPERATING TEMPERATURE
-32 / +55 °C

STORAGE TEMPERATURE
-40 / +60 °C

FUEL TYPE - CONSUMPTION
Diesel - 6,1 LT/H

BATTERY CAPACITY
120 AH @24V

DIMENSIONS (L x W x H)
2000×600×1107 ±5 mm

ENGINE SPECIFICATIONS

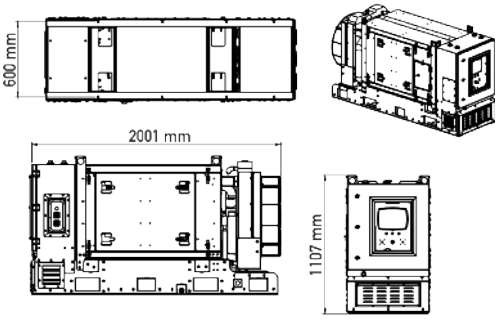
ENGINE	Kubota
OUTPUT POWER	33 kW
ENGINE TYPE	Water Cooling Vertical Diesel Engine
NUMBER OF CYLINDERS	4
MAXIMUM SPEED	3000 RPM
STARTING SYSTEM	Electrical Starting System

ALTERNATOR SPECIFICATIONS

OUTPUT POWER	28,8 KVA
PROTECTION CLASS	IP23
VOLTAGE SENSITIVITY	± 2,5 % V
MAXIMUM SPEED	3000 RPM

MILITARY STANDARDS

MIL-STD-461F	MIL-STD-810G
High Temprature	Low Temprature
Humidity Test	Vibration Test



MILITARY GENERATOR 26 KVA - B21P

TECHNICAL SPECIFICATIONS

GENERATOR TYPE
Mobile Generator

STAND BY POWER
32,5 KVA

CONTINUOUS POWER
26 KVA

FREQUENCY
50 Hz

COOLING SYSTEM
Water Cooling System

VOLTAGE PHASE NUMBER
1

CONNECTION TYPE
TCP - Ethernet

SOUND LEVEL
61 Db in 7 Meters

WEIGHT
3474 KG ±5

OPERATING TEMPERATURE
-32 / +55 °C

STORAGE TEMPERATURE
-40 / +60 °C

FUEL TYPE - CONSUMPTION
Diesel - 8,5 LT/H

BATTERY CAPACITY
120 AH @12V

DIMENSIONS (L x W x H)
4600x2275×2200 ±5 mm

ENGINE SPECIFICATIONS

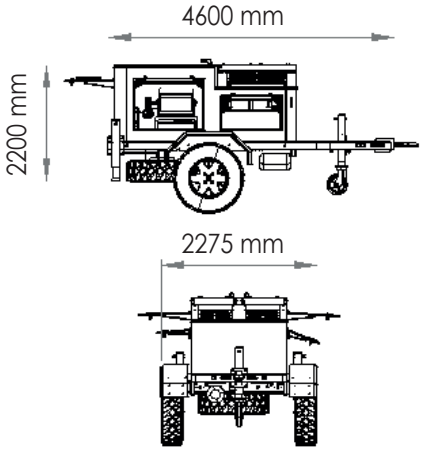
ENGINE	Perkins
OUTPUT POWER	59 kW
ENGINE TYPE	Water Cooling Vertical Diesel Engine
NUMBER OF CYLINDERS	3
MAXIMUM SPEED	1500 RPM
STARTING SYSTEM	Electrical Starting System

ALTERNATOR SPECIFICATIONS

OUTPUT POWER	33 kW
PROTECTION CLASS	IP23
VOLTAGE SENSITIVITY	± 2% V
MAXIMUM SPEED	3000 RPM

MILITARY STANDARDS

MIL-STD-461F	MIL-STD-810G
High Temprature	Low Temprature
Humidity Test	Vibration Test



MILITARY GENERATOR 28 KVA – G28M

TECHNICAL SPECIFICATIONS

GENERATOR TYPE
Platform/Ray

STAND BY POWER
28,8 KVA

CONTINUOUS POWER
22,5 KVA

FREQUENCY
50 Hz

COOLING SYSTEM
Water Cooling System

VOLTAGE PHASE NUMBER
3

CONNECTION TYPE
RS422 – RS485

SOUND LEVEL
70 Db in 7 Meters

WEIGHT
1000 KG ±5

OPERATING TEMPERATURE
-32 / +55 °C

STORAGE TEMPERATURE
-40 / +60 °C

FUEL TYPE - CONSUMPTION
Diesel - 7,8 LT/H

BATTERY CAPACITY
95 AH @24V

DIMENSIONS (L x W x H)
1195x800x1620 ±5 mm

ENGINE SPECIFICATIONS

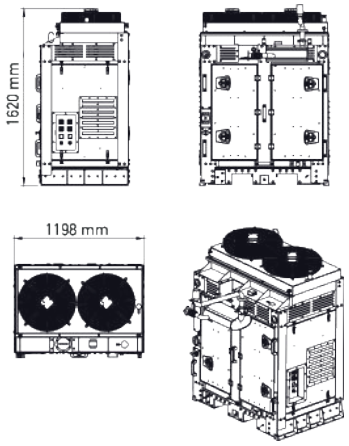
ENGINE	Kubota
OUTPUT POWER	33 kW
ENGINE TYPE	Water Cooling Vertical Diesel Engine
NUMBER OF CYLINDERS	4
MAXIMUM SPEED	3000 RPM
STARTING SYSTEM	Electrical Starting System

ALTERNATOR SPECIFICATIONS

OUTPUT POWER	28,8 KVA
PROTECTION CLASS	IP23
VOLTAGE SENSITIVITY	± 2,5 % V
MAXIMUM SPEED	3000 RPM

MILITARY STANDARDS

MIL-STD-461F	MIL-STD-810G
High Temprature	Low Temprature
Humidity Test	Vibration Test



MILITARY GENERATOR 80 KVA-G80S

TECHNICAL SPECIFICATIONS

GENERATOR TYPE
Platform / Synchron

STAND BY POWER
80 KVA

CONTINUOUS POWER
62,5 KVA

FREQUENCY
50 Hz

COOLING SYSTEM
Water Cooling System

VOLTAGE PHASE NUMBER
3

CONNECTION TYPE
RS422 – TCP

SOUND LEVEL
70 Db in 7 Meters

WEIGHT
2000 KG ±5

OPERATING TEMPERATURE
-32 / +55 °C

STORAGE TEMPERATURE
-40 / +60 °C

FUEL TYPE - CONSUMPTION
Diesel - 10 LT/H

BATTERY CAPACITY
120 AH @24V

DIMENSIONS(L x W x H)
1484x1318x791 ±5 mm

ENGINE SPECIFICATIONS

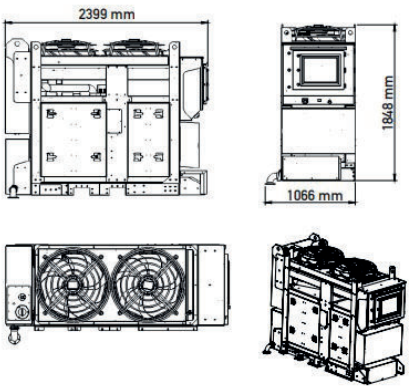
ENGINE	Perkins
OUTPUT POWER	33 kW
ENGINE TYPE	Water Cooling Vertical Diesel Engine
NUMBER OF CYLINDERS	4
MAXIMUM SPEED	1500 RPM
STARTING SYSTEM	Electrical Starting System

ALTERNATOR SPECIFICATIONS

OUTPUT POWER	110 KVA
PROTECTION CLASS	IP23
VOLTAGE SENSITIVITY	± 2,5 % V
MAXIMUM SPEED	1500 RPM

MILITARY STANDARDS

MIL-STD-461F	MIL-STD-810G
High Temprature	Low Temprature
Humidity Test	Vibration Test



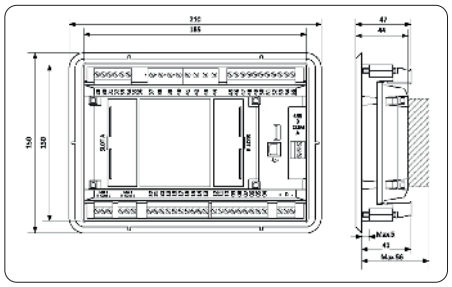
A2304 GENERATOR CONTROL UNIT
(SINGLE SYSTEM)

- It is positioned on the generator so that user can easily interfere in case of maintenance.
- It shows existing error and health status of the generator.
- It has 95% BIT capability.
- It is designed as per IP67 Standards. It also provides the opportunity to reach last 500 detailed log thanks to diagnostic.
- It enables to operate in 9-36 volts range.
- The signals trasnferred only with connectors, there is no need for panel.
- It is conformant to MIL-STD-810G and MIL-STD-461E/F standards.

Dimensions (Widthx-lengthxheight)	140x213x160 ±5 mm	Weight	3,1 kg ±0.1	Communica-tion Protocol	CANBUS J1939 - RS485 - RS422

NR-200 GENERATOR CONTROL UNIT
(DUAL AND SYNCHRON SYSTEM)

- Easy switching between grid or multi-generator applications
- Connection of multiple generators in parallel with the existing grid together with the Intelicontroller 210 controller
- Two types of synchronization: Phase match or shift synchronization
- Isochronous (CAN) or Droop, load sharing including emergency drop
- Direct communication with EFI engines, including Tier 4 Final support



COMMUNICATION AND CONNECTION CAPABILITIES

» *USB, CAN and RS485*
» *USB master for configuration or firmware upload or download*
» *RS232 and additional RS485 with add-on module*
» *Internet access using Ethernet, GPRS/3G/4G with plug-in modules*
» *Configurable Modbus RTU or TCP and SNMP protocols v2 support*
» *Built-in PLC support with PLC editor and monitor including InteliConfig*
» *Active SMS and emails in different languages*
» *Geofencing and monitoring via WebSupervisor*

A3008 GENERATOR CONTROL UNIT (SINGLE SYSTEM)

- It is positioned on the generator so that user can easily interfere in case of maintenance.
- It shows existing error and health status of the generator.
- It has 95% BIT capability.
- It is designed as per IP67 Standards. It also provides the opportunity to reach last 500 detailed log thanks to diagnostic.
- It enables to operate in 9-36 volts range.
- The signals trasnferred only with connectors, there is no need for panel.
- It is conformant to MIL-STD-810G and MIL-STD-461E/F standards.

TECHNICAL SPECIFICATIONS

Dimensions (WidthxlengthxHeight)	83x161x212+5 mm
Weight	0,9 kg ±0.1
Communication Protocol	CANBUS J1939 – RS485 – RS422
Operation Voltage	9-36V DC

ERROR LEDS

• AC Over Current
• General Error
• Low Fuel Level
• Radiator No Water
• Engine High Temperature
• Engine Low Oil Pressure

N1700 REMOTE COMMAND CONTROL UNIT

- It is used to remote control generator.
- Being located by vehicle driver, it enables to reach all the data on generator with the information screen on it. Shelter inside to vehicle.
- Control unit enables to activate-cancel APU system, to activate-cancel air conditioning system.
- It is designed as per IP65 Standards.
- It is conformant to MIL-STD-810G and MIL-STD-461E/F standards.
- Touchscreen. Remote control and information.

TECHNICAL SPECIFICATIONS

Dimensions (WXLXH)	164x183x384+5 mm
Weight	5 kg ±0.1
Communication Protocol	CANBUS J1939 - RS - TCP
Operation Voltage	24 V DC

N10 TRANSFER PANEL

- While there is electricity in the grid, loads are fed from the active grid. However, when the grid electricity is interrupted or reduced, the generator is activated and continues to feed the load. After the electric current returns to its normal course, this energy is transferred back to the grid and the generator is deactivated. The element that performs this transfer is defined as the transfer board.

- ***N10 Transfer Panel***, developed by Nero Industry, is a system that directs the energy coming from the generator based on the load output and enables the energy to be switched. By opening the grid contacts, it prevents the overlapping of 2 powers. With this system, mains and generator energy are controlled by switches and transferred safely.

- The N10 Transfer Board is installed where the backup generator is located so that the generator can provide temporary electrical energy in case the backup power supply fails. This board constantly monitors the power of the electrical network. Surges or serious power quality problems that may precede an outage trigger the generator's start command.

ADJUSTABLE PARAMETERS

» *Grid Voltage Min. Limit*	» *Grid Voltage Max. Limit*	» *Generator Voltage Min. Limit*	» *Generator Voltage Max. Limit*	» *Frequency Min. Limit*	» *Frequency Max. Limit*
» *Ignition Number*	» *First Time for Ignition*	» *Last Time for Ignition*	» *Time for* » *Ignition*	» *Stop Time*	» *Grid Delay Time*
» *Cooling Time*	» *Grid Contactor Duration*	» *Generator Contactor Duration*	» *Relay and Oil Input Selection*	» *Generator Working Delay*	» *Maximum Engine Run Time*

GENERATOR MODELS

MODEL	GENERATOR TYPE	STAND BY POWER	CONTINUOUS POWER	COOLING SYSTEM	VOLTAGE PHASE
G3M	Mobile Generator	3 KVA	2,5 KVA	WATER COOLING	1
G5M	Mobile Generator	5 KVA	4 KVA	WATER COOLING	1
A5M	Platform Generator	7,5 KVA	6 KVA	WATER COOLING	1
G7M	Platform Generator	7 KVA	5 KVA	WATER COOLING	1
G15M	Platform Generator	15 KVA	12,5 KVA	WATER COOLING	3
G17M	Plaftorm Generator	17 KVA	12,5 KVA	WATER COOLING	1
G20M	H Class	20 KVA	16 KVA	WATER COOLING	3
G22D	Plaftorm/Rail/ Dual	22,5 KVA	18,5 KVA	WATER COOLING	3
G25DM	Platforma/Rail/ Dual/Senkron	25 KVA	20 KVA	WATER COOLING	3
G25M	Platform/ Synchron	25 KVA	20 KVA	WATER COOLING	3
B21P	Mobile Generator	32,5 KVA	26 KVA	WATER COOLING	1
G25MC	Platform/ Synchron	25 KVA	22,5 KVA	WATER COOLING	3
G255	Platform/ Synchron	25 KVA	22,5 KVA	WATER COOLING	3
G28M	Platform/Rail	28,8 KVA	22,5 KVA	WATER COOLING	3
G80S	Platform/ Synchron	80 KVA	62,5	WATER COOLING	3

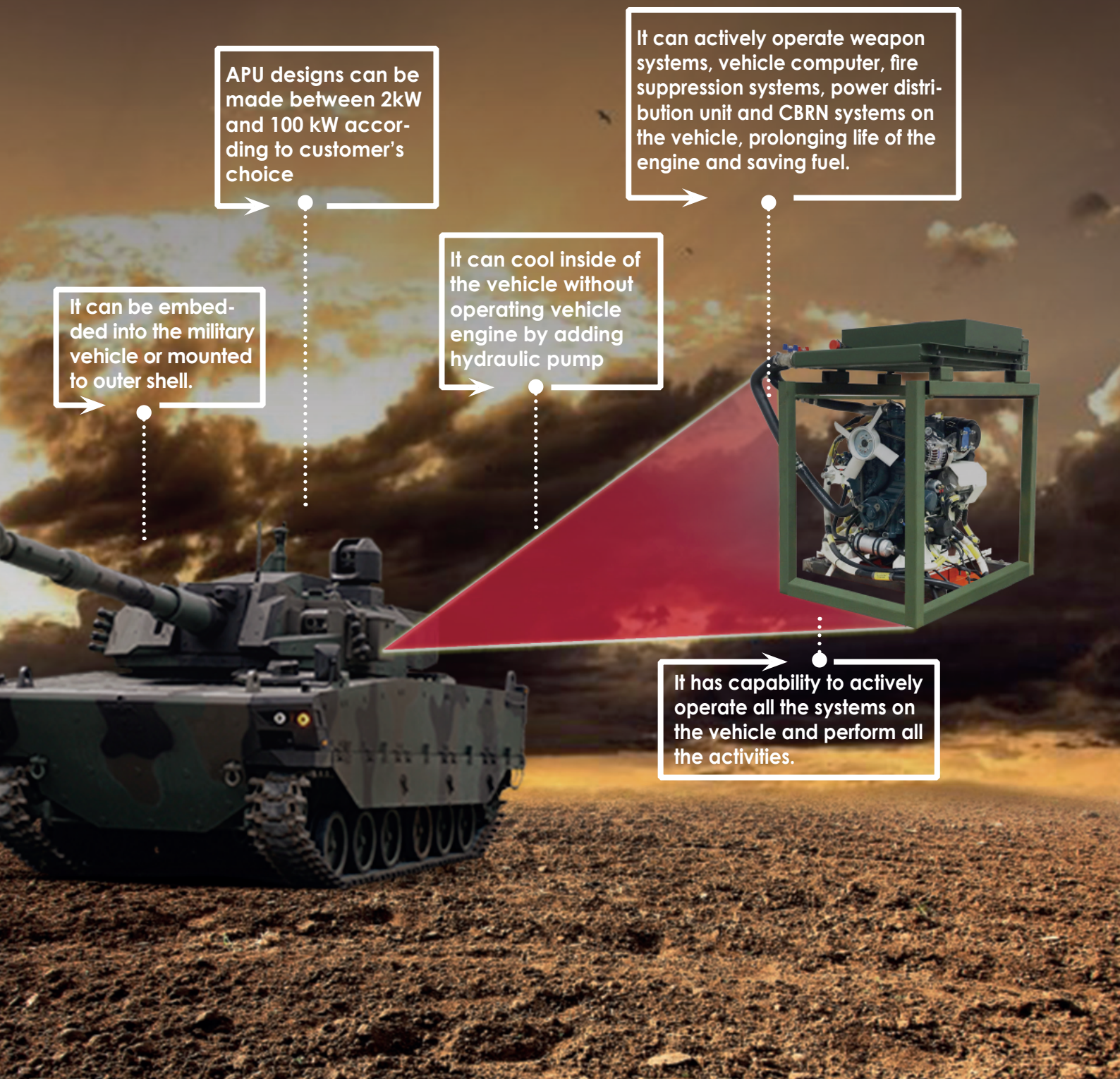
TECHNICAL MATRIX

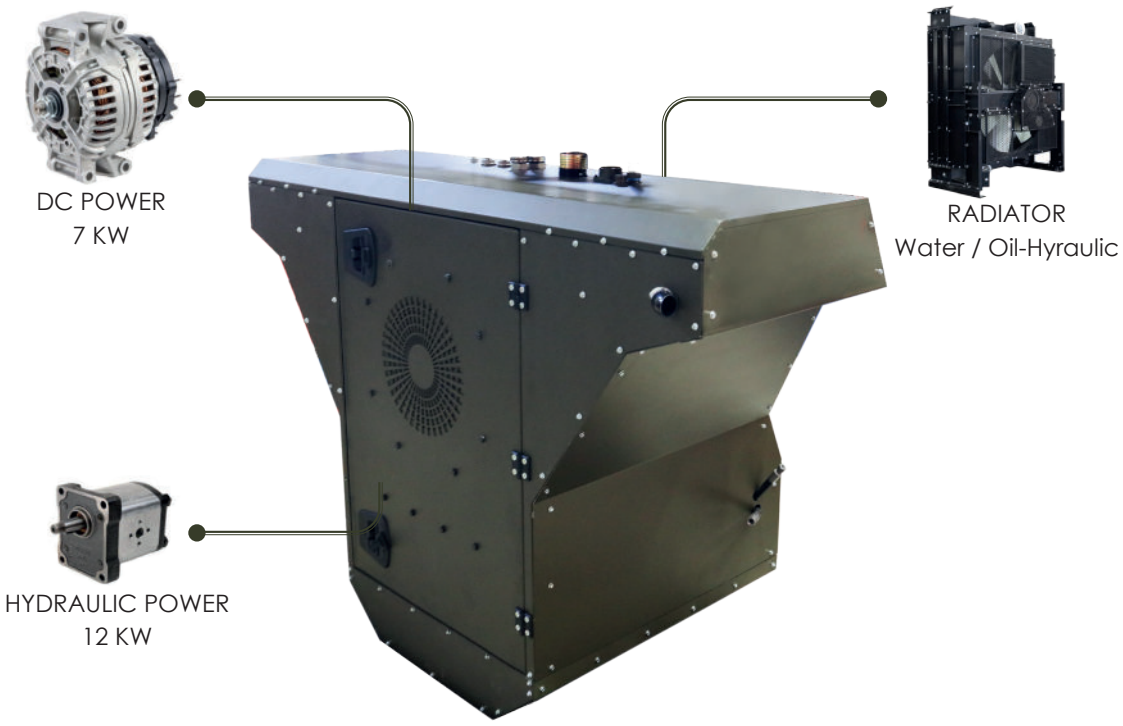
CONNECTION TYPE	SOUND LEVEL	WEIGHT	OPERATING TEMPERATURE	FUEL TYPE	BATTERY CAPACITY	ENGINE
RS422-TCP	75 Db in 7 Meters	156 kg	-32 / +55 °C	Diesel - 3 lt/h	40 Ah	Kubota
Canbus/Se-rial/Ehernet	75 Db in 7 Meters	230 kg	-32 / +55 °C	Diesel - 3 lt/h	70 Ah	Kubota
RS422-TCP	70 Db in 7 Meters	270 kg	-32 / +55 °C	Diesel - 3 lt/h	70 Ah	Kubota
RS422-TCP	75 Db in 7 Meters	170 kg	-32 / +55 °C	Diesel - 3 lt/h	70 Ah	Kubota
RS422-TCP	75 Db in 7 Meters	700 kg	-32 / +55 °C	Diesel - 5 lt/h	95 Ah	Kubota
RS422-TCP	75 Db in 7 Meters	863 kg	-32 / +55 °C	Diesel - 5 lt/h	95 Ah	Kubota
RS422-TCP	70 Db in 7 Meters	900 kg	-32 / +55 °C	Diesel - 8,6 lt/h	95 Ah	Kubota
RS422-TCP - CANBUS	75 Db in 7 Meters	1000 kg	-32 / +55 °C	Diesel - 8,6 lt/h	95 Ah	Kubota
RS422-TCP - CANBUS	75 Db in 7 Meters	800 kg	-32 / +55 °C	Diesel - 6,1 lt/h	95 Ah	Perkins
RS422-TCP - CANBUS	64 Db in 7 Meters	860 kg	-32 / +55 °C	Diesel - 8,6 lt/h	95 Ah	Perkins
TCP- Ether-net	61 Db in 7 Meters	3474 kg	-32 / +55 °C	Diesel - 8,5 lt/h	120 Ah	Perkins
RS422-TCP - CANBUS	64 Db in 7 Meters	1000 kg	-32 / +55 °C	Diesel - 8,6 lt/h	120 Ah	Kubota
RS422-TCP - CANBUS	64 Db in 1 Meters	1000 kg	-32 / +55 °C	Diesel - 6,1 lt/h	120 Ah	Kubota
RS422-RS485	70 Db in 7 Meters	1000 kg	-32 / +55 °C	Diesel - 7,8 lt/h	95 Ah	Kubota
RS422-TCP	70 Db in 1 Meters	2000 kg	-32 / +55 °C	Diesel - 10 lt/h	120 Ah	Perkins

AUXILIARY POWER UNIT (APU)

» APU (Auxiliary Power Units) systems are systems that provide energy for the active operation of the systems on the vehicle when the vehicle ignition is turned off, and provide the desired energy to the vehicle for air conditioning system.

» These systems, which are integrated into armoured vehicles, have the ability to provide power to carry out all activities on the vehicle without the vehicle engine running.





APU - A22K

APU SPECIFICATIONS

MAXIMUM AMPER
250 A

OUTPUT VOLTAGE
28 VDC

CONTINIOUS POWER
24 KVA

STORAGE TEMPERATURE
-40 / +60 °C

STAND BY POWER
26 KVA

SOUND LEVEL
85 Db in 7 Meters

FUEL CAPACITY
External tank

WEIGHT
450 KG ±5

COOLING SYSTEM
Water Cooling System

OPERATING TEMPERATURE
-32 / +49 °C

GENERAL SPECIFICATIONS

HYDRAULIC POWER
12 KW

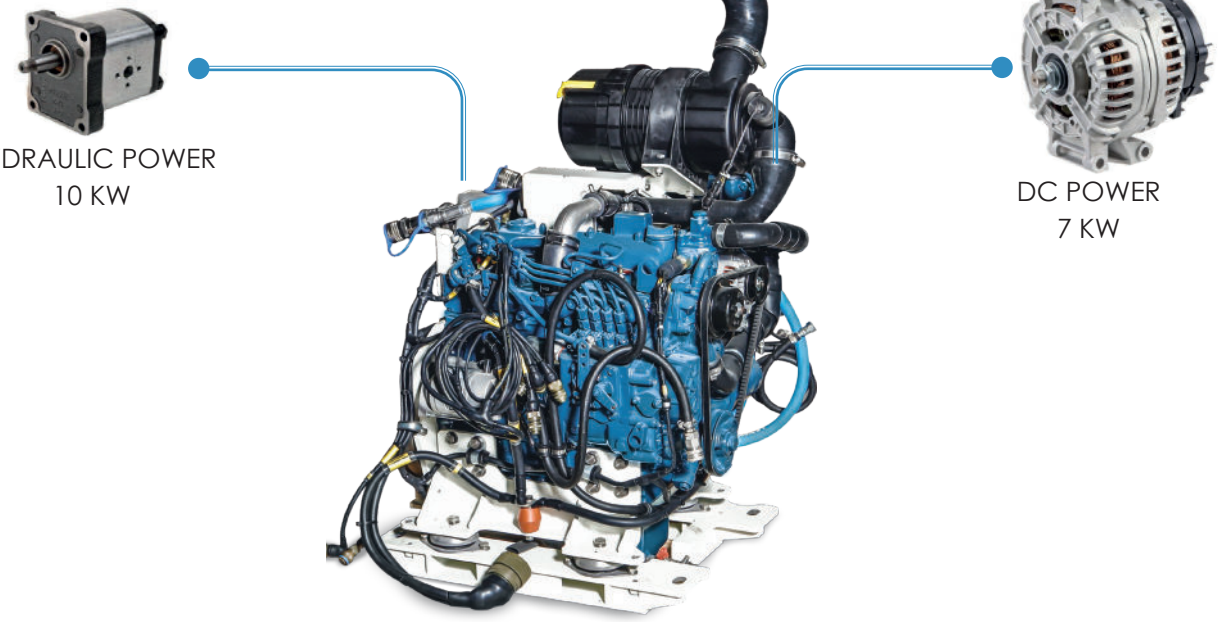
VOLTAGE
28 VDC

MAXIMUM SPEED(RPM)
3000 Rpm

FUEL TYPE - CONSUMPTION
Diesel - 7,8 LT/H

ENGINE TYPE
Kubota

DIMENSIONS(L x W x H)
1168x1595x860 ±5 mm



APU - A20K

APU SPECIFICATIONS

MAXIMUM AMPER
220 A

OUTPUT VOLTAGE
28 VDC

CONTINIOUS POWER
24 KVA

STORAGE TEMPERATURE
-40 / +60 °C

STAND BY POWER
26 KVA

SOUND LEVEL
85 Db in 7 Meters

FUEL CAPACITY
External tank

WEIGHT
350 KG ±5

COOLING SYSTEM
Water Cooling System

OPERATING TEMPERATURE
-32 / +55 °C

GENERAL SPECIFICATIONS

HYDRAULIC POWER
10 KW

VOLTAGE
28,5 VDC

MAXIMUM SPEED(RPM)
1800- 3000 Rpm

FUEL TYPE - CONSUMPTION
Diesel - 7,8 LT/H

ENGINE TYPE
Kubota

DIMENSIONS(L x W x H)
3190x1190x875 ±5 mm

*Veriable RPM: 1800 - 3000 RPM

A/C COMPRESSOR SYSTEM
12 KW

APU - A151K

APU SPECIFICATIONS

MAXIMUM AMPER
220 A

OUTPUT VOLTAGE
28 VDC

CONTINIOUS POWER
20 KVA

STORAGE TEMPERATURE
-40 / +50 °C

STAND BY POWER
24 KVA

SOUND LEVEL
80 Db in 7 Meters

FUEL CAPACITY
External tank

WEIGHT
485 KG ±5

COOLING SYSTEM
Water Cooling System

OPERATING TEMPERATURE
-32 / +55 °C

GENERAL SPECIFICATIONS

COMPRESSOR
12 KW

VOLTAGE
28 VDC

MAXIMUM SPEED(RPM)
1800-2800 Rpm

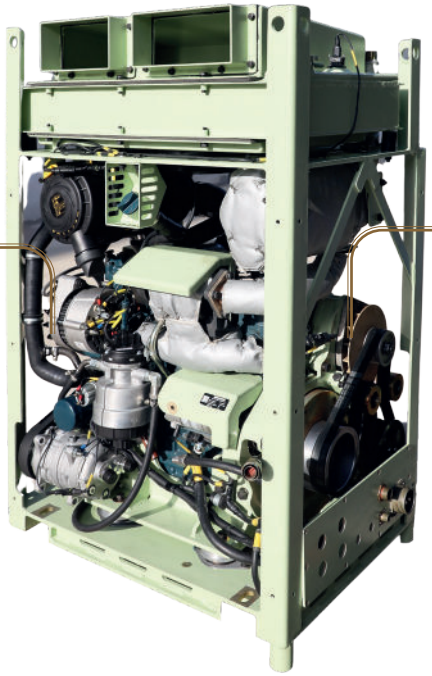
FUEL TYPE - CONSUMPTION
Diesel - 8,2 LT/H

ENGINE TYPE
Perkins

DIMENSIONS(L x W x H)
675x1754x947 ±5 mm

*Veriable RPM: 1800 - 2800 RPM

A/C COMPRESSOR SYSTEM
8-5 KW



DC POWER
7 KW

APU - A12011

APU SPECIFICATIONS

MAXIMUM AMPER
220 A

OUTPUT VOLTAGE
28 VDC

CONTINIOUS POWER
21 KVA

STORAGE TEMPERATURE
-40 / +60 °C

STAND BY POWER
25 KVA

SOUND LEVEL
75 Db in 7 Meters

FUEL CAPACITY
External tank

WEIGHT
230 KG ±5

COOLING SYSTEM
Water Cooling System

OPERATING TEMPERATURE
-32 / +55 °C

GENERAL SPECIFICATIONS

COMPRESSOR
5-8 KW

VOLTAGE
28 VDC

MAXIMUM SPEED(RPM)
2500 Rpm

FUEL TYPE - CONSUMPTION
Diesel - 6,3 LT/H

ENGINE TYPE
KUBOTA

DIMENSIONS(L x W x H)
709x520x1119 ±5 mm

* To A/C can work independently

APU - A21822

APU SPECIFICATIONS

MAXIMUM AMPER
330 A

OUTPUT VOLTAGE
28 VDC

CONTINIOUS POWER
12 KVA

STORAGE TEMPERATURE
-40 / +63 °C

STAND BY POWER
14 KVA

SOUND LEVEL
69 Db in 7 Meters

FUEL CAPACITY
External tank

WEIGHT
163 KG ±5

COOLING SYSTEM
Water Cooling System

OPERATING TEMPERATURE
-32 / +55 °C

GENERAL SPECIFICATIONS

COMPRESSOR
Optional

VOLTAGE
28 VDC

MAXIMUM SPEED(RPM)
3000-3600 Rpm

FUEL TYPE - CONSUMPTION
Diesel - 5,4 LT/H

ENGINE TYPE
KUBOTA

DIMENSIONS(L x W x H)
569x536x542 ±5 mm

APU - A1621K

APU SPECIFICATIONS

MAXIMUM AMPER
240 A

OUTPUT VOLTAGE
28 VDC

CONTINIOUS POWER
10 KVA

STORAGE TEMPERATURE
-40 / +60 °C

STAND BY POWER
12 KVA

SOUND LEVEL
85 Db in 7 Meters

FUEL CAPACITY
Diesel / External tank

WEIGHT
240 KG ±5

COOLING SYSTEM
Water Cooling System

OPERATING TEMPERATURE
-32 / +49 °C

GENERAL SPECIFICATIONS

COMPRESSOR
Optional

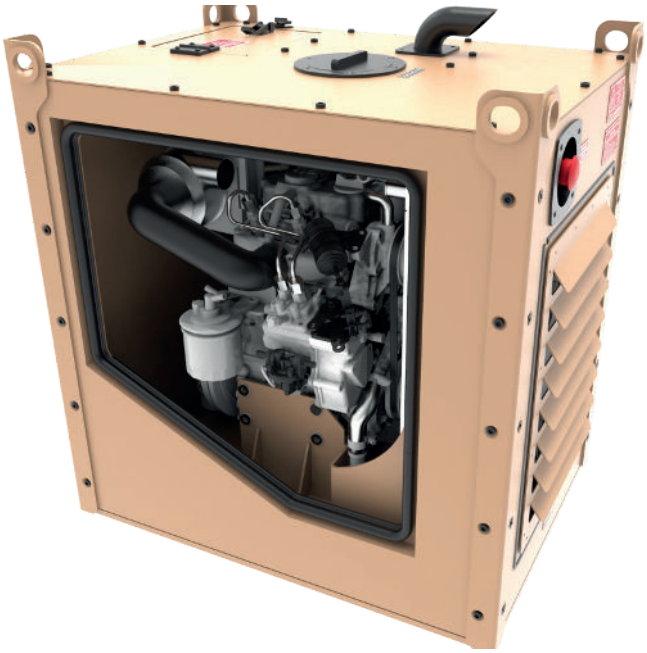
VOLTAGE
28 VDC

MAXIMUM SPEED(RPM)
3000 Rpm

FUEL TYPE / CAPACITY
Diesel / External tank

ENGINE TYPE
Horizontal

DIMENSIONS(L x W x H)
1420x623x420 ±5 mm



APU - A141F

APU SPECIFICATIONS

MAXIMUM AMPER
160 A

OUTPUT VOLTAGE
28 VDC

CONTINIOUS POWER
4,5 KVA

STORAGE TEMPERATURE
-40 / +55 °C

STAND BY POWER
5,6 KVA

SOUND LEVEL
70 Db in 7 Meters

FUEL CAPACITY
External tank

WEIGHT
150 KG ±5

COOLING SYSTEM
Water Cooling System

OPERATING TEMPERATURE
-32 / +49 °C

GENERAL SPECIFICATIONS

COMPRESSOR
Optional

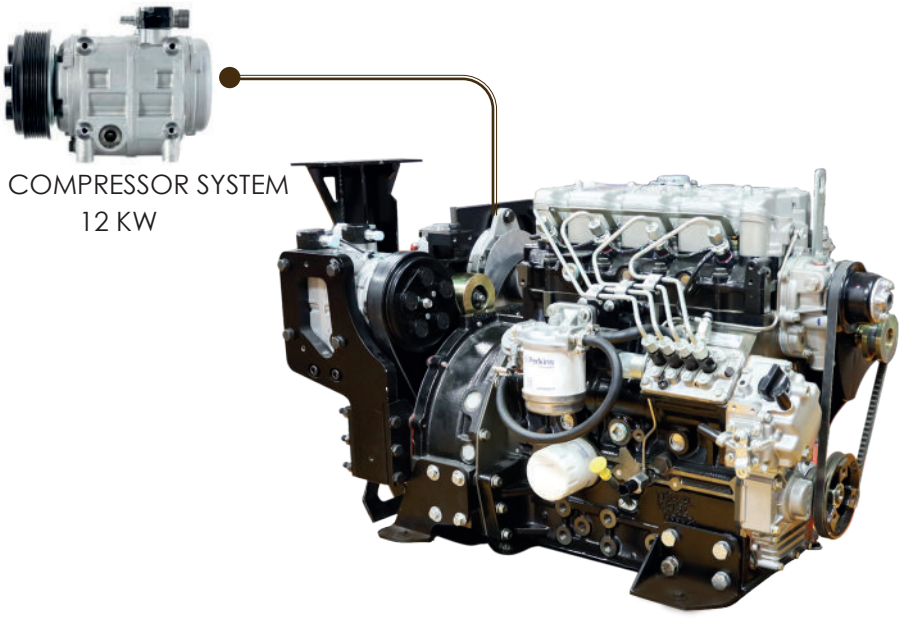
VOLTAGE
28,5 VDC

MAXIMUM SPEED(RPM)
3000 Rpm

FUEL TYPE / CAPACITY
Diesel / 10 Liters

ENGINE TYPE
Kubota

DIMENSIONS(L x W x H)
530x564x660 ±5 mm



APU - A20F

APU SPECIFICATIONS

MAXIMUM AMPER
190 A

CONTINIOUS POWER
20 KVA

STAND BY POWER
33 KVA

FUEL CAPACITY
External tank

COOLING SYSTEM
Water Cooling System

OUTPUT VOLTAGE
28 VDC

STORAGE TEMPERATURE
-40 / +55 °C

SOUND LEVEL
80 Db in 7 Meters

WEIGHT
280 KG ±5

OPERATING TEMPERATURE
-32 / +49 °C

GENERAL SPECIFICATIONS

COMPRESSOR
12 KW

VOLTAGE
24 VDC

MAXIMUM SPEED(RPM)
2800 Rpm

FUEL TYPE - CONSUMPTION
Diesel - 8,2 LT/H

ENGINE TYPE
Perkins

DIMENSIONS(L x W x H)
672x632x1104 ±5 mm

APU - M2312

APU SPECIFICATIONS

MAXIMUM AMPER
300 A

CONTINIOUS POWER
4 KVA (AC) - 16 A

CONTINIOUS POWER
10,5 KVA (DC) - 300 A

FUEL CAPACITY
External tank

COOLING SYSTEM
Water Cooling System

OUTPUT VOLTAGE
28 VDC

STORAGE TEMPERATURE
-40 / +55 °C

SOUND LEVEL
69 Db in 7 Meters

WEIGHT
800 KG ±5

OPERATING TEMPERATURE
-32 / +49 °C

GENERAL SPECIFICATIONS

COMPRESSOR
Optional

VOLTAGE
28 VDC

MAXIMUM SPEED(RPM)
3000 Rpm

FUEL TYPE / CAPACITY
Diesel / 5,8 LT

ENGINE TYPE
Kubota

DIMENSIONS(L x W x H)
1814x775x638 ±5 mm

APU - K1126

APU SPECIFICATIONS

MAXIMUM AMPER
400 A

OUTPUT VOLTAGE
28 VDC

CONTINIOUS POWER
10,5 KVA

STORAGE TEMPERATURE
-40 / +55 °C

STAND BY POWER
10,5 KVA

SOUND LEVEL
75 Db in 1 Meters

FUEL CAPACITY
External tank

WEIGHT
210 KG ±5

COOLING SYSTEM
Water Cooling System

OPERATING TEMPERATURE
-32 / +49 °C

GENERAL SPECIFICATIONS

COMPRESSOR
Optional

VOLTAGE
28 VDC

MAXIMUM SPEED(RPM)
3000 Rpm

FUEL TYPE
Diesel

ENGINE TYPE
Perkins

DIMENSIONS(L x W x H)
1002x601x470 ±5 mm

NL-1628 AUXILIARY POWER UNIT CONTROL UNIT

ERROR LEDS

• Engine High Temperature
• Low Oil Pressure
• Cabin Water Level High
• Air Filter Clogged
• Radiator Water Level Low
• Maintenance Cover Open

- It is located near APU so that the user can intervene easily in case of maintenance.
- Existing errors on APU can be observed.
- There are buttons to directly intervene when there is a problem during automatic start of APU.
- It is designed as per IP67 Standards. Besides, it enables to reach last 500 detailed logs thanks to diagnostic.
- It is conformant to MIL-STD-810G and MIL-STD-461E/F standards.

TECHNICAL SPECIFICATIONS

Dimensions (WidthxLengthxHeight)	140x213x160 ±5 mm
Weight	3,1 kg ±0.1
Communication Protocol	CANBUS J1939
Operating Voltage	24 VDC

NL-1628 BUTTON SPECIFICATIONS

1.	A/C CLUTCH: The air conditioning system cannot be started while the corresponding LED is on.	**12.**	WATER IN FUEL FILTER: The corresponding LED lights when the water level in the fuel water filter increases.
2.	HYDRAULIC SOLENOID: The corresponding LED light comes on when the hydraulic solenoid is activated.	**13.**	EMERGENCY STOP: When pressed, the emergency button is activated.
3.	HYDRAULIC FAN PWM : Hydraulic LED speed decreases as the fan speed increases.	**14.**	MANUAL ACTUATOR: The Actuator operates as long as it is kept pressed.
4.	RADIATOR FAN PWM : The corresponding LED light level decreases while radiator fan speed increases.	**15.**	MANUAL FUEL PUMP: The Fuel Pump operates as long as it is kept pressed.
5.	EMERGENCY STOP : The corresponding LED lights if any of the emergency stop buttons are active.	**16.**	MANUAL START: The Starter Motor operates as long as it kept pressed.
6.	HIGH ENGINE COOLANT TEMP : The corresponding LED lights when the engine water temperature is high.	**17.**	MANUAL GLOW: The Glow operates as long as it kept pressed.
7.	LOW OIL PRESSURE: The corresponding LED lights when the engine oil pressure is low.	**18.**	ACT: The fuse of Actuator.
8.	HIGH CABIN WATER LEVEL: The corresponding LED lights when there is no water in the cab. If there is water, it goes out.	**19.**	FUEL PUMP: The fuse of Fuel Pump.
9.	AIR FILTER CLOGGING: The corresponding LED is lights if the air filter is clogged.	**20.**	STARTER ENGINE: The fuse of Starter Engine.
10.	LOW RADIATOR WATER LEVEL : The corresponding LED lights when there is no water in the radiator. If there is water, it goes out.	**21.**	GLOW: The fuse of Glow.
11.	FSS ALARM: The corresponding LED is lights when the event of an alarm in the APU engine compartment.	**22.**	DIAGNOSTIC: Software installation socket.

A20-F REMOTE COMMAND CONTROL UNIT

- It is used to remote control APU.
- Being located by vehicle driver, it enables to reach all the data on APU with the information screen on it.
- Control unit enables to activate-cancel APU system, to activate-cancel air conditioning system.
- It is designed as per IP67 Standards.
- It is conformant to MIL-STD-810G and MIL-STD-461E/F standards.

TECHNICAL SPECIFICATIONS

Dimensions (WidthxLengthxHeight)	45x155x85 ±5 mm
Weight	0,48 kg ±0.1
Communication Protocol	CANBUS J1939
Operating Voltage	24 VDC

BUTTON SPECIFICATIONS

1.	ON / OFF: APU on / off button.	6.	EMERGENCY STOP
2.	AIR CONDITIONING ON/OFF	7.	APU ON: LED indicators for states
3.	BIT: BIT test is performed when the relevant button is pressed.	8.	AIR CONDITIONER ON
4.	CANCEL: Pressing the BIT button for 5 seconds will cancel this operation.	9.	BIT: BIT led turns red when the test fails.
5.	UP DIRECT MENU BUT-TON-DOWN MENU BUTTON	10.	FAULT : LED turns off when cancel button is pressed.

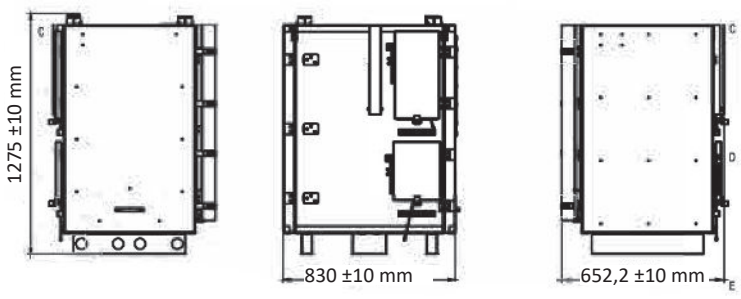
EQUIPMENT CONTAINER SHELTER

GENERAL SPECIFICATIONS

- The Equipment Shelter has a structure and insulation that can protect all active equipment under all conditions during operation.
- Fire resistant polyurethane foam is used for thermal insulation between the surfaces of the Equipment Shelter (including the ceiling).
- The Equipment Shelter subunits covers/doors are supported by RF gaskets.
- The Equipment Shelter has one PTZ camera that can be remotely controlled and can operate in all weather conditions.
- The Equipment Shelter Cabinet (19 inches) is built to withstand vibration.
- The Equipment Shelter has a portable structure.
- Equipment Shelter racks, attachment points and fasteners are made of rustproof and maintenance-free material.
- The Equipment Shelter is protected against lightning by Franklin rod.
- Equipment Conservation is in compliance with Ministry of Energy and Natural Resources – Regulation on Grounding in Electrical Installations / Part 5.
- The Equipment Shelter doors can remain stable in the open position in a wind of at least 40 knots.
- The Equipment Shelter is equipped with military grade connectors.
- The Equipment Shelter is equiped with air conditioning system with 800 BTU capacity.

APPLIED TESTS

MIL-STD-810G -500.5	Low Pressure/ altitude
MIL-STD-810G - 501.5	High temperature
MIL-STD-810G - 502.5	Low Temperature
MIL-STD-810G - 514.6	Vibration
MIL-STD-810G - 521.3	Icing
MIL-STD-810G - 507.5	Moisture
MIL-STD-810G - 506.5	Rain
MIL-STD-810G - 516.6	Shock
MIL-STD-810G - 505.5	Daylight Application



POWER DISTRIBUTION UNITS

Power distribution units can automatically distribute AC and DC power provided from 2-10 different sources to 50 different units.

On PDU system with 2 digital screens, it provides the information such as operation hour, battery charge status, power selection to the user.

Power Distribution Units can be specially designed, produced, tested according to requested needs, dimensions and capacities by Nero Industry.

It can automatically distribute AC and DC power to 50 different units.

On the unit where there are separate fuses for each unit whose power requirement is supplied, it is ensured that power of other units is not cut even if a unit blows the fuse.

Power Distribution Units are military products which have successfully passed high temperature, low temperature, high humidity, shock-vibration and EMI/EMC tests as per MIL STD 810H, MIL STD 461F and MIL STD 1275E standards.

GDU336 POWER DISTRIBUTION UNIT

GENERAL SPECIFICATIONS

- Information Screen
- PSU On / Off Switch and Led
- Active Section Selection Switch and Leds
- Generator Operating/Stop Button
- Emergency Stop Button
- Emergency Stop LED Indicator
- Alarm Reset Button
- Generator LED Indicator
- PTO Alternator LED Indicator
- Panel Test Button
- Operation Hour Indicator
- System Battery Led Indicator (Green)
- Vehicle Battery Led Indicator (Green)
- Vehicle Battery Charge Status Led Indicator (Red)
- System Battery Charge Status Led Indicator (Red)
- BIT Status Inquiry Button
- On/Off Buttons (In number of Sub-systems)
- On/Off All Button are present.

TECHNICAL SPECIFICATIONS

COMMUNICATION INFRASTRUCTURE	RS422, RS485, CANBUS
DIMENSION (LXWXH)	430x117x260 mm
WEIGHT	5 KG
OPERATING TEMPERATURE	-32 / +55°C
STORAGE TEMPERATURE	-40 / +60°C

STANDARDS

MIL-C-38999	Military Connector
MIL-DTL-27500	Special Purpose, Electrical Shielded and Unshielded Cables
MIL-STD-461E	Military Electromagnetic Compatibility
MIL-STD-810G	Military Environmental Conditions
MIL-STD-1275E	28 VDC Counter Characteristic
STANAG 4135AC	AC Current Characteristic

PSU336 POWER DISTRIBUTION / SWITCHING UNIT

GENERAL SPECIFICATIONS

- Information Screen
- PSU On / Off Switch and Led
- Active Section Selection Switch and Leds
- Generator Operating/Stop Button
- Emergency Stop Button
- Emergency Stop LED Indicator
- Alarm Reset Button
- Generator LED Indicator
- PTO Alternator LED Indicator
- Panel Test Button
- Operation Hour Indicator
- System Battery Led Indicator (Green)
- Vehicle Battery Led Indicator (Green)
- Vehicle Battery Charge Status Led Indicator (Red)
- System Battery Charge Status Led Indicator (Red)
- BIT Status Inquiry Button
- On/Off Buttons (In number of Sub-systems)
- On/Off All Button are present.

STANDARDS

MIL-C-38999	Military Connector
MIL-DTL-27500	Special Purpose, Electrical Shielded and Unshielded Cables
MIL-STD-461E	Military Electromagnetic Compatibility
MIL-STD-810G	Military Environmental Conditions
MIL-STD-1275E	28 VDC Counter Characteristic
STANAG 4135AC	AC Current Characteristic

TECHNICAL SPECIFICATIONS

COMMUNICATION INFRASTRUCTURE	RS422, RS485, CANBUS
DIMENSION (LXWXH)	430x117x260 MM
WEIGHT	5 KG
OPERATING TEMPERATURE	-32 / +55°C
STORAGE TEMPERATURE	-40 / +60°C

PDU-80 POWER DISTRIBUTION UNIT

GENERAL SPECIFICATIONS

- AC/DC output control
- Remote control with computer software
- Ability to measure temperature and automatically adjust the environment to the desired temperature,
- Ability to control all functions over Etherne
- Instantly transferring UPS faults and statuses to the user with the Power Distribution Unit,
- Ability to manually power the equipment to be fed by disabling the PDU from the software,
- Power Distribution Unit can manage 3 AC Inputs (UPS, City Network, Generator),
- Being able to automatically charge the UPS batteries when the generator or grid are on.
- With Toggle-type circuit breakers, it provides over-current, short-circuit protections.
- Ability to switch 10 AC/DC outputs,
- It has the ability to read DC, AC current,- Voltage and Frequency values and transfer them to the user.

FAILURE AND WARNING MODES

- AC High,
- AC Low,
- AC Reverse,
- DC High,
- DC Low,
- High Temperature,
- It has Low Temperature warning modes.

TECHNICAL SPECIFICATIONS

COMMUNICATION INFRASTRUCTURE	RS422, RS485, CANBUS
DIMENSION (LXWXH)	482x176x630 MM
WEIGHT	3 KG
OPERATING TEMPERATURE	-32 / +55 °C
STORAGE TEMPERATURE	-40 / +60 °C

STANDARDS

MIL-C-38999	Military Connector
MIL-DTL-27500	Special Purpose, Electrical Shielded and Unshielded Cables
MIL-STD-461E	Military Electromagnetic Compatibility
MIL-STD-810G	Military Environmental Conditions
MIL-STD-1275E	28 VDC Counter Characteristic
STANAG 4135AC	AC Current Characteristic

PDU-40 POWER DISTRIBUTION UNIT

FAILURE AND WARNING MODES

- AC High,
- AC Low,
- AC Reverse,
- DC High,
- DC Low,
- High Temperature,
- It has Low Temperature warning modes.

GENERAL SPECIFICATIONS

- Ability to meet AC/DC power needs,
- Remote control with computer software and ethernet,
- Having Can-Bus, Ethernet and RS-232 communication infrastructures,
- Easily transferring errors and situations to the user thanks to its digital screen,
- Ability to automatically control UPS, Generator and Grid power inputs,
- Being protected against over current and short circuit,
- Having an audible warning feature,
- Being able to control the air conditioning unit with the data received from automatic sensors,
- Ability to automatically adjust the temperature inside the shelter,
- Being able to carry out the instructions for turning on and off the shelter interior lighting system,
- It has the features of Generator monitoring, Generator on and off features.

STANDARDS

MIL-C-38999	Military Connector
MIL-DTL-27500	Special Purpose, Electrical Shielded and Unshielded Cables
MIL-STD-461E	Military Electromagnetic Compatibility
MIL-STD-810G	Military Environmental Conditions
MIL-STD-1275E	28 VDC Counter Characteristic
STANAG 4135AC	AC Current Characteristic

TECHNICAL SPECIFICATIONS

COMMUNICATION INFRASTRUCTURE	RS422, RS485, CANBUS
DIMENSION (LXWXH)	482x176x630 MM
WEIGHT	3 KG
OPERATING TEMPERATURE	-32 / +55 °C
STORAGE TEMPERATURE	-40 / +60 °C

POWER DISTRIBUTION UNIT FOR ELECTRIC VEHICLE PDU-70

The PDU-70 is a power distribution unit developed by NERO Industries engineers in the scope of electricalvehicle application. The PDU-70 is a safe, intelligent and versatile power distribution unit in a compact form with configurable multiple power inputs and outputs.

The smart control unit provides easy integration for high voltage/high current system applications. As typical application fields; the PDU-70 is suitable for medium and heavy duty electric/hybrid vehicle power distribution and energy control. Some important features are asfollows:

- *High voltage power inputs for standard charging*
- *Isolated voltage reading at the high voltage inputs and outputs (up to 1000 VDC)*
- *High voltage safety interlock line (HVIL)*
- *Interlock line controlled high voltage battery relay control outputs*
- *Earth insulation level measurement*
- *Secondary passive high voltage DC bus energy sinking*
- *Active high voltage DC bus energy sinking (Through PTC Thermistors)*
- *Pre-charge circuit at all high-voltage power outputs*
- *Fuse protection at high voltage outputs*
- *Overvoltage, undervoltage, overcurrent and over-temperature protection*
- *Low power mode*

CAN COMMUNICATION

- PDU-70 uses SAE J-1939 standart CAN protocol in order to communicate with the electrical control unit (ECU).
- 250kbit/s bit rate is chosen in order to provide reliable operation.
- The cyclic status messages are transmitted by the PDU-70 in every 100 ms and the cyclic command message is expected from the ECU in every 100 ms. If the command message is not received by the
- PDU-70 for 400 ms, the emergency output is asserted (logic high) in order to indicate fault but the operational state of the PDU-70 stays the same in order to give the ECU to control the whole system.
- For the sake of the operation, the PDU-70 should be taken into low power mode as soon as possible.
- The details of the CAN messages can be found in log file.

RS422 COMMUNICATION

- PDU-70 uses RS422 communication in order to send status messages to the diagnostic/record device in the system.
- The PDU-70 does not receive any message through RS422, hence no operational change can be performed. By using RS422 communication, a secondary check to CAN communication can be provided.

TRACTION VOLTAGE POWER DISTRIBUTION UNIT FOR ELECTRIC VEHICLES TRACTION AND AUXLIARY HIGH VOLTAGE SYSTEMS INCLUDING:

- Active unit include traction voltage contactors and contactor controls
- with Voltage and current measurement units.
- Pre-charging circuit to balance voltage levels before and after contactors
- Service charging circuit with contactor switching
- High voltage circuit insulation resistance measurement & monitoring
- Fuse protection for high and low current component output
- Hazardous voltage interlock loop (HVIL)

TECHNICAL SPECIFICATIONS

»Operating Temperature Range	-40°C / +70°C
»Storage Temperature Range	-40°C / +85°C
»Protection Class	IP65
»Dimensions	714 x 505 x 165,2
»Weight	43 ± kg
»Cooling	Natural Airflow
»Operating Voltage Range	10 - 800 VDC
»Power Input	Battery Input 1 / 300 A
	Battery Input 2 / 300 A
	Battery Input 3 / 300 A
	Battery Input 4 / 300 A
	DC Charge Input / 400 A
»Power Output	Traction Inverter / 600 A
	PTO Inverter / 125 A
	On Board Changer / 50 A
	Air Compressor / 30 A
	Heater / 25 A
	DC-DC Converter / 25 A
	A/C Compressor / 30 A
»Current Peak	600 A
»Interlock Line ("HVIL") Current	Adjustable (Default: 35 mA)
»Interlock Line ("HVIL") Voltage	36 VDC
»Max Voltage Drop over HVIL Loop	Adjustable (Default: 12 VDC)
»Interfaces	CAN Bus SAE J-1939 RS422/485

PTO ALTERNATORS

These are mechanical power products affixed to the spaces provided at truck gear boxes and used for transferring the power of vehicle engine to vehicle components as DC voltage by the help of alternator.

- Silent, light and noiseless.
- Small and compact power units for optimum space use in the vehicle.
- MIL-STD-461E/F and MIL-STD-810G certificates.
- 3 years guarantee.

P40 ALTERNATOR

VOLTAGE PHASE NUMBER
3

CONTINUOUS POWER
10 KVA

TYPE
Platform

WEIGHT
650 KG ±5

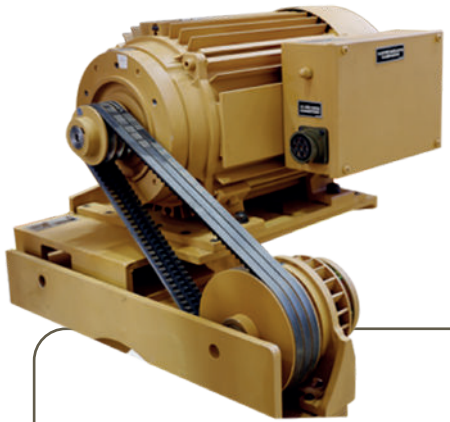
CONNECTION TYPE
CA3102E24-22SYB

FREQUENCY
50 Hz

TEMPORARY VOLTAGE
± %15

STORAGE TEMPERATURE
-40 / +60 °C

OPERATING TEMPERATURE
-32 / +55 °C



P50 ALTERNATOR

VOLTAGE PHASE NUMBER
3

CONTINUOUS POWER
10 KVA

TYPE
Platform

WEIGHT
761 KG ±5

CONNECTION TYPE
CA3102E24-22SYB

FREQUENCY
50 Hz

STORAGE TEMPERATURE
-40 / +60 °C

OPERATING TEMPERATURE
-32 / +55 °C

BATTERY MANAGEMENT SYSTEMS

Amper – Power Information, communication with the vehicle by CAN-BUS J-1839 protocol

10 – 500 Amper Current options

Aural and visual warning for high voltage, high battery heat, low voltage, overcurrent errors.

Simultaneous reading Amper – Power Information, Battery heat, Battery voltage values

It is tested for high temperature, low temperature, high humidity, shock-vibration and EMI/EMC as per MIL STD 810H, MIL STD 461F and MIL STD 1275E standards.

RS3000 AC/DC CONVERTER

- It gives aural and visual warning in case of high current, short circuit, battery charging errors and redresser error.
- Redresser automatically stops when the engine operates.
- Redresser wire is portable and it has a minimum length of 5 meters.
- It has features of automatically adjusting charge current according to battery heat by battery heat measurement feature and stopping the operation whenever necessary, automatically switching off at the end of charging.
- It provides 80 Ampers independent from vehicle engine on DC source mode.
- It simultaneously charges all the batteries on the vehicle with 5-7 Amper on battery charge mode.

TECHNICAL SPECIFICATIONS

»Input Voltage Values	90-264 V
»Input Current Values	16A max.
»Power Factor	0.95
»Max. Output Current Value	100A max.
»Number of Isolated Outputs	3 Pieces
»Operating Temperature	-20 + 70 °C
»Weight	14 kg
»Dye and Coating	It can be dyed and coated according to customer's choice.

R28100 AC/DC CONVERTER

RACK TYPE CONVERTER

GENERAL SPECIFICATIONS

»Smart circuit provides three phase charge 6 bulk, absorption, float.	»Military type connection wires for optional use
»It can monitor battery system between 40-200 Amper value range with wide range of models.	»It has dimout mode feature.
»Multiple isolated outputs; show Amper meter total output current.	»Military type connectors
»The sensor for optional use, adjusts output voltage based on battery heat.	»11O db Buzzer
»Current classification prevents overloading.	»It has passed MIL STD 81 OG, MIL STD 127E, MIL STD 461 G Tests.
»Charge status is displayed on control unit.	»MTBF is 120.000 hours.
»It is conformant to EMI-EMC.	»It can be remote controlled thanks to CANBUS.
»It has 2-years guarantee.	»R28100 Analog and CANBUS Output
»Automatically stops when engine is started.	

VEHICLE INTEGRATIONS

It is the operation where specific modifications and additions are made on the vehicle for the purpose of providing the power and cooling requirements of the military systems that are wanted to be integrated to the industrial vehicles. The power required for the systems to be integrated to 4x4 pick up, SUV and Minibuses such as intelligence equipment, jammer, signal jammer, etc. cannot be provided by the vehicles. Thanks to the R&D activities, Nero Industry places 50, 100 and 200 Amper additional alternators to the engine compartment of the vehicles. While these alternators are placed, engine volume, brand, model and first registration date of the vehicle are effective factors.

GENERAL SPECIFICATIONS

»28V DC 50-500A DC ALTERNATOR
»2-15 kW ADDITIONAL AIR CONDITIONING SYSTEM CAPACITY
»1-15 kW HYDRAULIC PUMP INTEGRATION
»4-12 kW A/C COMPRESSOR INTEGRATION
»MIL-STD-810G ENVIRONMENTAL TEST STANDARD
»MIL-STD-810G IMPERMEABILITY TEST

MODIFICATION VEHICLES

MERCEDES
VITO | 2009-2022
SPRINTER | 2009-2022

VOLKSWAGEN
AMAROK | 2009-2022

TOYOTA
HILUX | 2009-2022

NISSAN
NAVARA | 2009-2022

FORD
RANGER - F150 - F250 - F350 - F450 - F550 | 2009-2022

GMC
YUKON | 2009-2022

NISSAN
QASHQAI | 2009-2022

FIAT
FREEMONT | 2009-2022

TOYOTA
LAND CRUISER | 2009-2022