

3. Technical Proposal

The section below details the technical proposal for EPOD EPXL-AP35/6-5D-XX.

3.1. Power Generation

The EPOD easily integrates with customer sites, using customer supplied fuel gas to power the generator.

The EPOD power generation system includes the following components:

Genset	35 kW Generator with additional 6 kW Generator - Non-Long run oil system and Fuel Gas Capable
Fuel Gas System	<ul style="list-style-type: none"> The fuel gas system is built in compliance with CSA B149.1 The MAOP of the fuel gas piping is 14.9 psig and is exempted from ASME B31.3 The piping connected to the EPOD must be pressure protected with a PSV (or similar) to 14.9 psi or less to avoid over pressuring the fuel gas system
Fuel Gas Specifications	<ul style="list-style-type: none"> User is required to supply clean, sweet, dry fuel gas free of water or liquid hydrocarbon droplet Pressure at EPOD skid edge should be below 7 psig and above 2 psig For natural gas applications, the fuel gas composition should be above 90% methane, contact Convrq if fuel gas is outside of this specification for specific sizing & engine design considerations
Emissions Certification	Certified to EPA Tier 2 Emission Regulation Standards
Backup Generator Connection	Wire to MTS

3.2. Air System

The EPOD utilizes Duplex 5 hp Reciprocating Compressors programmed in a lead-lag configuration with a maximum duty cycle of 75% to provide dry, pressurized air to pneumatic equipment. Maximum outlet pressure supplied is 120 psi at 1,000 mASL.

The EPOD air system includes the following components:

Air Compressor	Duplex 5 hp Reciprocating Compressors
Wet Air Reciever	120 gal Wet Air Receiver
IA Dryer	10 scfm Heatless Regenerative Dessicant Dryer
IA Conditioning	Pre & Post Air Filter and Electric Auto-Drain
IA Flowmeter	0-20 scfm In-Line Instrument Air Flowmeter w/ Display
IA Backup Connection	1/2" Tubing Connection for External, Temporary Air Compressor Connection
IA Clarifications	Meets ASME B31.3 Requirements for all Air Piping as Category D Piping with Service Pressure Test

3.3. Enclosure

The EPOD is designed for General Area Classification and the enclosure includes the following:

Enclosure	Insulated Walk-In Enclosure with Aluminum Diamond Plate Non-Slip Flooring with Spray Foam Insulation
Ventilation	Exhaust Fan & Ducting with Dampers
Heating	3 kW Forced Air Heater
Wireway	12" x 12" x 84"
Dimensions	20' x 9.5' x 9.5' (LxWxH)
Weight	7,300 kg

3.4. Electrical Systems

The EPOD electrical system includes the following components:

Inverter / Charger	240VAC 750W 24VDC Battery Charger
UPS	8 x 12V 125AH AGM Battery 500 Cycles @ 50% DOD
Lighting Panel	NEMA 3R 120/240V 225A 72 cct (Per EP-557 for 07-18) Qty (22) 120V 1P15-70A Bolt-In Circuit Breakers Qty (3) 120/240V 2P15-125A Bolt-In Circuit Breakers Qty (12) 120/240V 2P15-60A 30mA GFCI Bolt-In Circuit Breakers
Contactore Panel	48" H x 36" W x 12" D Heated Contactore Panel with 12 Contactors & 10 Timing Relays (Per EP-557 For 07-18)
Control Panel	EPOD Control Panel (Per EP-557 For 07-18)
PLC	Customer supplied Allen-Bradley PLC
HMI	Customer supplied Allen Bradley HMI
ESD	Panel Mounted ESD
Manual Transfer Switch	260 A
Convenience Receptacle	120 V Interior Receptacle
Smoke Detector	Smoke Detector with Alarm Contacts