



# EXL – Emergency Transfer Load Manager

The EXL is a wall mounted system that monitors and controls a single engine generator for in parallel with a single utility source.

This cost effective alternative to switchgear mounted controls is designed for voltages from 208V - 32kV.

The EXL will support Emergency Standby as well as Utility Paralleling.



### FEATURES

- Provides Automatic Control for One Genset and One Utility
- Emergency Standby Mode
- Utility Paralleling including Power Import, Export, and Baseload
- Closed Transition to and from Generator Power
- Engine Communications (EMCP3.2, 3.3, 4.2)

- Easy User Programming of Custom Logic
- State of the Art, Color Touchscreen for Operator Interface
- Easy to Follow, Step by Step Installation and Start-up Instructions
- Cat<sup>®</sup> Engine Generators Seamless Support for Diesel and Gas

#### DESCRIPTION

- Can be integrated into existing switchgear to provide a fully automated system
- Direct access to Cat engine data
- Complete metering and control from intuitive color touchscreen
- Complete protective functions, with annunciation and alarm history
- User programmable input and outputs
- Supported modes of operation include:
  - Emergency Standby (utility failure protection)
  - Utility Parallel, import power from grid
  - Utility Parallel, export power to grid
  - Utility Parallel, base load operations
  - Automatic Engine Generator Exercising

- Closed transition to and from generator to minimize power interruptions
- NFPA 99 and 110 compliant
- Comprehensive manual and documentation provided
- NEMA 12 (IP52) rated wallmount cabinet, UL508A / cUL labeled
- Building management system interface
- Password security assures system integrity

#### USER SYSTEM REQUIREMENTS

The EXL control system utilizes user provided electrically operated Generator and Utility circuit breakers. These circuit breakers should be provided with two (2) auxiliary contacts (1A & 1B), a bell alarm contact, a circuit breaker open circuit, a circuit breaker close circuit, and integral short circuit protection. The Generator and Utility must also be furnished with Voltage Sensing (3ph 3w or 3ph 4w) and Current Sensing (3ph, 5a Secondary).



## **SPECIFICATIONS**

Generator Sets Supported	
Cat Engine-Generators	C9-C32, C175, 3300, 3400, 3500, G3300, G3400 & G3500
System Capacity	1 Generator Set & 1 Utility
Voltage and Frequency	208V - 32kV, 50/60Hz
System Control Voltage	
Utility and Generator Circuit Breaker	40A @ 120 Vac, 3A @ 480 Vac, 50 / 60 Hz
Control Relay Ratings	10A @ 110 VDC, 4A @ 225 VDC resistive
Control Voltage Nominal	24 VDC
Maximum Control Voltage Range	18-40 VDC
Environmental Parameters	
Certifications	UL 508A / cUL
Vibration and Shock	5Hz to 9Hz single amplitude 3.5mm, 9-150Hz fixed acceleration of 9.8m/s <sup>2</sup>
Humidity	0-95% Non-Condensing Humidity
Operating Temperature	0-55° C
Storage Temperature	-20°C to +60°C
Control Panel Enclosure	NEMA 12 Type (IP52)
Generator Protective Devices an	d Functions
ANSI Protective Devices	15/25, 27/59, 81 O/U, 32, 40, 50, 51 (Industrial Grade)
Metering	V, A, PF, kVAR, kW, Hz, kWhr, kVarH
Accuracy	Voltage L-L, Current Frequency (0.5%), Power, kW Power Factor, kVAR (1%)*
Utility Protective Devices and Fu	Inctions
ANSI Protective Devices	15/25, 27/59, 81 O/U, 32, 47 (Industrial Grade)
Metering	Voltage L-L, Current Frequency (0.5%), Power, kW Power Factor, kVAR, (1%)
Optional	
Supplemental Hardware 25 Relay	Additional Discrete Synchronization Protection for the Synchronizing Circuit

\*Dependent on CT/PT Accuracy

# SWITCHGEAR



Dimensions & Weights	
Control Panel Dimensions	36"H x 24" W x 8"D (914mmH x 610mmW x 203mmD)
Shipping Weight (approx.)	192 lbs. (87kg)
Interconnect Control Wiring	Top or Bottom Conduit Access
Control Panel Installation	Wall Mount



**Enclosure Dimensions** 

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