



# Electric Power Generator Set Ratings Definitions

## Cat® Diesel Generator Set Ratings Definitions

<b>ESP Rating</b> Power is available for the duration of an emergency outage. Average Power Output = 70% of ESP rating Load = Varying Typical hours/Year = 50 hours Maximum Expected Usage = 200 hours/year No overload available Typical Application: Building Service Standby Not for maintained utility paralleling applications
<b>Standby Power Rating</b> Power is available for the duration of an emergency outage. Average Power Output = 70% of standby power Load = Varying Typical Hours/Year = 200 hours. Maximum Expected Usage = 500 hours/year No overload is available Typical Application: Standby Not for maintained utility paralleling applications
<b>Mission Critical Standby Power Rating</b> Power is available for the duration of an emergency outage. Average Power Output = 85% of standby power Load = Varying Typical Hours/Year = 200 hours. Maximum Expected Usage = 500 hours/year Typical Peak Demand: Up to 100% of standby rated kW available for 5% of the operating time. Typical Application: Data Centers, Healthcare Not for maintained utility paralleling applications
<b>Prime Power Rating</b> Average Power Output = 70% of prime power rating Load = Varying Typical Hours/Year = Unlimited Typical Peak Demand: 100% of prime rated kW with 10% overload capability for emergency use for a maximum of 1 hour in 12. Overload operation cannot exceed 25 hours per year. Typical Application: Industrial, Pumping, Construction, Rental, and Co-Generation
<b>Continuous Power Rating</b> Average Power Output = 70-100% of continuous power rating Load = Non-Varying Typical Hours/Year = Unlimited Typical Peak Demand = 100% of continuous rated kW for 100% of operating hours Typical Application: Base Load, Utility or Co-Generation

Note: Operating at load factors above these rating definitions will result in shorter oil change intervals and reduced hours to engine overhauls, resulting in higher generator and engine costs per year. Refer to the Owning and Operating manual for package specific service intervals and the impact of operating at higher load levels. Some ratings definitions are not available for all models.

# SYSTEMS DATA SHEET

## Electric Power Generator Set Ratings

### Cat Diesel Generator Set Rating Applications

<b>Isolated from the Utility Less Than 500 Hours per Year (Standby Power)</b>
Output available with varying loads*. * Fuel Stop Power in accordance with ISO 3046/1, AS2789, DIN6271 and BS5514 Typical Load Factor= 70% Typical Hours per Year = Less than 500 hours Typical Application = Interruptible utility rates, emergency standby
<b>Parallel with or Isolated from the Utility Over 500 Hours per Year (Prime Power)</b>
Output available with varying loads for over 500 hours per year**. ** Fuel Stop Power in accordance with ISO 3046/1, AS2789, DIN6271 and BS5514 Typical Load Factor= 70% Typical Hours per Year = Unlimited Typical Peak Demand =100% of prime plus 10% rating overload capability for maximum of 1 hour per 12 hours (emergency usage). Not to exceed 25 hours per year of overload operation. Typical Application = Peak Sharing, Interruptible utility rates, storm avoidance
<b>Parallel with or Isolated from the Utility less than 500 Hours per year (Available for limited models rated at Prime Power)</b>
Maximum power available for up to 500 hours per year***  ***Limited-Time Running Power (LTP) in accordance with ISO8528, ISO3046/1,AS2789, DIN6271 and BS5514. Output available without varying loads for less than 500 hours per year. Maximum Load factor = 100% Typical Hours/Year = Less than 500 hours. Peak Demand = 100% of prime rating Typical Application = Peak sharing, interruptible utility rates, storm avoidance <i>Note: Prime Power Units operating at 100% Load for &lt;500 hours per will experience shorter oil change intervals and reduced hours to engine overhauls. Refer to the Owning and Operating manual for package specific service intervals and the impact of operating at higher load levels.</i>
<b>Parallel with or Isolated from the Utility over 500 Hours per year (Continuous Power)</b>
Output available at continuous rating for unlimited time**** ****Continuous power in accordance with ISO8528, ISO3046/1,AS2789, DIN6271 and BS5514. Maximum Load factor = 100% Typical Hours/Year = No limit Typical Peak Demand = 100% of continuous rating used 100% of the time Typical Application = Base load, utility, peak sharing, cogeneration

**Note:** Operating at load factors above these rating definitions will result in shorter oil change intervals and reduced hours to engine overhauls, resulting in higher generator and engine costs per year. Refer to the Owning and Operating manual for package specific service intervals and the impact of operating at higher load levels. Some ratings definitions are not available for all models.

The Limited Time Running Power (LTP) rating listed in ISO 8258-1 is a specific application of the Prime Power rating. For a complete list of package generator sets with this rating, please see LEHX6376, "Load Management Rating Application Guidelines."

For conditions outside the above limits, please contact the Application Support Center. Operating units above these rating definitions will result in shorter life to overhaul.

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