ES RANGE

Fully integrated, reliable, efficient

www.cumminspower.com

Our energy working for you.™
Global Strength, Local Partnership

With over 60 years experience in power generation and an extensive global distributor network across 130 countries, we are ready to match the right generating, transfer and control technologies with your power needs – be it continuous, prime, peaking, standby, cogeneration, or a complete turnkey power plant.

Part of Cummins Inc, which has a turnover of US$12 billion, Cummins Power Generation has the global resources to meet your unique power needs. You can expect a face-to-face relationship with someone worthy of your trust and fast access to reliable service, engineering expertise and parts support.

Fully Integrated, Reliable, Efficient

Cummins Power Generation is a world leader in the design and manufacture of pre-integrated generator sets – from standby/emergency systems, multi-megawatt utility peaking facilities and sophisticated cogeneration applications.

We provide single-source warranty, total maintenance support and round-the-clock emergency service 24 hours a day, 7 days a week including back-up power rental. So wherever you need fully integrated, reliable and efficient power, contact your local Cummins Power Generation distributor.

ES Range

SINGLE SOURCE RESPONSIBILITY
We are the only on-site power equipment company to develop and manufacture combined power generation, power transfer and power control products in one company. Every aspect of design, manufacture and testing of the generating set is carried out within the Cummins group to guarantee single source of contact, supply and warranty.

QUICK START-UP
Each generator is a fully integrated, pre-tested and ready-to-run power system, which includes tropical radiator for hot weather applications and built-in anti-vibration mountings.

READY WHEN YOU ARE
Each generator is equipped with ready-to-run specifications for fast and efficient installation, adequate supply of in-country stock means we’re ready to deliver when required.

SPEEDY ACCESS TO AFTERSALES SUPPORT
Cummins Power Generation has a world-wide distribution network across 130 countries, with 500 dealers and 4000 parts outlets spread strategically worldwide. Our technicians are trained to the highest standards with the capability and experience to support our products wherever they are operating. As our customers, you can expect speedy access to reliable service, engineering expertise and parts support.

ES Range

> Powered by X and S Engines.
### 17 - 28 kVA @ 50Hz / 14 - 24kW @ 60Hz
> Powered by X Engines.

#### Open Set
Ready-to-Use generator sets for stationary application with 2 and 3 cylinder inline configuration diesel engines are the most compact, light weight and easy to service products.

Built-in vibration mounts, a completely wired control system including engine protection, instrumentation, industrial silencer and integral fuel tank are part of the generator set features. Engines in this series are naturally aspirated, fuel efficient, with low lube oil consumption.

<table>
<thead>
<tr>
<th>Genset Model</th>
<th>Engine Model</th>
<th>Alternator Model</th>
<th>Standby Rating</th>
<th>Prime Rating</th>
<th>Open Set</th>
<th>Alternator Model</th>
<th>Power Factor</th>
<th>Standby Rating</th>
<th>Prime Rating</th>
<th>Dry Weight (Kg)</th>
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<tbody>
<tr>
<td>ES33 D5</td>
<td>X1,7D5</td>
<td>BC164D</td>
<td>16.5 19 12</td>
<td>26 30</td>
<td>700</td>
<td>BC184F</td>
<td>0.8</td>
<td>16.5 19 12</td>
<td>26 30</td>
<td>700</td>
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<tr>
<td>ES38 D5</td>
<td>X2,5G</td>
<td>BC184E</td>
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<td>30 35</td>
<td>700</td>
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<td>BC184F</td>
<td>27.5 22 25</td>
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<td>0.8</td>
<td>27.5 22 25</td>
<td>35 40</td>
<td>750</td>
</tr>
</tbody>
</table>

### Features:
- Powered by Water cooled, direct injection 1.7/2.5 liter Diesel Engine
- Class H alternator, 50 deg ambient rated radiator
- Electric start and charge alternator 12V D.C.
- Steel base frame with integral anti-vibration mounts
- FRP fuel tank capacity of minimum 12 hours operation at 70% standby load
- Industrial exhaust silencer and connector
- PCC0300 controller with MCB
- 80 kVA @ 1 m soundproof enclosure (optional)
- Single source warranty via our international distribution network

### 33 - 68 kVA @ 50Hz / 30 - 61 kW @ 60Hz
> Powered by S Engines.

#### Open Set
The generator sets are for stationary application with 4 cylinder inline configuration diesel engines, which are naturally aspirated, turbocharged and intercooled. Engines in this series are simple, compact, reliable, fuel efficient and have minimal noise and vibration levels.

<table>
<thead>
<tr>
<th>Genset Model</th>
<th>Engine Model</th>
<th>Alternator Model</th>
<th>Standby Rating</th>
<th>Prime Rating</th>
<th>Dry Weight (Kg)</th>
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<td>68 55</td>
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</table>

### Features:
- Powered by Water cooled, direct injection 3.8 liter Diesel Engine
- Class H alternator, 50 deg ambient rated radiator
- Electric start and charge alternator 12V D.C.
- Steel base frame with integral anti-vibration mounts
- FRP fuel tank capacity of minimum 12 hours operation at 70% standby load
- Industrial exhaust silencer and connector
- PCC0300 controller with MCB optional
- 80 kVA @ 1 m soundproof enclosure (optional)
- Single source warranty via our international distribution network

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50Hz

### 3 Phase

<table>
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<tr>
<th>Genset Model</th>
<th>Engine Model</th>
<th>Alternator Model</th>
<th>Standby Rating</th>
<th>Prime Rating</th>
<th>Open Set</th>
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<th>Power Factor</th>
<th>Standby Rating</th>
<th>Prime Rating</th>
<th>Dry Weight (Kg)</th>
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<td>15 12 13.5</td>
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### 60Hz

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<tr>
<td>ES22 D6</td>
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### 50Hz

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<th>Genset Model</th>
<th>Engine Model</th>
<th>Alternator Model</th>
<th>Standby Rating</th>
<th>Prime Rating</th>
<th>Dry Weight (Kg)</th>
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<td>ES45 D5</td>
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<td>55 44</td>
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<td>ES61 D5</td>
<td>S3.8G7</td>
<td>UC224F</td>
<td>68 55</td>
<td>850</td>
<td></td>
</tr>
</tbody>
</table>

### Features:
- Standby Power: The Standby Power is applicable for supplying emergency power for the duration of a utility power interruption. No one load, utility switch or negotiated outage operation capacity is available at this rating.
- In installations served by unreliable utility sources (where outages last longer or occur more frequently), where operation is likely to exceed 200 hours per year, the prime power rating should be applied.

### Specifications
- **50Hz**
  - ES33 D5: 33kVA @ 50Hz, UC224C, 26kW, 700Kg
  - ES38 D5: 38kVA @ 50Hz, UC224C, 30kW, 700Kg
  - ES43 D5: 43kVA @ 50Hz, UC224C, 35kW, 750Kg
  - ES45 D5: 55kVA @ 50Hz, UC224E, 40kW, 800Kg
  - ES61 D5: 68kVA @ 50Hz, UC224F, 50kW, 850Kg

### Specifications
- **60Hz**
  - ES30 D6: 30kVA @ 60Hz, UC224C, 25kW, 700Kg
  - ES35 D6: 35kVA @ 60Hz, UC224C, 30kW, 700Kg
  - ES38 D6: 38kVA @ 60Hz, UC224C, 35kW, 750Kg
  - ES48 D6: 48kVA @ 60Hz, UC224D, 40kW, 800Kg
  - ES61 D6: 61kVA @ 60Hz, UC224F, 50kW, 850Kg

*Note: Dry weight do not include fuel tank or contents and are guideline only.*
Enclosed Set

Enclosures
All Cummins Power Generation diesel generators powered by X and S engines are available with weather protective and sound attenuated enclosures.

All enclosures cover and protect the generator set. Enclosures are designed to optimize genset cooling performance, providing you with confidence that genset ratings and ambient capability have not been compromised. All enclosures provide easy access to service points and provide operators with plenty of room for maintenance.

Features:
- Compact footprint, low profile design
- 1.6/2 mm thick CRCA sheets and structural sheet metal base frame
- Fire retardant foam insulation
- 80 dBA at 1 m
- Easy access to all service points
- Enclosed, protective exhaust systems

50 & 60 Hz ratings powered by X Engines

<table>
<thead>
<tr>
<th>Genset model</th>
<th>Length (mm)</th>
<th>Width (mm)</th>
<th>Height (mm)</th>
<th>Weight (Kg) dry</th>
<th>Sound level @ 100% load</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>dBA @ 1 m</td>
</tr>
<tr>
<td>ES17 D5</td>
<td>1850</td>
<td>900</td>
<td>1375</td>
<td>810</td>
<td>80</td>
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<tr>
<td>ES22 D5</td>
<td>1850</td>
<td>900</td>
<td>1375</td>
<td>860</td>
<td>80</td>
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<tr>
<td>ES28 D5</td>
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<td>900</td>
<td>1375</td>
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<td>1850</td>
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<tr>
<td>ES16 D6</td>
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<td>900</td>
<td>1375</td>
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50 & 60 Hz ratings powered by S Engines

<table>
<thead>
<tr>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td>dBA @ 1 m</td>
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<tr>
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<td>2300</td>
<td>1100</td>
<td>1650</td>
<td>1200</td>
<td>80</td>
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<tr>
<td>ES38 D5</td>
<td>2300</td>
<td>1100</td>
<td>1650</td>
<td>1250</td>
<td>80</td>
</tr>
<tr>
<td>ES43 D5</td>
<td>2300</td>
<td>1100</td>
<td>1650</td>
<td>1300</td>
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</tr>
<tr>
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<td>1650</td>
<td>1350</td>
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<td>ES68 D5</td>
<td>2300</td>
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<td>1650</td>
<td>1200</td>
<td>80</td>
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<tr>
<td>ES33 D6</td>
<td>2300</td>
<td>1100</td>
<td>1650</td>
<td>1250</td>
<td>80</td>
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<td>ES38 D6</td>
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<td>ES55 D6</td>
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<td>1100</td>
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<td>ES68 D6</td>
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<td>1100</td>
<td>1650</td>
<td>1350</td>
<td>80</td>
</tr>
</tbody>
</table>

Specifications may change without notice and may vary from pictures shown.
## PowerCommand® Controls and Automatic Transfer Switches

### Main features | Model
---|---
**General**
Integrated electronic governing | X | 
Human machine interface | X | 
Manual start/stop | X | 
Test run - manual | X | 
Test run - auto | X | 
Alarms / numeric Screen | X | 
Discrete status indicator | X | 
Final reset | X | 
**Engine measurements/Instrumentation**
Oil pressure | X | 
Oil temperature | X | 
Water temperature | X | 
Engine speed | X | 
Hours run | X | 
Number of starts | X | 
Battery voltage | X | 
Exhaust temperature | X | 
**Alternator measurements/Instrumentation**
3 phase voltage | X | 
3 phase current | X | 
KWh | X | 
Total KWh | X | 
Total kW & V/KWh | X | 
PF | X | 
Per phase KWh, kW | X | 
Per phase V/KWh | X | 

### Main features | Model
---|---
**Engine protection**
Low fuel level | X | 
High fuel level | X | 
High oil temperature | X | 
Low engine coolant temp. | X | 
Failure to crank shutdown | X | 
Over crank (failure to start) | X | 
Over speed | X | 
Low battery voltage alarm | X | 
High battery voltage alarm | X | 
Battery alternator change fault | X | 
**Alternator protection**
Under over frequency | X | 
Reverse power | X | 
Reverse V/KWh | X | 
Overcurrent | X | 
Short circuit | X | 
Earth faultage | X | 
Phase sequence | X | 
**Paralleling capacity**
Auto synchronising | X | 
Isochronous kW & V/KWh load sharing control | X | 
Auto synchronising (utility bus) | X | 
Based load (utility bus) | X | 
Synchronism | X | 
Peak tripping | X | 

### Miscellaneous
- Operating temperature range: -40°C to +70°C
- UL marked
- Common fault alarm
- CAN bus
- USB
- Data and time stamp for alarm
- LanWorks

### GTEC
GTEC series transfer switches covering the range 40 to 1250 amps - provide normal and generator set source monitoring, generator set starting, and load transfer functions for emergency, standby, and optional standby applications. GTEC transfer switches are continuously rated, so they can be applied in applications up to their nameplate rating.

The transfer switch power contacts are silver alloy composition with high pressure design that can withstand thousands of switching cycles without burning, pitting or welding. They require no routine contact maintenance and provide 100% continuous current ratings.

The transfer switch control is reliable and easy to understand, utilizing LED lamps for status indications, and push-button controls for operator functions. The control is field-programmable without the use of service tools.

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For more details on GTEC and other power electronic products, please contact your local distributor.
Specifications may change without notice and may vary from pictures shown.