

# WINCO<sup>®</sup> GENERATORS



An American Company

We produce our products in our 200,000ft<sup>2</sup> facility located in Le Center, Minnesota, equipped with modern engineering, fabrication and assembly capabilities.



## Full Load Tested

Every generator is 100% load tested



## DSE 7310 Controller

Provides immediate performance information



## Coolant Heater

Hotstart coolant heater with thermostat



## Battery Charger

5 Amp, smart marine charger standard



## TÜV Certified

The design, construction, and performance of our stationary generators conform to UL2200 & CSA standards



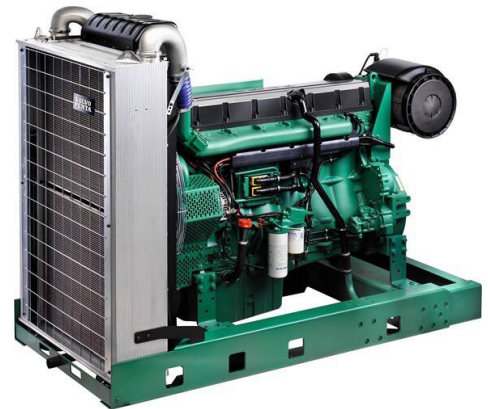
# DR400V4

400,000 WATTS

Rugged Design  
Galvanealed steel enclosure with powder coat paint



Industrial Volvo Engine



Cummins Industrial Genend



# SPECIFICATIONS

## ELECTRICAL

| VOLTS        | POWER FACTOR | STANDBY |     |       | PRIME   |     |       | CIRCUIT BREAKER |
|--------------|--------------|---------|-----|-------|---------|-----|-------|-----------------|
|              |              | WATTS   | KVA | AMPS  | WATTS   | KVA | AMPS  |                 |
| 120/208 3-PH | 0.8          | 400,000 | 500 | 1,388 | 360,000 | 288 | 1,250 | 2000            |
| 120/240 3-PH | 0.8          | 400,000 | 500 | 1,201 | 360,000 | 288 | 1,081 | 1200            |
| 277/480 3-PH | 0.8          | 400,000 | 500 | 601   | 360,000 | 288 | 541   | 600             |
| 346/600 3-PH | 0.8          | 400,000 | 500 | 481   | 360,000 | 288 | 433   | 600             |

## ENGINE

|                                |                    |
|--------------------------------|--------------------|
| ENGINE BRAND                   | Volvo              |
| ENGINE MODEL                   | TAD1353GE          |
| TIER                           | III                |
| ENGINE STARTER                 | 24V ELECTRIC       |
| ENGINE SPEED                   | 1800 RPM           |
| ENGINE CYLINDERS               | 6                  |
| ENGINE HP                      | 585                |
| FREQUENCY                      | 60 HZ              |
| ALTERNATOR                     | 80 AMPS 24V        |
| FLYWHEEL                       | 14"                |
| ROTATION                       | CCW                |
| ASPIRATION                     | TURBOCHARGED       |
| COOLANT                        | 6 GAL              |
| BORE/STROKE                    | 131 mm x 158 mm    |
| DISPLACEMENT                   | 12.78L             |
| RECOMMENDED OIL <sup>(1)</sup> | 5W-40 SAE          |
| OIL CAPACITY                   | 9.5 GAL            |
| INJECTION PUMP                 | ELECTRIC INJECTORS |
| GOVERNOR                       | ISOCHRONUS         |
| COMPRESSION RATIO              | 18.1:1             |
| FAN TYPE                       | PUSHER             |
| INTAKE AIR CONSUMPTION         | 1102 CFM           |
| RADIATOR COOLING AIR           | --                 |
| EXHAUST FLOW                   | 2790 CFM           |
| EXHAUST OUTLET SIZE            | 5"                 |
| STARTING TEMP W/BLOCK HEATER   | -13° F             |

NOTES: (1) The recommended oil is for normal applications. See operator's manual for the recommended oil for your needs.

## BLOCK HEATER

|            |        |
|------------|--------|
| VOLTS      | 120    |
| WATTS      | 3,000  |
| AMPS       | 25     |
| THERMOSTAT |        |
| ON         | 100° F |
| OFF        | 120° F |

## DR400

|                              |                    |
|------------------------------|--------------------|
| MOTOR STARTING (CODE G)      | 225                |
| TOTAL HARMONIC DISTORTION    | < 5%               |
| DBA @ 7 METERS               | 73                 |
| FLOATING NEUTRAL             | YES                |
| FORK LIFT POCKETS            | NO                 |
| ASSEMBLED IN                 | USA                |
| EPA APPROVED                 | TIER III (STANDBY) |
| CARB APPROVED                | TIER III (STANDBY) |
| TÜV CERTIFICATION            | UL2200<br>CSA      |
| UNIT WARRANTY <sup>(1)</sup> |                    |
| STANDBY                      | 2 YEAR/2000 HRS    |

NOTES: (1) For more generator warranty, see operator's manual.

## GENERATOR END

|                    |                           |
|--------------------|---------------------------|
| WINDING            | 12 LEAD                   |
| WINDING NUMBER     |                           |
| 208/240/480V       | 311                       |
| 600V               | 17                        |
| VOLTAGE REGULATION | AVR +/- 1%                |
| AVR TYPE           | MX341                     |
| PMG                | STANDARD                  |
| TEMPERATURE RISE   | 125/40° C                 |
| BRUSHLESS          | YES                       |
| SPEED              | 1800 RPM                  |
| ROTOR              | 2/3 PITCH                 |
| WINDINGS           | 100% COPPER               |
| STATOR WINDING     | DOUBLE LAYER LAP          |
| COUPLING           | DIRECT/FLEXIBLE DISC      |
| BEARINGS           | SINGLE (MAINTENANCE FREE) |
| EFFICIENCY PEAK    | 93.6                      |
| INSULATION         | CLASS H                   |
| INGRESS PROTECTION | IP23                      |



# SPECIFICATIONS

## DERATES

|                           |                                 |
|---------------------------|---------------------------------|
| ABOVE SEA LEVEL           |                                 |
| 3200 FT - 6500 FT         | 1.25% EVERY 1,500 FT            |
| >6500 FT                  | 7.5% EVERY 1,600 FT             |
| MAX OPERATING TEMPERATURE | 122°F<br>W/O TEMPERATURE DERATE |

## FUEL

|                      |                        |
|----------------------|------------------------|
| TYPE                 | ASTM D975 NO-2D DIESEL |
| FUEL CONSUMPTION     | GAL/HR                 |
| 100%                 | 29.1                   |
| 75%                  | 22.3                   |
| 50%                  | 15.3                   |
| 25%                  | 8.5                    |
| OPTIONAL FUEL TANK   | L x W x H              |
| 1000 GAL - OPEN SKID | 138 x 78 x 34          |
| 1340 GAL - HOUSED    | 236 x 78 x 24          |
| 3000 GAL - HOUSED    | 330 x 78 x 36          |

## DSE 7310 CONTROLLER

### ENGINE DISPLAY/PROTECTION

|                          |     |
|--------------------------|-----|
| ENGINE RPM               | YES |
| LOW OIL PRESSURE         | YES |
| HIGH COOLANT TEMP        | YES |
| LOW COOLANT              | YES |
| OVER/UNDER SPEED         | YES |
| OVER CRANK               | YES |
| CAN ECU SHUTDOWN         | YES |
| ENGINE MAINTENANCE CODES | YES |

### GENSET DISPLAY/PROTECTION

|                          |               |
|--------------------------|---------------|
| VOLTAGE (L-N & L-L)      | YES           |
| OVER/UNDER VOLTAGE       | YES           |
| FREQUENCY                | YES           |
| OVER/UNDER FREQUENCY     | YES           |
| AMP DISPLAY/SHUTDOWN     | YES           |
| PHASE IMBALANCE          | FIELD ENABLED |
| KW, KVA, KVARH DISPLAY   | YES           |
| KWH, KVAH, KVARH DISPLAY | YES           |
| GENERATOR PHASE SEQUENCE | OPTIONAL      |

## BATTERY

|                                   |                   |
|-----------------------------------|-------------------|
| DC SYSTEM                         | 24V               |
| BATTERY RACK/CABLE                | INCLUDED          |
| BATTERY CHARGER                   | 8 AMP             |
| REQUIRED BATTERIES <sup>(1)</sup> | GROUP 4D 1200 CCA |

NOTES: (1) 2 batteries are required. Batteries are not included.

## DIMENSIONS

|                        |                  |
|------------------------|------------------|
| DIMENSIONS (L x W x H) |                  |
| HOUSED                 | 236" x 78" x 99" |
| NARROW SKID            | 126" x 48" x 72" |
| WEIGHT                 |                  |
| OPEN                   | 8,950 LBS        |
| HOUSED                 | 11,500 LBS       |
| FREIGHT CLASS          | 70               |

NOTES: Shipping dimensions are for an enclosed unit.

## OPTIONAL ACCESSORIES

|                          |
|--------------------------|
| BATTERY                  |
| BATTERY HEATER           |
| RECEPTACLE PANEL         |
| MIMIC PANEL              |
| REMOTE MONITORING        |
| NFPA 110 LEVEL 1 UPGRADE |

### ADDITIONAL DISPLAYS/PROTECTIONS

|                            |                 |
|----------------------------|-----------------|
| EXTERNAL E-STOP            | FIELD INSTALLED |
| BATTERY VOLTAGE            | YES             |
| BATTERY OVER/UNDER VOLTAGE | YES             |

### COMMUNICATIONS

|                      |          |
|----------------------|----------|
| USB CONNECTABLE      | YES      |
| RS232/RS485          | YES      |
| REMOTE DISPLAY PANEL | OPTIONAL |
| DSE WEB NET          | OPTIONAL |

### ADDITIONAL FEATURES

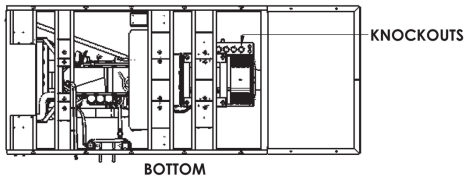
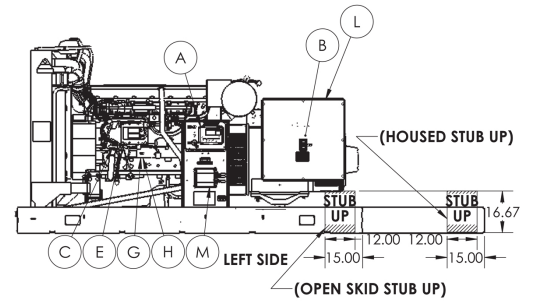
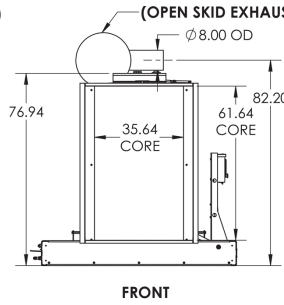
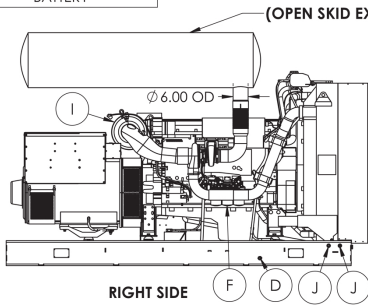
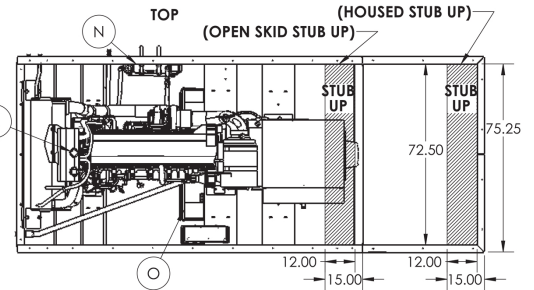
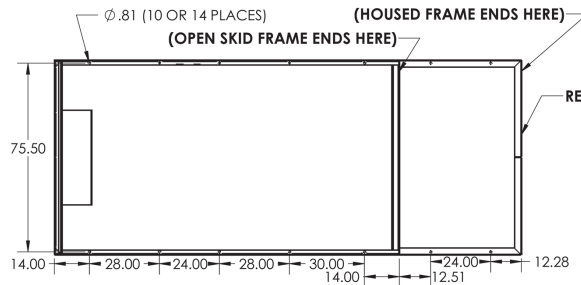
|                            |                |
|----------------------------|----------------|
| AUDIBLE ALARM              | YES            |
| ENGINE EXERCISER           | DISABLED       |
| MAINTENANCE INTERVAL TIMER | DISABLED       |
| LOAD SHEDDING/DUMMY        | DISABLED       |
| CONFIGURABLE INPUTS        | 4 (EXPANDABLE) |
| CONFIGURABLE OUTPUTS       | 4 (EXPANDABLE) |
| EVENT LOG                  | 250            |

# DRAWINGS

## OPEN

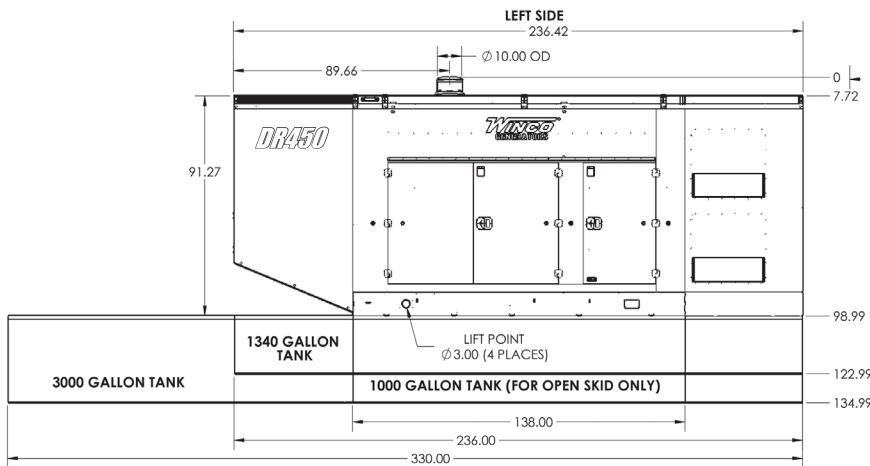
| KEY COMPONENTS |                           |
|----------------|---------------------------|
| A              | ENGINE CONTROL            |
| B              | MAIN LINE CIRCUIT BREAKER |
| C              | OIL FILL                  |
| D              | OIL DRAIN                 |
| E              | OIL DIPSTICK              |
| F              | OIL FILTER                |
| G              | FUEL FILTER               |
| H              | FUEL INLET                |
| I              | AIR FILTER                |
| J              | COOLANT DRAIN             |
| K              | COOLANT FILL              |
| L              | AVR                       |
| M              | BATTERY CHARGER           |
| N              | BLOCK HEATER              |
| O              | BATTERY                   |

### TOP VIEW HOLE PATTERN

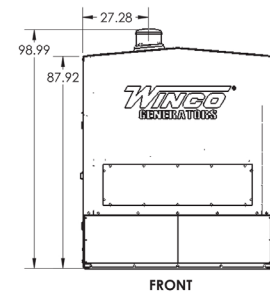
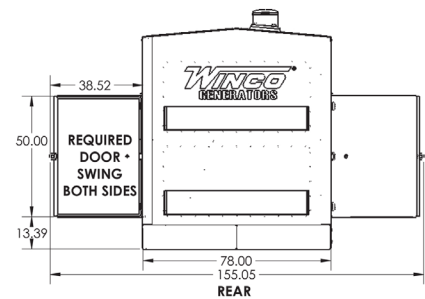


APPROX. WEIGHT (OPEN SKID): 8,950 LBS

## ENCLOSED



APPROX. WEIGHT NO TANK (HOUSED): 11,300 LBS



Specifications are subject to change without notice.

