

20kW

norpro

A Global Power Solutions Company

Diesel Residential Series

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Open DRS unit showing standard features, such as: battery tray, battery, battery cables, radiator, air filter, steel skid base, and rubber isolation mounts.

20DRS



Standard Features:

- Radiator cooled Norpro genset
 - Residential grade muffler
 - Air filter
 - Steel skid base mounting
 - Rubber isolation mounts
 - Battery
 - Battery tray
 - Battery cables
 - Mainline generator breaker
 - Oil drain kit
 - Weather resistant sound enclosure
 - Front air baffle
 - Digi-Tec 300 Controller
- *See Controller

Generator Specifications:

Manufacturer.....	Mecc Alte
Type.....	2 pole
Exciter type.....	Brushless
Leads: Quantity.....	4
Voltage regulator.....	Solid State
Insulation Material.....	H type
Temperature rise.....	105° c
Bearing type.....	Sealed
Coupling.....	J6098
Voltage regulation.....	1%
Phase type.....	1
Power factor.....	1.0
kW size.....	20
Mainline breaker (amps).....	80

Weights and Dimensions :

Length (in.).....	58
Height (in.).....	34
Width (in.).....	30
Dry (lbs).....	685
Wet (lbs).....	670

More for your money:

Norpro has been a leader in Genset technology since it began operations in 1986, striving to provide the best in terms of durability, longevity in the generator market. By selecting only engines and components from the best manufacturers, we hand build each with the finest just as you would. By using high quality materials such as epoxy paint and stainless hardware you can rest assured your genset will look good as it runs well for years to come. We sought input from the aerospace industry during the development of our sound shields and the results speak quietly on their own. Norpro generator sets are backed by one of the most extensive warranties available. Sales and service are handled by factory trained distributors and dealers reaching across the country and around the world. All this results in our commitment to meeting your needs.

Generator Ratings:

Amps @ 120 60hz.....	166.6
Amps @ 240 60hz.....	83.3

Philosophy at Norpro:

- Build a reliable product for the harshest of operating environments.
- Supply a product which is simple to operate and easy to maintain
- Use the best technology and materials available
- Provide the best pricing in the industry



Pictured with standard sound attenuated enclosure and front 90° air baffle.

All information subject to change without notice and without any information or liability whatsoever. kW rating published in this document are standby ratings only. All db(A) measurements were taken with a muffler in an open air environment at the measured amount listed above (see sound table) with a 8 point average taken. Generator testing done under, and not to exceed conditions of 110° ambient air temperature. Proper intake and exhaust air is required.

Engine Specifications:

Manufacturer.....	Lombardini
Engine: model type.....	LDW 1404 FOCS
Cylinder arrangement.....	4 in line
Displacement (cu.in).....	83.7
Bore and stroke, (in.).....	2.9 x 3.5
Compression ratio.....	22.8:1
Rated rpm.....	3600
Max power at rated rpm (bhp).....	34
Cylinder head material.....	Aluminum
Block material.....	Cast Iron
Governor type.....	Mechanical
Frequency regulation.....	5-7%
Air cleaner type.....	Replaceable element

Engine Electrical System:

Ignition system.....	Electric
Battery charging system voltage (DC).....	12
Battery charging system (amps).....	15
Starter system voltage (DC).....	12
Battery recommendation (CCA).....	500
Battery voltage (DC).....	12
Starter kW.....	0.9

Fuel System:

Fuel type.....	#2 Diesel
Fuel supply line inlet.....	1/4 Barb Fitting
Fuel pump lift (ft).....	6

Fuel Consumption:

100% Load (gph).....	2.34
75% Load (gph).....	1.84
50% Load (gph).....	1.4

Cooling System:

Block capacity (qts).....	1.3
Radiator coolant capacity (qts).....	4
Water pump type.....	Centrifugal
Fan diameter (in.).....	13.7
Fan & Alternator (hp).....	1.5
Fan type.....	5 Blade Pusher
Fan rotation (from front of engine).....	Clockwise

Lubrication System:

Type.....	Full pressure
Filter capacity (qts).....	0.1
Engine oil capacity (qts).....	3.2
Oil filter type.....	Spin-on

Sound Tables:

dB(A) With Sound Shield			
Load	100%	75%	50%
3'	70	68	69
10'	66	65	64
21'	62	61	61
dB(A) Without Sound Shield			
Load	100%	75%	50%
3'	70	68	69
10'	66	65	64
21'	62	61	61

Exhaust system:

Exhaust type.....	Residential
Max allowable back pressure (in.hg).....	12
Exhaust outlet size (in.).....	1.5

Air Requirements:

Engine combustion air intake requirements.....	60CFMG
enerator end cooling requirements.....	388CFM
Sound shield air space requirements	4"

Sound Shield:

Provides generator silencing in a weather resistant enclosure, made of 5052 0.080" thick aluminum, e-coated and powder coated for long life finish in harsh weather environments. Utilizing a front baffle system air is turned 90° after exiting the enclosure (see Sound Table for generator results). Complete teardown to base frame can be done in a matter of minutes with a #2 screwdriver. With snap in/out side doors, general maintenance and cleaning is quick and easy. Knock outs are provided in the base frame for fuel lines and electrical leads.

Digi-tec 300 Controller:

Engine start-up with automatic preheat system , Programmable microprocessor with digital display featuring: water temperature, oil pressure, tamper proof hour meter, battery voltage, Automatic fault shutdowns for low oil pressure, high water temp, undercurrent/overcurrent, underspeed/overspeed, undervoltage/overvoltage, underfrequency/over frequency. All in an easy to read and operate, 4.25"H x 5.5"L, multilingual panel. 12 or 24 volt operation with audiovisual enunciation capability.

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OPTIONAL EQUIPMENT

Digi-tec 100 controller:

Engine start-up with automatic preheat system, Programmable microprocessor logic with digital display featuring: water temperature, oil pressure, tamper proof hour meter, battery voltage, current time, kW out put, . Automatic fault shutdowns for: low oil pressure, high water temp, undercurrent/overcurrent, underspeed/overspeed, undervoltage/overvoltage, underfrequency/over frequency, and battery high/battery weak with service reminders in real time for oil life, oil filter life, belt life, battery life, fuel filter life, air filter life, over haul life. All in an easy to read and operate 6.25"H x 7.5"L panel. 12 or 24 volt operation with audiovisual enunciation capability.

Analog Controller:

3 gauge cluster panel featuring water temperature, oil pressure, battery voltage gauges with an hour meter, preheat, start and light switches with 12 volt breaker protection, mounted all in a 5.375"H x 6.625"L, 3/16", black over white ABS face plate for maximum durability. Controlled by a 10 second oil pressure bypass timer for quicker start up. Emergency shutdowns for high water temp and low oil pressure.

Remote Start Panel:

Provides starting and stopping capabilities from a remote location. Includes start/stop switch unit hour meter all mounted on a 3"H x 6"L ABS plastic plate for maximum durability with "Y" connector to connect into the harness.

Remote Extension Cables:

Provides additional cabling between all secondary panels. 8 or 12 pin cables with rubber molded connectors provide maximum corrosion protection (when connecting any low voltage cables together it is recommended to use die-electric grease or equivalent to help prevent against corrosion). Harness lengths available in 5' 10' 20' and 50' and multiples of but not to exceed 100', with out optional relays.

Dual Station Instrumentation:

Provides the ability to have full instrumentation at two locations with start and stop capability. This is available with the Digi-tec 100 controller and in the Analog panel system. The analog system requires a set of dual station senders to be mounted on the engine.

Generator Parameter Gauges:

Digi-tec 100 controller provides the ability to read the generator output, such as: kW, hertz, cycles, frequency, and amps, all in real time format on the same digital display your engine's parameters are on. A must for the engineer in you.

Transfer Switch:

Available in manual or fully automatic, these switches offer a safer switching operation of utility power to generate power for your home or business. A Manual transfer switch is a contact that is moved from utility to generator power keeping linemen safe from back feeding power. Fully automatic transfer switches are presses that move the utility contact to the generator contact for you. Weekly exercise fully tests system on a calendar schedule, utilizing auto preheat, programmable cool down cycle and auto low battery start up, the generator is self sufficient.

Fuel Tanks:

Skid base mounted tanks available in 50 and 70 gallons for #2 diesel fuel, 50 gallon tank mounted under 45.5 long enclosure (10-15kW) 70 gallon tank mounted under 57.5 long enclosure (20kW). Standard tanks are single walled constructed, double walled construction is available in both sizes powder coated for maximum protection against corrosion. Be sure check local codes for the type of tank construction you need.