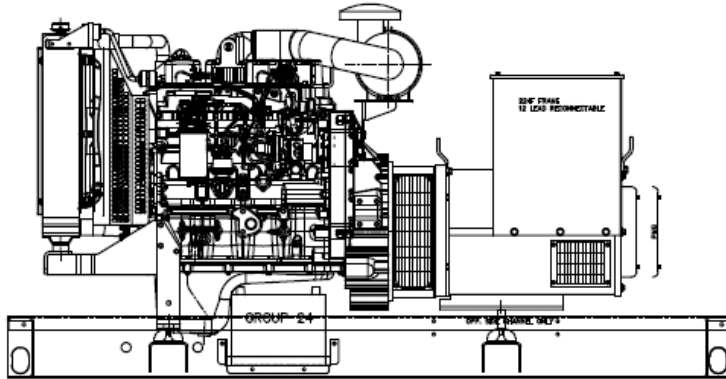


# DR45I4

LIQUID COOLED DIESEL GENERATOR SET

# WINPOWER

Est. 1925



**Standby Rating**  
**45kW 60Hz**

**Powered by ...**

**IVECO**  
**MOTORS**



**N45 SM1**  
**4.5 Liter**  
**Turbocharged**

## ENGINE

- DIVISION OF FIAT MOTORS INC.
- EPA CARB TIER 3 COMPLIANT
- RUGGED SIMPLE DESIGN
- PRECISION ITALIAN MANUFACTURING
- COMPLETE SERVICE NETWORK
- EFFICIENT LOW FUEL CONSUMPTION DESIGN

## GENERATOR

- STANDBY RATED
- BRUSHLESS ROTATING FIELD
- LOW HARMONIC DISTORTION
- WOUND 2/3 PITCH FOR LOW HARMONIC DISTORTION
- CLASS H WINDING INSULATION FOR PEAK PROTECTION
- MEETS BS EN 60034, BS5000, VDE 0530
- NEMA MG1-32, ICE34, CSA C22.2-100, AS1359
- SX460 AUTOMATIC VOLTAGE REGULATION STANDARD  
STEADY STATE VOLTAGE +/- 1%
- OPTIONAL MX341 VOLTAGE REGULATION WITH PMG  
EXCITOR ISOLATES THE AVR CONTROL CIRCUIT FROM THE  
EFFECTS OF NON-LINEAR LOADS – REDUCES TRANSIT  
VOLTAGE DIP DURING HEAVY MOTOR STARTING – BUILT IN  
OVER EXCITATION PROTECTION IN CASE OF A SHORT  
CIRCUIT
- OPTIONAL MX321 VOLTAGE REGULATOR WITH PMG  
EXCITOR IN ADDITION TO MX341 FEATURES; INCLUDES  
THREE PHASE RMS SENSING FOR IMPROVED REGULATION  
(0.5%) AND PERFORMANCE

## GENSET CONTROL

### **BASLER DGC-2020**

- GENERATOR PROTECTION AND METERING
- EVENT FAULT LOG RECORDING
- 16 PROGRAMMABLE INPUTS
- 4 USER PROGRAMMABLE OUTPUTS
- SAE J1939 ON ELECTRONIC ENGINES
- DIAL OUT MODEM (OPTIONAL)
- RS-485 MODBUS OUTPUT (OPTIONAL)
- DEDICATED RELAYS FOR FUEL SOLENOID
- GLOW PLUGS AND STARTER SOLENOID  
CONTROLS

## EXPERIENCED DESIGN

- EXPERIENCE IN THE GENERATOR INDUSTRY SINCE  
1925
- DESIGNED FOR LONG LIFE TO MAXIMIZE RETURN ON  
INVESTMENT
- WELDED AND POWDER COATED STEEL BASE
- RUBBER MOUNTED ENGINE AND GENERATOR:  
NO NEED FOR ISOLATION PADS AND EXTENDS THE  
LIFE OF BATTERIES AND HOUSING
- ELECTRICIAN FRIENDLY SINGLE COVER CONNECTION  
POINTS
- INDUSTRIAL MUFFLER AND FLEX EXHAUST STANDARD
- RESIDENTIAL AND CRITICAL MUFFLERS AVAILABLE
- REACTIVE LOAD BANK TESTED
- SINGLE STEP 100% LOAD TESTED
- OPERATOR MANUAL PACKAGE INCLUDING ENGINE  
AND GENERATOR MANUAL
- STARTING BATTERY NOT INCLUDED (BCI 24 650 CCA)

# APPLICATION & ENGINEERING DATA



## ENGINE SPECIFICATIONS

MAKE .....	IVECO
MODEL .....	N45 SM1
TYPE .....	DIESEL
KWM @ 1800 RPM-STANDBY .....	.65
INJECTION SYSTEM .....	DIRECT
SPEED GOVERNOR .....	MECHANICAL
CYLINDERS .....	4
TOTAL DISPLACEMENT .....	4.5L
BORE .....	mm 104
STROKE .....	mm 132
ASPIRATION .....	TURBOCHARGED
COMBUSTION AIR REQUIREMENT .....	283 CFM
RADIATOR CAPACITY .....	2.65 GAL
TOTAL COOLING CAPACITY .....	4.9 GAL
COOLING AIR REQUIREMENT .....	5086 CFM
HOUSING .....	SAE 3
FLYWHEEL (TEETH 125) .....	11½ inches
ROTATION .....	CCW
LUBE OIL SPEC .....	API CF-CH4, ACEA E3-E5
LUBE OIL CONSUMPTION .....	< 0.1% OF FUEL
OIL & FILTER REPLACEMENT .....	600 HRS
TOTAL OIL CAPACITY .....	13.5 QUARTS
FUEL SPEC .....	EN 590
EXHAUST OUTLET SIZE @ MUFFLER .....	3"
ELECTRICAL SYSTEM (NEGATIVE GROUND) .....	12 VDC
ALTERNATOR (BOSCH) .....	90 AMPS
STARTER .....	BOSCH
BATTERY (NOT INCLUDED BCI 24) .....	.650 CCA

## ALTERNATOR SPECIFICATIONS

RATING .....	(125/40°C) STANDBY
TYPE .....	4 POLE – REVOLVING FIELD
SPEED .....	1800 rpm
INSULATION SYSTEM .....	CLASS H
SINGLE PHASE .....	4 LEAD
THREE PHASE .....	12 LEAD
STATOR WINDINGS .....	DOUBLE LAYER CONCENTRIC
PITCH .....	2/3
WAVEFORM DISTORTION .....	1.5%
TELEPHONE INTERFERENCE .....	<2.0%
EFFICIENCY PEAK .....	~92.5%
COUPLING .....	FLEXIBLE DISC
BEARINGS (MAINTENANCE FREE) .....	1
CONTROL .....	(SX460 STANDARD) SELF EXCITED
REGULATION .....	+/- 1.0%
SINGLE PHASE RATING .....	1.0pf
THREE PHASE RATING .....	0.8pf

**Permanent Magnet Generator Available. If the information that you require is not shown, please contact your dealer.**

## GENERATOR CONTROLLER

### General

Basler Electric's Digital Genset Controller (DGC-2020) is a highly advanced integrated genset control system. The DGC-2020 is perfectly focused, combining rugged construction and microprocessor technology to offer a product that will hold up to almost any environment and flexible enough to meet your needs. This device provides genset control, metering, protection and programmable logic in a simple, easy to use, reliable, rugged, and cost effective package. Some options may not be activated and require computer interface to activate.

- 2 Wire remote start
- SAE J1939 engine ECU communications
- 16 programmable contact inputs
- Temperature range:-40° F to 158°F
- UL recognized
- NFPA110 Level Compatible (optional)
- Alarm horn output
- USB communications LIQUID
- Multilingual capability
- Rugged, fully encapsulated design
- 4 Programmable output contacts
- CSA certified, CE approved
- HALT (Highly Accelerated Life Tests) tested

### User Interface

- Backlit 64 X 128 pixel LCD display
- Not in auto indicator
- Supplying load indicator
- Lamp test pushbutton
- Off pushbutton and indicator
- Reset pushbutton
- Edit pushbutton
- Alarm indicator
- Alarm silence pushbutton
- Auto pushbutton and auto indicator
- Run pushbutton and mode indicator
- Navigation pushbuttons

### Generator Protection

- Under voltage
- Over voltage
- Phase imbalance (optional)
- Under frequency
- Over frequency
- Over current (optional)

All generator protection features are programmable as alarms or pre-alarms.

### Engine Protection

#### Alarms and Pre-Alarms

- Low oil pressure
- Low coolant level
- Over crank
- Fuel leak / Fuel sender failure
- Battery Charger Failure
- Low fuel level
- Maintenance interval timer
- High coolant temperature
- Over speed
- Engine sender unit failure
- Emergency stop
- Engine kW overload
- Fuel leak detect

### Engine Control

- Cranking
- Successful start counter
- Alarm time delays
- Smart cool down timer
- Engine maintenance timer
- Pre-crank delay

### Mounting

The generator controller is pedestal mounted on the generator set skid, preventing damage from harmful vibrations. The height of the control is adjustable to allow for easy viewing with all optional fuel tank heights installed.

<b>Electrical Output 45kW Standby</b>				
<b>Output Voltage – 60Hz</b>	<b>kW</b>	<b>kVa</b>	<b>Amperes</b>	<b>CB Size</b>
<b>120/240, 1-phase, 1.0 pf</b>	<b>45</b>	<b>45</b>	<b>187</b>	<b>175</b>
<b>120/208, 3-phase, 0.8 pf</b>	<b>45</b>	<b>56</b>	<b>156</b>	<b>150</b>
<b>120/240, 3-phase, 0.8 pf</b>	<b>45</b>	<b>56</b>	<b>135</b>	<b>125</b>
<b>277/480, 3-phase, 0.8 pf</b>	<b>45</b>	<b>56</b>	<b>68</b>	<b>70</b>

Consult factory for switchable voltage & 50 Hz

**Fuel Consumption**

100% Load.....	4.09 Gallons/Hr
80% Load.....	3.09 Gallons/Hr
50% Load.....	2.16 Gallons/Hr

Winpower offers three UL142 double wall fuel tank options for this model. This includes removable stub-up end plate as well as leak detection and digital fuel level indication.

**Limited Warranty**

Winpower warrants its product from material defects for a period of one year or 1000 hrs. FPT warrants the engine for standby generator applications for 60 months or 2000 hours. Newage warrants the generator end for 2 years or 1000 hours for standby applications. Contact Winpower for copies of full warranty statements.

**Derating Factors**

Temperatures > 104°F.....	3% per 10°F
Altitude.....	3% per 1000 ft
Prime Power.....	10%

**Engine Block Heater Specifications**

- Volts – 120
- Watts – 1000
- Thermostat On/Off - 100°/120°F

**NFPA 110 Level 1 Package Option**

This option provides a higher state of readiness in accordance with NFPA 110. Option includes a dual rate battery maintenance charger with failure indication, 16-light remote annunciator, low coolant level indication, block heater upgrade that maintains 100°-120°F and enhanced genset controller pre-alarm settings.

**OPTIONS AND ACCESSORIES**

**Optional Fuel Accessories**

- 100 gal UL fuel tank
- 200 gal UL fuel tank
- 310 gal UL fuel tank
- DOT trailer/fuel tank combinations available upon request

**Optional Electrical Accessories**

- 3.5 amp SENS charger
- 6 amp SENS charger
- 6 amp SENS charger w/fail contact
- 10 amp SENS charger
- 10 amp SENS charger w/fail contact
- 12 watt solar charger

**Enclosure Options**

- WEATHR-PAK (Rain and Sun Protection)
- SOUND-PAK (Sound Attenuation)

**Controller Options**

- MODBUS RS-485 output
- Remote annunciator
- Battery backup
- Internal modem
- Enhanced generator protection
- Auto synchronizer

**Generator Accessories**

- Anti-condensation heaters
- Oversized generator
- 12 lead single phase

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