


ATEX Zone 2 / Generator Installation, Operation and Maintenance Manual

Supplement to GPN008, Installation, Operation and Maintenance Manual

INSTALLER: Please leave this supplementary manual and the standard manual (Marathon GPN008) for the owner's use.
OWNER: Read and save these instructions.

This ATEX Zone 2 / Installation, Operation and Maintenance Manual is to be utilized in conjunction with the standard Generator Installation, Operation and Maintenance Manual (GPN008). Where information between this supplement and the standard Generator Installation, Operation and Maintenance Manual (GPN008) differ, the information contained in this document shall take precedence.

Declaration of Conformity:

All generators with the  mark on the nameplate are certified by Sira Test & Certification Ltd (Certificate 15ATEX4026X) and comply with the ATEX Directive 94/9/EC and the following Zone 2 / standards:

BS EN 60079-0:2014 "Explosive Atmospheres Part 0: Equipment - General Requirements"

BS EN 60079-15:2010 "Explosive Atmospheres Part 15: Equipment Protection by Type of Protection "N" "

Safety:

Prior to conducting operations involving installation, maintenance, trouble shooting, or repairs, ensure that the area is well ventilated, and that no explosive concentrations of flammable gases, flammable liquid-produced vapors, or combustible liquid-produced vapors are present.

Temperature Rise - All ratings and frame sizes are based on NEMA and CSA Class B temperature rise on both stator and rotor windings. Under no circumstances shall the generator's output exceed the kilowatt rating(s) provided on the nameplate.

Nameplate:

Nameplate markings (Table 1) to comply with ATEX Zone 2, per 94/9/EC, according to Standards listed above.

The generator must be selected such that the marked rating is compatible with all aspects of the application.

Generator electrical output ratings and maximum surface temperatures are defined on the nameplate.

Table 1: Nameplate Markings

Line 1:	SIRA	15	ATEX	4026X							
	1	2	3	4							
1	European Notified Body (SIRA = SIRA Test & Certification Ltd.)										
2	Year of Original Certificate Issuance										
3	European Directive										
4	Certificate Number										
Lines 2 and 3:	CE	Ex	II	3	G	c	Ex	nA	nC	T3 (200°C)	Gc
	1	2	3	4	5	6	7	8	9	10	11
1	CE Marking										
2	Explosion Protection Marking										
3	Equipment Group (II = nonmining)										
4	Category (3 = Zone 2)										
5	Explosive Atmosphere (G = gas)										
6	Equipment Protection Level (c = "enhanced" level of protection - not a source of ignition in normal operation)										
7	Marking showing compliance with specific protection type										
8	Specific Protection Type (nA = non-sparking)										
9	Specific Protection Type (nC = sealed relay); included only when Marathon voltage regulator Model DVR2000E+ or PM500 is provided with generator.										
10	Temperature Class (T3 = 200°C)										
11	Equipment for explosive gas atmospheres having an "enhanced" level of protection, which is not a source of ignition in normal operation.										

Location:

Ambient Temperature Range:

Standard generator ambient temperature range: -20°C to +40°C

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Environmental Considerations:

Dirt, moisture, heat, and vibration are enemies of electrical equipment. Excessive exposure to the elements will shorten the life of the generator. The ambient temperature should not exceed the value shown on the generator nameplate. The MAGNAMAX^{DVR®} is built in a NEMA open type enclosure. Generators for outdoor application should be protected from the elements by housings with proper openings for ventilation. This protection should be designed to prevent the direct contact of wind driven rain, snow, or dust with the generator. In moist or humid areas, such as the tropics and marine service, additional protection is recommended. Although the standard windings are humidity and moisture resistant, special insulations and accessories such as space heaters can increase generator life significantly. In extremely dirty and dusty environments, a means of providing filtered cooling air to the generator is recommended.

INSTALLATION:

Electrical Connections

Voltage Regulators: Only Marathon voltage regulators, models DVR2000E+ and PM500 can be located within the main terminal (conduit) box of the generator. All other voltage regulators shall be ATEX certified for use in Zone 2 locations or be installed in a location outside of the hazardous area.

Other Components: All additional components not provided with the generator such as relays, circuit breakers, etc., must be certified for use in ATEX Zone 2 locations.

Main Terminal (Conduit) Box:

Cable gland(s) [provided by installer] must be ATEX certified and assembled per cable gland manufacturer's instructions. All cable gland connections made to terminal boxes must maintain a minimum rating of IP54.

Earthing Connections:

Internal: A stainless steel or brass terminal is provided in the main terminal (conduit) box to provide earthing connection by qualified electrical service personnel.

External: A tapped hole in the generator foot is provided for connection by qualified electrical service personnel.

MAINTENANCE:

Fasteners:

Generators utilize English unit fasteners (hardware), unless otherwise specified;

Tooling:

Fasteners must be secured using the appropriate tool. Sockets or enclosed wrenches must be used on all hex fasteners. Heavy rotors require a tool which balances the rotor during assembly / disassembly to prevent damage to the winding.

⚠ CAUTION The rectifier assembly components (diodes, heat sinks, connections, etc.) have been completely covered with a conformal coating resulting in all electrically live parts being fully insulated. If any components or the entire assembly needs repair or replacement, the affected areas must be treated with a conformal coating such that all electrically live parts are fully insulated. The conformal coating shall have a minimum dielectric strength of 1200v/mil (wet) and 1800 v/mil (dry).

Instructions for languages other than English:

Contact importer or manufacturer for translation of these instructions for languages other than English.

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