E. All major assemblies and sub-assemblies, circuit boards, and devices shall be identified using permanent labels or markings each of which indicates the manufacturer's catalogue number, product manufacturing date code, UL and CSA certifications together with CE marked symbol.

1.3.22.9 Power Supply

A. The power supply unit shall be modular in design, compatible with main CPU and expansion racks allowing easy on-site replacement in the unlikely event of failure.

B. The power supply shall contain an isolated, internal 24VDC power source for I/O modules requiring 24VDC power.

C. The power supply unit shall contain a battery compartment for installing a long life Lithium battery to protect programming CMOS RAM memory. The battery power transfer shall be bump less.

D. The battery shall be capable of supporting the memory for a period of minimum one year without having power applied to the system. The low battery condition shall be alarmed.

E. This battery shall be replaceable while power is applied to the PLC.

1.3.22.10 Central Processing Unit (CPU)

A. The Central Processing Unit shall be a modular type capable to solve application logic, store the application program, store numerical values related to the application processes and logic, and interface to the I/O systems.

B. The CPU shall need no additional modules to provide at least the following advanced programming features:

a. PID

b. Math

c. Double Precision math

d. Logical functions

e. Subroutines

f. High Speed Counter function

g. Data Array Move and

h. Indirect Addressing

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