

f. Digital 110VAC output Modules

1.3.22.17 PLC Software

- A. PLC Software shall be developed within the BS EN 61131-3 environment. Application program shall be developed by using software package that only conform to BS EN 61131-3 requirements.
- B. Standard IEC libraries of Functions and Function Blocks shall be used when writing application software.
- C. All software shall be suitably documented to include the following as a minimum:
 - a. Suitable commands
 - b. Function description
 - c. Symbolic addressing local data areas
 - d. Symbolic addressing global data areas
 - e. Descriptions of all constants
 - f. List of cross-references
- D. Minimum two programming devices shall be available for development of application programs, a small hand-held device with back-lit LCD readout and a Software programming package running on a PC compatible laptop or desktop computer.
- E. On-line and off-line, CPU and I/O configuration and application program development shall be achieved with a PC compatible computer and programming and documentation software.
- F. Both the PC compatible computer and the hand-held programmer shall be connectable to the PLC via a built-in serial communication port. The serial communication port shall provide RS-422 signals with RS-485 compatibility.
- G. In addition to the serial communications, the PC compatible computer shall be connectable to the PLC via Ethernet TCP/IP supporting the SRTP application protocol.
- H. The programming devices shall have access to the application program, the CPU and I/O system configurations, all registers, CPU and I/O status, system diagnostic relays, and I/O over-ride capabilities.