

User Machine Interfaces

Sepam series 80 is available with two different types of User Machine Interfaces (UMI):

- an advanced User Machine Interface that provides users with complete information
- a mimic-based User Machine Interface that also allows local switchgear control.

Integrated mimic-based UMI

Integrated advanced UMI

Remote advanced UMI



The mimic-based UMI offers all the functions of the advanced UMI plus local switchgear control:

- selection of Sepam control mode
- display of switchgear status on an animated mimic diagram
- local opening and closing of all Sepam-controlled devices



The advanced UMI offers all the functions required for local equipment operation:

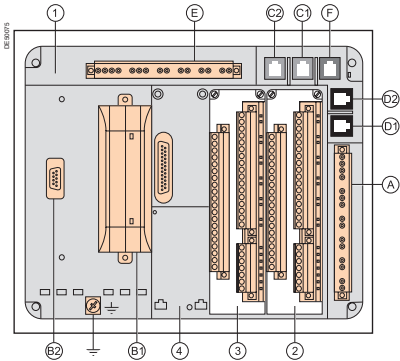
- display of measurements, diagnostics and operating and alarm messages in the user's language
- alarm acknowledgement and Sepam reset.



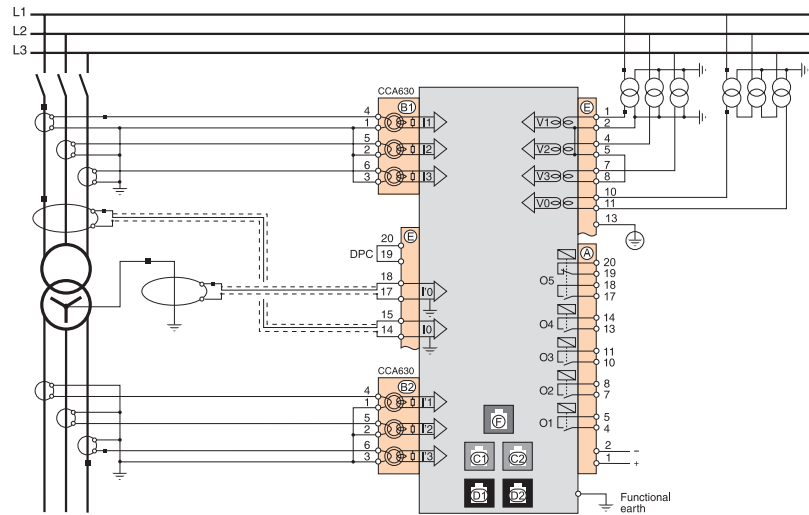
The User Machine Interface can either be integrated in the base unit or installed remotely in a convenient location.

Rear panel

- 1 Base unit.
 - A 20-pin connector for:
 - 24 V DC to 250 V DC auxiliary supply
 - 5 relay outputs (O1 to O5).
 - B1 Connector for 3 phase current I1, I2, I3 inputs.
 - B2
 - Sepam T87, M87, M88, G87, G88 : connector for 3 phase current I*1, I*2, I*3 inputs
 - Sepam B83 : connector for:
 - 3 phase voltage V*1, V*2, V*3 inputs
 - 1 residual voltage V'0 input
 - Sepam C86: connector for capacitor unbalance current inputs.
 - C1 Modbus communication port 1.
 - C2 Modbus communication port 2.
 - D1 Remote module connection port 1.
 - D2 Remote module connection port 2.
 - E 20-pin connector for:
 - 3 phase voltage V1, V2, V3 inputs
 - 1 residual voltage V'0 input
 - 2 residual current I0, I'0 inputs.
 - F Spare port.
 - 2 First optional logic I/O module (I101 to I114 and O101 to O106).
 - 3 Second optional logic I/O module (I201 to I214 and O201 to O206).
 - 4 Free slot for third optional logic I/O module (I301 to I314 and O301 to O306).
- ⬇ Functional earth.

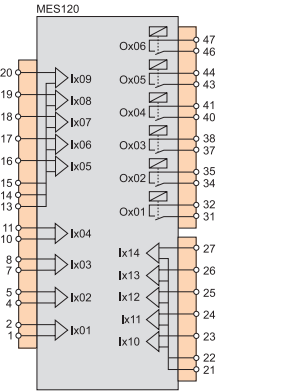


Sepam series 80 base unit



Connection diagram for Sepam T87: differential protection of two-winding transformer.

Logic input/output modules



MES120 module connection diagram.

The 5 relay outputs provided on the Sepam series 80 base unit can be extended by adding 1, 2 or 3 modules each offering 14 logic inputs and 6 relay outputs. Two modules (MES120 and MES120G) are available to cover the different input power supply voltages and offer different switching thresholds.

	MES120	MES120G
Input voltage	24 V DC to 250 V DC	220 V DC to 250 V DC
Typical switching threshold	14 V DC	155 V DC



Maximum Sepam configuration with 3 MES120 modules, providing a total of 42 logic inputs and 23 relay outputs.

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As standards, specifications and designs change from time to time, please ask for confirmation of the information given in this publication.

Technical data sheet
2005



Electrical network protection

Sepam series 80

Sepam *series 80* is a family of *high performance* digital protection units, for all electrical networks and all markets, IEC and ANSI.

Sepam series 80 and its optional modules

- 1 Base unit, with two types of User Machine Interfaces:
 - integrated mimic-based UMI
 - integrated or remote advanced UMIEach unit includes:
 - 5 relay outputs
 - 12 (maximum) current and voltage sensor inputs.
- 2 Parameters and protection settings saved on removable memory cartridge.
- 3 42 logic inputs and 23 relay outputs, with 3 optional modules providing 14 inputs and 6 outputs.
- 4 2 independent Modbus communication ports:
 - direct connection to 2-wire RS 485, 4-wire RS 485 and fibre optic networks
 - connection to Ethernet TCP/IP network via PowerLogic System webserver (Transparent Ready™).
- 5 Processing of temperature data from 16 sensors, Pt100, Ni100, or Ni120.
- 6 1 low level analogue output, 0-10 mA, 4-20 mA or 0-20 mA.
- 7 Synchro-check module
- 8 Software tools:
 - Sepam parameter and protection setting and adaptation of the predefined control functions
 - local or remote installation operation
 - programming of specific functions (Logipam)
 - recovery and display of disturbance recording data.



