



MPS-6
Motor Protection and Control Relay



MPS-6

Motor Protection and Control Relay

The MPS-6 is based on the latest microprocessor technology. Its advanced circuitry, allows for Protection, Control and Supervision for single motors or motors operating through Motor Control Centers (MCC).



Advantages at a glance

- Monitoring Three phase currents, single phase voltage and Three temperature inputs
- Comprehensive protection and control package
- Power measurement
- Energy (KWH) display and energy pulse output
- Programmable analogue output
- Real time clock
- Statistical data of last 10 trips (time & date stamp)
- Multiple Thermal Overload curves
- Unbalance Current:
 - Negative and positive sequence
 - Minimum time, preventing fast response
 - Bias for Thermal Overload
 - RTD Bias for Thermal Overload
- Unique software for learning and fault simulation
- Too Many Starts Pre Alarm to energize output relay
- $I > 0$ Energizes output relay B upon Trip
- Configurable fault group, energizing relays A, B & C
- No Start Process, allowing run, if $I \geq 10\%$
- Display of min and max RMS average of A, V & Hz
- G/F during Start setting, eliminating nuisance tripping
- Emergency Restart function
- Restart (after mains or control voltage failure)
- Separate Aux Power Supply and Control Voltage
- MODBUS communication (with fast scanning)
- Six programmable discrete inputs
- Six programmable output relays
- Large and lit LCD display
- Dual control input AC or DC (85V to 230V)
- Small din standard dimensions
- Easy installation & operation

Start – Stop control functions

- Start
- Stop (Momentary or Maintained)
- Communication
- Remote Start/Stop
- Interlock (NO or NC)
- Contactors Control
- Running Indication
- U/V Start Prevent- P/C
- U/V Restart (Mains or Control U/V)
- Start Inhibit (Fault, Excessive No. of Starts-P/C)

Protection features

- Current based protection:
- Too Many Starts Level 1 (66)
 - Undercurrent Level 1 & 2 (37)
 - Load Increase - Alarm (51L)
 - Over Current Level 1 – Jam (51R)
 - Over Current Level 2 – Short (50)
 - Thermal Capacity Level 1 & 2 (49/51)
 - Current Unbalance Level 1 & 2 (46)
 - Ground Fault during starting (50G)
 - Ground Fault level 1 & 2 (50G) & (50N)
 - Max. Start Time (48)
 - Under voltage (27)
 - Over voltage Level 1 & 2 (59)
 - Phase Loss (47)
 - Communication failure (3)
 - Internal failure (3)
 - External Fault 1 & 2 - interlock (86 / 94)
 - Control circuit fault (C version)
 - Welded contactor (C version)

Inputs and outputs

- Control supply 85-230V, AC/DC
- Three phase currents C.T. Sec. 1 and 5A
- One phase voltage
- Ground current C.T. Sec. 1 and 5A
- Three temperature inputs RTD-Pt100 (or thermistors)
- Six programmable discrete inputs
- Six programmable output relays (8A, 250VAC)
- Single analogue outputs programmable to Eleven parameter designations
- Emergency Start function, overriding the "Thermal Capacity" and "Too Many Starts", thus, allowing emergency restart after a fault

Communication

- RS-485, half duplex, MODBUS Protocol, baud rate 1200-38400 bits/sec. enables parameter modification, supervision, remote resetting and control (C version)
- Twenty user-selectable parameter grouping of Actual Data
- Other protocols – plug-in option card (consult factory)

LCD Display and Keypad

- User friendly interface
- Accurate digital settings
- Ease of parameter reading
- Detailed trip and alarm messages
- Software lock for unauthorized modifications

LED indication

- On
- Start / Run
- Alarm / Trip



Solcon Industries Ltd.

16 Haminhara Street, Herzliya 46586, Israel.
Tel: 972-9-9588460, Fax: 972-9-9500799
E-mail : office@solcon.com Internet : www.solcon.com

Solcon Industries Ltd.

6 Hacarmel Street,
Yokneam Industrial Park 20692, Israel
Tel: 972-4-9890311, Fax: 972-4-9890233