Family of motor protection & control relays

Totally protect all induction motors
Reduce motor downtime

TYPE DESI

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Mator Protection Controller MPC 2000

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Metar Protection Relay MPR 2000

MPC 2000





Incorporationg similar motor protection features to the MPR 2000 and 45 programmable protection functions, the MPC 2000 includes a highly sophisticated control system for all types of starting methods including soft starters and variable frequency drives. This unit, together with a high speed communication facility, has been specifically designed for integration into motor management systems achieving high system reliability and efficiency.

MPR 2000

The MPR 2000 monitors current, voltage and temperature inputs to provide the most comprehensive motor protection package available today. With 5 - 10 temperature sensors, the MPR 2000 monitors as many as 36 programmable protection functions. It is ideal for high voltage motors, large low voltage motors and applications where full protection and advance warning is crucial such as in the process and chemical industries.











MPR 6

Miniaturized to fit into a 1/27 size MCC drawer and incorporating 20 programmable protection functions and one temperature input, the compact, cost-effective MPR 6 provides enhanced current protection features, supervision and monitoring for all motors.

L1 L2 L1







Mcnitoring 6 to 14 RTD / Termistor temperature inputs The TPR-6 accurately creates a "Thermal Levels" of the heat increase to protect the motor from abnormal heat in the windings and or bearings. Self test procedure protects against disconnected sensor and operator faults.















HIU

The Hold-in Units were designed to ensure maximum continuation of operation in process sestems and industria plants, despite disturbances in power supply.

The most common disturbances are transient voltage dips and short duratior voltaage outages.











O/L CHARACTERISTICS



LCD DISPLAYS



FEATURES

	Series	2000	Series 6
Motor Protection	MPR	MPC	MPR
Max. Number Of Starts	~	V	V
Under Current Level 1	-		
Under Current Level 2	~	~	~
Current Increase			
Over Current Lvl 1 (Jam)	V	V	V
Over Current LVI.2 (Stall)		./	./
Earth Fault Current Lvl 1	V	v	•
Farth Fault Current I vI 2	~	~	~
Unbalance Current LvI.1	•	•	•
Unbalance Current Lvl.2	~	~	~
Thermal Capacity Lvl.1			_
Thermal Capacity Lvl.2	~	V	V
Undervoltage			
Overvoltage LVI.1	V	V	V
Phase Loss	1	1	~
Phase Sequence	•	•	
Under Power	V	V	V
Thermal Sensor Inputs	5-10	5-10) 1
Welded Contactor	~	~	~
Open Circuit	,		
Fault At : Alarm, Trip, None	V	V	V
Reset : PI C	1	1	~
	•	•	
Inputs	V	V	
Operating Voltage 100-240VAC	C		
Operating Voltage 19-300VDC	# 0p.	12 p.	₽Ор.
Direct Measured Voltage 690V			
Current Transformer Inputs	5 10	5 10	4
Plant Interlock	5-10	5-10	
Start (A B Local and Remote)		~	
Speed Switch	~	1	
Authorised Key (Software Lock	()		V
External Input 1	~	V	
External Input 2			V
External Input 3			
Outputs		V	V
Alarm Relay	1	1	1
Trip Relay	•		
Aux. Relay 1 (Cont A, Alarm)	~	V	V
Aux. Relay 2 (Cont B, Trip)			1 100.0
Aux. Relay 1 (O/L, KWhr Pulse	e)	V	
Aux. Relay 2 (E/F)			
Plug and Software (PS222 49)	5).	Vor	100
ridg and Software (NS232-40:	o) • Op.	VOp.	φορ.

ries 6	<u>es 6</u>		Series 2000	
I <u>PR</u> ✔	Measured Data Phase Voltage (3Ph)	<u>MPR</u> ✔	MPC ✔	<u>MPR</u>
~	Current (3Ph)	•	~	~
~	Temperature Sensors (All)	•	~	~
~	Calculated Data	~	~	~
~	Thermal Capacity	•	~	
~	Time to Start			~
~	Statiatical Data	•	~	~
~	Hour Counter	~	~	~
~	Number of Trips	V	~	~
1	Last Start : Time Period Last Start : Peak Current	~	~	
~	Fault Data Last Alarm Description	~	~	~
~	Current during last Trip E/F Current During Last Trip	~	~	~
	Phase voltages During Last Th	ip 🖌	V	V
p.	Input Indication (closed, open) Input Indication (closed, open)	V	V	V
4 1	LED Display	~	~	
~	Stop Start Bun	V	V	~
	Contactor A	10		~
	O/L	V	V	
~	Alarm	V	V	· ·
~	Trip Internal Fault	V	~	V
	Approx. Dimensions (mm) MPC/MPR 2000 Horizontal MPC/MPR 2000 Vertical	Depth 159 159	Widt 292	h Heigh
h	MPR 6 Vertical	120	96	1/1

AC motors are generally very rugged and reliable. However, when motors approach their rated limits, there is minimal margin when abnormal conditions arise. To safely run a motor up to its limits, a comprehensive protection device is required. By accurately creating a thermal operating model, such devices protect motors from irregularities in the power supply, motor and cabling faults and from operator error.

With years of extensive experience in motor protection and motor starting systems, SOLCON has developed a series of microprocessor based relays that offer a comprehensive, highly reliable package for protection against malfunctions. Each of the three models in this series includes a range of advanced features such as:

- True RMS measurements at a 0.5mSec sampling rate.
- Early warning "Time-to-trip" indication.
- RS485 communication for full computer control and supervision.

Technically sophisticated yet easy to operate, these relays are the most effective solution for maximally reducing downtime and increasing motor mean-timebetween-failures (MTBF).

Additional Products

Additional catalogues available from Solcon's product range





