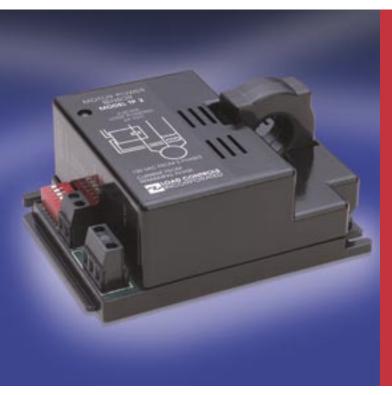
# COMPACT MOTOR POWER SENSOR MODEL TP-2



## IDEAL FOR SMALL MOTOR STARTER ENCLOSURES

- MEASURES TRUE MOTOR POWER
- 10X BETTER THAN SENSING JUST AMPS

### **ALSO AVAILABLE: TP-2 SINGLE PHASE**

### **COMPACT**

- 3" x 3.9" x 1.75" high (77mm x 100mm x 45mm)
- Fits in size 1 "Buckets"
- Mounts in any direction
- DIN RAIL ADAPTOR AVAILABLE

### **4-20 MILLIAMP ANALOG OUTPUT**

- Proportional to Motor Power
- Loop Powered

### ноок то

- Meters
- Data Collection Systems
- Programmable Controllers
- Recorders

FREE 30 DAY TRIAL AVAILABLE

Model TP-2 \$400 - Immediate Shipment

### MATCH MOTOR SIZE WITH DIP SWITCHES

### For smaller motors

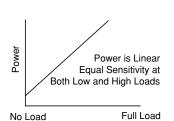
• Take extra turns

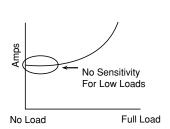
### For bigger motors

- Use with Current Transformer
- Or, use Power Cell

1	&	2	=	25HP
1	&	3	=	20HP
1			=	15HP
2			=	10HP
3			=	5HP
4			=	3HP
5			=	1HP
6			_	5HD

### WHY MONITOR POWER INSTEAD OF JUST AMPS?







### **TYPICAL INSTALLATION – MODEL TP-2**

The TP-2 senses the electical power input to a motor (horsepower). The Output is a 4-20 Milliamp LOOP POWERED analog signal proportional to power.

### **VOLTAGE**

120 Volts AC are taken from two of the phases. If the motor starter already has a 120 Volt control transformer, it can be used. Otherwise, install a separate transformer. It is OK if the secondary is grounded. BE SURE TO NOTE WHICH TWO PHASES SUPPLY THE TRANSFORMER.

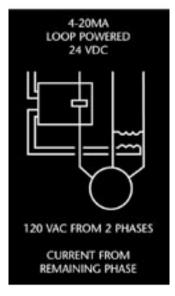
In a 120/208V three phase system, the 120V MUST come from a transformer connected to two of the phases. The 120V phase to ground voltage cannot be used.

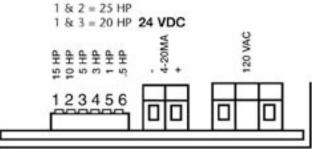
### **CURRENT**

The current signal is taken from the REMAINING phase. Pass this wire directly through the window in the TP-2.

It is VERY IMPORTANT that the current signal comes from the phase that IS NOT supplying the 120 Volt control transformer. Be extra careful when the machine has reversing starters or multi-speed windings. If a wrong phase is used the control will either:

- Work backwards
- Have reduced sensitivity





#### **ANALOG OUTPUT**

4-20MA Loop Powered. Max. Loop voltage 28 VDC

#### **CAPACITY**

Select the capacity by turning one (or two) of the Dip Switches on:

Full	Scale	HP	
460	Volt (	(nominal)	) Primary

Switch	НР
6	.5HP
5	1HP
4	3HP
3	5HP
2	10HP
1	15HP
1 & 3	20HP
1 & 2	25HP

### Multipliers

For Nominal	
Other than A Multiply	
full scale	
208V =	.45
230V =	.5
380V =	.83
415V =	.9
575V =	1.25
	25737

- For smaller motors, take more passes or turns through the window. Example: Passing the wire through twice reduces .5HP to .25HP.
- For larger motors use TP-2 plus Current Transformer or, use Power Cell.

### **TP-2 WITH CURRENT TRANSFORMER**

- Set Dip Switch for 3HP
- CT 5 Amp Secondary though hole
- Full Scale HP = (Primary Volts) (CT Primary) (0.0016)
   Example: 100:5 Current Transformer, 460 Volts Primary
   Full Scale HP = (100) (460) (0.0016) = 73.6HP
   KW=HP x .746

### **Full Scale HP at 460 Volts with Current Transformer**

50:5	36.8HP	200:5	147HP
75:5	55.2HP	300:5	221HP
100:5	73.6HP	400:5	294HP
150:5	110HP	500:5	368HP

REMEMBER: Put the CT on the phase that is not supplying the 120 Volt transformer.

### **SPECIFICATIONS**

**ACCURACY** 

• 2%

**RESPONSE TIME** 

• 500 MS

**TEMPERATURE** 

• 0-50° C

### **DIMENSIONS**

- 3" x 3.9" x 1.75" high (77mm x 100mm x 45mm)
- Window .5" (13mm)

