

## Rack-mounted DCS Signal Conditioners 18-RACK

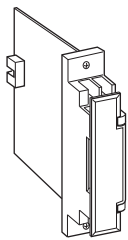
### POWER FACTOR TRANSDUCER

#### Functions & Features

- Providing two DC output signals in proportion to power factor
- DC output containing little ripple is ideal for computer input

#### Typical Applications

- Centralized monitoring and control of power management system in a manufacturing facility or building
- Measuring power factor for a motor



### MODEL: 18PF-1[1][2]66-R

#### ORDERING INFORMATION

- Code number: 18PF-1[1][2]66-R
- Specify a code from below for each of [1] and [2].  
(e.g. 18PF-11P66-R)

#### CONFIGURATION

1: 3-phase / 3-wire

#### [1] INPUT (balanced load)

- 1: 110 V / 5 A AC
- 2: 110 V / 1 A AC
- 3: 220 V / 1 A AC
- 4: 220 V / 5 A AC

#### [2] OUTPUT SIGNAL POLARITY

- P:** Negative in lag, positive in lead
- M:** Negative in lead, positive in lag

#### OUTPUT 1

Voltage

6: 1 - 5 V DC (Load resistance 5000 Ω min.)

#### OUTPUT 2

Voltage

6: 1 - 5 V DC (Load resistance 5000 Ω min.)

#### POWER INPUT

DC Power

R: 24 V DC

(Operational voltage range 24 V ±10 %, ripple 10 %p-p max.)

#### GENERAL SPECIFICATIONS

**Construction:** Rack-mounted; terminal access via screw terminals on the front and connector on the rear; terminal cover provided

#### Connection

**Input:** M3.5 screw terminals (torque 0.8 N·m)

**Output 1:** Connector

**Output 2:** Connector

**Power input:** Supplied from connector

**Screw terminal:** Nickel-plated steel

**Isolation:** Voltage input to current input to output 1 to output 2 to power

**Overrange output:** Approx. -10 to +120 % at 1 - 5 V

**Zero adjustment:** -5 to +5 % (front)

**Span adjustment:** 95 to 105 % (front)

#### INPUT SPECIFICATIONS

Note: A device which employs different measuring methods may show different outputs from ours.

**Frequency:** 50 or 60 Hz

#### • Current Input

**Input burden:** 0.1 VA (input 1 A)

0.5 VA (input 5 A)

**Operational range:** 10 - 120 % of rating

**Overload capacity:** 1000 % of rating for 3 sec., 200 % for 10 sec., 120 % continuous

#### • Voltage Input

**Input burden:** Approx. 0.5 VA

**Operational range:** 85 - 120 % of rating

**Overload capacity:** 150 % of rating for 10 sec., 120 % continuous

#### ■ Input range:

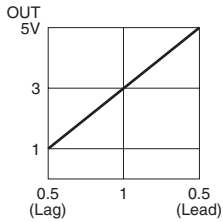
Lag 0.5 - 1 - lead 0.5

Lead 0.5 - 1 - lag 0.5

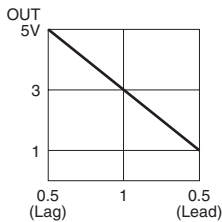
## OUTPUT SPECIFICATIONS

### ■ OPERATION DIAGRAM (example)

- Negative in lag, positive in lead



- Negative in lead, positive in lag



Note: When there is no input voltage or 5% or less of rated input current, the output may become unstable (hunting).

## INSTALLATION

**Current consumption:** Approx. 80 mA

**Operating temperature:** -5 to +55°C (23 to 131°F)

**Operating humidity:** 30 to 90 %RH (non-condensing)

**Mounting:** Standard Rack 18BXx or 18KBXx

**Weight:** 200 g (0.44 lb)

## PERFORMANCE in percentage of span

### Accuracy:

±2 % with input 1 - 0.866, balanced load

±4 % with input 0.866 - 0.5, balanced load

**Temp. coefficient:** ±0.4 %/°C (±0.22 %/°F)

**Response time:** ≤ 1 sec. (0 - 90 %)

**Ripple:** 1 %p-p max. (50/60 Hz)

**Line voltage effect:** ±0.1 % over voltage range

**Insulation resistance:** ≥ 100 MΩ with 500 V DC

**Dielectric strength:** 2000 V AC @ 1 minute

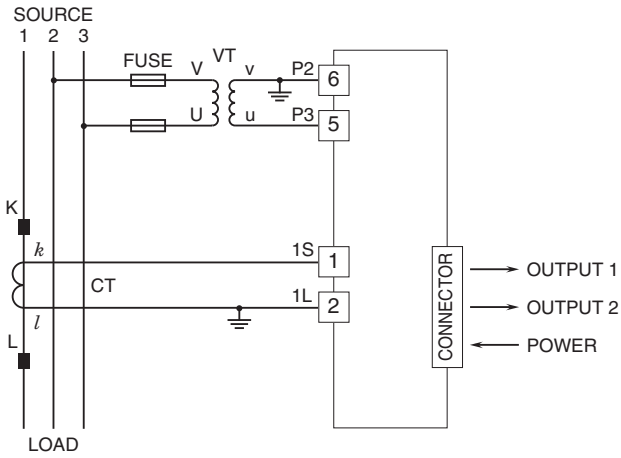
(voltage input to current input to output 1 or output 2 or power)

500 V AC @ 1 minute (output 1 to output 2 to power)

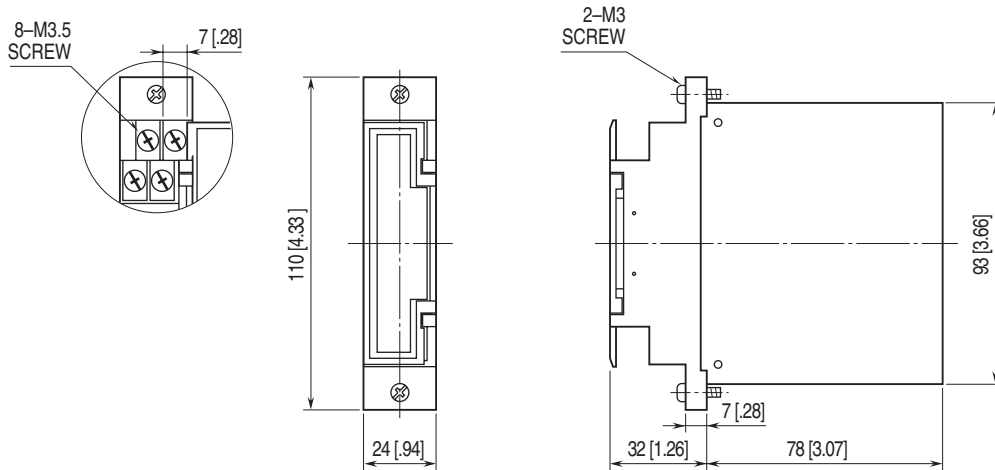
2000 V AC @ 1 minute (input or output or power to ground)

**CONNECTION DIAGRAM**

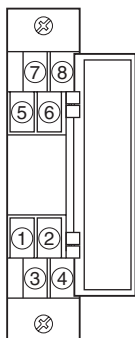
■3-PHASE/3-WIRE



**EXTERNAL DIMENSIONS unit: mm [inch]**



**TERMINAL ASSIGNMENTS**



Specifications are subject to change without notice.