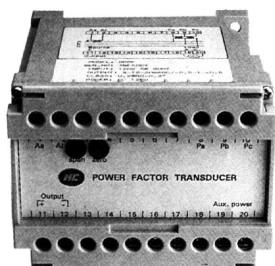


POWER FACTOR (COS ϕ) TRANSDUCER



Compliance : IEC 688

Power transducers

Measuring & conversion

Dielectric Strength

Impulse test

Surge test

Order form

RPPF100 — [] — [] — [] — [] — [] / [] 1 ϕ 2W / 1 ϕ 3W

RPPF200 — [] — [] — [] — [] — [] / [] 3 ϕ 3W / 3 ϕ 4W

Vn

An

Fn

Pn

On

Dn

Example : RPPF100-V1-A2-F2-P1-O1/D3

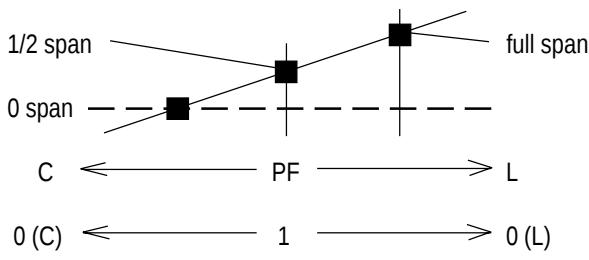
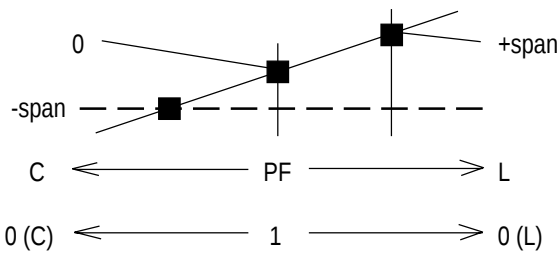
Input & output parameters

Vn : Voltage input	Vn rating range	V1 120 V 85~150 V	V2 240 V 180~300 V	V3 415 V 300~500 V	On : Output		
					O1 0~1 mA	O2 0~20 mA	O3 (uni.) 4~20 mA
An : Current input	An rating range	A1 1 A 0~1.2 A	A2 5 A 0~6 A		O4 (bi.) 4~12~20 mA	O5 0~10 mA	O6 0~1 V
					O7 0~5 V	O8 0~10 V	O9 2~10 V
Fn : Frequency input	Fn rating range	F1 50 Hz 48~52 Hz	F2 60 Hz 58~62 Hz		O10 (uni.) 1~5 V	O11 (bi.) 1~3~5 V	
Pn : Auxiliary power input	Pn rating	P1 120 V	P2 240 V	Py AC 415V / Internal powered / DC powered order on request			

Note :

1. Uni. = uni-direction = 0 to +span bi = bi-direction = -span to 0 to +span referring to calibration
2. For internal powered type ... zero based outputs and Vn operation range 85%~115%

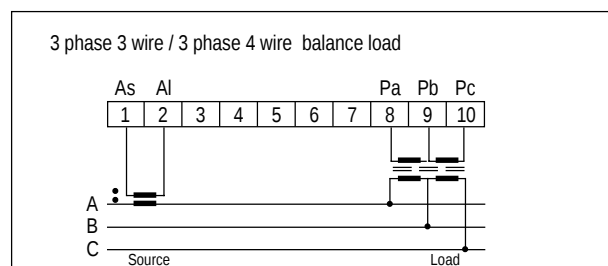
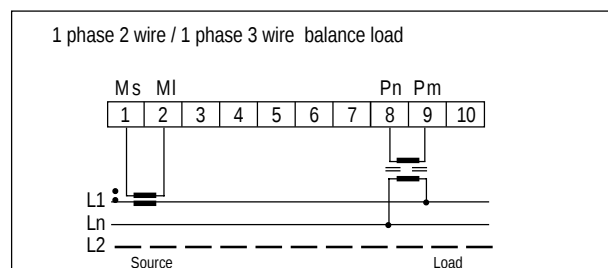
Calibration : Dn

Unipolar output (as 0~10V, 4~20mA, 0~10mA)	Bipolar output (as $\pm 10V$, $\pm 1mA$, $\pm 10mA$)
D1 : 0.5 (C) to 1 to 0.5 (L) vs 0 to 1/2 span to full span output D2 : 0 (C) to 1 to 0 (L) vs 0 to 1/2 span to full span output	D3 : 0.5 (C) to 1 to 0.5 (L) vs -span to 0 to +span output D4 : 0 (C) to 1 to 0 (L) vs -span to 0 to +span output
 Note : (C) : Capacitive load (L) : Inductive load Example : RPPF-V1-A2-F2-P1-O3/D1 Input : 120V 5A 60Hz Output : 4~12~20mA vs 0.5 (C)~1~0.5 (L) Aux. power : AC120V	 Note : (C) : Capacitive load (L) : Inductive load Example : RPPF-V1-A2-F1-P1-O1/D3 Input : 120V 5A 50Hz Output : -1~0~+1mA vs 0.5 (C)~1~0.5 (L) Aux. power : AC120V

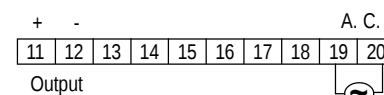
Specification

Accuracy (23$\pm$ 5°C)	0.2% ro + 0.3 $^{\circ}$
Stability	Maximum 100ppm/ $^{\circ}$ C , less 0.2% drift per year typically
Input burden	Current 0.3VA typically, voltage 0.2VA typically
Frequency	50 $\pm$ 2Hz, 60 $\pm$ 2Hz
Maximum input over	Current related input : 2 x rated continuous, 10 x rated 10 sec, 25 x rated 2 sec, 50 x rated 1 sec Voltage related input : maximum 2 x rated continuous (120V / 240V), maximum 1.5 x rated continuous (415V)
Output load	DC current mode : maximum 10V drop DC voltage mode : maximum 5mA drive
Response & ripple	< 400ms for step change 0-95%, ripple less 0.5% ro peak-peak
Magnetic effect	< 0.05% change 1M center 100 amper-turn, synchronized with line frequency
Aux. power effect	< 0.005% for per voltage change
Dielectric strength	4KV AC rms 1 minute between terminals to case IEC 688 2KV AC rms 1 minute between input / output / power IEC 688
Impulse / SWC	IEC 255-4, 5KV 1.2x50us, IEC255-22-1, 2.5KV (1MHz / 400Hz)
Operating condition	-5 to 60 $^{\circ}$ C , 20 to 99% RH non condensing
Storage condition	-20 to 70 $^{\circ}$ C , 20 to 99% RH non condensing
Radio screening	RFI degree N complies with VDE 0875
Enclosure code	Case IP 50 / terminals IP 30, complies with IEC 529, BS 5490 DIN 40050
Power supply	AC 120V / 240V $\pm$ 15%, 50 / 60Hz, < 3.5VA

Terminals Connection



Output connection



Note :

1. A.C. : Auxiliary AC power
2. Terminal 19 (+), 20 (-) for DC power option