

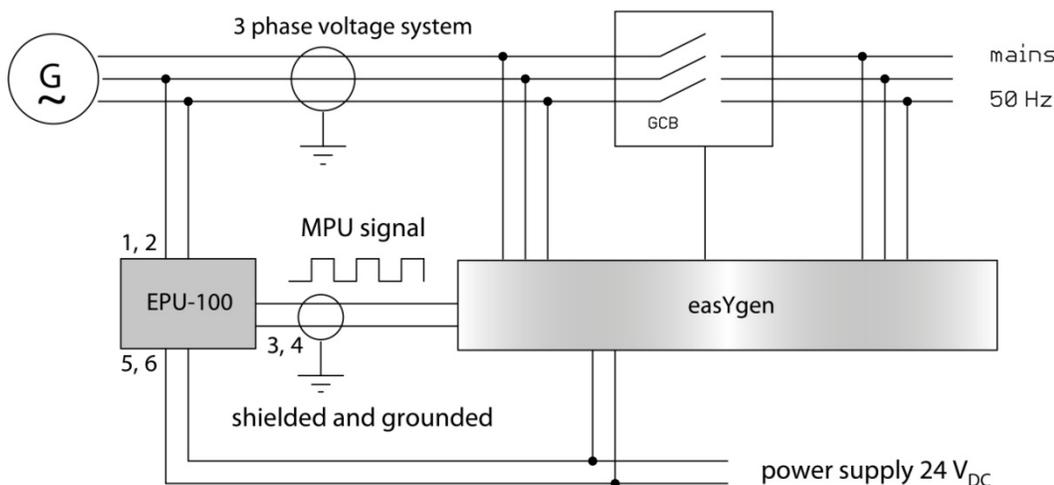
“Electronic Pickup Unit”  
**EPU-100**  
**Remanence Voltage Converter**  
for Asynchronous Generators

## DESCRIPTION

**EPU** stands for **E**lectronic **P**ickup **U**nit. It receives the electrical signal (as low as 0.5 Vac and as high as 600 Vac) and converts it into an “MPU signal” which can be fed into a control (for example an easYgen) to interpret the speed of rotation of the generator. It is particularly suitable to work with the very small voltage an asynchronous generator produces until its breaker is closed.

Woodward’s EPU-100 is a very easy-to-use plug and play device that requires almost no configuration or adjustments. This standard DIN rail mounted device contains an LED for diagnostics and status visualization. Instructions on the housing make it very easy to install. In combination with Woodward’s easYgen genset controllers (dedicated asynchronous firmware implemented by delivery), it provides an ideal solution for controlling asynchronous generators.

## APPLICATION



The output frequency  $V_{MPU}$  is 8 times higher than the frequency of the input voltage  $V_{Rem}$ .

LED is ...

- illuminated if supply voltage is in range
- toggling with Remanence Voltage signal

- Simple plug and play converter
- Easy and convenient to install, operate, and diagnose
- Seamless integration with Woodward genset controls
- CE marked

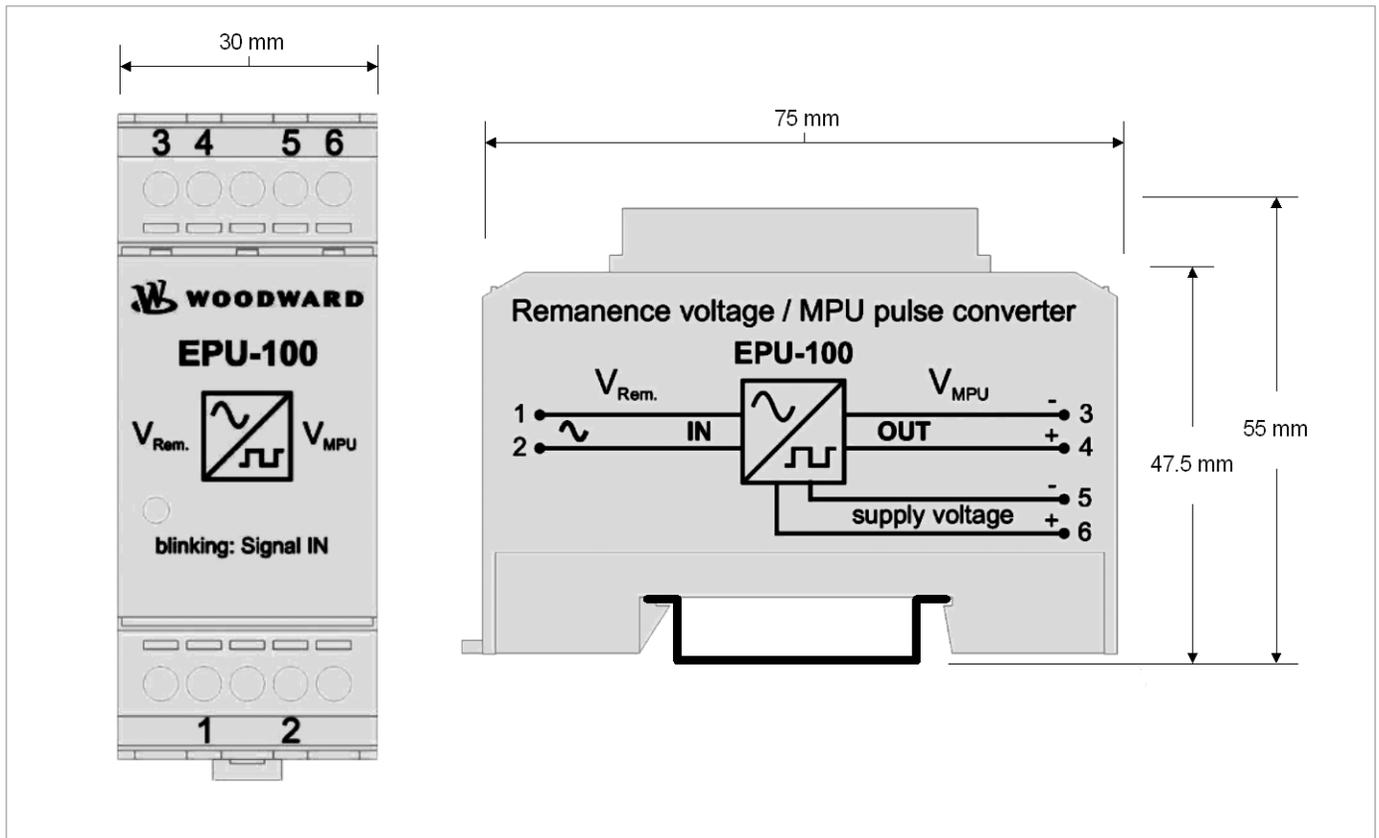
Asynchron-KIT available with

- easYgen-2000 or
- easYgen-3000

# SPECIFICATIONS

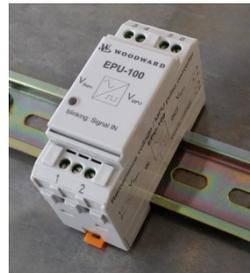
ATTRIBUTE	UNIT	VALUE	REMARKS
<b>input</b>			
Remanence voltage input	$V_{AC}$	0.5 .. 600	L1 – L2
Input impedance	k $\Omega$	> 240	
Input frequency range	Hz	16 .. 85	
<b>Output</b>			
Output frequency range	Hz	128 .. 680	8 times higher than input frequency
Accuracy	%	5	For 40 .. 60 Hz
MPU output signal	$V_{DC}$	4.5 .. 5.5	
Reaction time	ms	< 400	Tracking time
LED frequency	Hz	~ 4 .. 21	4 times lower than input frequency
<b>Installation</b>			
Supply voltage	$V_{DC}$	8 .. 42V	$V_{nom} = 24V$
Supply current	$A_{DC}$	< 0.02	
Wire size	mm <sup>2</sup>	0.2 .. 4	“inflexible”
	mm <sup>2</sup>	0.2 .. 2.5	“flexible”
Cable length to genset control	m	< 10	shielded
Cable length to power supply	m	< 30	
Power line to the “mains breaker”	-	-	shielded
<b>Environment</b>			
Absolute altitude	m	up to 4,000	
Ambient temperature “operation”	°C	-40 .. +70	
Storage temperature	°C	-40 .. +100	
Dimensions	mm	30 x 75 x 55	W x D x H
Standards, approvals, approbations	DIN EN 61010-1, CE (UL on request)		CAT II 300-600 V acc. to DIN EN 61010-1

## DIMENSIONS



EPU-100 is prepared for DIN rail mounting:

- Attach the upper snap-on guide to the DIN rail.
- Press the EPU-100 down onto the DIN rail until it locks into position.



## TERMINAL DIAGRAM

CONTACT	SIGNAL	NAME
1	Remanence voltage IN	Phase, $V_{Rem.}$ IN
2		L1 – L2 Phase, $V_{Rem.}$ IN
3	EPU OUT “MPU signal”	- $V_{MPU}$ OUT
4		+ $V_{MPU}$ OUT
5	(Power supply)	- $V_{Batt.}$ ; 0 V reference
6		+ $V_{Batt.}$

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For more information contact:

## ORDERING INFORMATION

WOODWARD PRODUCT	ORDERING NUMBER #
<b>EPU-100</b> Electronic Pickup Unit	8445-1045

## RELATED PRODUCT INFORMATION

WOODWARD PRODUCT	PRODUCT SPECIFICATION	TECHNICAL MANUAL
<b>Asynchron-KIT with EPU-100 and easYgen-2500</b>	37568	37535 and 37561
<b>Asynchron-KIT with EPU-100 and easYgen-3500</b>		37528 and 37561
easYgen-1000 series	37180	37476 .. 37480
easYgen-2000 series	37548	37535
easYgen-3100/3200	37258	37532
easYgen-3400/3500	37523	37528
easYgen-3400/3500 Marine	37533	37531
DSL-2	37493	37443