Low-speed synchronous PM generator
AW-II

Rating plate

Rating rotational speed = 130 RPM
Rated power = 1020 W
Rated phase current = 9.5 A
Phase = 3
Phase voltage = AC 36 V
Weight = 48.4 kg

Specifications

Electrical specification

	AW-II (HS)	AW-II (RS)
Rated power (W)	1020	
Output power range (W)	0-2800	
Rotational speed range (RPM)	0-300	
Number of phases	3	
Phase voltage range, AC (V)	0-110	
Phase current at Rated Output (A)	9.5	
Frequency (Hz)	0-120	
Efficiency	up to 86%	
Phase resistance (Ω)	1.1	
Output Wire Square Section (mm^2)	-	
Insulation class	F	
Design lifetime	>10 years	
Ambient Temperature	-30…+40°C	

Mechanical specification

Torque at rated power (N·m)	75	
Starting torque (N·m)	0.3	
Weight (kg)	48.4	52.6
Specific torque at Rated Power (N·m/kg)	1.55	1.42
Rotor inertia ($kg·m^2$)	0.56	

Material specification

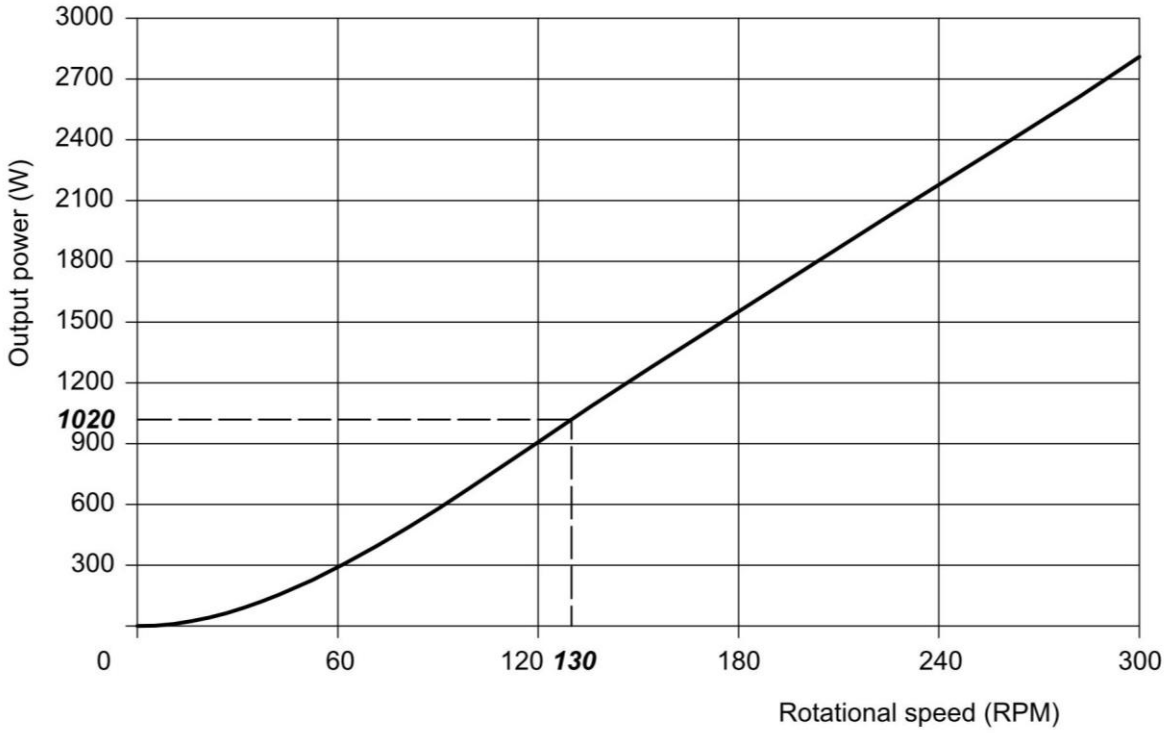
Bearing Type	SKF 6014-2z (4 pcs)
Shaft material	Steel AISI431 (X20CrNi72)
Outer frame material	Al. alloy Al6061
Magnet material	NdFeB (N42H)
Magnet temperature rating (°C)	120
Winding material	Polyesterimide enameled copper wire ø 0.9*2mm
Winding temperature rating (°C)	155

Important!

1. Do not connect phases before current rectification. Refer to the electrical connection scheme in the present specifications.
2. Phase voltage before reaching temperature equilibrium may be up to 150 V.
3. Store at temperature -30…+40°C.
4. The rated current is valid within the rotational speed range.

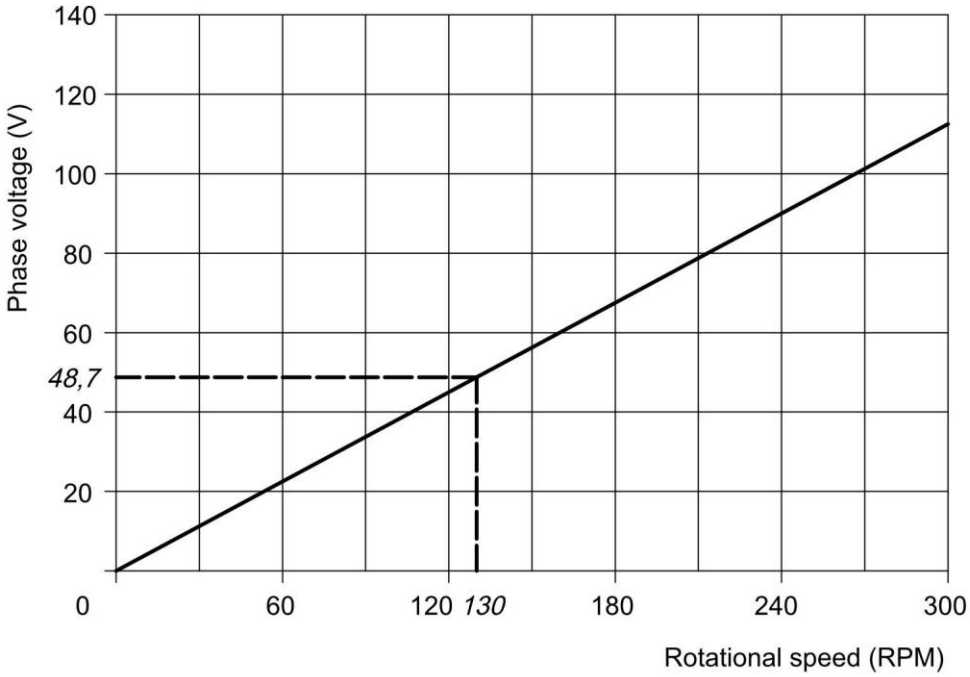
Curves

Output power curve P = f(n) at the fixed rated current I = 9.5 A



Rotational speed (RPM)	Power (W)
0	0
60	290
120	930
130	***1020***
180	1555
240	2180
300	2810

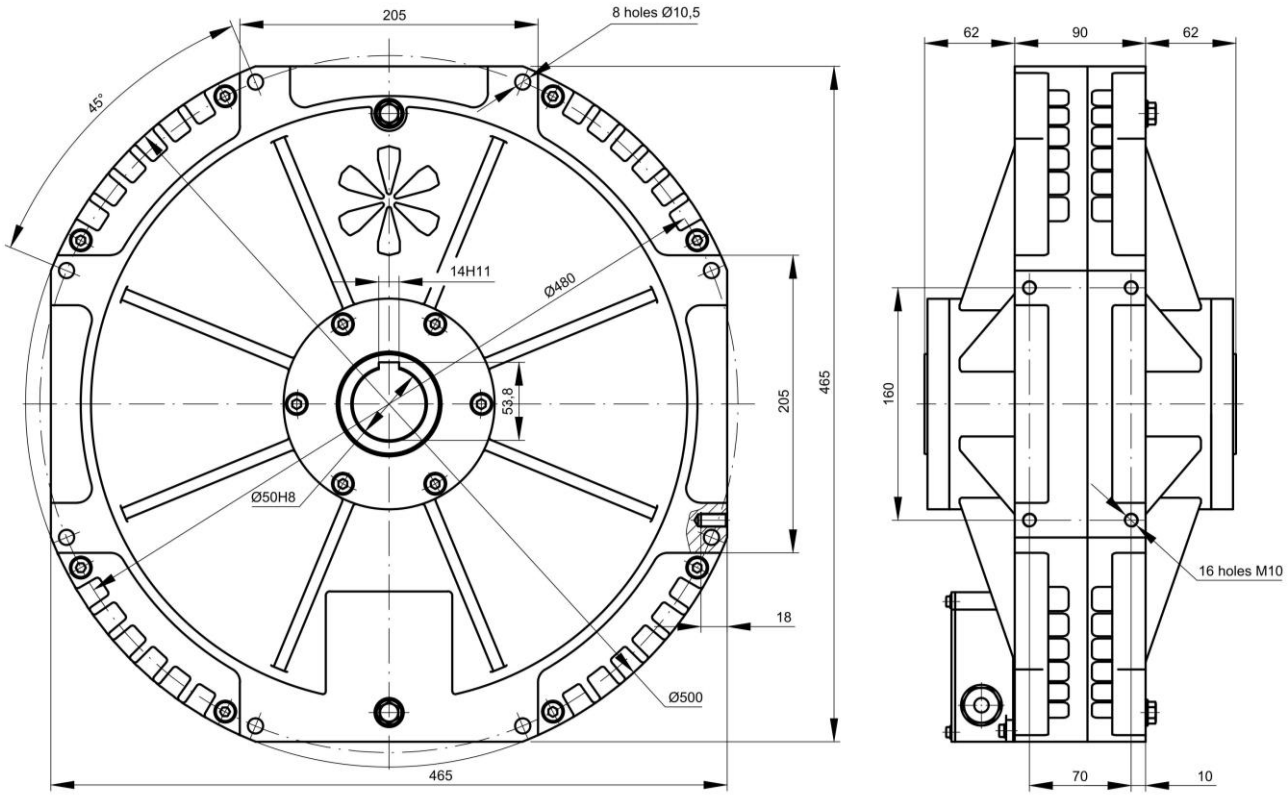
Unload voltage curve U=f(n)



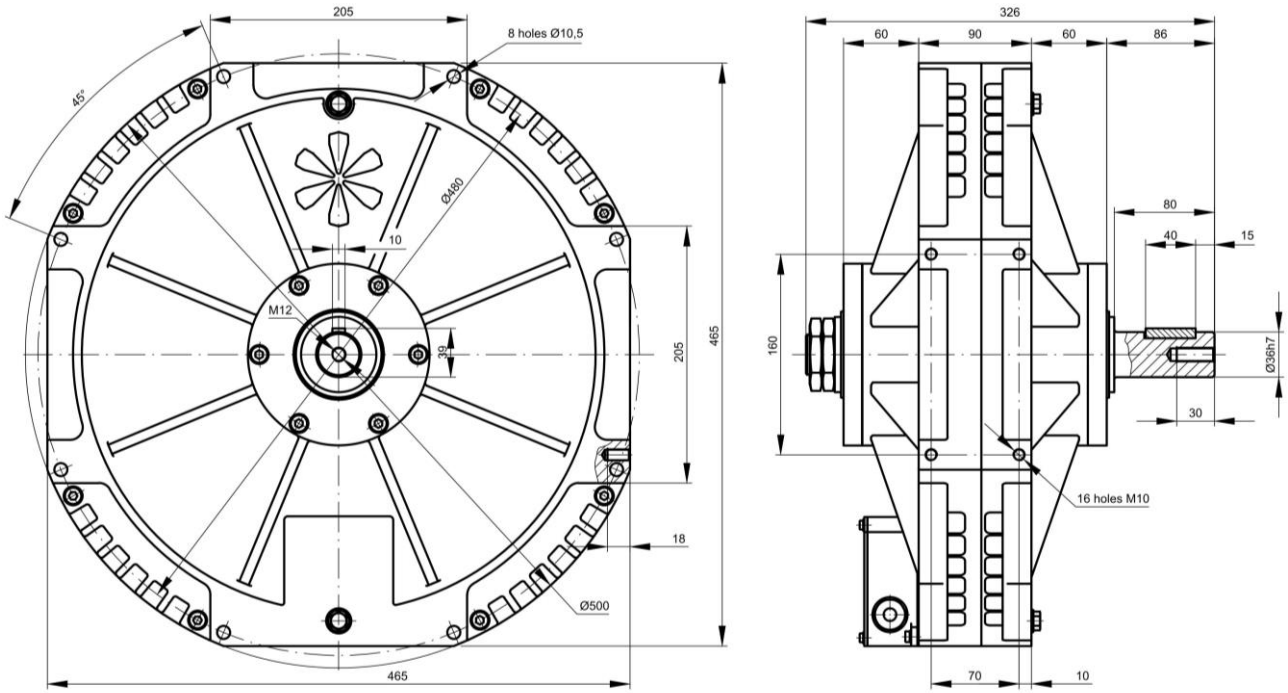
Rotational speed (RPM)	Phase voltage (V)
0	0
60	22,4
120	45,0
130	*48,7*
180	67,5
240	90,0
300	112,5

Outer Dimensions and Mounting Dimensions

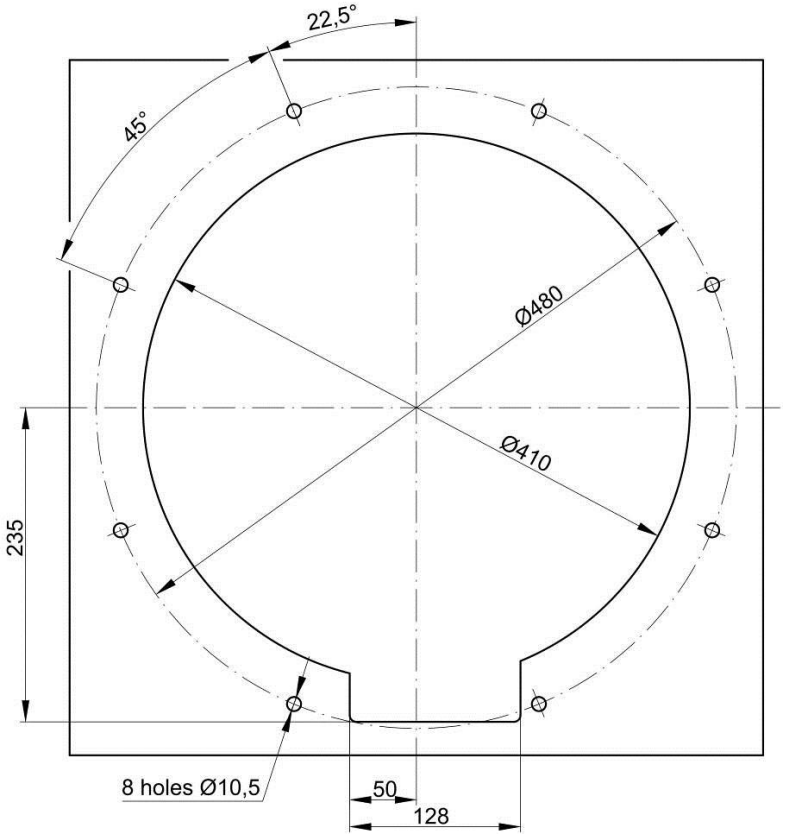
AW-II (HS)



AW-II (RS)



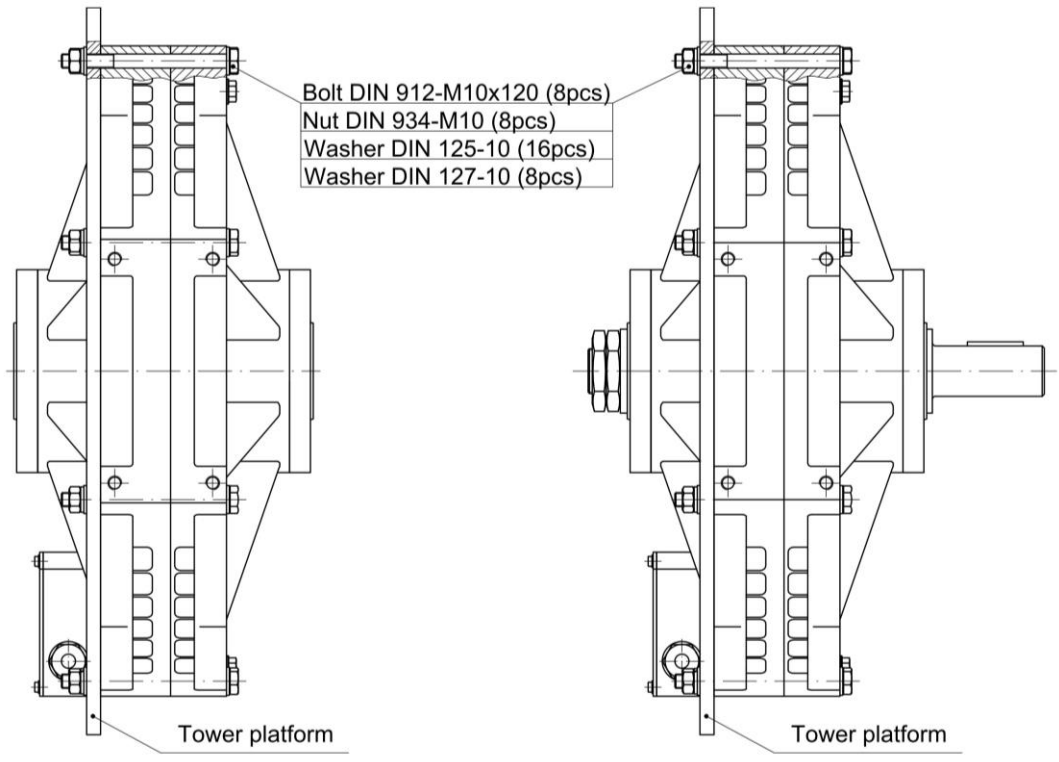
Tower platform



Mounting diagram

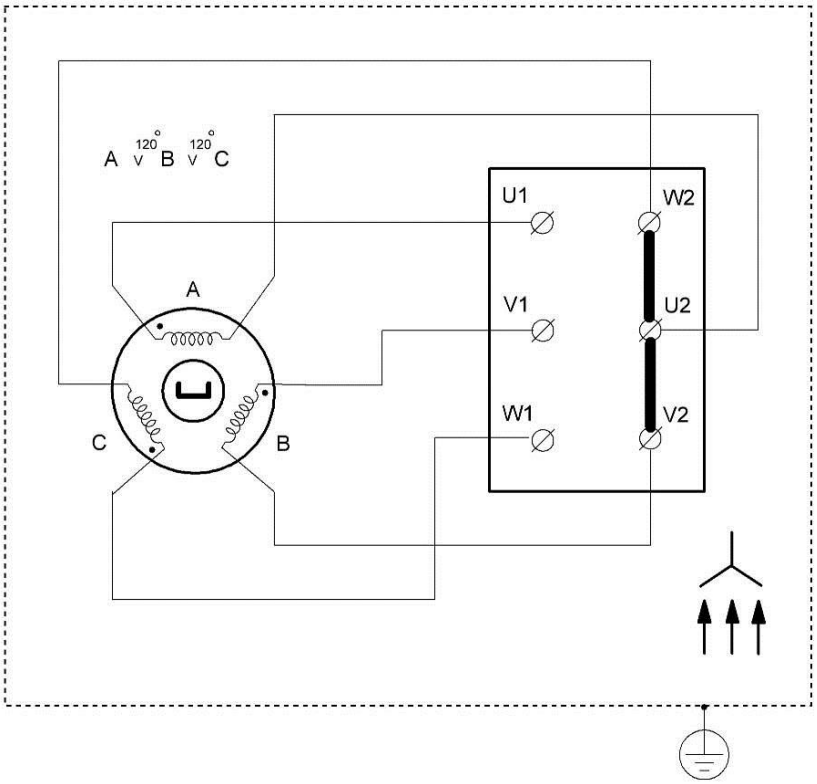
(one of recommended methods)

AW-II HS **AW-II RS**



Electric circuit diagram

Y-connection



Wiring diagram in the terminal box

Y-connection