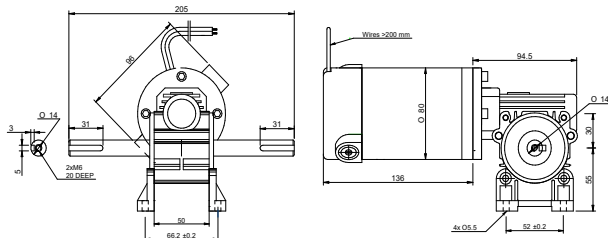


## DRAWING (mm)



## PHOTO



## MODEL NO. DESIGNATION

WHD80141 - VOLTAGE - GEAR RATIO - FEATURE

Example: WHD80141-12-10-ME

ME = Magnetic encoder  
OE = Optical encoder  
B = Brake

## ACCESSORIES



● C = customizations are offered on demand even for smaller quantities. Typical customizations are indicated with a green dot at column end. Please contact us for any customization request.

## GEAR MOTOR DATA

		10:1	15:1	20:1	25:1	30:1	40:1	50:1
Gear ratio		10:1	15:1	20:1	25:1	30:1	40:1	50:1
Nominal speed	rpm	250	160	120	98	81	61	49
Nominal torque	Nm	2.5	3.3	4.2	5.2	5.7	6.0	7.3
Peak torque	Nm	15	17	19	22	24	24	24
Nominal power	W	64	56	54	53	48	38	37
Gearbox efficiency	%	72	65	62	60	46	44	42
Weight	kg	5.6	5.6	5.6	5.6	5.6	5.6	5.6

## OTHER GEAR MOTOR DATA

Service life	h	3000
Performance tolerances	%	± 15
Operating temperature	°C	-10 to 60
IP rating <sup>1</sup>		IP40   IP51
Manufacturing standard		ISO 9001
CE label   UL label		No   No

## BRUSHED DC MOTOR DATA

Nominal voltage	V	12
Nominal current	A	9.6
Nominal speed	rpm	2500
Nominal torque	Ncm	35
Nominal power	W	90
No load current	A	2.5
No load speed	rpm	2800
Start/stall current	A	74
Start/stall torque	Ncm	220
Motor commutation		Carbon brush
Motor rotor		Iron
Motor cable		AWG14
Motor cable length	mm	200
Weight	kg	4

## NOTES

1. IP51 without encoder, IP40 with encoder.

## GEARBOX DATA

Gearbox type	Worm gearbox
Gear angle	Hollow
Material gear	Brass ●
Bearing type	Ball bearing
Shaft material	Hardened stainless steel ●

## BRAKE DATA

Type	Brake activation unenergized	
Voltage	V	12   24
Power	W	10
Static friction torque	Nm	4.5
Cable length	mm	400
Diameter	mm	60.6
Length	mm	34.2
Weight	kg	0.45

## ENCODER OPTIONS

	MAGNETIC	OPTICAL
Pulses per revolution	18x2	1000
Channels	2	2
Phase shift	90 ± (1/8)T	90
Encoder rear cover material	Plastic	-
Size	mm	Width 47   Length 37   Depth 62.5
Harness cable		AWG28
Harness length	mm	420
Connection	OR Vcc   GRN GND   YLW SIG A   BLU SIG B	RED +5 VDC   RED+WT 0 VDC   BLU A+   BLU+WT A-   BLK B+   BLK+WT B-
Supply voltage	V	Min. 5   Max. 20
Supply current	mA	< 80
Output wave	-	Line driver
Open collector output	Requires external output resistors	-
Frequency response	kHz	Max. 25
Weight	g	100