

ACW Series

Direct Drive Rotary Motor

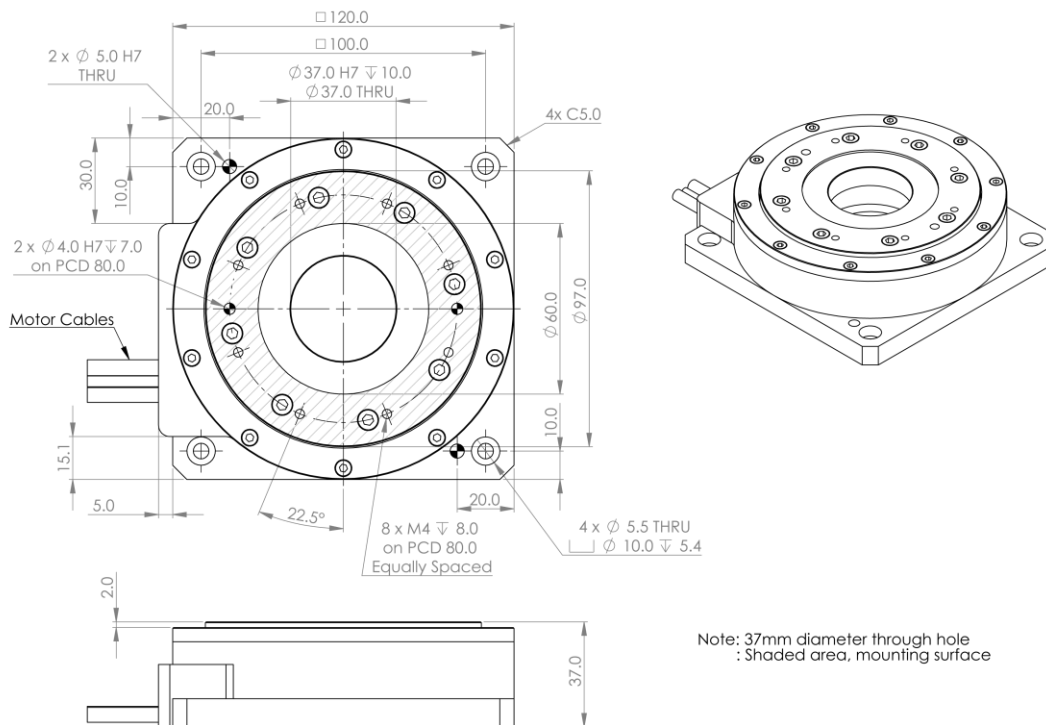


- **Direct drive, brushless motor fully integrated with encoder and bearing**
- **No cogging**
- **Precise homing through index pulse**
- **Large centre hole**
- **Low profile**

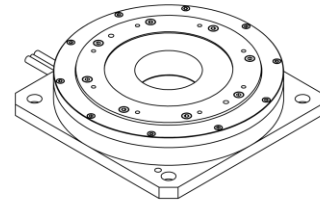
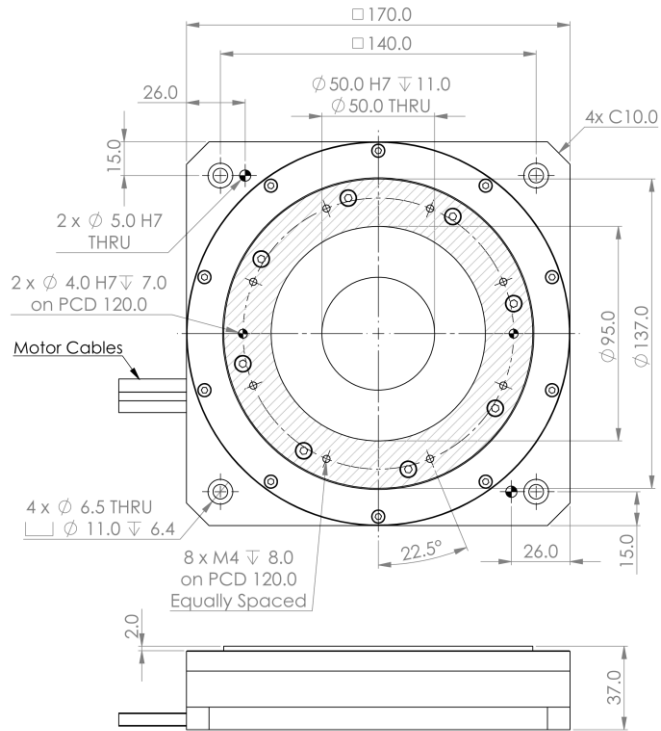
ACW Specifications		ACW 120	ACW 170	ACW 220
Model	Units			
Table diameter	mm	120	170	220
Table height	mm	37	37	42
Number of poles		16	16	16
Continuous torque	Nm	0.6	3.4	10.25
Peak torque	Nm	4.77	13.09	23.2
Cogging torque	Nm	0	0	0
Torque constant	Nm/Arms	0.12	0.68	2.05
Back EMF constant	V/rpm	0.01	0.058	0.175
Continuous current	Arms	5	5	5
Peak current	Arms	17.5	17.5	17.5
Resistance ²	ohms	1.14	2.67	4.28
Motor constant	Nm/SqRt(W)	0.11	0.42	0.99
Mass	Kg	1.6	3.1	6.5
Rotor Inertia	Kgm2	0.00065839	0.0017091	0.01
Rec. max speed	rpm	400	350	300
digital encoder resolution(X1000)	Counts/rev	1200000	1672000	2260000
SINCOS encoder resolution	Cycles/rev	7500	10450	14125
Accuracy	arc sec	+/-10.0	+/-7.0	+/-5.0
Repeatability	arc sec	+/-1.1	+/-0.78	+/-0.57
Axial load rating	N	150	230	300
Moment load rating	Nm	14.7	31.7	55.2
Radial run-out	um	15 (10,5) ¹	18 (10,5) ¹	18 (10,5) ¹
Axial run-out	um	15 (10,5) ¹	18 (10,5) ¹	18 (10,5) ¹

1. Optional.
2. Terminal to terminal, at 25 Deg C.

ACW120

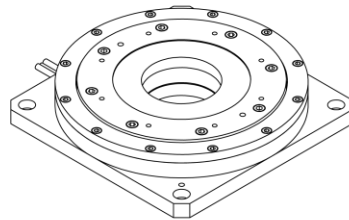
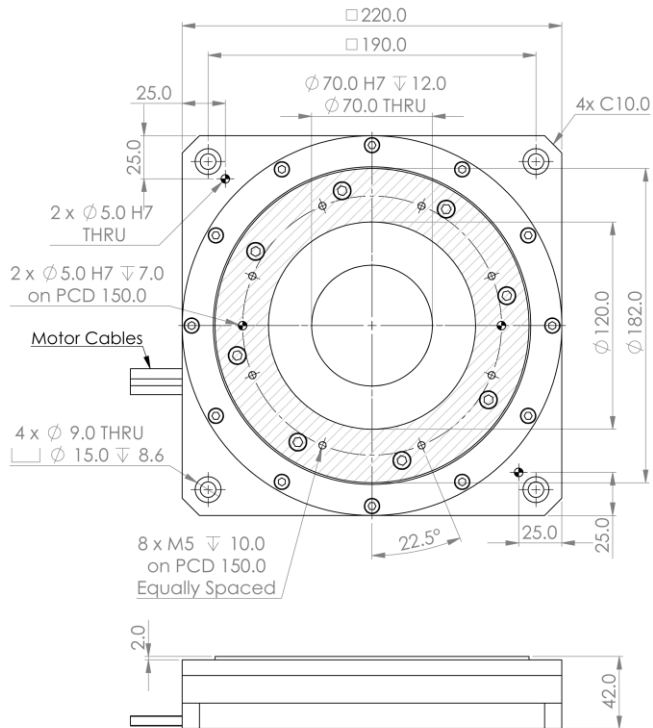


ACW170



Note: 50mm diameter through hole
: Shaded area, mounting surfc

ACW220



Note: 70mm diameter through hole
: Shaded area, mounting surface

Part Numbering

Motor	Height	Winding	Thermal Sensor	Cable Length	Encoder Option	Interpolation Option	Run-out Option
ACW 120	37	p	J/K	3.0	AM-300	1000 X SINCOS	P10/P5
ACW 170	37				AM-418		
ACW 220	42				AM-570		

K-PT100 (RTD)

Example: ACW 170-37-P-J-3.0-AM-300-1000X

Connector Pin Assignment

ACW

