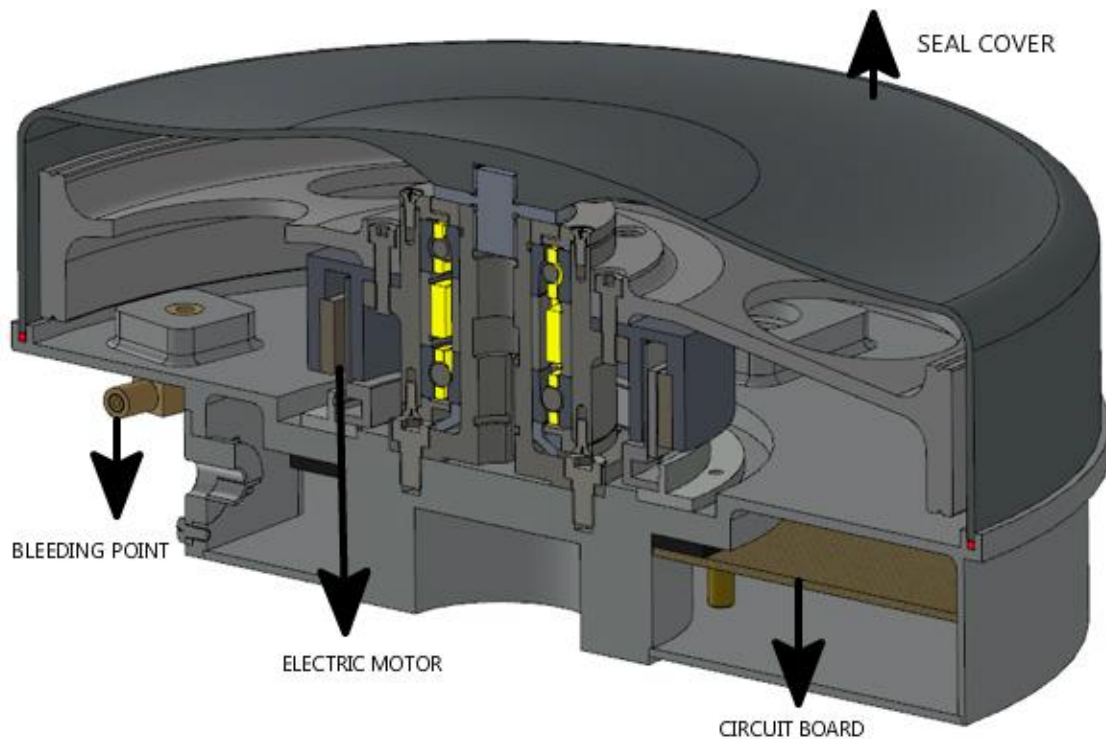




PRODUCT DESCRIPTION

The RW270 is a ball-bearing reaction wheel system for exerting inertia within the attitude control system of a satellite. It includes a brushless DC motor, reaction wheel body, base, welding ring, bearing components and control circuit board. The reaction wheel receives commands from the on-board computer (OBC) which controls the brushless DC motor through the control circuit. The DC motor drives the reaction wheel body rotating as instructed by the OBC. By utilizing angular momentum and reaction torque generated by wheel rotation and acceleration/deceleration separately, the satellite attitude can be adjusted and controlled.



RW270

Reaction Wheel

SPECIFICATIONS

Controlling methods	Control by torque
Working mode	Offset/reaction
Nominal angular momentum	12 Nms \pm 0.1Nms (@ \pm 3500 rpm)
Maximum valid output torque	0.075Nm
Speed range	\pm 3500 rpm
Max speed	4500rpm
Working temperature	-15 $^{\circ}$ C~+55 $^{\circ}$ C
Steady state power consumption	\leq 10W (@ \pm 3500 rpm)
Maximum power consumption	\leq 48W (@ \pm 3500 rpm)
Supply voltage	22V to 42V
First order time constant	\leq 0.1s
Rotational inertia	\geq 0.03274kg·m ²
Mass	7.3Kg \pm 0.5Kg
Static unbalance	< 0.5 gcm
Dynamic unbalance	< 2 gcm
Design life	\geq 5years
Residual magnetic torque	\leq 0.3Am ²
Dimension	\varnothing 270mm x 112mm
Life (years)	> 5
Orbit	LEO/MEO/HEO

All registered trademarks are respected

For further details email or call:

Sales Department, O.C.E. Technology Ltd.,
NovaUCD, Belfield Innovation Park,
Belfield, Dublin 4,
D04 X8W9, Ireland.

Phone: +353 1 716 3530
Email: sales@ocetechnology.com



Distributor:-

