

GATES THERMALPRO ELECTRIC WATER PUMPS RADIAL FLUX 12-20W PLATFORM

ThermalPro Radial Flux water pumps are manufactured for durable, worry-free operation for the life of your application. Constructed using only premium materials, we rigorously function and leak test our water pumps and components, like seals and bearings, to ensure optimum performance under intense driving conditions.

SYSTEM OVERVIEW	
Model	12-20W platform
Motor type	Single-phase brushless Radial Flux
Motor mass	>220g
Voltage range	12V
Flow rate (l/min)	<8
Max. operating speed	<6000 rpm
Control strategy	PWM
Coolant temperature	-40°C to 120°C (-40°F to 248°F)
Ambient temperature	-40°C to 135°C (-40°F to 275°F)
IP rating	IP65

GATES RADIAL FLUX EWP DESIGN:

CHASSIS OR DIRECT MOUNTING

Flexibility to available package

RADIAL COILS

Silent, reliable, low cost design

CONTROL BOARD

PWM communication

MODULAR AND SCALABLE

Creating a “family” architecture to different application requirement



MOTOR DESIGN	
Motor details	Up to 6 tooth 8 poles
Motor housing material	Glass reinforced plastic
Volute housing and impeller	Glass reinforced plastic
Winding type	Non-overlap concentrated
Winding material	Copper or aluminum
Stator & rotor core material	Electrical steel
Permanent magnet	Ferrous
Load protection	Anti-reverse connection
Coolant specification	50:50 ethylene glycol to water ratio

STANDARDS	
EMC	ISO 11451 / ISO 11452 / ISO 10605 / CISPR25
Temperature shock test	DIN EN 60068-2-14
Dust test	ISO 20653
Thermal cycle	IEC 60068-2-14
Vibration test	ISO 16750-3 / DIN EN 60068-2-6 / DIN 60068-2-64