



## RF4-Series

Synchronous Permanent Magnet AC Alternator

### 3-Phase and Single-Phase Specifications

Model	Frequency Hz	3-Phase		Single-Phase Δ		Poles	Speed RPM	Motor Start kVA	Short Circuit A	Length mm	Weight kg
		kVA	kW	kVA	kW						
RF4-10	50	10	8	6	4.8	4	1500	15	52	236	39
	60	12	9.6	7.5	5.8	4	1800	18	62		
RF4-20	50	20	16	12	9.6	4	1500	30	100	301	58
	60	24	19.2	14.4	11.5	4	1800	36	120		
RF4-30	50	30	24	18	14.4	4	1500	50	130	351	77
	60	35.5	28.4	21.6	17.3	4	1800	60	156		
RF4-40	50	40	32	24	19.2	4	1500	90	373	421	96
	60	48	38.4	28.8	23	4	1800	108	447		

The RFL PM Alternator is a breakthrough in 2 & 4 pole synchronous alternator design. The patented rotor design combines permanent magnets with reluctance to overcome the limitations of other permanent magnet synchronous alternator designs.

#### Characteristics

1. Very high efficiency 94%.
  2. Excellent THD, <3%, no transients, no voltage spike on load rejection.
  3. Small footprint and lightweight.
  4. No electronics, increased reliability and robustness. Ease of fit on engine.
  5. Bearing is the only wearing component and can be easily replaced via a removable bearing cassette.
  6. Permanent Magnet Rotor
  7. IP 23 Protection.
  8. SAE3, SAE4, SAE5 Engine housing mounting options
  9. SAE6½, SAE7½, SAE8, SAE10, SAE11½
- Flywheel plate options

#### Advantages

- Unbalanced 3 Phase loads. Alternator can supply 3 x 1 Phase circuits with varying loads, as well as a 3 phase load at the same time.
- Motor Start capability: The RFL alternator can start single phase motors as well as 3 phase motors.
- Paralleling generators: The RFL rotor allows a wider out of phase angle over which they will lock together without high surge currents and shaft shock. This allows a number of smaller generators to be used to supply large loads with no special switching equipment.
- **Adjustable location of feet, bottom and side mounting options**