

# API 547

## LARGE AC MOTORS

### Large AC Duty Master Motors for the Petroleum and Chemical Industries

Users in the Petroleum and Chemical industries wanted a general purpose, easy to specify motor that had the base features required for safe, reliable operation in severe duty applications. The American Petroleum Institute responded by creating Specification number 547. Reliance Electric responded by creating motors that not only meet the spec, but also carry the API Monogram.

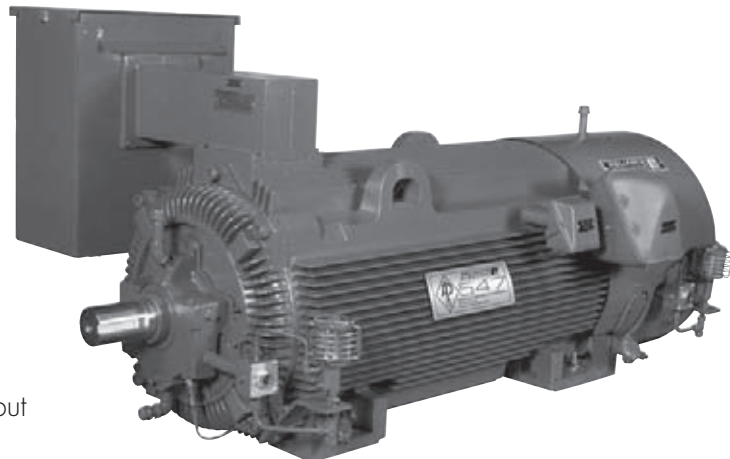
The Baldor API 547 motor is the first motor of any kind to receive the API Monogram. This commitment to delivering quality and value to our customers is one of the reasons that Baldor motors remain the preferred choice of users in the Petrochemical Industry.

#### About API Standard 547

- This standard covers the requirements for form-wound induction motors for use in general purpose petroleum, chemical, and other industrial severe duty applications. These motors:
- Are rated 250Hp – 3000Hp for 4, 6, and 8 pole speeds
- Are rated < 800Hp for 2 pole totally enclosed motors
- Are rated < 1250Hp for 2 pole WP-II motors
- Drive centrifugal loads
- Drive loads having inertia values within those listed in NEMA MG 1 Part 20

#### About the API Monogram

Developed by the industry and the customers it serves, the API Monogram Program has been the benchmark for oil and natural gas industry equipment



API 547 motors meet a wide variety of general purpose petroleum and chemical industry severe duty applications.

quality since 1924. The API Monogram represents quality to the users of the products that carry the mark. Reliance Electric was licensed to apply this mark to our 547 motors only after demonstrating our commitment to manufacture these motors to the exacting standards for which they are licensed, as well as meeting the additional requirements of API Spec Q1 for quality programs.

The API Monogram immediately identifies Baldor Electric as a licensed supplier of 547 motors to the petroleum industry and offers users an instant guide to quality. As an API licensee Reliance Electric is committed to modern quality systems enabling us to deliver interchangeable products that are safe and meet industry standards and performance specifications. Receiving the API license proves that Baldor has documented systems that incorporate the structure, responsibilities, control processes, and resources needed to manage and maintain quality.

#### Application Information

- API 547 motors are ideally suited for many common pump, fan, and compressor applications.
- Data Sheets for 547 motors are available, but not required as the specification has default selections for all necessary motor features.
- Pre-Engineered model number selections are available for 2 pole and 4 pole motors.

- Aggregate/Cement
- Food
- Mining
- Forest/Paper
- Petro/Chem
- Unit/Baggage Handling
- HVAC/Industrial Air Handling
- Environmental/Fluid Power
- Automotive
- Metals



## API 547 Motor Feature Summary

85 dBA	API Vibration Limits - .10 in/sec or 1.5 mils	1.0 Service Factor	Sleeve Bearings	API Foot Planarity (0.002 in/ft)	Oil resistant Silicon Leads	Pilot Holes for Dowel Pins	Sump heaters for Sleeve bearing motor if < 18C ambient	Class 1 Div 2, Group C & D T3A	60 hz Sinewave Power
Crowned 1/2 Key for Balancing	(2) Insulated Bearings and a grounding device	Ambient "-25C to +40C"	(2) Frame Grounds	APEX (UV Resistant) Paint System	API Routine Test minimum	Aluminum Rotor-Fab CU required over 1000HP	Starting Duty Nameplate	80% RVS per NEMA load curve (>500HP)	XTS Features for TEFC
Constant Level Oilers-Slv Brg	Permanent End Float Indicator-Slv Brgs	Vertical Jack Screws	Spot Face for Hold Down Bolts	650% Maximum Locked Rotor Current	3.5 Per Unit Surge Withstand	Stainless Steel Hardware	Standard High Efficient Design	3300 Feet altitude	Horizontal-Foot mounted
SolidSeal Insulation (2 Cycle VPI System capable of passing a water immersion test)		IP55 bearing protection	Oversized Conduit Box for Stress Cones	Winding RTD's- 100 Ohm Pt. 2 / phase	Bearing RTD's 100 ohm pt. 1 / bearing if Slv Brg	Replaceable Space Heaters - T3A	Direct Coupled	Automatic Drainage Fittings	Long Term Storage for at least 6 mos.
Additional features for WP-II Motors					Additional features for Model Number Motors				
Stainless Steel Screens and Filters	Provisions for a Differential Air Pressure Switch/Gauge				CSA	F1 to F2 Convertible	2300/4000V	Provisions for Probes	

## API 547 Model Number Motor Selection Chart

3600 RPM - 60 HZ					1800 RPM - 60 HZ				
HP	TEFC		WP-II		HP	TEFC		WP-II	
	Model No.	Frame	Model No.	Frame		Model No.	Frame	Model No.	Frame
250	A32250DSCA	G5008	A22250DSCA	E5006	250	A34250DSCA	G5008	A24250DSCA	E5006
300	A32300DSCA	G5008	A22300DSCA	E5008	300	A34300DSCA	G5008	A24300DSCA	E5006
350	A32350DSCA	G5008	A22350DSCA	E5008	350	A34350DSCA	G5008	A24350DSCA	E5006
400	A32400DSCA	G5010	A22400DSCA	E5010	400	A34400DSCA	G5008	A24400DSCA	E5008
450	A32450DSCA	G400K	A22450DSCA	E5010	450	A34450DSCA	G5010	A24450DSCA	E5008
500	A32500DSCA	G400K	A22500DSCA	E5010	500	A34500DSCA	G5010	A24500DSCA	E5010
600	A32600DSCA	G400K	A22600DSCA	O5808	600	A34600DSCA	G5012	A24600DSCA	E5010
700	A32700DSBA	G400K	A22700DSCA	O5808	700	A34700DSCA	G5012	A24700DSCA	E5012
800			A22800DSCA	O5808	800	A34800DSCA	G5012	A24800DSCA	E5012
900			A22900DSCA	O5808	900	A34900DSBA	G5012	A24900DSCA	O5808
1000			A221K0DSCA	O5810	1000	A341K0DSCA	G400J	A241K0DSCA	O5810
1250		Use API 541			1250	A341K2DSBA	G400J	A241K2DSBA	O5812
1500		Use API 541			1500	A341K5DSBA	G500M	A241K5DSBA	O5812
1750		Use API 541			1750	A341K7DSBA	G500M	A241K7DSBA	O5812
2000		Use API 541			2000	A342K0DSBA	G500M	A242K0DSBA	O5812
2250		Use API 541			2250	Use TEAAC API 541		A242K2DSBA	E7111
2500		Use API 541			2500	Use TEAAC API 541		A242K5DSBA	E7111
2750		Use API 541			2750	Use TEAAC API 541		A242K7DSBA	E7111
3000		Use API 541			3000	Use TEAAC API 541		A243K0DSBA	E7111

[www.baldor.com](http://www.baldor.com) [www.ptplace.com](http://www.ptplace.com) [www.dodge-pt.com](http://www.dodge-pt.com) [www.reliance.com](http://www.reliance.com)



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