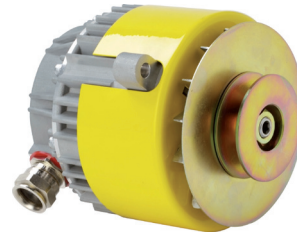


Flameproof Alternators

ASX-200, -201, -300, -301, -310, -405, -406

Overview

Standard automotive type alternators are a continuous potential source of ignition when operated in hazardous atmospheres where combustible concentrations of gas, vapor or dusts may exist. To overcome this, Chalwyn offer a range of hazardous area approved flameproof alternators designed specifically to mount on diesel engines as direct replacements for standard alternators.



Description

Twelve pole rotating field coil type alternators that are designed and approved for use in designated hazardous areas. A number of alternative single or multigroove pulleys are available. Contact factory for up to date details of the standard range. Special pulleys are also available to meet customer design requirements.



Features and Benefits

- Hazardous Area Rated (see Specifications)
- Speed signal output for overspeed shutdown
- Compact high performance design
- Certified cable gland available
- Wide choice of optional pulleys
- Suitable for offshore conditions

Applications

- For use in ATEX, IECEx, UKEX, and NEC defined hazardous areas (see Specifications)
- Suitable for a wide range of local ambient temperatures (see Specifications)
- Designed as a belt driven diesel engine mounted alternator



CHALWYN

Flameproof Alternators

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Specifications

Standard materials	Enclosure	Aluminum
	Fan, fan discs, pulleys	Carbon steel
	Cowls	Copper
Excitation	ASX-200, -201, -300, -301, -405, -406	Externally excited
	ASX-310	Self-excited
Temperature Class	T4	
Ambient temperature range	ASX-200, -201, -300, -301, -310	-30°C to 55°C (-22°F to 131°F)
	ASX-405, -406	-30°C to 50°C (-22°F to 122°F)
Voltage	ASX-300, -301, -310, -405, -406	28V
	ASX-200, -201	14V
Weight (estimated)	Product Weight	
	ASX-200, -201, -300, -301, -310	7.2 kg (15.8 lbs)
	ASX-405, -406	12.9 kg (28.4 lbs)
	Shipping Weight	
	ASX-200, -201, -300, -301, -310	8 kg (17.5 lbs)
	ASX-405, -406	16.1 kg (36 lbs)
Max. Current	ASX-200, -201	50A @ 14V
	ASX-300, -301, -310	25A @ 28V
	ASX-405, -406	50A @ 28V
Certifications	Ingress protection	IP66
	Equipment Classification	
	ASX-200, -201, -300, -301, -310	SIRA 99ATEX1127X IECEX SIR 12.0132X CSA2677279 CSAE 21UKEX1526X
	ASX-405, -406	SIRA 07ATEX1171X IECEX SIR 14.0029X CSA 2716060 CSAE 21UKEX1527X

Area Classification

MODEL	ATEX & UKEX	ATEX, UKEX, CEC Section 18 & IECEX	NEC 500 & CEC Annex J18	NEC 505 & NEC 506
	Europe	EU, Canada & IECEX Zones 1 and 21	USA & Canada	USA
ASX-200 ASX-201 ASX-300 ASX-301 ASX-310	II 2G II 2D	Ex db IIB T4 Gb Ex tb IIIC T135°C Db	Class I Division 2, Groups C & D, T4 Class II Division 2, Groups F & G, T4 Class III Division 2, T4	Class I Zone 1 AEx db IIB T4 Class II Zone 21 AEx tb IIIC T135°C
ASX-405* ASX-406*	II 2G II 2D	Ex db IIB T4 Gb Ex tb IIIC T135°C Db	Class II Division 2, Groups F & G Class III, Division 2	Class I Zone 1 AEx d IIB T4 Gb Class II Zone 21 AEx tb IIIC T135°C D6

*Note: According to NFPA 70, Article 501.5 Zone equipment - Equipment listed and marked in accordance with 505.9(C)(2) for use in Zone 1 locations shall be permitted in Class I, Division 2 locations for the same gas (Groups C & D) and with suitable temperature class (T4).

Flameproof Alternators

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Models Available

Standard

ASX-200: 12V / 50 Amp (side entry cable)

ASX-201: 12V / 50 Amp (rear entry cable)

ASX-300: 24V / 25 Amp (side entry cable)

ASX-301: 24V / 25 Amp (rear entry cable)

Self-exciting

ASX-310: 24V / 25 Amp

High Output Standard with SAE J180 Hinge Mount

ASX-405: 24V / 50 Amp (side entry cable)

ASX-406: 24V / 50 Amp (rear entry cable)

Pulley Selection

Using the table below, select the pulley profile, appropriate width and drive diameter. Take into account the alternator speed range when selecting the diameter of the pulley. When fitting a pulley use an 8mm hexagonal Allen drive in the rotor hole and tighten the nut supplied to 60 NM (44 lb ft) torque. If a non-Chalwyn pulley is to be fitted, please forward design details to local factory office. Pulleys are available for all models except as noted below.

Pulley Profile	Belt Width	Drive Diameter (mm)	Pulley Model No.
SPA (Small)	1/2" / 13mm	55	ASX-546
SPA (Medium)	1/2" / 13mm	71	ASX-549
SPA (Large)	1/2" / 13mm	80	ASX-574
SPB (Small)	5/8" / 16mm	66	ASX-539
SPB (Medium)	5/8" / 16mm	71	ASX-548
SPB (Large)	5/8" / 16mm	90	ASX-563
6 Groove Poly-V	DIN 6-PK	56	ASX-575
6 Groove Poly-V	DIN 6-PK	66	ASX-556
8 Groove Poly-V	DIN 8-PK	67	ASX-570*
10 Groove Poly-V	DIN 10-PK	71	ASX-571*
12 Groove Poly-V	DIN 12-PK	75	ASX-572*

* Note: Fits ASX-405, -406 only.

Speed calculation formula

$$\frac{\text{Crankshaft pulley diameter (mm)}}{\text{Alternator pulley drive diameter (mm)}} \times \text{Engine Speed (rpm)} = \text{Alternator Speed (rpm)}$$

Target Alternator Speeds

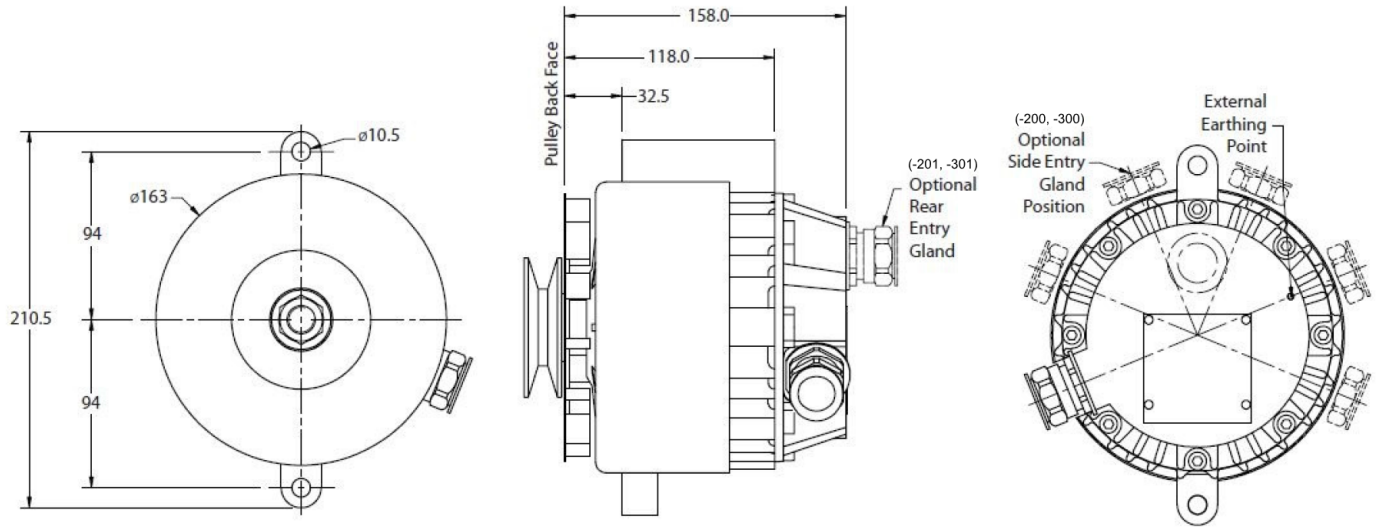
Model	Engine Speed (rpm)	Alternator Speed (rpm)
ASX-2XX, -3XX	Fixed	5000 - 7000
	Variable Low idle	3500 - 8000 2000 - 2500
ASX-4XX	Fixed	4000 - 6000
	Variable Low idle	3000 - 7000 2000 - 2500

Flameproof Alternators

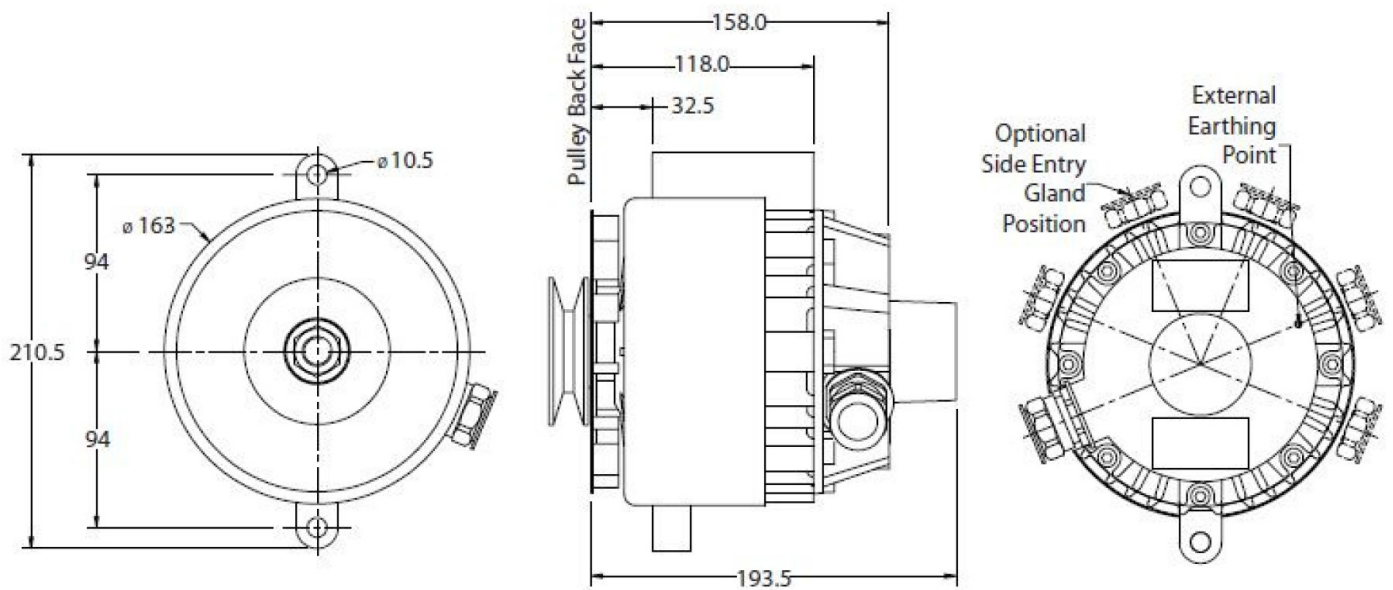
ASX-200, -201, -300, -301, -310, -405, -406

Dimensions

ASX-200, -201, -300, -301



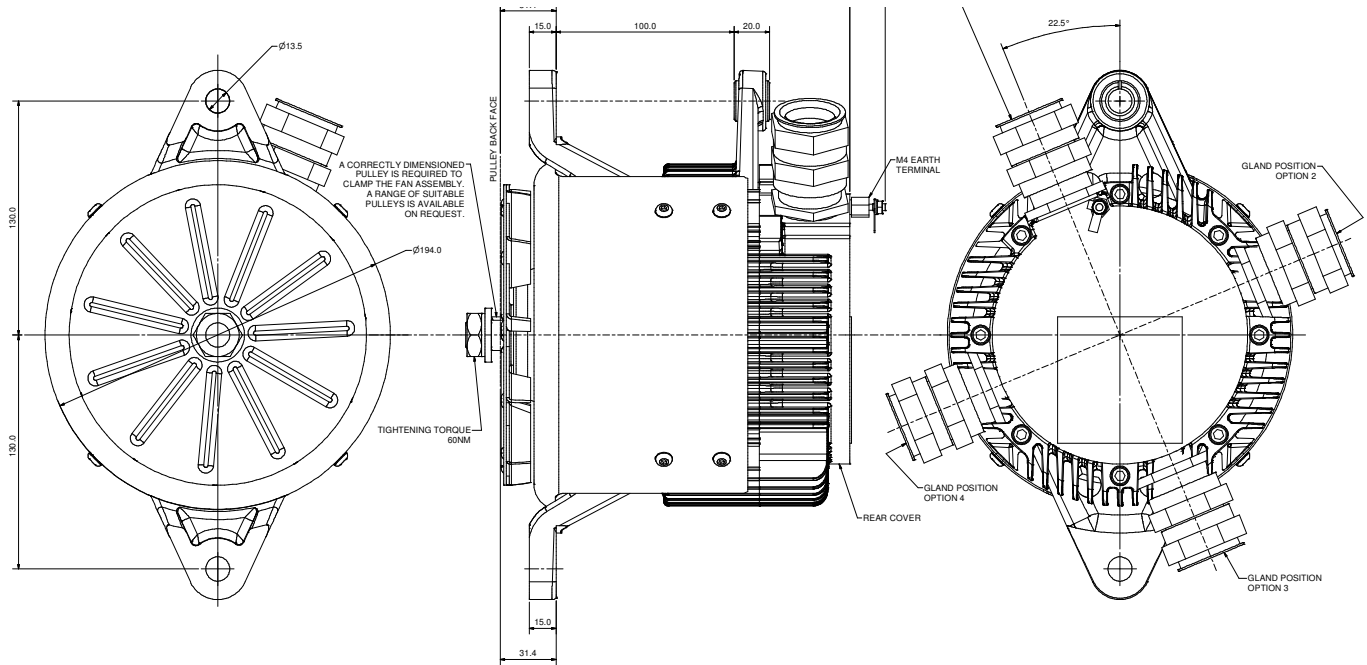
ASX -310



Flameproof Alternators

ASX-200, -201, -300, -301, -310, -405, -406

ASX-405, -406



Americas

AMOT - USA
Tel +1 (281) 469 3377
Fax +1 (713) 559 9419
sales@amot.com

Roda Deaco - Canada
Tel +1 (780) 465 4429
Fax +1 (780) 469 6275
info@rodadeaco.com

Asia Pacific

AMOT - China
Tel +86 21 6279 7700
Fax +86 21 5237 8560
shanghai@amot.com

AMOT - Singapore
Tel +65 6408 6265
Fax +65 6293 3307
singapore@amot.com

Europe, Middle East and Africa

AMOT - England
Tel +44 (0) 1284 762222
Fax +44 (0) 1284 760256
info@amot.com

AMOT - Germany
Tel +49 (0) 40 8537 1298
Fax +49 (0) 40 8537 1331
germany@amot.com

www.chalwyn.com

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Chalwyn's quality management system is approved by LRQA.

