

Product information presented here reflects conditions at time of publication. Consult factory regarding discrepancies or inconsistencies.

Patent No. 8,535,014  
Automatic model only

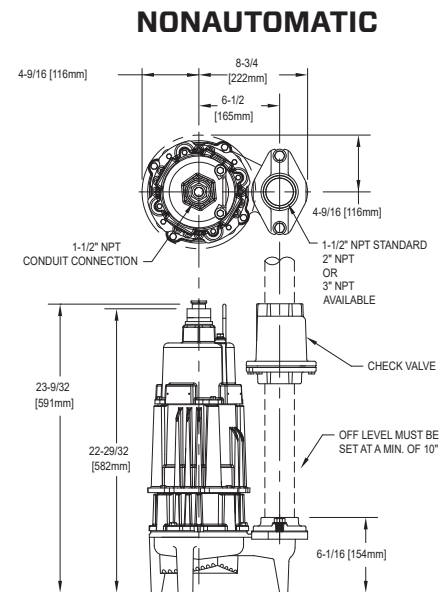
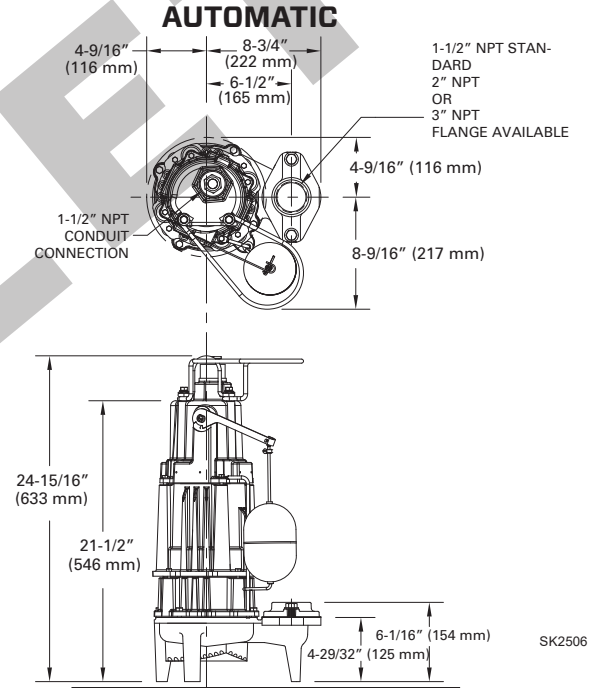
## TECHNICAL DATA SHEET

EXPLOSION PROOF OR DUST-IGNITION PROOF RATED SERIES\*

Models X185, X186, X188, X189, X191 Submersible Effluent Pumps for Hazardous Locations  
Class I, Division 1, Groups C & D Rated and Class I, Zone 1, Groups IIA & IIB Gas Areas  
or  
Class II, Division 1, Groups E, F & G and Zone 20 Dust Areas

### PRODUCT SPECIFICATIONS

<b>MOTOR</b>	Horse Power	1 - 2 HP
	Voltage	200 - 575
	Phase	1 or 3 Ph
	Hertz	60 Hz
	RPM	3450
	Type	Permanent split capacitor or 3 Ph
	Insulation	Class B/X185, Class F/X186-X191
	Amps	3.3 - 20.5
<b>PUMP</b>	Operation	Automatic or nonautomatic
	Auto On/Off Points	19-1/2" (495 mm) / 10" (25.4 cm)
	Discharge Size	1-1/2" NPT (optional 2" or 3" flange available)
	Solids Handling	3/4" (19 mm) X180 series, 5/8" (15 mm) X190 series spherical solids
	Cord Length	20' (6 m) standard
	Cord Type	UL listed 5-wire (1 Ph) or 8-wire (3 Ph) SOOW
	Max. Head	137' (42 m)
	Max. Flow Rate	145 GPM (549 LPM)
	Max. Operating Temp.	104 °F (40 °C)
	Cooling	Oil filled
	Motor Protection	Auto reset thermal overload (1 Ph) or thermal sensor (3 Ph)
	<b>MATERIALS</b>	Upper Bearing
Lower Bearing		Ball bearing
Mechanical Seals		Carbon and ceramic with stainless steel parts
Impeller Type		Non-clogging vortex
Impeller		Cast Iron
Hardware		Stainless steel or brass
Gasket		Neoprene square rings



All Class 30 cast iron construction.

NOTE: The sizing of effluent systems normally requires variable level float(s) controls and properly sized basins to achieve required pumping cycles or dosing timers with nonautomatic pumps.

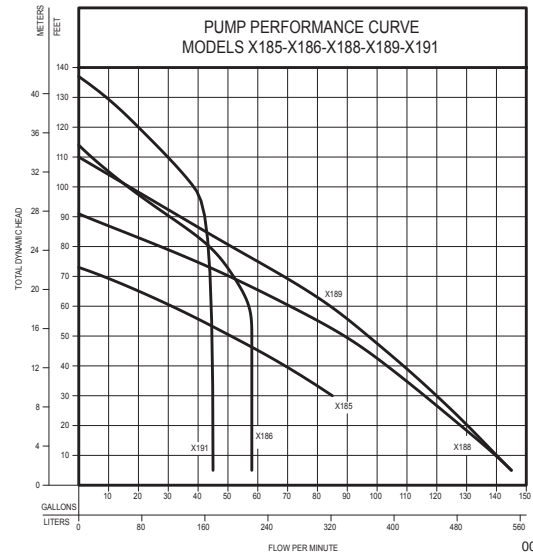
NOTE: \*Pump tags will be specific to either gas or dust areas



# TOTAL DYNAMIC HEAD FLOW PER MINUTE

MODELS		X185		X186		X188		X189		X191	
Feet	Meters	Gal.	Liters	Gal.	Liters	Gal.	Liters	Gal.	Liters	Gal.	Liters
5	1.5	--	--	58	220	145	549	145	549	45	170
10	3.0	--	--	58	220	140	530	140	530	45	170
20	6.1	--	--	58	220	128	484	130.5	494	45	170
30	9.1	85	322	58	220	116	439	120	454	45	170
40	12.2	70	265	58	220	103.5	392	109	413	45	170
50	15.2	51	193	58	220	90	341	97	367	45	170
60	18.3	32	121	58	220	71	269	85	322	45	170
70	21.3	9	34	52	197	51	193	69	261	45	170
80	24.4	--	--	45	170	28	106	51	193	45	170
90	27.4	--	--	30.5	115	2	8	34	129	45	170
100	30.5	--	--	16	60	--	--	17	64	40	151
110	32	--	--	4	15	--	--	--	--	30	114
120	36.6	--	--	--	--	--	--	--	--	20	76
130	39.6	--	--	--	--	--	--	--	--	10	38
Shut-off Head		73 ft. (22m)		114 ft. (35m)		91 ft. (28m)		110 ft. (34m)		137 ft. (42m)	

**CAUTION** Model 185 should not be subjected to heads less than 30 feet TDH.



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Model	MODEL COMPARISON										
	Seal	*Mode	Volts	Ph	Amps	HP	Hz	Lbs	Kg	Simplex	Duplex
DX185	Single	Auto	230	1	9.8	1	60	124	56	3 & 4	---
EX185	Single	Non	230	1	9.8	1	60	116	52	1 & 2	1 & 2
HX185	Single	Auto	200	1	11.5	1	60	124	56	3 & 4	---
IX185	Single	Non	200	1	11.5	1	60	119	53	1 & 2	1 & 2
FX185	Single	Non	230	3	7.4	1	60	119	53	1 & 2	1 & 2
JX185	Single	Non	200	3	7.5	1	60	119	53	1 & 2	1 & 2
GX185	Single	Non	460	3	3.7	1	60	119	53	1 & 2	1 & 2
DX186	Single	Auto	230	1	13.7	1-1/2	60	128	58	3 & 4	---
EX186	Single	Non	230	1	13.7	1-1/2	60	126	57	1 & 2	1 & 2
HX186	Single	Auto	200	1	17.2	1-1/2	60	128	58	3 & 4	---
IX186	Single	Non	200	1	17.2	1-1/2	60	126	57	1 & 2	1 & 2
FX186	Single	Non	230	3	9.2	1-1/2	60	126	57	1 & 2	1 & 2
JX186	Single	Non	200	3	10.3	1-1/2	60	126	57	1 & 3	1 & 2
GX186	Single	Non	460	3	4.6	1-1/2	60	126	57	1 & 2	1 & 2
DX188	Single	Auto	230	1	14.0	1-1/2	60	128	58	3 & 4	---
EX188	Single	Non	230	1	14.0	1-1/2	60	126	57	1 & 2	1 & 2
HX188	Single	Auto	200	1	16.8	1-1/2	60	128	58	3 & 4	---
IX188	Single	Non	200	1	16.8	1-1/2	60	126	57	1 & 2	1 & 2
FX188	Single	Non	230	3	8.9	1-1/2	60	126	57	1 & 2	1 & 2
JX188	Single	Non	200	3	10.3	1-1/2	60	126	57	1 & 2	1 & 2
GX188	Single	Non	460	3	4.6	1-1/2	60	126	57	1 & 2	1 & 2
BAX188	Single	Non	575	3	3.5	1-1/2	60	126	57	1 & 2	1 & 2
DX189	Single	Auto	230	1	17.1	2	60	128	58	3 & 4	---
EX189	Single	Non	230	1	17.1	2	60	126	57	1 & 2	1 & 2
HX189	Single	Auto	200	1	20.5	2	60	128	58	3 & 4	---
IX189	Single	Non	200	1	20.5	2	60	126	57	1 & 2	1 & 2
FX189	Single	Non	230	3	11.2	2	60	126	57	1 & 2	1 & 2
JX189	Single	Non	200	3	13.2	2	60	126	57	1 & 2	1 & 2
GX189	Single	Non	460	3	6.0	2	60	126	57	1 & 2	1 & 2
BAX189	Single	Non	575	3	5.8	2	60	126	57	1 & 2	1 & 2
DX191	Single	Auto	230	1	14.5	2	60	128	58	3 & 4	---
EX191	Single	Non	230	1	14.5	2	60	129	58	1 & 2	1 & 2

\*For non-auto models, water level switch is required to be set at a minimal off point of 10 inches to meet dust-ignition proof certification requirements.

Additional cord lengths are available in 25' (7.6 m), 35' (11 m) and 50' (15 m).

All Models are, cCSAus certified for hazardous gas or dust locations.

Tested to FM Standards 3600 & 3615 & 3616 by CSA

## SELECTION GUIDE

1. See FM1705 for correct intrinsically-safe simplex or duplex panel
2. See FM0526 for variable level control switches rated 30VDC are used as a control activator. Quantity required dependent upon panel selection.
3. Automatic pump with integral float-operated mechanical switch; no external control required
4. Automatic pumps: Use the optional seal-failure panel (10-1031) to Activate the moisture sensor circuit for pump protection and when required by local codes

**CAUTION** All installation of controls, protection devices and wiring should be done by a qualified licensed electrician. All electrical and safety codes should be followed including the most recent National Electrical Code (NEC) and the Occupational Safety and Health Act (OSHA).

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