

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No .:	IECEx UL 18.0106X		Issue No: 1	Certificate history:
Status: Date of Issue:	Current 2019-09-26		Page 1 of 5	Issue No. 1 (2019-09-26) Issue No. 0 (2018-11-06)
Applicant:	HOTSTART Inc., a Washington Company 5723 East Alki Ave. Spokane, WA 99212 United States of America			
Equipment: <i>Optional accessory:</i>	Heating Systems, OLA, CLA, OCLA, DOLA, OS	SA and CSA Series		
	Flameproof "db" Ex db IIA T3 Gb -20°C to +40°C			
Approved for issue or Certification Body:	n behalf of the IECEx	Lucy Frieders		
Position:		Staff Engineer		
Signature: (for printed version) Date:			2019-09-26	les
2. This certificate is no	schedule may only be reproduced in full. ot transferable and remains the property of the iss henticity of this certificate may be verified by visiti		osite.	

Certificate issued by:

UL LLC 333 Pfingsten Road Northbrook IL 60062-2096 United States of America





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Manufacturer:	HOTSTART Inc., a Washington Company 5723 East Alki Ave. Spokane, WA 99212 United States of America	

Additional Manufacturing location(s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

STANDARDS:

The apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

IEC 60079-0 : 2011 Edition:6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-1 : 2014-06 Edition:7.0	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"

This Certificate does not indicate compliance with electrical safety and performance requirements other than those expressly included in the

Standards listed above.

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

Test Report:

US/UL/ExTR18.0121/01

Quality Assessment Report:

US/UL/QAR18.0007/00



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The OLA, CLA, OCLA, DOLA, OSA and CSA Heating system series are assemblies of Ex certified devices used for heating water, engine oil, and engine coolant. The various devices are interconnected with certified cable glands and suitable cables.

Please see Annex for additional information.

SPECIFIC CONDITIONS OF USE: YES as shown below:

- Flameproof joints are not intended to be repaired in the field. Do not attempt to repair any flameproof joints that become damaged.
- Warning: Wipe all operators and hoses with damp cloth to reduce potential for electro-static discharge.
- The enclosures utilize metric bolts that are Class 8.8 minimum and Class A4-70 with a minimum yield strength of 600 Mpa.

The following additional previous editions of Sta the Certificate were applied to integral Component	
Weg Induction Motors of Frame Size 90 to 132	IEC 60079-1 Edition 2007
Siemens Motors	IEC 60079-0 Edition 2009
Siemens Motors	IEC 60079-1 Edition 2007
ABB M3JP Motors	IEC 60079-0 Edition 2009
ABB M3JP Motors	IEC 60079-1 Edition 2007
CMP Products Limited TMC2X Range of Cable Glands	IEC 60079-1 Edition 2007
CMP Products Limited Cable Gland Types PX ^{**}	IEC 60079-1 Edition 2007
Adalet/Scott Fetzer Co. XCEX Series Enclosures	IEC 60079-0 Edition 2009
Adalet/Scott Fetzer Co. XCEX Series Enclosures	IEC 60079-1 Edition 2007



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

Issue 1: Addition of alternate operators and motors to the OLA, CLA, OCLA, DOLA, OSA, and CSA Heating systems. Editorial changes were also made to the drawings.



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Additional information:

Annex:

Annex to IECEx UL 18.0106X Issue 1.pdf



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TYPE DESIGNATION

Nomenclature for type OLA, CLA, OCLA, DOLA, OSA and CSA Heating system series:

OLA	Phase	Wattage	Voltage	-	Motor	Pump	System Co	Other ntrol Options
I	II	ш	IV	-	v	VI	VII	VIII
	I –					·	•	·
	OLA	Oil Large E	x IECEx/ATE	K				
	CLA	Coolant La	rge Ex IECEx/	ATEX				
	II –							
	1-	I Phase						
	3-	3 Phase						
	III –							
	025	2.5 kW		300		30 kW		
	060	6 kW		360		36 kW		
	090	9 kW		480		48 kW		
	110	11 kW		540		54 kW		
	120	12 kW		600		60 kW		
	170	17 kW		660		66 kW		
	180	18 kW		720		72 kW		
	240	24 kW						
	IV –							
	1	120 V	6	60 Hz		А	400V	50 Hz
	2	240 V	6	60 Hz		С	230V	50 Hz
	3	380V	6	60 Hz		D	690V	50 Hz
	4	480V	6	60 Hz		E	380V	50 Hz
	5	600V	6	60 Hz				
	6	690V	6	60 Hz				
	7	277V	6	60 Hz				
	8	208V	6	60 Hz				



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V –				
1	1HP ⁻	1200 RPM	А	1HP 1000 RPM
2	1HP ⁻	1800 RPM	В	1HP 1500 RPM
3	2HP ⁻	1200 RPM	С	2HP 1000 RPM
4	2HP ²	1800 RPM	D	2HP 1500 RPM
5	3HP [·]	1200 RPM	E	3HP 1000 RPM
6	3HP [·]	1200 RPM	F	3HP 1500 RPM
7	5HP [·]	1200 RPM	G	5HP 1000 RPM
VI –				
OLA		CLA		
	00.4			30 GPM / 1 HP
1	SG 1	.6-2.8 GPM	3	40 GPM / 1.5 HP
•				45 GPM / 1.5 HP
2	GG 6	6-10 GPM	4	60 GPM / 2 HP
VII –				
0		24V Relay		
0 Pressure switch		h		
VIII –				
- No other options			ns	

OCLA	Phase		olant tage	Oil Wattage	Voltage	-	Coolant Pump/Motor	Oil Motor	Oil Pump	System Control
I	II	Ш		IV	V -		VI	VII	VIII	IX
	1-						-			
	OCLA	C	Dil and C	Coolant Ex IE	CEx/ATEX					
_	II –									
	1-	I	Phase							
	3-	3	Phase							
-	III –									
Γ	060		6 kV	V	180		18	3 kW		
	090		9 kV	V	240		24	4 kW		
	110		11 k	W	300		30) kW		
ſ	120		12 k	W	360		30	6 kW		
	170		17 k	W			I			



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025	2.5 k	M/				
060	6 kW					
090	9 kW					
120	12 kV					
V –	12 10	v				
1	120V		А		400V	
2	240V		C		230V	
3	380V		D		690V	
4	480V		E		380V	
5	600V					
6	690V					
7	277V					
8	208V					
VI –	F					
1		15 GPM / WI	LO			
2		20 GPM / 0.75 HP				
3		40 GPM / 1 HP - 1.5 HP				
4		60 GPM / 1.5	5 HP			
VII –						
1	1HP	1200 RPM	А		1HP 1000 RPM	
2	1HP	1800 RPM	В		1HP 1500 RPM	
3	2HP	1200 RPM	С		2HP 1000 RPM	
4	2HP	1800 RPM	D		2HP 1500 RPM	
5	3HP	1200 RPM	E		3HP 1000 RPM	
6	3HP	1800 RPM	F		3HP 1500 RPM	
VIII –						
1		SG 1.6-2.8 G	PM			
2 GG 6-10 GPM						
3 HJ 12-20 GPM		PM				
4		HL 18-30 GP	M			
IX –						
0		24V Relay				
1		Pressure swi	tch			
2		Dual 24VDC				



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DOLA	Phase	Oil 1 Wattage	Oil 2 Wattage	Voltage	-	Oil 1 Motor	Oil 1 Pum p	Oil 2 Motor	Oil Pum p	System Contro
	II		IV	v	-	VI	VII	VIII	IX	х
I –			1	1	I			1	1	
DOL	A	Two Separat	e Oil Circuit F	leating Syste	ems I	ECEx/ATE	X			
II –										
1-		I Phase								
3-		3 Phase								
III –										
025			2.5 kW							
060			6 kW							
090			9 kW							
120			12 kW							
IV –										
025			2.5 kW							
060			6 kW							
090			9 kW							
120			12 kW							
V –				1						
1		120V		7			77V			
2		240V		8			78V			
3		380V		A			V00			
4		480V		С			30V			
5		600V		D			90V			
6		690V		E		38	30V			
VI –]		
1		1HP 120		А			HP 1000 I			
2		1HP 180		В			HP 1500 I			
3		2HP 120		С			HP 1000 I			
4		2HP 180		D			HP 1500 I			
5		3HP 120		E			HP 1000 I			
6		3HP 180	00 RPM	F		31	HP 1500 I	RPM		
VII –		I								
1			G 1.6-2.8 GP							
2		G	G 6-10 GPM							



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VIII –			
1	1HP 1200 RPM	А	1HP 1000 RPM
2	1HP 1800 RPM	В	1HP 1500 RPM
3	2HP 1200 RPM	С	2HP 1000 RPM
4	2HP 1800 RPM	D	2HP 1500 RPM
5	3HP 1200 RPM	Е	3HP 1000 RPM
6	3HP 1800 RPM	F	3HP 1500 RPM
IX -			
1	SG 1 6-2 8 GPM		

1	SG 1.6-2.8 GPM
2	GG 6-10 GPM
3	HJ 12-20 GPM
4	HL 18-30 GPM
X –	
0	24V Relay
1	Pressure switch
2	Dual 24VDC

OSA	Phase	Wattage	Voltage	-	Motor	Pum p	System Control	Area Classification
I	II	III	IV	-	v	VI	VII	VIII

I –
OSA

OSA	Oil Small Ex IECEx/ATEX		
II –			
1-	I Phase		
3-	3 Phase		
III –			
015		1.5 kW	
025		2.5 kW	
040		4.0 kW	

IV –

2	240V
4	480V
8	208V
A	400V
С	230V



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V –			
1	3/4 hp, 1200R (6P)	A	3/4 hp, 1000R (6P)
2	3/4-1 hp, 1800R (4P)	В	3/4 hp, 1500R (4P)
3	2 hp, 1200R (6P)	С	2 hp, 1000R (6P)
4	2 hp, 18000R (4P)	D	2 hp, 1500R (4P)

VI –

1	1.6-2.9 GPM
2	3.1-5.7 GPM
3	6.1-11 GPM
VII –	
VII – 0	24 V Relay

CSA	Phase	Wattage	Voltage	-	Pump/N	Notor	System Control	Area Classification
Ι	II	III	IV	-	v	VI		VII

CSA	Coolant Sm	all Ex IECEx/ATEX	
II –			
1-	I Phase		
3-	3 Phase		1
III –	i		-
030		3 kW	
060		6 kW	
090		9 kW	
120		12 kW	
IV –		-	
2	240V		
4	480V		
А	400V		
С	230V		
V –			
0		SG-0528 1HP 4P	
VI –			_
0		24V Relay	
1		Pressure switch	



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MARKING

Marking has to be readable and indelible; it has to include the following indications:

HOTSTA SPOKANE, WA. 9921		REF. SERIAL NUMBER WHEN ORDERING REPLACEMENT PARTS U.S. PATENT 9,784,470
MODEL	HERTZ	
AMPS CONTROL CIRCUIT V	PHASE	Ex db IIA T3 Gb DEMKO 18 ATEX 2107X C € 0539 © II 2 G Ex db IIA T3 Gb
YEAR OF MFG CAUTION: TO REDUCE RISK OF BEFORE OPEN WARNING: DO NOT OPEN WH	IGNITION OF HAZARDOUS ATMOS ING ENCLOSURE, KEEP TIGHTLY CI IEN AN EXPLOSIVE ATMOSPHERE IS	SPHERES, DISCONNECT FROM SUPPLY CIRCUIT
\bigcirc		

ROUTINE EXAMINATIONS AND TESTS

Each piece of equipment defined above has to have successfully passed; before delivery:

Routine overpressure testing is required on the RTD Element welded joint in accordance with Clause 16.3 of IEC 60079-1. The test shall be conducted at a pressure of 3000 kPa for 10 seconds. The pressure shall be applied from the lead side of the RTD.

Per ExTAG DS 2015/001A, the specific Clauses of IEC 60079-14 Ed. 5 that have been satisfied along with a schedule of Equipment including all IECEx Certified items that comprise the equipment assembly are to be included in the Annex. For a complete assessment of how each Clause was considered, see below.

The following Clauses from IEC 60079-14 Ed. 5 were verified as part of the Ex equipment assembly: 4.1,4.4.1.1, 4.4.1.2, 4.4.2, 6.1, 6.2, 6.3, 6.3.1, 6.5.1, 6.5.2, 8.1, 9.1, 9.3.1, 9.3.2, 9.3.3, 9.3.8, 9.3.9, 9.5, 9.6.2, , 9.6.3, 10.1, 10.2, 10.3, 10.5, 10.6.1, 10.6.2, 11.1, 13.1, 13.2, 13.4, 13.5, 14.1, 14.2, 14.3.

The following Clauses from IEC 60079-14 Ed. 5 were considered not applicable: 4.4.3, 5.12, 5.14, 5.15, 5.16, 6.3.7, 6.4.1, 6.4.2, 6.5.3, 6.7, 6.7.1, 6.7.2, 6.8, 6.9, 9.2, 9.3.4, 9.3.5, 9.4, 10.4, 10.7, 10.8, 11.2.1, 11.2.2, 11.3, 11.4, 11.5, 11.6, 12, 14.4, 15, 16, 17, 18, 19, 20, 21, 22, 23, Annex H.

The following Clauses from IEC 60079-14 Ed. 5 need to be verified on site: 4.2, 4.3, 4.5, 5.1, 5.2, 5.3, 5.4.1, 5.4.2, 5.4.3, 5.4.4, 5.4.5, 5.5, 5.6.1, 5.6.2, 5.6.3, 5.7, 5.8, 5.9, 5.10, 5.11, 5.13, 6.3.2, 6.3.3, 6.3.4, 6.3.4, 6.3.5, 6.3.6, 6.6, 7, 8.2, 8.3, 9.3.6, 9.3.7, 9.6.1, 9.6.4, 9.6.5, 9.6.6, Annex A, Annex C, Annex G, Annex K.



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LIST OF CERTIFIED COMPONENTS

Туре	Certificate
Adalet Ex "d" flameproof enclosure 141406 N4 and 122406	IECEx UL 16.0081U
Hotstart E-Series Heating Elements	IECEx UL 18.0071X
ELPROM Ex "d" motors Frame O-M Series	IECEx EUT 14.001X
WEG Ex 'd' Motors Frame Size 90 to 132	IECEx BAS 13.0045X
ABB Ex 'd' Motors M3K_80 and M3K_80 Series	IECEx LCI 04.0029X
Siemens Ex 'd' Series D ^{***} -112 ^{**} - ^{***} , 1PS [*] 11 [*] - ^{****} , 1MD ^{*11*} - ^{****}	IECEx CNEX 17.0004X
Killark Ex 'd' RE-EX Series	IECEx SIR 13.0073U
Pyromation Ex 'd' Outlet Bodies 93 Series	IECEx SIR 15.01094
Adalet Ex 'd' selector switches, XHSS	IECEx UL 15.0123U
Adalet Ex 'd' reset operators, XRBL	IECEx UL 15.0123U
Adalet Ex 'd' pushbutton, XHPB	IECEx UL 15.0123U
Killark Ex 'd' blanking elements, Ex Series	IECEx SIR 13.0073U
CMP, Ex 'd' cable glands, TMC2X Series	IECEx SIR 09.0069X
CMP Ex 'd' cable glands, PXSS2KREX Series	IECEx SIR 13.0027X
Killark, Ex 'd' elbows, Ex Series	IECEx QPS 16.0012