ARIELTECH®

MANUFACTURER OF ENCLOSURE CLIMATE CONTROL SOLUTIONS

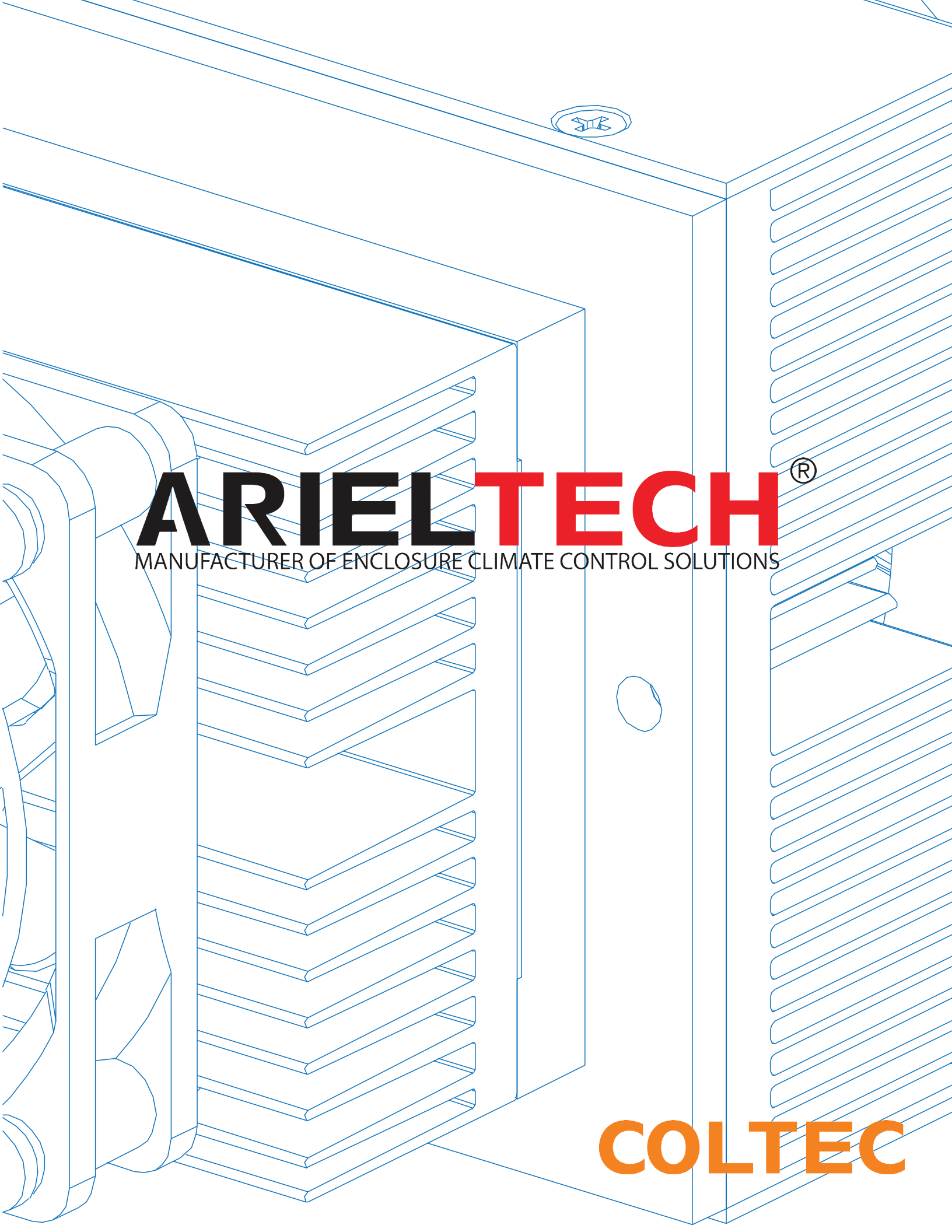
COLTEC

THERMOELECTRIC UNIT

CE

Ariel Technology Inc. 9-1111 Gorham St., Newmarket, Ontario, Canada L3Y 8X8

Tel: (905) 895-5900 Fax: (905) 895-5960 (USA/Canada) Toll Free 1-855-895-5900 info@arieltech.ca www.arieltech.ca



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ABOUT ARIELTECH

The Ariel Technology Inc. is a leading manufacturer of climate control products.

The Newmarket, Ontario, Canada facility, nestled just north of Toronto, Ontario, Canada is our state-of-the-art design, engineering, manufacturing & assembly hub.

Proudly manufacturing climate control products in Canada, we take pride that with over 25 years of combined climate control experience and expertise that Ariel Technology Inc. is an undisputed leader in climate control systems for enclosure normally closed thermostats, normally open thermostats, enclosure hygrostats, enclosure filters and fan/filters, thermoelectric units, enclosure heaters, and all related accessories environment applications.

Such products require a high degree of engineering sophistication and precision manufacturing capability. Our products such as the COLTEC will outperform similar products in the market hands down.

Quality assurance is an integral part of Ariel Technology Inc. management and manufacturing philosophy.

WHY ARIELTECH

We manufacture superb quality, highly engineered climate control equipment for electrical industries to control air quality inside of electrical enclosures. Choosing trustworthy, proven and highly qualified suppliers increases Arieltech's ability to meet the needs and requirements of its customers.

Ariel Technology Inc. climate control equipment is used to control electrical enclosure air quality, temperature and humidity.

When using Arieltech's very reliable climate control systems (thermostats, hygrostats, filters, fan/filters, heaters, and coolers) It increases the life expectancy of equipment inside of electrical enclosures and prevents the undesirable cost of maintenance or replacement parts, this saves you money and energy in the long run.

Air to Air Thermoelectric Unit (COLTECN series)

Model	Cooling Capacity	Voltage	Stable Current	Dimensions		Weight		Ambient Tem. Range	
	(W)	(Vdc)	(A)	(mm)	(Inch)	(Kg)	(lb)	(°C)	(°F)
COLTECN01512-55	19	12	2.2 ±10%	121x100x80	4.76x3.94x3.15	0.6	1.32	-10 to +60	14 to +140
COLTECN02512-55	25	12	2.5 ±10%	108x100x80	4.25x3.94x3.15	0.6	1.32	-10 to +60	14 to +140
COLTECN03512-55	35	12	3.9 ±10%	144x120x103	5.67x4.73x4.05	1.1	2.43	-10 to +60	14 to +140
COLTECN05012-55	50	12	8.2 ±10%	148x160x123	5.83x6.30x4.84	1.8	3.97	-10 to +60	14 to +140
COLTECN05024-55	50	24	4.0 ±10%	160x122x147	6.30x4.80x5.79	1.8	3.97	-10 to +60	14 to +140
COLTECN08024-55	80	24	5.0 ±10%	241x156x210	9.49x6.14x8.27	2.8	6.17	-10 to +60	14 to +140
COLTECN10012-55	100	12	12.6 ±10%	241x156x210	9.49X6.14X8.27	2.8	6.17	-10 to +60	14 to +140
COLTECN10024-55	100	24	8.2 ±10%	200x180x89	7.87x7.09x7.09	3.0	6.61	-10 to +60	14 to +140
COLTECN10048-55	100	48	2.5 ±10%	200x180x180	7.87x7.09x7.09	3.0	6.61	-10 to +60	14 to +140
COLTECN20048-55	200 ±10%	48	7.5 ±10%	400x200x180	15.75x7.87x7.09	7.5	16.53	-10 to +60	14 to +140

Air to Plate Thermoelectric Unit (COLTECAP series)

Model	Cooling Capacity	Voltage	Stable Current	Dimensions		Weight		Ambient Tem. Range	
	(W)	(Vdc)	(A)	(mm)	(Inch)	(Kg)	(lb)	(°C)	(°F)
COLTECAP04012	42	12	4.1 ±10%	122x100x82	4.80x3.94x3.23	0.8	1.76	0 to +60	32 to +140
COLTECAP05012	42	12	8.5 ±10%	160x122x82	6.30x4.80x3.23	1.1	2.43	0 to +60	32 to +140
COLTECAP05024	42	24	4.3 ±10%	160x122x82	6.30x4.80x3.23	1.1	2.43	0 to +60	32 to +140
COLTECAP08024	80	24	4.3 ±10%	203x155x152	7.99x6.10x4.98	3.6	7.94	0 to +60	32 to +140

Air to Liquid Thermoelectric Unit (COLTECAL series)

Model	Cooling Capacity	Voltage	Stable Current	Dimensions		Weight		Ambient Tem. Range	
	(W)	(Vdc)	(A)	(mm)	(Inch)	(Kg)	(lb)	(°C)	(°F)
COLTECAL05012	50	12	8.0 ±10%	160x120x84	6.30x4.7x3.3	1.5	3.30	-10 to +55	14 to +131
COLTECAL05024	50	24	4.0 ±10%	160x120x84	6.30x4.7x3.3	1.5	3.30	-10 to +55	14 to +131
COLTECAL08024	80	24	5.1 ±10%	203x155x147	7.99x6.10x5.8	3.1	6.83	-10 to +55	14 to +131
COLTECAL10012	100	12	14.3 ±10%	203x155x147	7.99x6.10x5.8	3.1	6.83	-10 to +55	14 to +131
COLTECAL10024	100	24	5.7 ±10%	124x122x97	8.66x6.10x3.8	1.8	3.96	-10 to +55	14 to +131
COLTECAL15024	150	24	8.2 ±10%	160x155x150	6.3x6.1x5.9	3.1	6.83	-10 to +55	14 to +131
COLTECAL30024	300	24	14 ±10%	275x161x161	10.83X6.34X6.34	5.0	10.91	-10 to +55	14 to +131

Liquid to Liquid Thermoelectric Unit (COLTECLL series)

Model	Cooling Capacity	Voltage	Stable Current	Dimensions		Weight		Ambient Tem. Range	
	(W)	(Vdc)	(A)	(mm)	(Inch)	(Kg)	(lb)	(°C)	(°F)
COLTECLL08024	80	24	4.2	200x36x60	7.87x1.42x2.36	1.2	2.65	0 to +60	32 to +140
COLTECLL32024	320	24	13.3	240x102x60	9.45x4x2.36	3.7	8.16	0 to +60	32 to +140

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ADVANTAGES

Thermoelectric modules have no moving parts and do not require the use of chlorofluorocarbons. Therefore, they are safe for the environment, inherently reliable, and virtually maintenance free.

They can be operated in any orientation and are ideal for cooling devices that might be sensitive to mechanical vibration. Their compact size also makes them ideal for applications that are size, or weight limited, and where even the smallest compressor would have excess capacity. Their ability to heat and cool by a simple reversal of current flow is useful for applications where both heating and cooling is necessary or where precise temperature control is critical.

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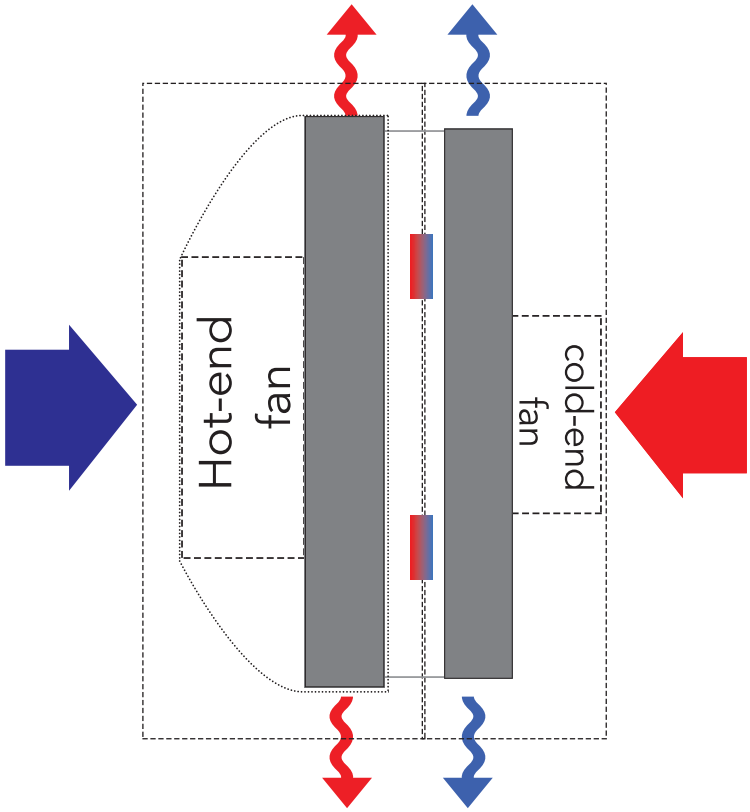
FEATURES

- Safe for the environment
- Zero maintenance, filters, compressors or refrigerant required
- No air exchange between ambient and cabinet air
- Continuous worry-free operation
- Installs vertically or horizontally. Can be installed on any plate thickness by means of screws
- Uses quality ball bearing fans
- Standard direction air flow
- Ingress Protection is NEMA 12/ IP 55



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APPLICATION

Thermoelectric coolers are used for the most demanding industries such as medical, laboratory instruments, aerospace, semiconductors, telecommunications equipment, industrial and electronic enclosures.

Uses range from simple food and beverage coolers for an afternoon picnic to extremely sophisticated temperature control systems in missiles and space vehicles.

A thermoelectric cooler permits lowering of the temperature of an object below ambient temperature as well as stabilizing the temperature of objects above ambient temperature.

A thermoelectric cooler is different from a heat sink because it provides active cooling, unlike a heat sink, which provides only passive cooling.

Ariel Technology Inc. provides a variety of solutions for different applications as follows:

Air to Air Thermoelectric Unit

(COLTECN series)
Telecommunication Battery Temperature Control, Industries Equipment Power Cabinet Cooling, etc.

Air to Plate Thermoelectric Unit

(COLTECAP series)
Medical Devices, Instrument and Laboratory Test Equipment, Direct Contact Cooling Design, etc.

Air to Liquid Thermoelectric Unit

(COLTECAL series)
Medical Hairdressing Devices, Laser Equipment, Equipment Requiring a Separate Cooling Device Application.

Liquid to Liquid Thermoelectric Unit

(COLTECLL series)
LED Manufacturing Evaporating Systems, Analytic Instruments, etc.

All specifications subject to change without notice.

Standard Warranty For All Products
Ariel Technology, Inc. (“Manufacturer”)

Ariel Technology Inc. is the manufacturer (the “Manufacturer”) of the products (the “Products”) contained within the Products Instruction Manual and Product Catalogues. This warranty solely applies to the Products manufactured by the Manufacturer.

Warranty Terms and Conditions (“Warranty Terms”):

1. The Manufacturer warrants that on the date of shipment the Products are of the kind and quality described herein and are free of non-conformities in workmanship and material.

Buyer’s exclusive remedy for a nonconformity in any item of the Products shall be the replacement (at the Manufacturer’s option) of the item and any affected part of the Products, provided: (a) the non conforming product failed during normal, intended and proper use as per the Product’s Instruction Manual and Product Catalogue of such product; (b) the failure is not attributable to improper or unauthorized application, storage, handling, modification, installation or use; and (c) the Manufacturer is given the reasonable opportunity to inspect the non-conforming product.

2. The Manufacturer’s obligation to repair or replace shall be in effect for a period of one (1) year from initial use of the Products but not more than eighteen (18) months from the Manufacturer’s shipment of the Products, provided the Buyer has sent a written notice within that period of time to the Manufacturer that the Products do not conform to the above warranty. Any replaced Product shall be warranted for the remainder of the original period of notification set forth above, but in no event less than 12 months from repair or replacement. At its expense, the Buyer shall remove and ship to the Manufacturer any such nonconforming items and shall reinstall the replaced Product. The shipment address for the Manufacturer is: Unit 9- 1111 Gorham Street, Newmarket, ON L3Y 8X8. The Buyer shall grant the Manufacturer access to the Product (intended to be replaced) at all reasonable times in order for the Manufacturer to determine any nonconformity in the Product. The Manufacturer shall have the right of disposal of the Product replaced by it. If the Manufacturer is unable or unwilling to replace, or if replacement Product does not remedy the nonconformity, the Manufacturer and the Buyer shall negotiate an equitable adjustment in the purchase price, which may or may not include a full refund of the price of such nonconforming Product.

3. Except for as provided in the Products Instructions Manual, the Manufacturer does not warrant and is not responsible for:

(i) Failures, defects or limitations in performance caused by or due to, in whole or in part: a) power outages/failures or power surges, water or floods, snow, ice, weather conditions, such as excessive cold or hot temperatures, excessive humidity levels, accidents, use of Products in corrosive environments, failure caused by third parties actions, acts of God, or other such events outside the Manufacturer’s control; b) customer’s non-compliance with the Manufacturer’s Products Instruction Manual and Product Catalogues, negligence, mishandling, improper use or storage, attempts to repair or alter the Products in any way with consulting the Manufacturer, and servicing of the Products; and c) use of Products in combination with other equipment or products which lack a qualified agency’s approval for quality. Any alternations or modifications to the whole or a part of the Product without the Manufacturer’s prior written authorization, voids this Warranty.

4. THE MANUFACTURER HEREBY DISCLAIMS ALL OTHER REPRESENTATIONS, CONDITIONS AND WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THOSE CONTAINED IN THE SALES OF GOODS ACT, ONTARIO, R.S.O. 1990, c. S.1. AND THE CIVIL CODE OF QUEBEC, CQLR CCQ-1991. THE MANUFACTURER SPECIFICALLY DISCLAIMS, INCLUDING BY WAY OF EXAMPLE AND NOT LIMITATION, THE IMPLIED WARRANTIES OF TITLE, MERCHANTABILITY, NONINFRINGEMENT AND FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT SHALL THE MANUFACTURER BE LIABLE FOR ANY INCIDENTAL, SPECIAL, CONSEQUENTIAL OR PUNITIVE DAMAGES, WHETHER ARISING IN CONTRACT, TORT OR OTHERWISE UNDER ANY LEGAL PRINCIPLE, THEORY OR LAWS, EVEN IF IT HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. THE LIMITATIONS SET FORTH HERE WILL APPLY EVEN IF THE REMEDIES OF ERROR CORRECTION, REPAIR OR REPLACEMENT, REPERFORMANCE OF SERVICES AND REFUND OF PAYMENTS COMPLETELY FAIL OF THEIR ESSENTIAL PURPOSE. NOTWITHSTANDING ANYTHING HEREIN TO THE CONTRARY, THE LIMIT OF MANUFACTURER'S LIABILITY (WHETHER IN CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY, BY STATUTE OR OTHERWISE) TO CUSTOMER OR TO ANY THIRD PARTY CONCERNING THE MANUFACTURER'S PRODUCTS SOLD TO CUSTOMER AND WARRANTED HEREUNDER, THE MANUFACTURER'S PERFORMANCE OR NONPERFORMANCE, OR IN ANY MANNER RELATED TO THIS STANDARD WARRANTY TERMS, FOR ANY AND ALL CLAIMS WILL NOT IN THE AGGREGATE EXCEED THE ACTUAL AMOUNTS RECEIVED BY MANUFACTURER FOR THE SPECIFIC PRODUCT WITH RESPECT TO WHICH SUCH CLAIM IS MADE.

5. Buyer and successors of Buyer are limited to the remedies specified in this warranty and shall have no others for a nonconformity in the Products. Buyer agrees that these remedies provide Buyer and its successors with a minimum adequate remedy and are their exclusive remedies, whether Buyer's or its successors' remedies are based on contract, warranty, tort (including negligence), strict liability, indemnity, or any other legal theory, and whether arising out of warranties, representations, instructions, installations, or non-conformities from any cause.

6. The Warranty Terms are governed by and shall be construed under the laws of Ontario, Canada. In case of any dispute that may arise between the customer and the Manufacturer, the Courts of Ontario shall have the sole jurisdiction to resolve such disputes. The Manufacturer and customer explicitly agree that the terms of Sales of Goods Act, Ontario, R.S.O. 1990, c.S.1, and the United Nations Convention on Contracts for the International the Sale of Goods does not apply to the parties or any transaction between the Manufacturer and the customer.

Ariel Technology Inc. Customer Support Number: (905) 895-5900

• Innovative Design
• Precision Engineering
• Proudly Made in Canada

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L3Y 8X8 Canada
Tel.: +1 905 895 5900
Fax: +1 905 895 5960
(USA/Canada) Toll Free 1-855-895-5900
info@arieltech.ca
www.arieltech.ca