

# **ARIELTECH**<sup>®</sup>

MANUFACTURER OF ENCLOSURE CLIMATE CONTROL SOLUTIONS

## **CLIMATE CONTROL SOLUTIONS**



**FAN FILTERS | EXHAUST FILTERS  
THERMOSTATS | HYGROSTAT | THERMOELECTRIC COOLING UNITS**

# ABOUT ARIELTECH

Ariel Technology Inc. is an industry leading manufacturer of Control Panel and Electrical Enclosure climate control solutions such as industrial Fan Filters, Exhaust Filters, Thermostats, Hygrostat, Thermoelectric Cooling Units and Heaters.

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

Proudly manufacturing Climate Control solutions in Canada, we take pride with over 25 years of combined climate control manufacturing, engineering experience and expertise.

Ariel Technology Inc. is an undisputed leader in Climate Control solutions for control panel and electrical enclosure accessories and thermal management applications.

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



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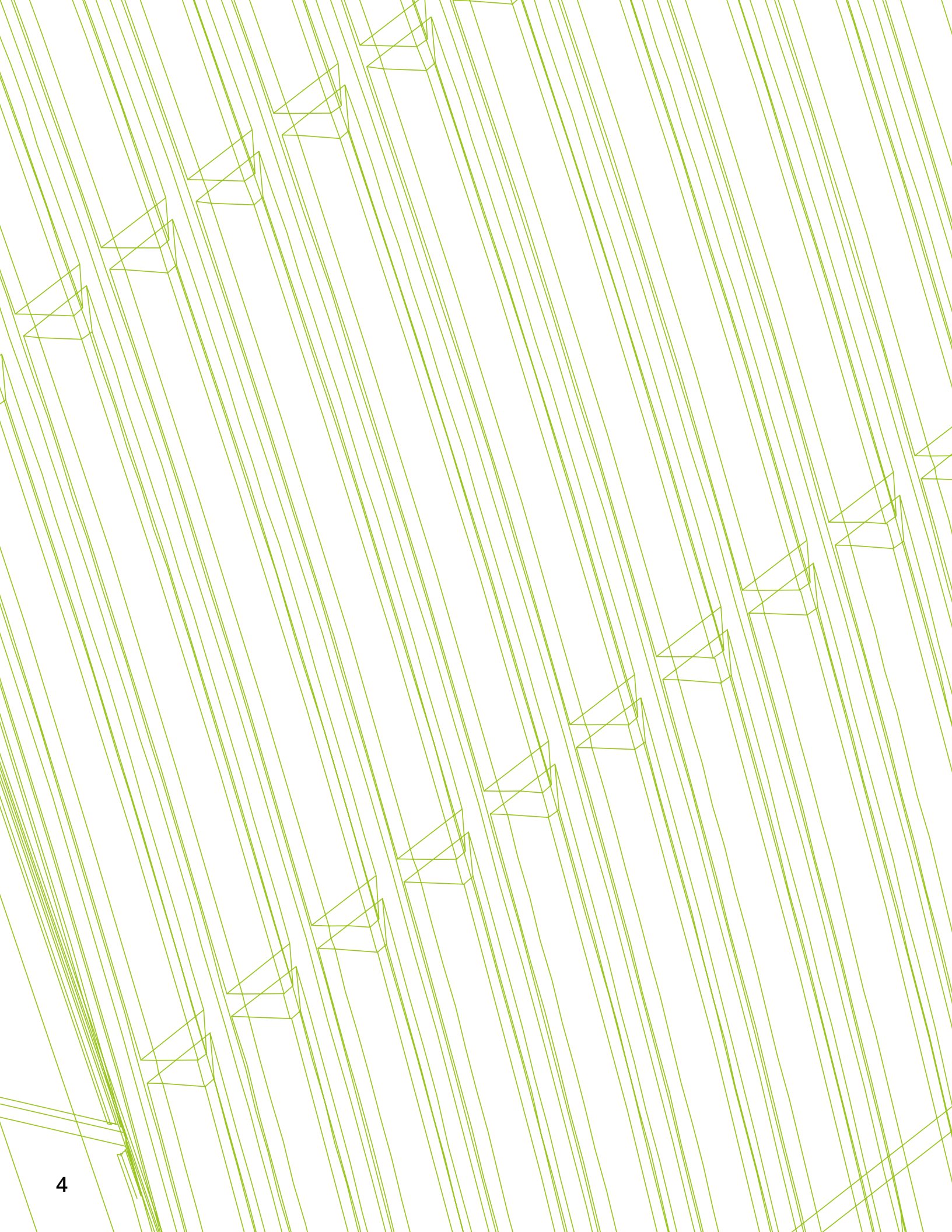
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# EXHAUST FILTERS FAN FILTERS FTEC

## Features:

- UL and cUL listed and CE Certified
- Type 12 and Type 3R NEMA Rating  
NO HOOD REQUIRED for Type 3R
- IP 54 using G3 filter mat (standard)
- IP 55 using G4 filter mat (optional)
- 115 VAC, 230 VAC, 12, 24, and 48 VDC available
- Standard RAL 7035 and RAL 7032 colors
- High performance Polyurethane sealing gasket
- Uses high quality ball bearing fans
- Easily snaps into place without the use of screws
- Washable and reusable filter mat
- Flame retardant plastic housing, UL 94-V0
- UV resistant
- Waterproof



# TECHNICAL SPECIFICATIONS

<b>Mounting</b>	Snaps into place without using screws
<b>Cooling Capacity</b>	Airflow from 12 CFM to 450 CFM - 20 m <sup>3</sup> /hr to 750 m <sup>3</sup> /hr
<b>Operating Temperature</b>	-4 °F to 158 °F / -20 °C to +70 °C
<b>Storage Temperature</b>	-4 °F to 158 °F / -20 °C to +70 °C
<b>Ingress Protection</b>	According to ANSI 60529 IP 54 using G3 filter mat IP 55 using G4 filter mat
<b>NEMA Ratings</b>	Type 12 for indoor application Type 3R for outdoor application, UV resistant
<b>Material</b>	PC/ABS: Flame retardant, UL 94-V0 for indoor application PC: Flame retardant, UL 94-V0 for outdoor application
<b>Color</b>	Standard colors are RAL 7035 light grey and RAL 7032 dark grey Optional color is available per request
<b>Air Flow Direction</b>	From outside to the inside of enclosure (Standard) Reverse flow direction (Optional)
<b>Filter Mat</b>	According to EN 779 classification: G3 filter mat is for IP 54 filter (Standard). G4 filter mat is for IP 55 filter (standard). The filter mats are made of high performance nonwovens produced from elastic, break-resistant polyolefin fibres with thermal bonding. The filter mats can be washed and reused. Even after washing, the filter mats remain dimensionally stable, thus retaining their technical filtering properties. The fire class remains unaltered.
<b>Sealing</b>	Polyurethane sealing gasket
<b>Fan Bearing</b>	Ball bearing (Standard) Sleeve bearing (Optional)

# FTEC Part Number ID Chart

<b>1-Size:</b>	10 = 116 x 116 mm <sup>2</sup> (4.57" x 4.57") 16 = 160 x 160 mm <sup>2</sup> (6.30" x 6.30") 20 = 206 x 206 mm <sup>2</sup> (8.11" x 8.11") 26 = 260 x 260 mm <sup>2</sup> (10.24" x 10.24") 32 = 326 x 326 mm <sup>2</sup> (12.83" x 12.83")
<b>2-Color:</b>	L = RAL 7035 D = RAL 7032 O = OPTIONAL
<b>3-Ingress Protection:</b>	4 = IP 54 5 = IP 55
<b>4-Nema Rating:</b>	X = TYPE 12 Z = TYPE 3R
<b>5-Voltage:</b>	12D = 12 VDC 24D = 24 VDC 48D = 48 VDC 115 = 115 VAC 230 = 230 VAC
<b>6-Flow Direction:</b>	S = STANDARD R = REVERSE
<b>7-Bearing Type:</b>	B = BALL BEARING S = SLEEVE BEARING
<b>8-Fan Size:</b>	S = SMALL BLANK = STANDARD M = MEDIUM B = BIG
<b>FTEC26L4X-115SBS</b>	
<b>FAN FILTER, 260X260, RAL 7035, IP 54, TYPE 12, 115 V (50/60 HZ), STANDARD FLOW DIRECTION, BALL BEARING, WITH SMALL FAN</b>	

**FTEC**

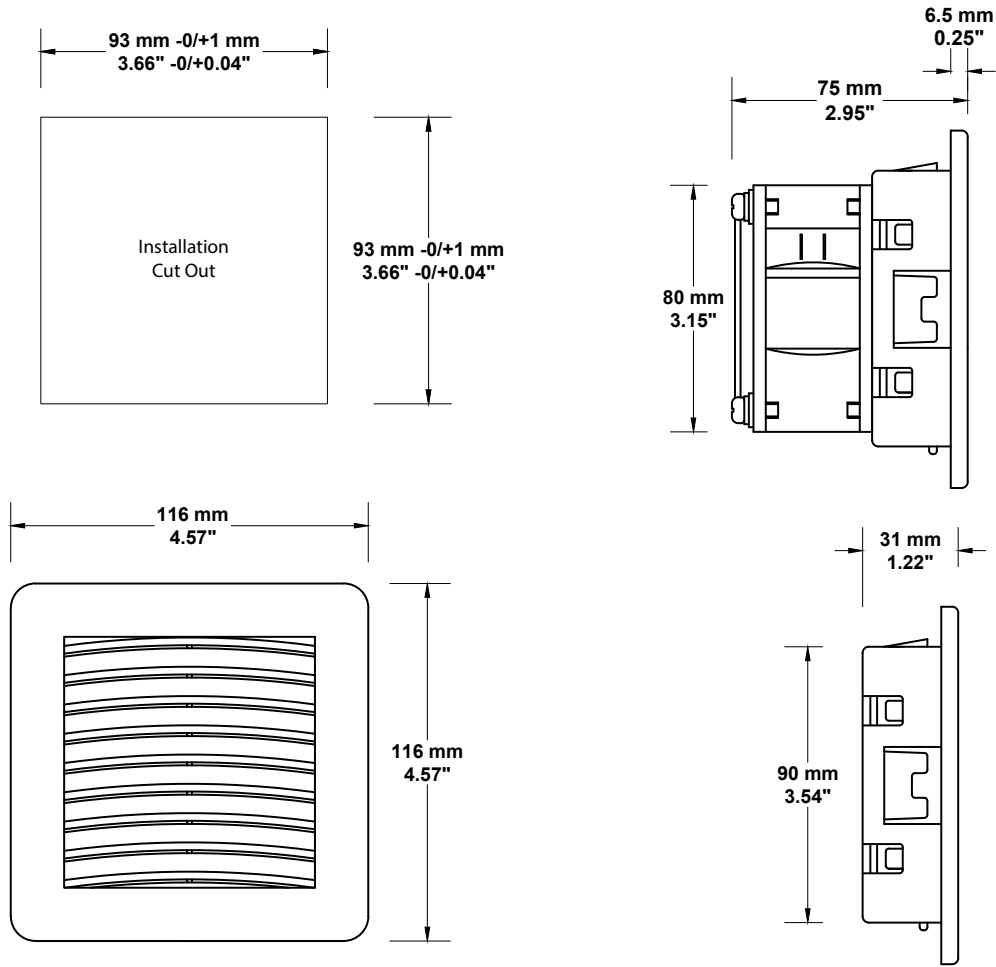


# FTEC 10 SERIES

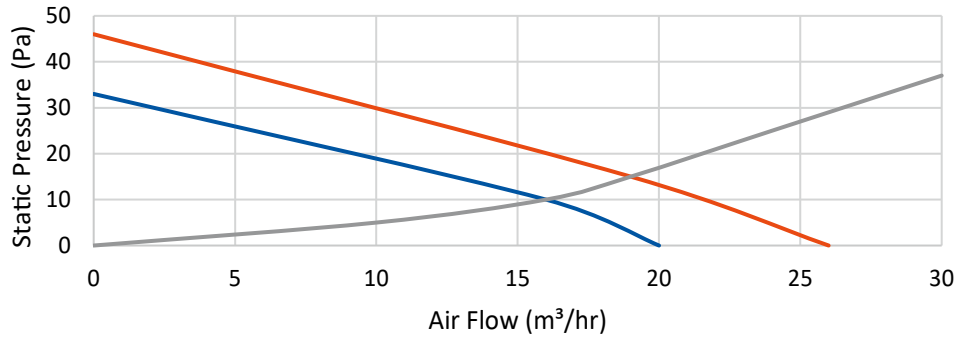
Part ID No. Fan Filter	FTEC10(*)4(**)-115SB	FTEC10(*)4(**)-230SB	FTEC10(*)5(**)-115SB	FTEC10(*)5(**)-230SB
Dimensions	4.57" X 4.57" X 2.95" / 116 X 116 X 75 mm <sup>3</sup>		4.57" X 4.57" X 2.95" / 116 X 116 X 75 mm <sup>3</sup>	
Weight	1 lb / 450 gr		1 lb / 450 gr	
Rated Voltage	115 VAC	230 VAC	115 VAC	230 VAC
Frequency	50/60 Hz		50/60 Hz	
Max Air Flow	12/15 CFM - 20/26 m <sup>3</sup> /hr		11/13.7 CFM - 18.4/23.9 m <sup>3</sup> /hr	
Max Static Pressure (Air Flow=Zero)	0.133/0.185 in-H <sub>2</sub> O - 33/46 Pa		0.122/0.17 in-H <sub>2</sub> O - 30/42 Pa	
Rated Current	0.18/0.13 A ± 10%	0.12/0.09 A ± 10%	0.18/0.13 A ± 10%	0.12/0.09 A ± 10%
Power Consumption	12/9 W ± 10%	17/12 W ± 10%	12/9 W ± 10%	17/12 W ± 10%
Operating Temperature	-4 to +158 °F / -20 to +70 °C		-4 to +158 °F / -20 to +70 °C	
Storage Temperature	-4 to +158 °F / -20 to +70 °C		-4 to +158 °F / -20 to +70 °C	
Noise Level	33/38 dB(A)		33/38 dB(A)	
Durability	50,000 hrs	50,000 hrs	50,000 hrs	50,000 hrs
Connection	2 Poles Terminal	2 Poles Terminal	2 Poles Terminal	2 Poles Terminal
Part ID No. Exhaust Filter	FTEC10(*)4(**)		FTEC10(*)5(**)	
Dimensions	4.57" X 4.57" X 1.22" / 116 X 116 X 31 mm <sup>3</sup>		4.57" X 4.57" X 1.22" / 116 X 116 X 31 mm <sup>3</sup>	
Cut-out Dimensions	3.66" -0/+0.04" / 93 mm -0/+1 mm		3.66" -0/+0.04" / 93 mm -0/+1 mm	
Weight	0.24 lb / 110 gr		0.24 lb / 110 gr	
Ingress Protection	IP 54-Using G3 Filter Mat		IP 55-Using G4 Filter Mat	
(*) "L" for RAL 7035, "D" for RAL 7032, and "O" for Optional color				
(**) "X" for Type 12 NEMA Rating, Indoor application, and PC/ABS material. "Z" for Type 3R NEMA Rating, Outdoor application, and PC material.				





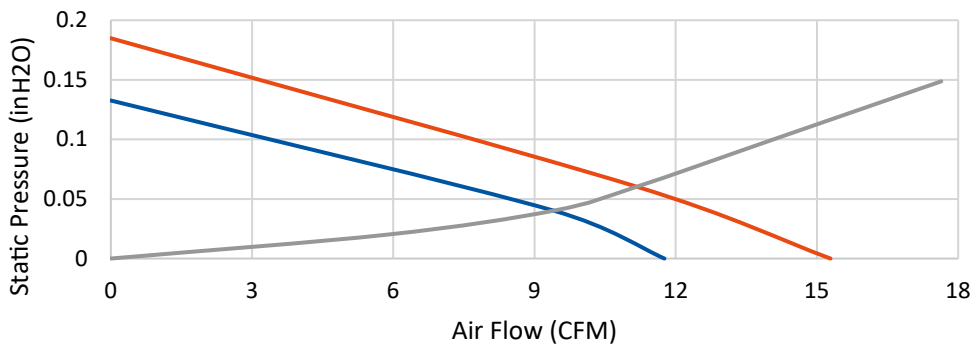


FTEC10L4X-115SB / FTEC10L4X-230SB



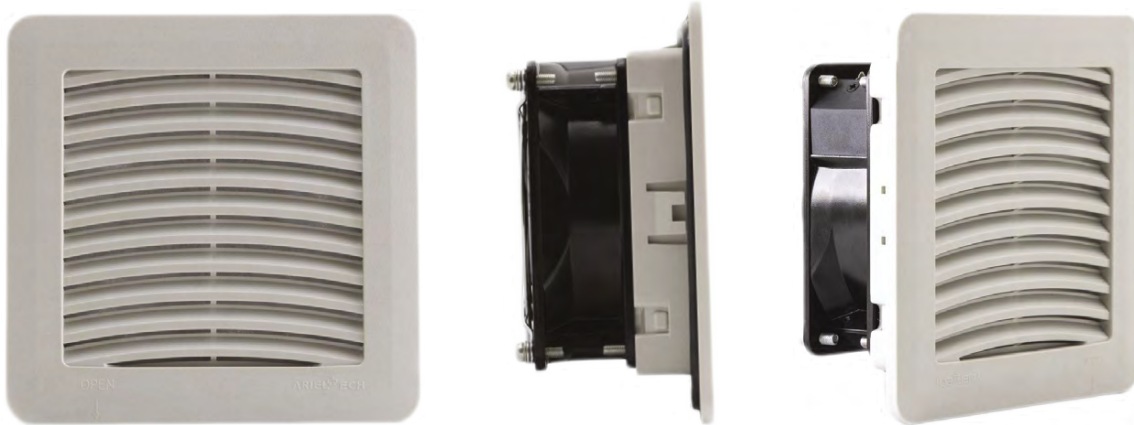
- 50 HZ
- 60 HZ
- FTEC10L4X

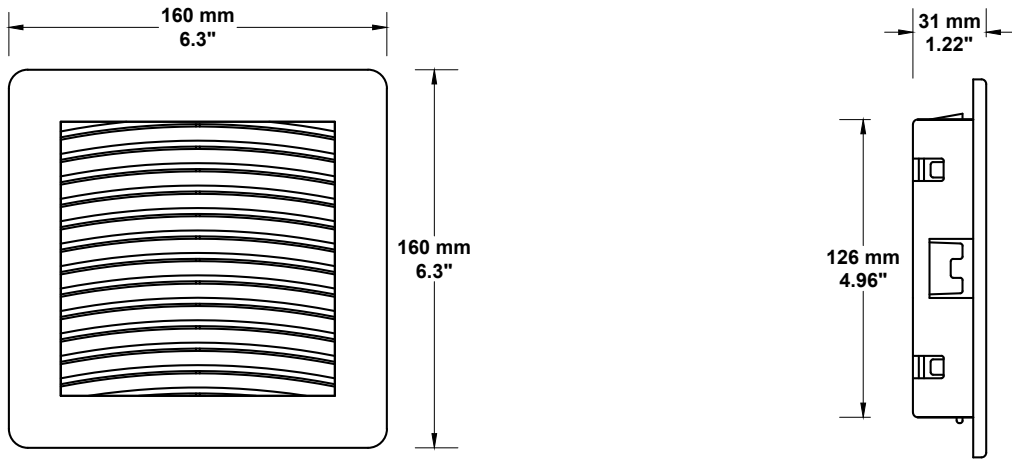
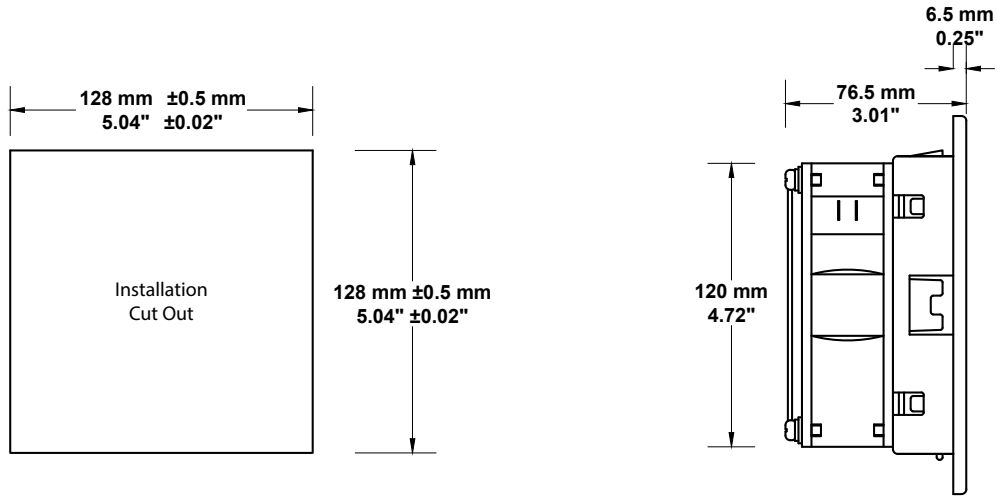
FTEC10L4X-115SB / FTEC10L4X-230SB



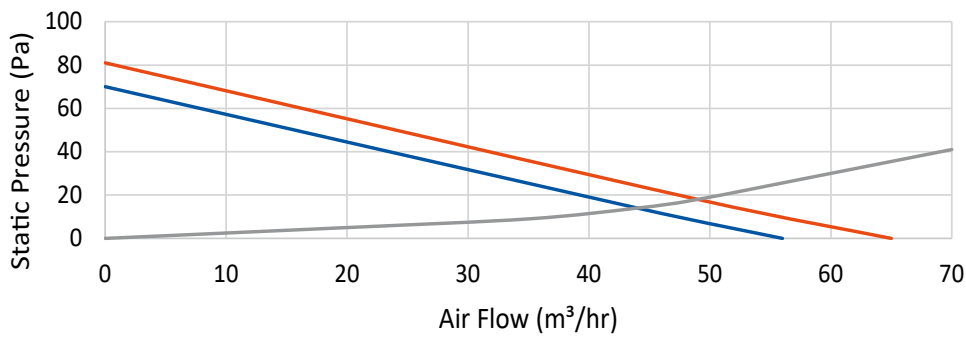
# FTEC 16 SERIES

Part ID No. Fan Filter	FTEC16(*)4(**)-115SB	FTEC16(*)4(**)-230SB	FTEC16(*)5(**)-115SB	FTEC16(*)5(**)-230SB
Dimensions	6.3" X 6.3" X 3.01" / 160 X 160 X 76.5 mm <sup>3</sup>		6.3" X 6.3" X 3.01" / 160 X 160 X 76.5 mm <sup>3</sup>	
Weight	1.54 lb / 700 gr		1.54 lb / 700 gr	
Rated Voltage	115 VAC	230 VAC	115 VAC	230 VAC
Frequency	50/60 Hz		50/60 Hz	
Max Air Flow	33/38 CFM - 56/65 m <sup>3</sup> /hr		31/35 CFM - 52/60 m <sup>3</sup> /hr	
Max Static Pressure (Air Flow=Zero)	0.281/0.326 in-H <sub>2</sub> O - 70/81 Pa		0.26/0.30 in-H <sub>2</sub> O - 65/75 Pa	
Rated Current	0.26/0.22 A ± 10%	0.13/0.11 A ± 10%	0.26/0.22 A ± 10%	0.13/0.11 A ± 10%
Power Consumption	20/17 W ± 10%	17/15 W ± 10%	20/17 W ± 10%	17/15 W ± 10%
Operating Temperature	-4 to +158 °F / -20 to +70 °C		-4 to +158 °F / -20 to +70 °C	
Storage Temperature	-4 to +158 °F / -20 to +70 °C		-4 to +158 °F / -20 to +70 °C	
Noise Level	42/46 dB(A)		42/46 dB(A)	
Durability	50,000 hrs	50,000 hrs	50,000 hrs	50,000 hrs
Connection	2 Poles Terminal	2 Poles Terminal	2 Poles Terminal	2 Poles Terminal
Part ID No. Exhaust Filter	FTEC16(*)4(**)		FTEC16(*)5(**)	
Dimensions	6.3" X 6.3" X 1.22" / 160 X 160 X 31 mm <sup>3</sup>		6.3" X 6.3" X 1.22" / 160 X 160 X 31 mm <sup>3</sup>	
Cut-out Dimensions	5.04" ±0.02" / 128 mm ±0.5 mm		5.04" ±0.02" / 128 mm ±0.5 mm	
Weight	0.44 lb / 200 gr		0.44 lb / 200 gr	
Ingress Protection	IP 54-Using G3 Filter Mat		IP 55-Using G4 Filter Mat	
(*) "L" for RAL 7035, "D" for RAL 7032, and "O" for Optional color				
(**) "X" for Type 12 NEMA Rating, Indoor application, and PC/ABS material. "Z" for Type 3R NEMA Rating, Outdoor application, and PC material.				

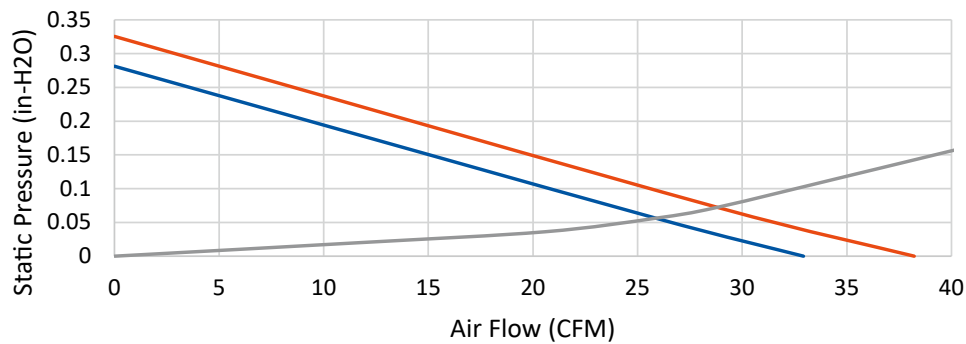




FTEC16L4X-115SB / FTEC16L4X-230SB



FTEC16L4X-115SB / FTEC16L4X-230SB



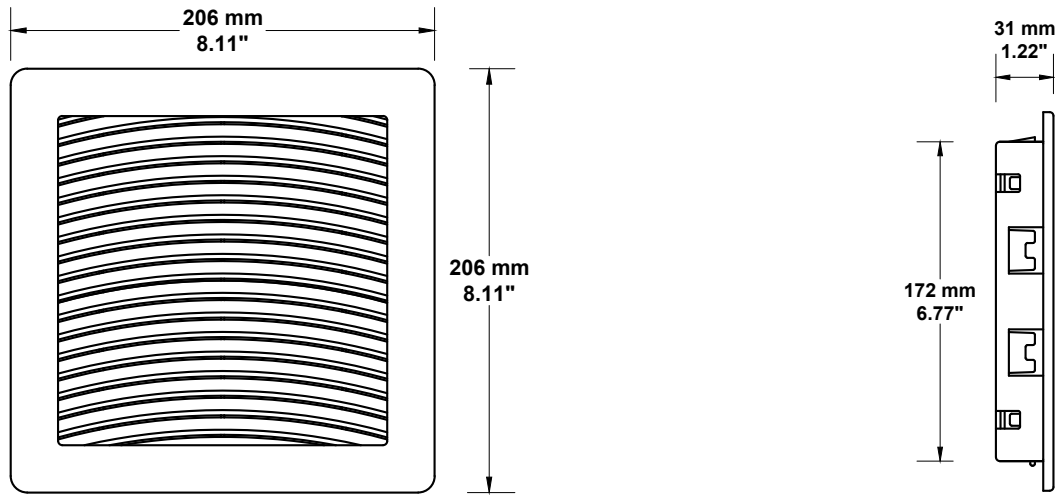
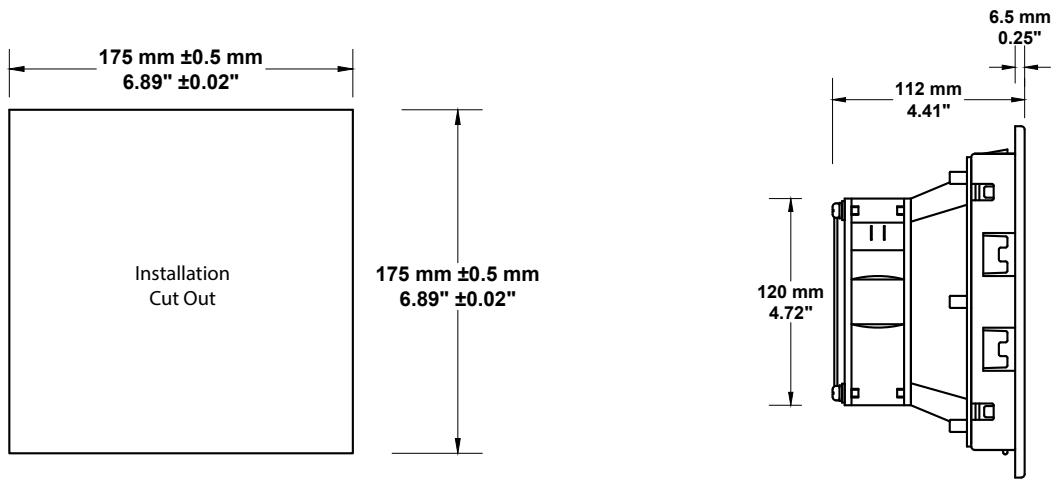
# FTEC 20 SERIES

Part ID No. Fan Filter	FTEC20(*)4(**)-115SB	FTEC20(*)4(**)-230SB	FTEC20(*)5(**)-115SB	FTEC20(*)5(**)-230SB
Dimensions	8.11" X 8.11" X 4.41" / 206 X 206 X 112 mm <sup>3</sup>		8.11" X 8.11" X 4.41" / 206 X 206 X 112 mm <sup>3</sup>	
Weight	2.05 lb / 930 gr		2.05 lb / 930 gr	
Rated Voltage	115 VAC	230 VAC	115 VAC	230 VAC
Frequency	50/60 Hz		50/60 Hz	
Max Air Flow	71/80 CFM - 120/136 m <sup>3</sup> /hr		66/75 CFM - 112/126 m <sup>3</sup> /hr	
Max Static Pressure (Air Flow=Zero)	0.358/0.386 in-H <sub>2</sub> O - 89/96 Pa		0.33/0.36 in-H <sub>2</sub> O - 84/90 Pa	
Rated Current	0.26/0.22 A ± 10%	0.13/0.11 A ± 10%	0.26/0.22 A ± 10%	0.13/0.11 A ± 10%
Power Consumption	20/17 W ± 10%	17/15 W ± 10%	20/17 W ± 10%	17/15 W ± 10%
Operating Temperature	-4 to +158 °F / -20 to +70 °C		-4 to +158 °F / -20 to +70 °C	
Storage Temperature	-4 to +158 °F / -20 to +70 °C		-4 to +158 °F / -20 to +70 °C	
Noise Level	43/47 dB(A)		43/47dB(A)	
Durability	50,000 hrs	50,000 hrs	50,000 hrs	50,000 hrs
Connection	2 Poles Terminal	2 Poles Terminal	2 Poles Terminal	2 Poles Terminal
Part ID No. Filter	FTEC20(*)4(**)		FTEC20(*)5(**)	
Dimensions	8.11" X 8.11" X 1.22" / 206 X 206 X 31 mm <sup>3</sup>		8.11" X 8.11" X 1.22" / 206 X 206 X 31 mm <sup>3</sup>	
Cut-out Dimensions	6.89" ±0.02" / 175 mm ±0.5 mm		6.89" ±0.02" / 175 mm ±0.5 mm	
Weight	0.66 lb / 300 gr		0.66 lb / 300 gr	
Ingress Protection	IP 54-Using G3 Filter Mat		IP 55-Using G4 Filter Mat	
(*) "L" for RAL 7035, "D" for RAL 7032, and "O" for Optional color				
(**) "X" for Type 12 NEMA Rating, Indoor application, and PC/ABS material. "Z" for Type 3R NEMA Rating, Outdoor application, and PC material.				

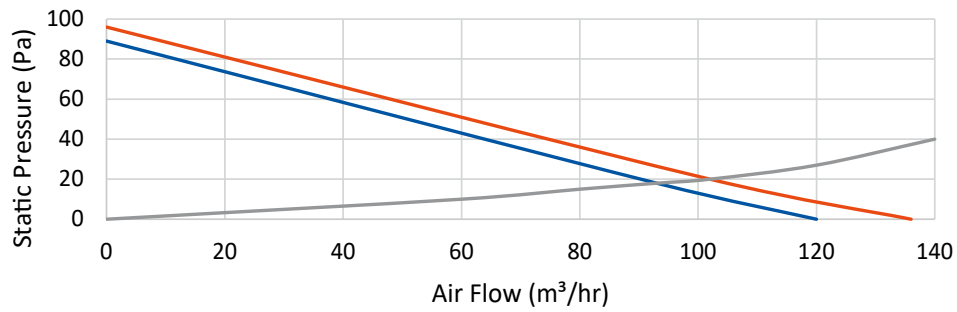


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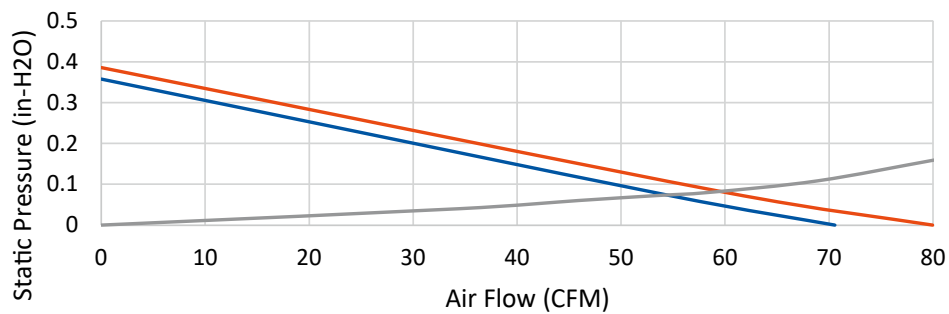


FTEC20L4X-115SB / FTEC20L4X-230SB



- 50 HZ
- 60 HZ
- FTEC20L4X

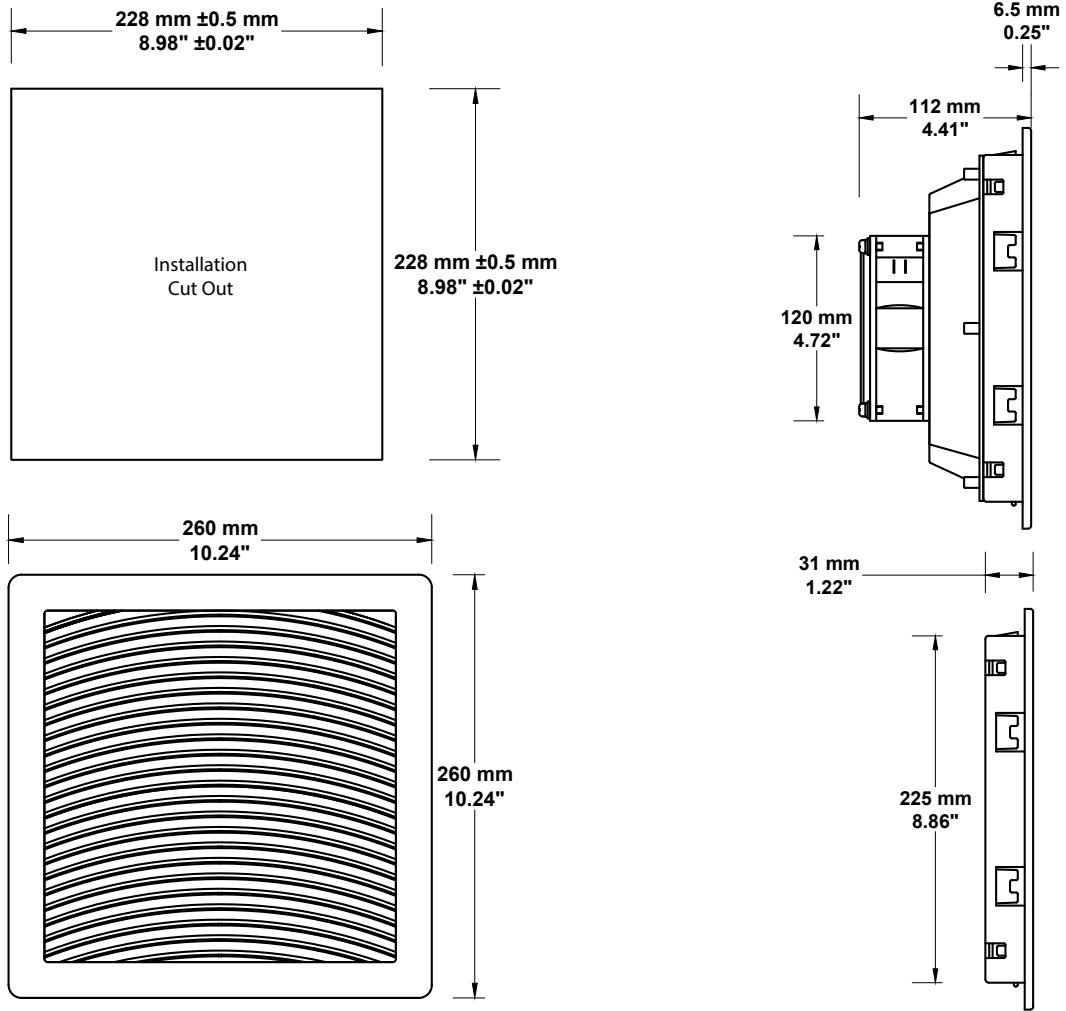
FTEC20L4X-115SB / FTEC20L4X-230SB



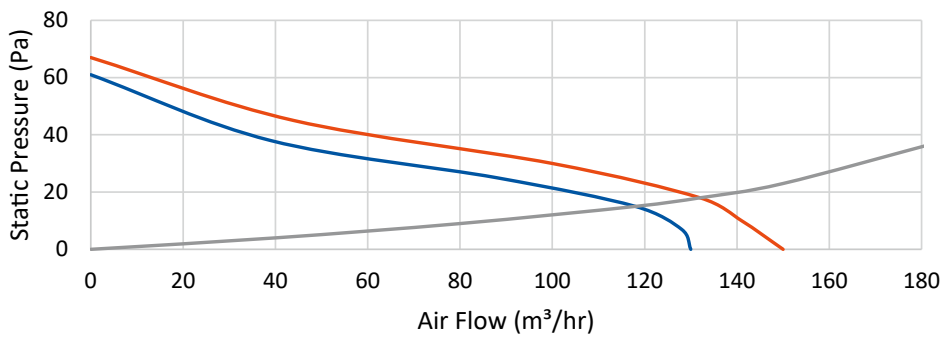
# FTEC 26S SERIES

Part ID No. Fan Filter	FTEC26(*)4(**)-115SBS	FTEC26(*)4(**)-230SBS	FTEC26(*)5(**)-115SBS	FTEC26(*)5(**)-230SBS
Dimensions	10.24" X 10.24" X 4.41" / 260 X 260 X 112 mm <sup>3</sup>		10.24" X 10.24" X 4.41" / 260 X 260 X 112 mm <sup>3</sup>	
Weight	2.42 lb / 1100 gr		2.42 lb / 1100 gr	
Rated Voltage	115 VAC	230 VAC	115 VAC	230 VAC
Frequency	50/60 Hz		50/60 Hz	
Max Air Flow	76/88 CFM - 130/150 m <sup>3</sup> /hr		71/83 CFM - 122/141 m <sup>3</sup> /hr	
Max Static Pressure (Air Flow=Zero)	0.245/0.269 in-H <sub>2</sub> O - 61/67 Pa		0.23/0.252 in-H <sub>2</sub> O - 57/63 Pa	
Rated Current	0.26/0.22 A ± 10%	0.13/0.11 A ± 10%	0.26/0.22 A ± 10%	0.13/0.11 A ± 10%
Power Consumption	20/17 W ± 10%	17/15 W ± 10%	20/17 W ± 10%	17/15 W ± 10%
Operating Temperature	-4 to +158 °F / -20 to +70 °C		-4 to +158 °F / -20 to +70 °C	
Storage Temperature	-4 to +158 °F / -20 to +70 °C		-4 to +158 °F / -20 to +70 °C	
Noise Level	41/45 dB(A)		41/45 dB(A)	
Durability	50,000 hrs	50,000 hrs	50,000 hrs	50,000 hrs
Connection	2 Poles Terminal	2 Poles Terminal	2 Poles Terminal	2 Poles Terminal
Part ID No. Exhaust Filter	FTEC26(*)4(**)		FTEC26(*)5(**)	
Dimensions	10.24" X 10.24" X 1.22" / 260 X 260 X 31 mm <sup>3</sup>		10.24" X 10.24" X 1.22" / 260 X 260 X 31 mm <sup>3</sup>	
Cut-out Dimensions	8.98" ±0.02" / 228 mm ±0.5 mm		8.98" ±0.02" / 228 mm ±0.5 mm	
Weight	1 lb / 453 gr		1 lb / 453 gr	
Ingress Protection	IP 54-Using G3 Filter Mat		IP 55-Using G4 Filter Mat	
(*) "L" for RAL 7035, "D" for RAL 7032, and "O" for Optional color				
(**) "X" for Type 12 NEMA Rating, Indoor application, and PC/ABS material. "Z" for Type 3R NEMA Rating, Outdoor application, and PC material.				



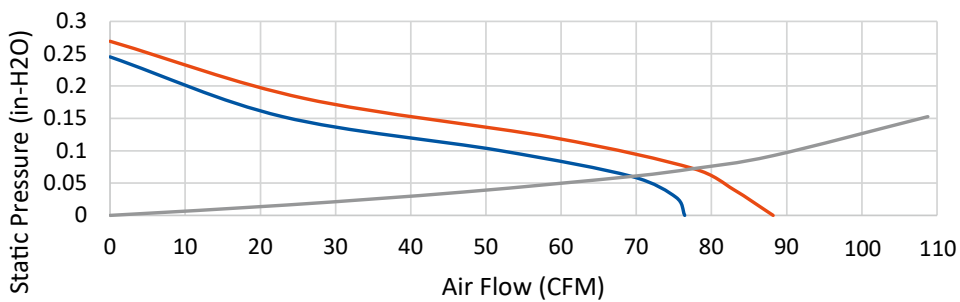


FTEC26L4X-115SBS / FTEC26L4X-230SBS



- 50 HZ
- 60 HZ
- FTEC26L4X

FTEC26L4X-115SBS / FTEC26L4X-230SBS

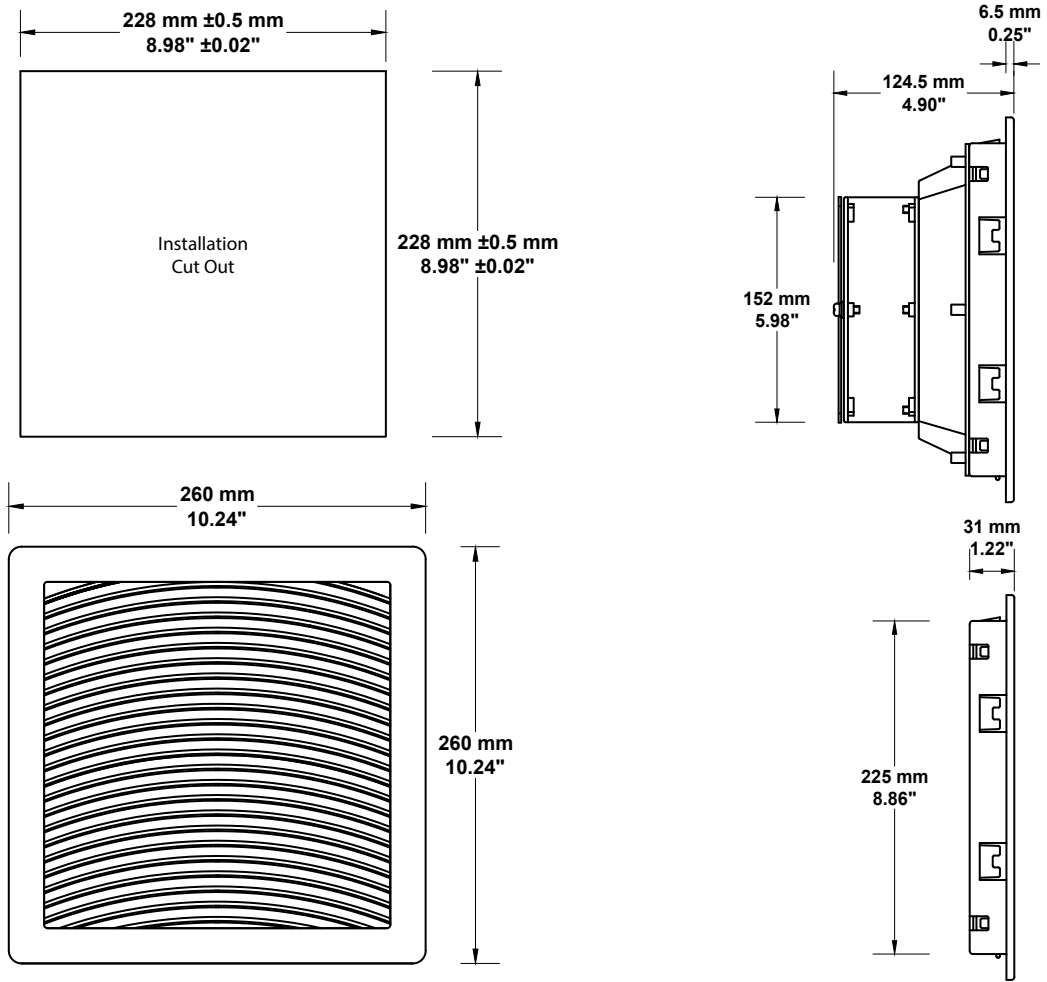


# FTEC 26 SERIES

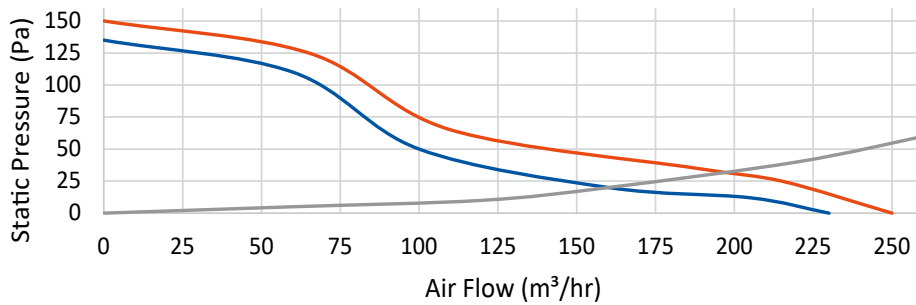
Part ID No. Fan Filter	FTEC26(*)4(**)-115SB	FTEC26(*)4(**)-230SB	FTEC26(*)5(**)-115SB	FTEC26(*)5(**)-230SB
Dimensions	10.24" X 10.24" X 4.90" / 260 X 260 X 124.5 mm <sup>3</sup>		10.24" X 10.24" X 4.90" / 260 X 260 X 124.5 mm <sup>3</sup>	
Weight	3.28 lb / 1490 gr		2.42 lb / 1100 gr	
Rated Voltage	115 VAC	230 VAC	115 VAC	230 VAC
Frequency	50/60 Hz		50/60 Hz	
Max Air Flow	135/147 CFM - 230/250 m <sup>3</sup> /hr		127/138 CFM - 216/235 m <sup>3</sup> /hr	
Max Static Pressure (Air Flow=Zero)	0.543/0.603 in-H <sub>2</sub> O - 135/150 Pa		0.51/0.566 in-H <sub>2</sub> O - 127/141 Pa	
Rated Current	0.60/0.55 A ± 10%	0.28/0.25 A ± 10%	0.60/0.55 A ± 10%	0.28/0.25 A ± 10%
Power Consumption	43/40 W ± 10%	38/36 W ± 10%	43/40 W ± 10%	38/36 W ± 10%
Operating Temperature	-4 to +158 °F / -20 to +70 °C		-4 to +158 °F / -20 to +70 °C	
Storage Temperature	-4 to +158 °F / -20 to +70 °C		-4 to +158 °F / -20 to +70 °C	
Noise Level	56/58 dB(A)		56/58 dB(A)	
Durability	50,000 hrs	50,000 hrs	50,000 hrs	50,000 hrs
Connection	2 Poles Terminal	2 Poles Terminal	2 Poles Terminal	2 Poles Terminal
Part ID No. Exhaust Filter	FTEC26(*)4(**)		FTEC26(*)5(**)	
Dimensions	10.24" X 10.24" X 1.22" / 260 X 260 X 31 mm <sup>3</sup>		10.24" X 10.24" X 1.22" / 260 X 260 X 31 mm <sup>3</sup>	
Cut-out Dimensions	8.98" ±0.02" / 228 mm ±0.5 mm		8.98" ±0.02" / 228 mm ±0.5 mm	
Weight	1 lb / 453 gr		1 lb / 453 gr	
Ingress Protection	IP 54-Using G3 Filter Mat		IP 55-Using G4 Filter Mat	
(*) "L" for RAL 7035, "D" for RAL 7032, and "O" for Optional color				
(**) "X" for Type 12 NEMA Rating, Indoor application, and PC/ABS material. "Z" for Type 3R NEMA Rating, Outdoor application, and PC material.				



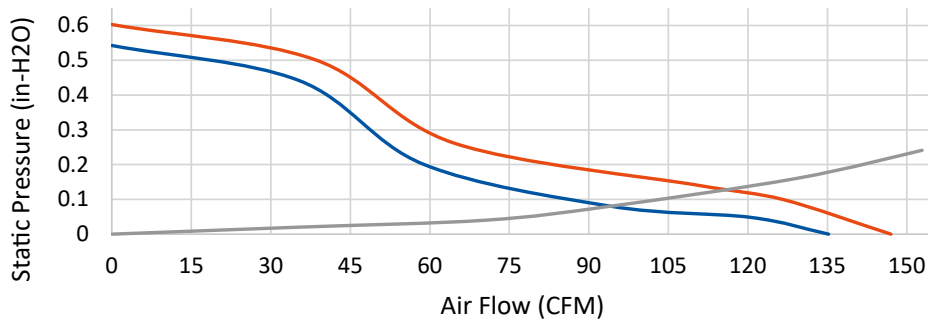




FTEC26L4X-115SB / FTEC26L4X-230SB



FTEC26L4X-115SB / FTEC26L4X-230SB

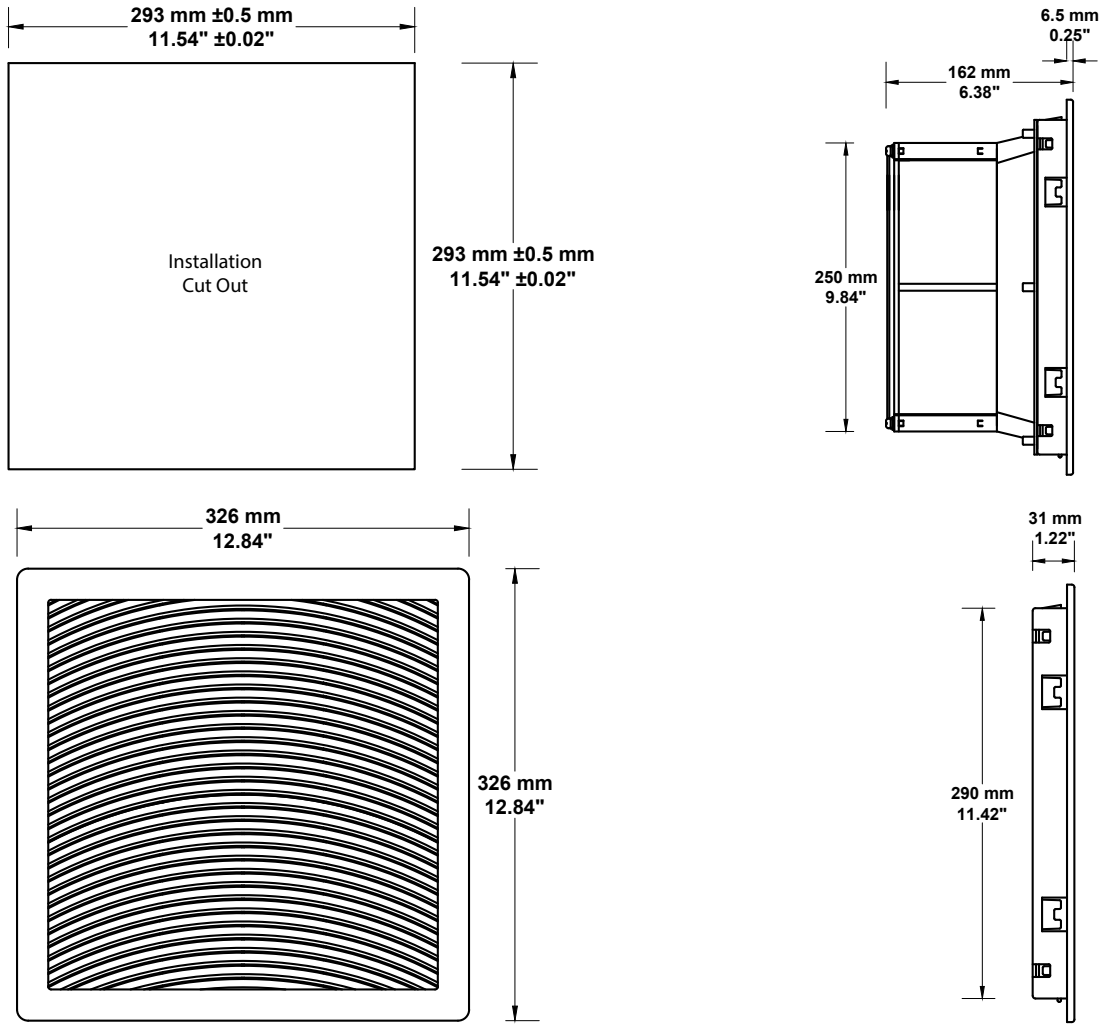


- 50 HZ
- 60 HZ
- FTEC26L4X

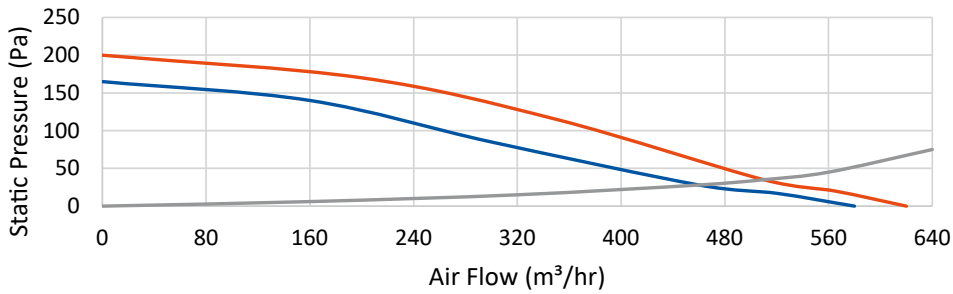
# FTEC 32 SERIES

Part ID No. Fan Filter	FTEC32(*)4(**)-115SB	FTEC32(*)4(**)-230SB	FTEC32(*)5(**)-115SB	FTEC32(*)5(**)-230SB
Dimensions	12.84" X 12.84" X 6.38" / 326 X 326 X 162 mm <sup>3</sup>		12.84" X 12.84" X 6.38" / 326 X 326 X 162 mm <sup>3</sup>	
Weight	6.43 lb / 2920 gr		6.43 lb / 2920 gr	
Rated Voltage	115 VAC	230 VAC	115 VAC	230 VAC
Frequency	50/60 Hz		50/60 Hz	
Max Air Flow	340/365 CFM - 580/620 m <sup>3</sup> /hr		325/347 CFM - 550/590 m <sup>3</sup> /hr	
Max Static Pressure (Air Flow=Zero)	0.663/0.804 in-H <sub>2</sub> O - 165/200 Pa		0.630/0.764 in-H <sub>2</sub> O - 157/190 Pa	
Rated Current	0.32/0.30 A ± 10%	0.14/0.13 A ± 10%	0.32/0.30 A ± 10%	0.14/0.13 A ± 10%
Power Consumption	30/35 W ± 10%	31/33 W ± 10%	30/35 W ± 10%	31/33 W ± 10%
Operating Temperature	-4 to +158 °F / -20 to +70 °C		-4 to +158 °F / -20 to +70 °C	
Storage Temperature	-4 to +158 °F / -20 to +70 °C		-4 to +158 °F / -20 to +70 °C	
Noise Level	48/50 dB(A)		48/50 dB(A)	
Durability	40,000 hrs	40,000 hrs	40,000 hrs	40,000 hrs
Connection	2 Poles Terminal	2 Poles Terminal	2 Poles Terminal	2 Poles Terminal
Part ID No. Filter	FTEC32(*)4(**)		FTEC32(*)5(**)	
Dimensions	12.84" X 12.84" X 1.22" / 326 X 326 X 31 mm <sup>3</sup>		12.84" X 12.84" X 1.22" / 326 X 326 X 31 mm <sup>3</sup>	
Cut-out Dimensions	11.54" ±0.02" / 293 mm ±0.5 mm		11.54" ±0.02" / 293 mm ±0.5 mm	
Weight	1.72 lb / 780 gr		1.72 lb / 780 gr	
Ingress Protection	IP 54-Using G3 Filter Mat		IP 55-Using G4 Filter Mat	
(*) "L" for RAL 7035, "D" for RAL 7032, and "O" for Optional color				
(**) "X" for Type 12 NEMA Rating, Indoor application, and PC/ABS material. "Z" for Type 3R NEMA Rating, Outdoor application, and PC material.				

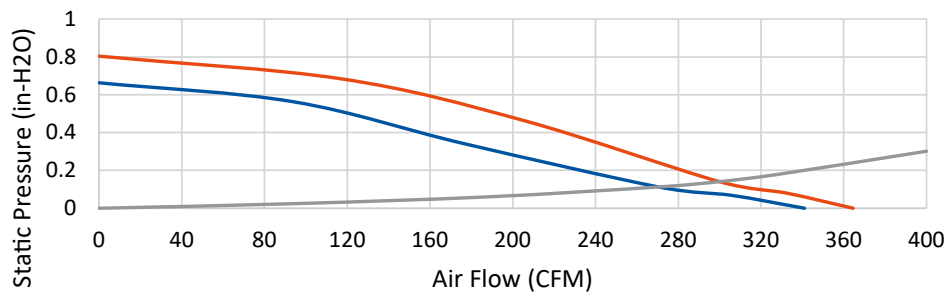




FTEC32L4X-115SB / FTEC32L4X-230SB



FTEC32L4X-115SB / FTEC32L4X-230SB

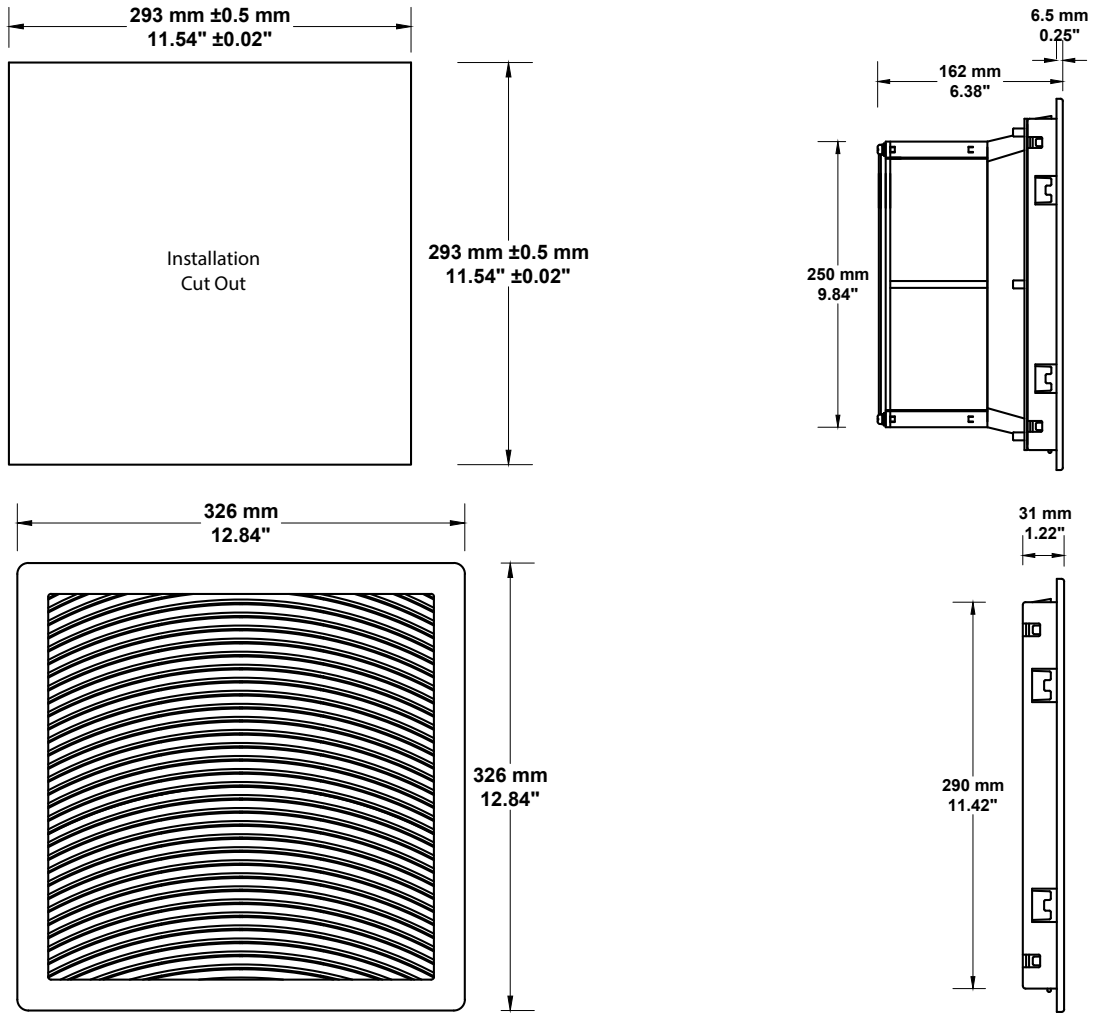


- 50 HZ
- 60 HZ
- FTEC32L4X

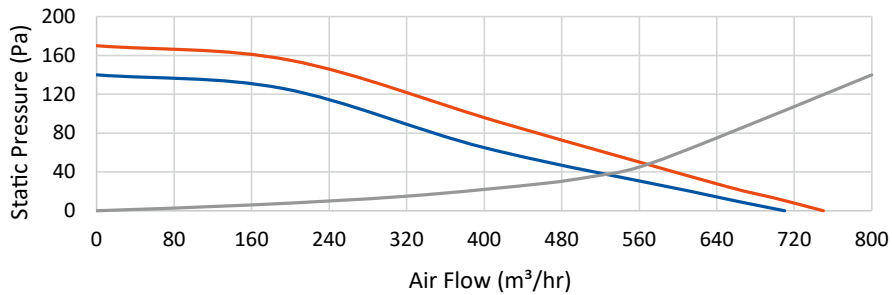
# FTEC 32B SERIES

Part ID No. Fan Filter	FTEC32(*)4(**)-115SBB	FTEC32(*)4(**)-230SBB	FTEC32(*)5(**)-115SBB	FTEC32(*)5(**)-230SBB
Dimensions	12.84" X 12.84" X 6.38" / 326 X 326 X 162 mm <sup>3</sup>		12.84" X 12.84" X 6.38" / 326 X 326 X 162 mm <sup>3</sup>	
Weight	7.10 lb / 3220 gr		7.10 lb / 3220 gr	
Rated Voltage	115 VAC	230 VAC	115 VAC	230 VAC
Frequency	50/60 Hz		50/60 Hz	
Max Air Flow	417/440 CFM - 710/750 m <sup>3</sup> /hr		396/418 CFM - 675/712 m <sup>3</sup> /hr	
Max Static Pressure (Air Flow=Zero)	0.563/0.683 in-H <sub>2</sub> O - 140/170 Pa		0.535/0.649 in-H <sub>2</sub> O - 133/162 Pa	
Rated Current	0.579/0.673 A ± 10%	0.259/0.296 A ± 10%	0.579/0.673 A ± 10%	0.259/0.296 A ± 10%
Power Consumption	69/79.3 W ± 10%	63.2/72.2 W ± 10%	69/79.3 W ± 10%	63.2/72.2 W ± 10%
Operating Temperature	-4 to +158 °F / -20 to +70 °C		-4 to +158 °F / -20 to +70 °C	
Storage Temperature	-4 to +158 °F / -20 to +70 °C		-4 to +158 °F / -20 to +70 °C	
Noise Level	61/58 dB(A)		61/58 dB(A)	
Durability	50,000 hrs	50,000 hrs	50,000 hrs	50,000 hrs
Connection	2 Poles Terminal	2 Poles Terminal	2 Poles Terminal	2 Poles Terminal
Part ID No. Exhaust Filter	FTEC32(*)4(**)		FTEC32(*)5(**)	
Dimensions	12.84" X 12.84" X 1.22" / 326 X 326 X 31 mm <sup>3</sup>		12.84" X 12.84" X 1.22" / 326 X 326 X 31 mm <sup>3</sup>	
Cut-out Dimensions	11.54" ±0.02" / 293 mm ±0.5 mm		11.54" ±0.02" / 293 mm ±0.5 mm	
Weight	1.72 lb / 780 gr		1.72 lb / 780 gr	
Ingress Protection	IP 54-Using G3 Filter Mat		IP 55-Using G4 Filter Mat	
(*) "L" for RAL 7035, "D" for RAL 7032, and "O" for Optional color				
(**) "X" for Type 12 NEMA Rating, Indoor application, and PC/ABS material. "Z" for Type 3R NEMA Rating, Outdoor application, and PC material.				



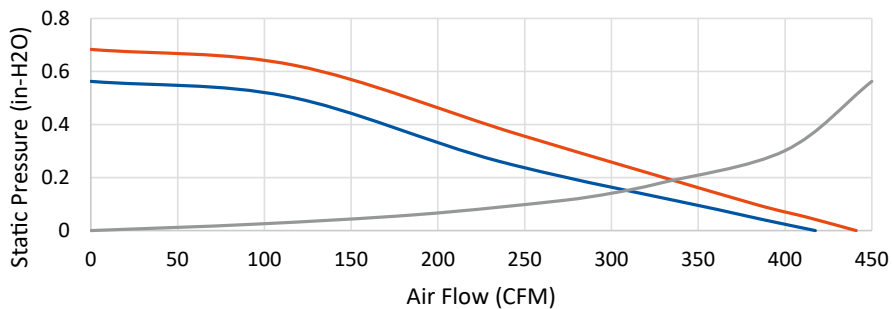


FTEC32L4X-115SBB / FTEC32L4X-230SBB



- 50 HZ
- 60 HZ
- FTEC32L4X

FTEC32L4X-115SBB / FTEC32L4X-230SBB



# ACCESSORIES FILTER MATS

FM-4 series filter mats are standard series which guarantee IP54 Ingress Protection. To maintain a high performance of the FM-4 series, periodically check filter mats. FM-4 series are fully washable and reusable.

Model	Description	Quantity Per Pack
FTEC10-FM-4	Filter Mat IP54 (Filter 4")	10
FTEC16-FM-4	Filter Mat IP54 (Filter 6")	10
FTEC20-FM-4	Filter Mat IP54 (Filter 8")	10
FTEC26-FM-4	Filter Mat IP54 (Filter 10")	10
FTEC32-FM-4	Filter Mat IP54 (Filter 12")	10

FM-5 series filter mats are the super series which guarantees IP55 Ingress Protection. To maintain a high performance of FM-5 series, periodically check filter mats. FM-5 series are fully washable and reusable.

Model	Description	Quantity Per Pack
FTEC10-FM-5	Filter Mat IP55 (Filter 4")	10
FTEC16-FM-5	Filter Mat IP55 (Filter 6")	10
FTEC20-FM-5	Filter Mat IP55 (Filter 8")	10
FTEC26-FM-5	Filter Mat IP55 (Filter 10")	10
FTEC32-FM-5	Filter Mat IP55 (Filter 12")	10

The filter mats are made of high-performance nonwovens produced in house from elastic, break-resistant polyolefin fibres with thermal bonding.

The filter mats can be washed and reusable. Even after washing, the filter mats remain dimensionally stable, thus retaining their technical filtering properties. The fire class remains unaltered.

Filter mats satisfy the stringent requirements of Fire Class F1 according to DIN 53 438 and are thus self-extinguishing.

## Metal Fan Guard

FG series

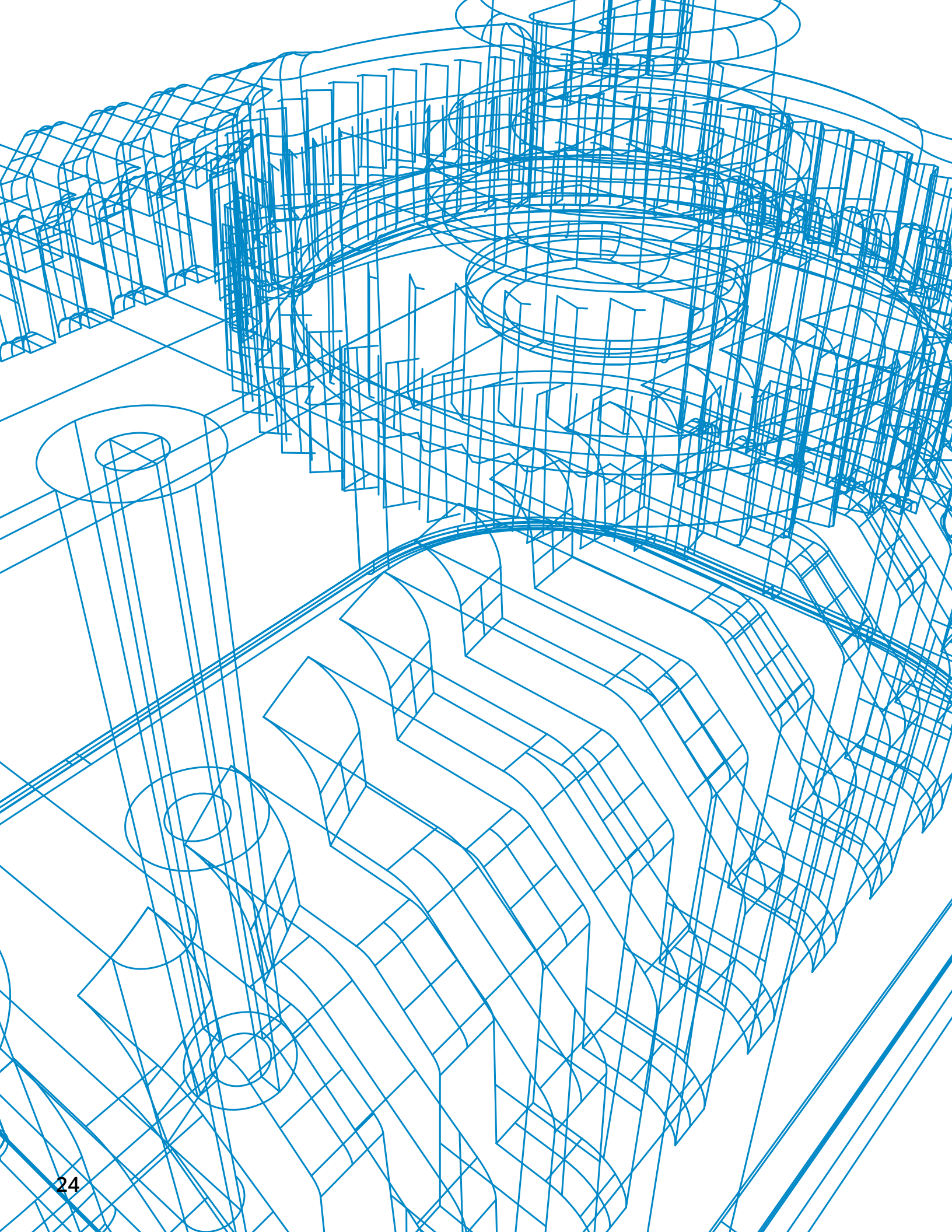
Model	Description	Quantity Per Pack
FTEC10-FG	Metal Fan Guard (Filter 4")	50
FTEC16-FG	Metal Fan Guard (Filter 6")	50
FTEC20-FG	Metal Fan Guard (Filter 8")	50
FTEC26-FG	Metal Fan Guard (Filter 10")	50
FTEC32-FG	Metal Fan Guard (Filter 12")	50

# APPLICATION

FTEC series Fan Filters are designed to supply forced convection filtered air to enclosures and electrical panels. By using the unique filtering and cooling features, FTEC will cool down the inside of enclosures to a desired temperature above ambient temperature to protect the electrical and electronic parts against both heat and condensation.

Thanks to state-of-the-art design, a polyurethane sealing gasket, and high-quality filter media, The FTEC series provides a high degree of protection for the equipment inside of enclosures against ingress of solid foreign objects and water.



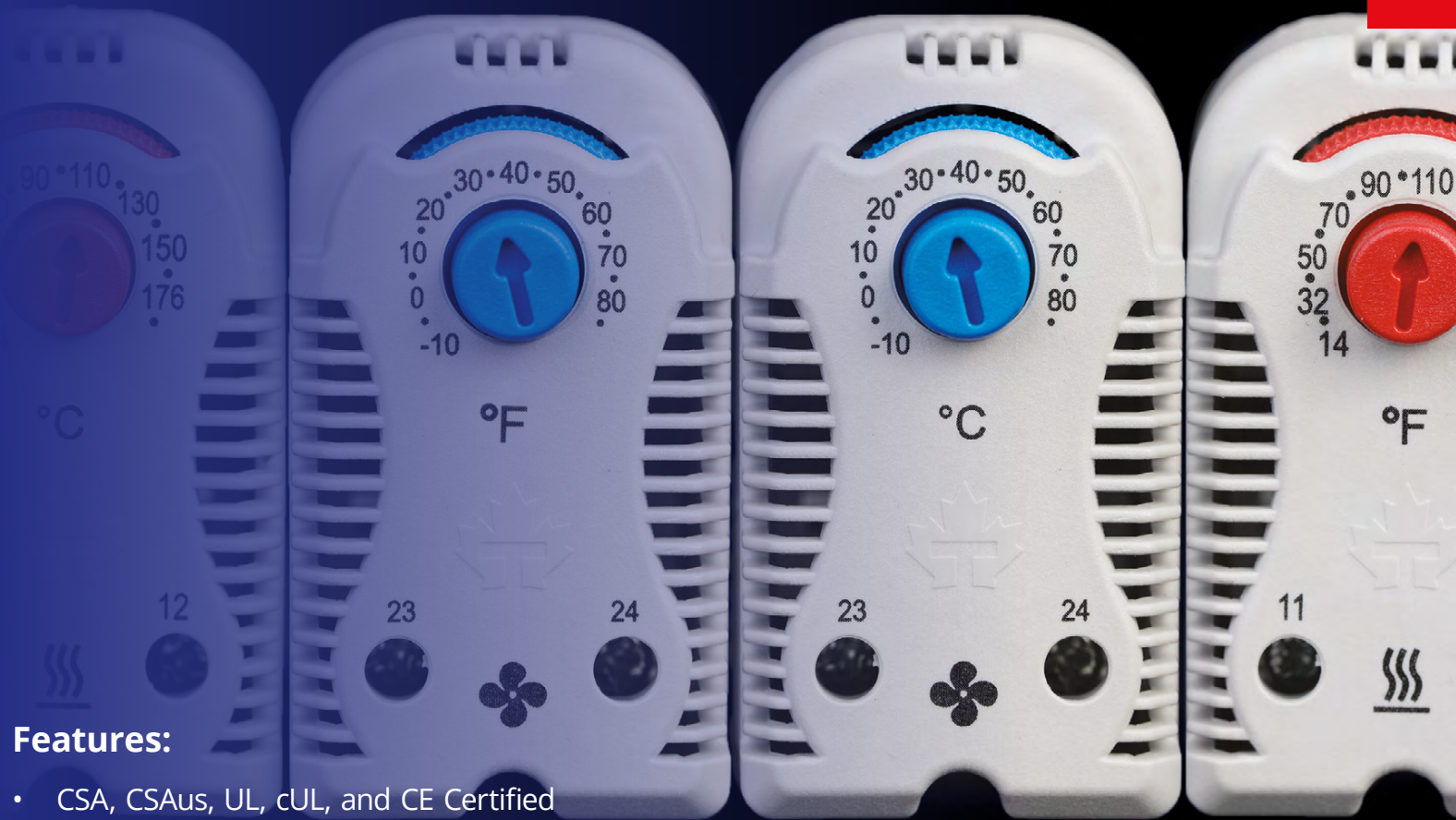




# MECHANICAL BIMETALLIC THERMOSTAT

# TTEC

TTEC






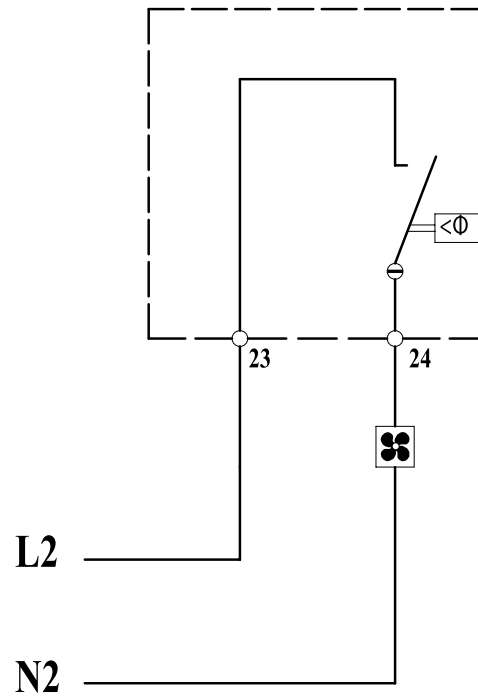
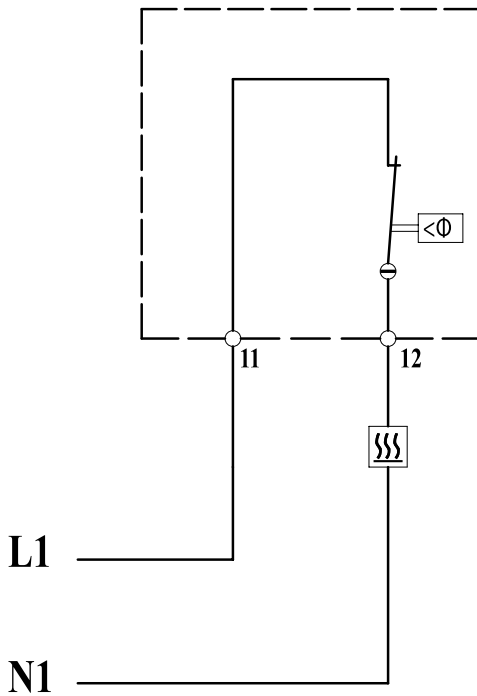
## Features:

- CSA, CSAus, UL, cUL, and CE Certified
- Controls a wide range of enclosure temperatures from 14 °F to 176 °F
- Available in Fahrenheit or Celsius
- Mechanical NO and NC thermostats
- Flame retardant housing, UL 94-V0
- Mountable on three different sized DIN Rails (35 mm, 32 mm and 15 mm)

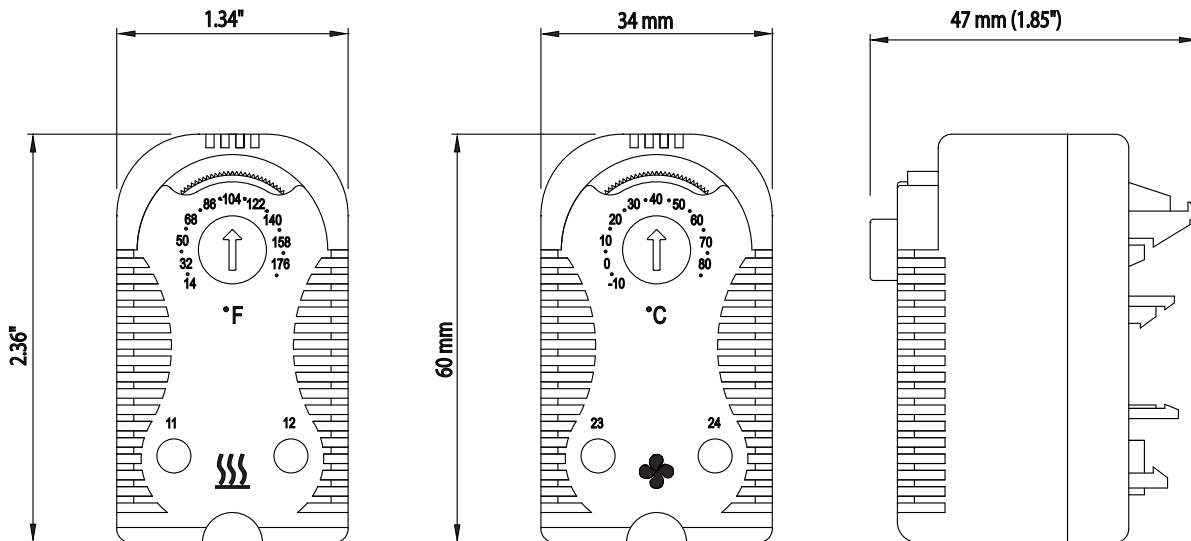


# TECHNICAL SPECIFICATIONS

Type	TTEC-100	TTEC-200
Function	Normally Closed	Normally Open
Terminal Operated	Between 11 & 12	Between 23 & 24
VDE Rating	250 VAC, 14 A, 50 Hz	
UL Rating	125 VAC, 15 A, 60 Hz	
Setting Temperature	-10 to +80 °C (+14 to 176 °F)	
Certificates	  	
Design and Test Standard	UL 60730-1 UL 60730-2-9 UL 60730-2-13 CAN/CSA-E60730-1:15 CAN/CSA-E60730-2-9:15	

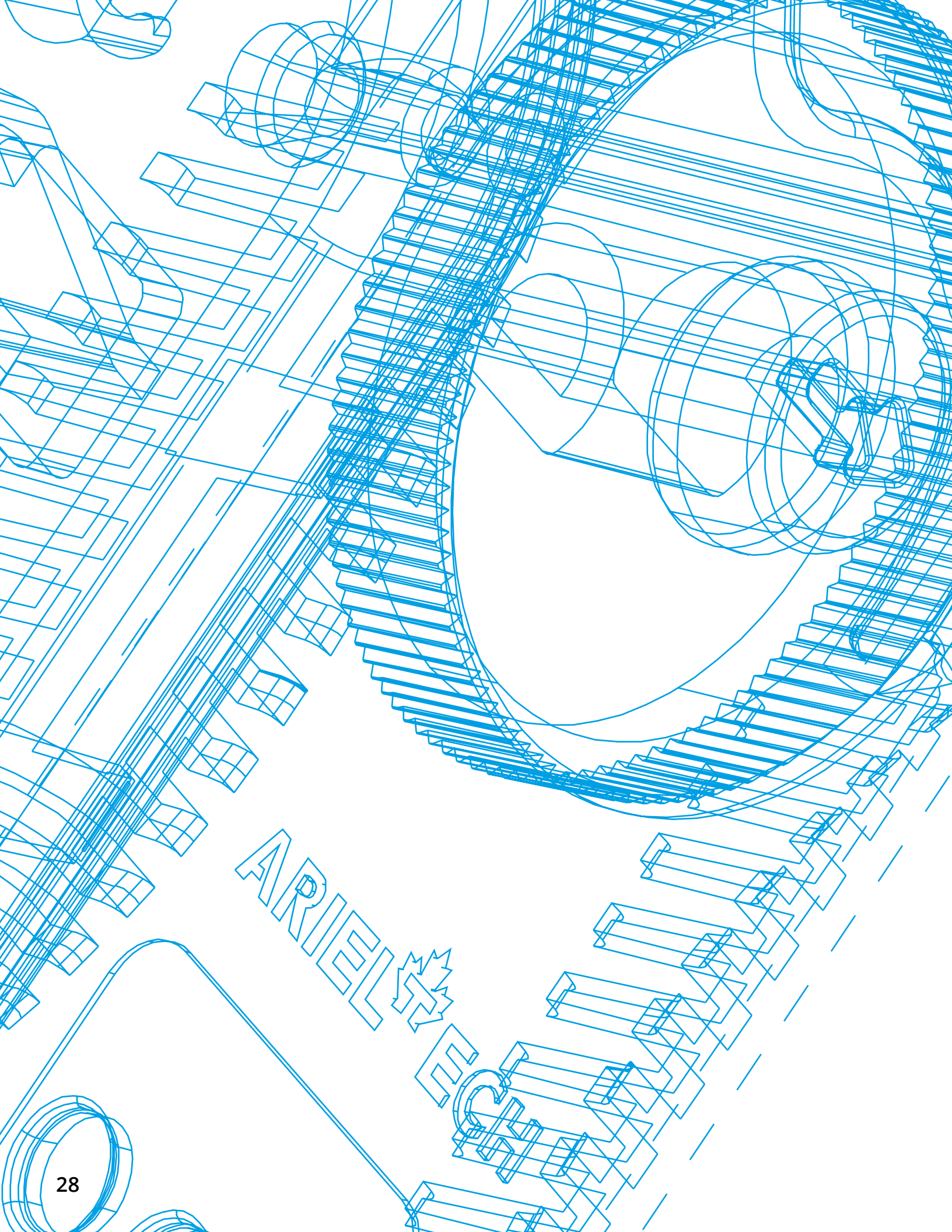


<b>Hi-Pot Test</b>	1800 VAC 0.5 mA, 1 sec
<b>Mounting</b>	35 mm DIN Rail according to EN 50022 32 mm DIN Rail according to EN 50035 15 mm DIN Rail according to EN 50045
<b>Weight</b>	47 grams / 0.103 lbs
<b>Dimensions</b>	60 mm x 34 mm x 47 mm (2.36" x 1.34" x 1.85")
<b>Color</b>	RAL 7035-Light Grey
<b>Electrical Connections</b>	2-Pole for wires section of 12 AWG
<b>Housing Material</b>	PA 6 UL 94-V0
<b>Environmental</b>	Indoor
<b>Hysteresis</b>	Approx. $\pm 5$ °C
<b>Sensing Element</b>	Bimetal
<b>Control Type</b>	Operating Control, Type 1
<b>Rated Impulse Voltage</b>	2500
<b>Operating Temperature</b>	-20 to +80 °C / -4 to +176 °F
<b>Shipping and Storage Temperature</b>	-40 to +80 °C / -40 to +176 °F



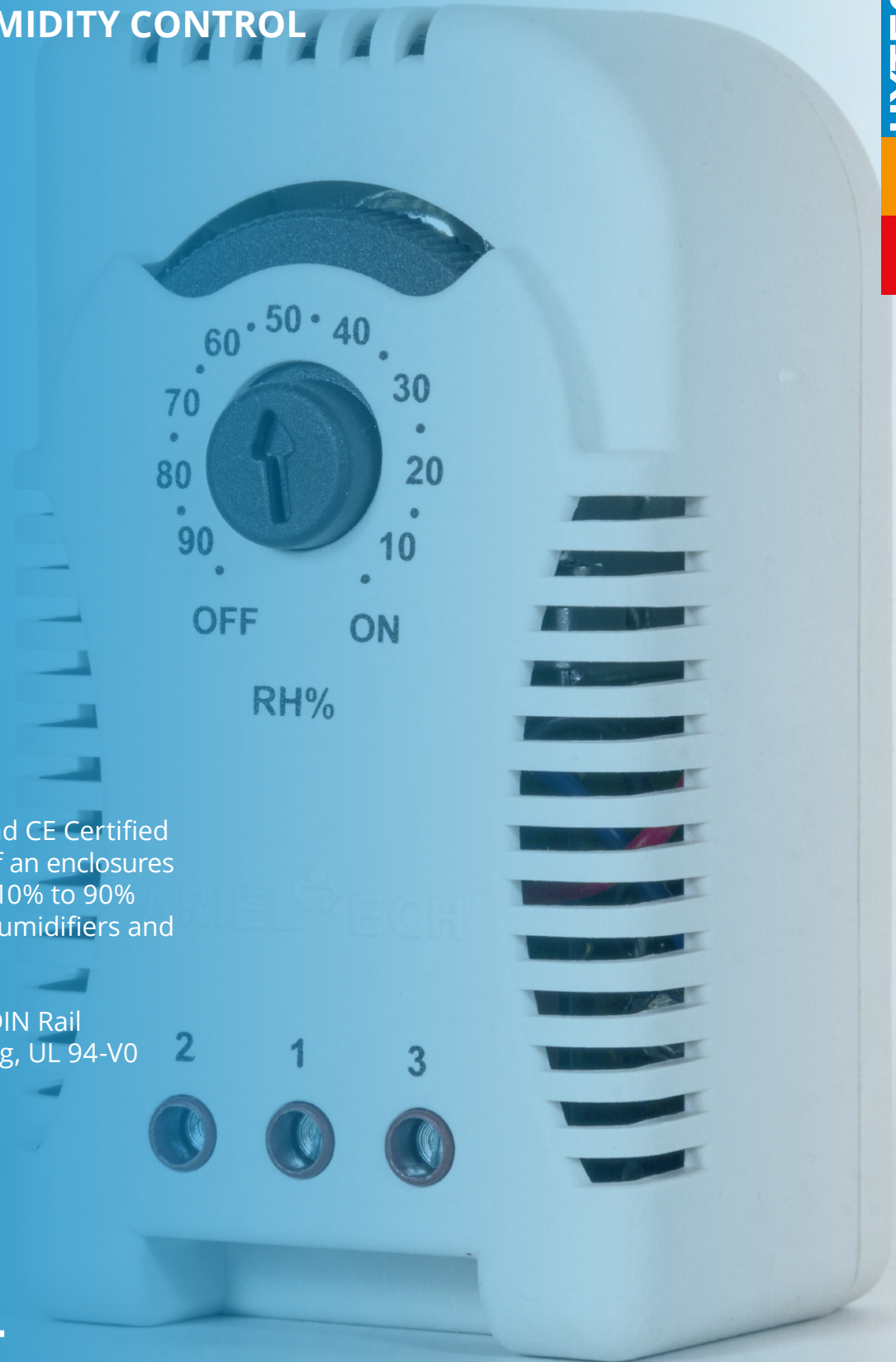
The **TTEC series** are thermostat controllers used to regulate the temperature inside control panels and electrical enclosures. The **TTEC series**, bimetallic thermostats control fans, heaters, and switch loads.

**TTEC-100** and **TTEC-200** are identical except the **TTEC-100** is Normally Closed which opens at temperature rise, the **TTEC-200** is Normally Open which closes at temperature rise. Both are available in Fahrenheit or Celsius.



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# MECHANICAL HUMIDITY CONTROL HYGROSTAT HYTEC

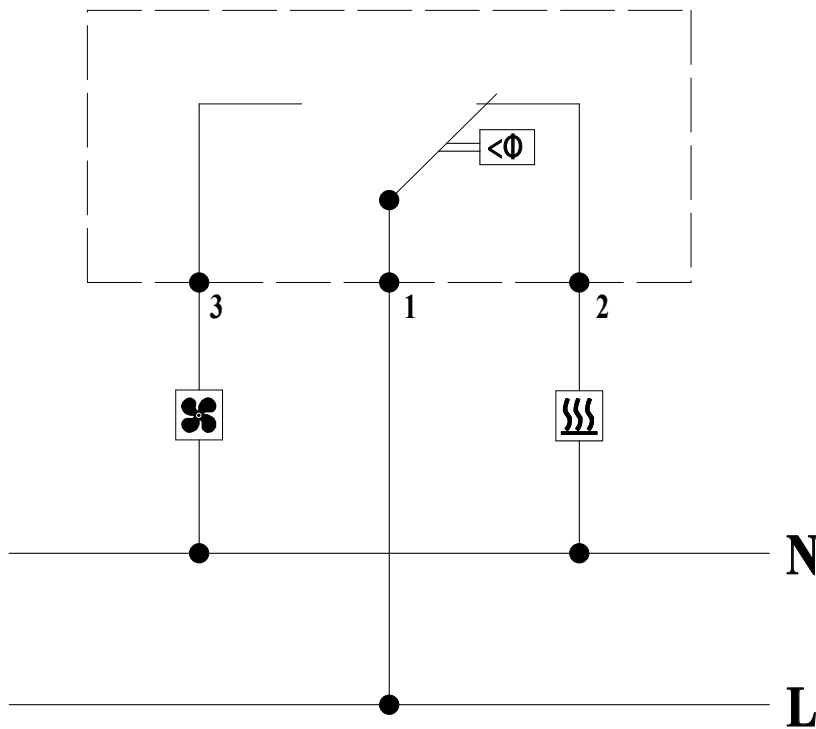


## Features:

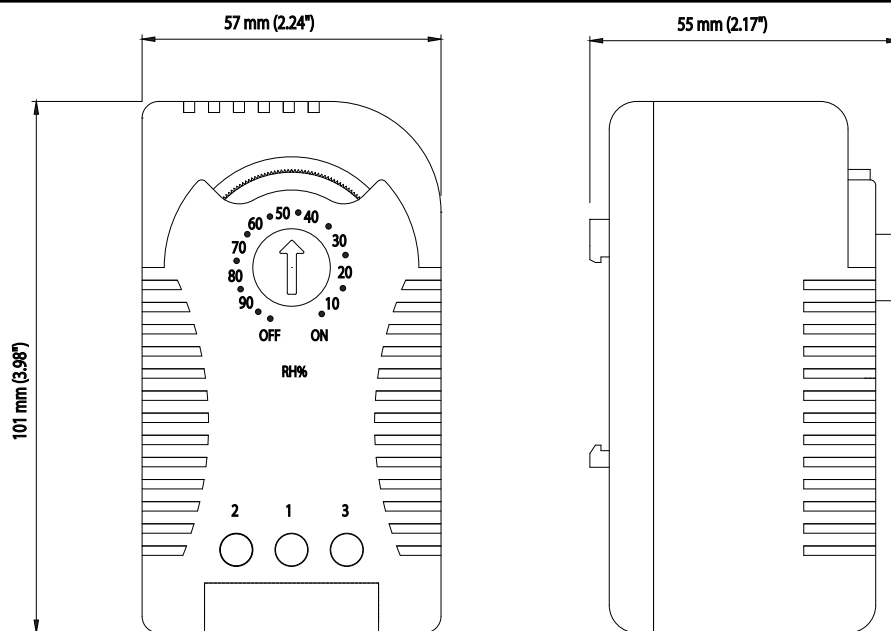
- CSA, CSAus, UL, cUL, and CE Certified
- Controls a wide range of an enclosures relative humidity from 10% to 90%
- Can be used for both Humidifiers and Dehumidifiers
- Mechanical Hygrostat
- Mountable on 35 mm DIN Rail
- Flame retardant housing, UL 94-V0

# TECHNICAL SPECIFICATIONS

Terminal Operated	Between 1 & 2		Between 1 & 3	
Voltage	120 VAC	240 VAC	240 VAC	120 VAC
Full Load	10 A	5 A	2.2 A	4.4 A
Locked Rotor	45 A	22.5 A	13.2 A	26.5 A
Resistive Load	12 A	6 A	3 A	6 A
Application	Dehumidifier		Humidifier	
	Normally Closed		Normally Open	
	Heater		Fan	
Certificates				
Design and Test Standard	UL 60730-1 UL 60730-2-9 UL 60730-2-13 CAN/CSA-E60730-1:15 CAN/CSA-E60730-2-9:15			



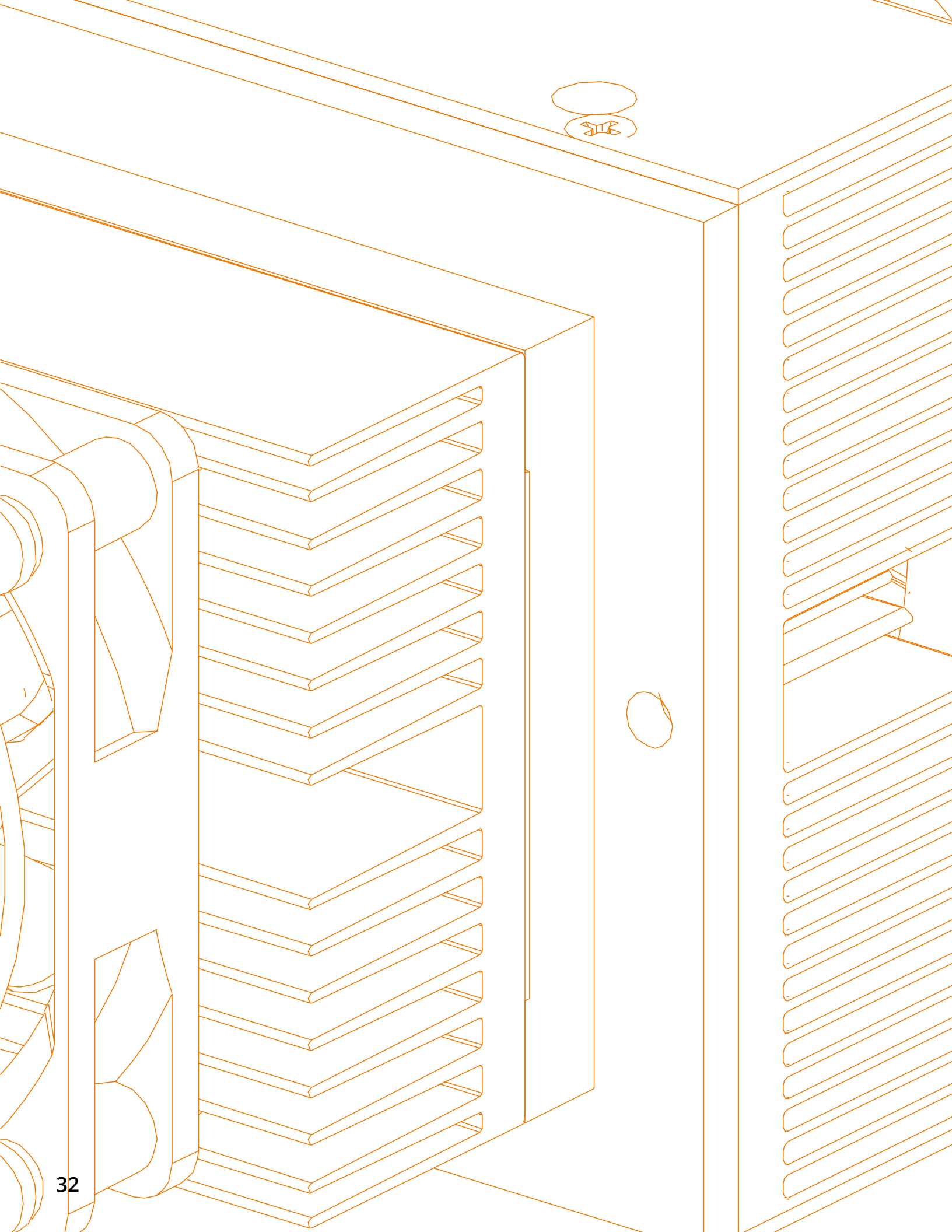
<b>Withstanding Voltage</b>	AC 1500 V 1 min or AC 1800 V 1 sec
<b>Insulation Resistance</b>	Min 100 MΩ AT DC 500 V
<b>Calibration Point</b>	42% RH at room temperature 23 °C ± 2 °C / 74 °F ± 2 °F
<b>Mounting</b>	Rail 35 mm according to EN 50 022
<b>Weight</b>	170 grams / 0.375 lbs
<b>Dimensions</b>	101 mm x 57 mm x 55 mm / 3.98" x 2.24" x 2.17"
<b>Color</b>	RAL 7035
<b>Electrical Connections</b>	3-Pole screw terminal for wires section of 0.75/4 mm <sup>2</sup> - AWG 18/12
<b>Housing Material</b>	PA 6 UL 94-V0
<b>Environmental</b>	Indoor
<b>Control Type</b>	Operating Control, Type 1
<b>Rated Impulse Voltage</b>	2500
<b>Hysteresis</b>	Approx. 5% RH
<b>Sensing Element</b>	Synthetic Fiber
<b>Operating Temperature</b>	10 °C TO 40 °C / 50 °F TO 104 °F
<b>Shipping and Storage Temperature</b>	-40 °C TO 60 °C / -40 °F TO 140 °F



The **HYTEC-100** is designed to control the relative humidity inside of enclosures and electrical panels.

The **HYTEC-100** starts the heater in order to avoid formation of condensation in enclosures designed to protect electronic circuits, preventing the absorption of moisture by electrical and electronic components inside of the enclosure.







# THERMOELECTRIC COOLING UNIT COLTEC

COLTEC

## Features:

- Cools inside of enclosure up to 27°F (15°C) vs. ambient temperature
- Safe for the environment
- Zero maintenance, no filters, compressors or refrigerant required
- No air exchange between ambient and cabinet air
- Continuous worry-free operation
- Installs vertically or horizontally
- Uses high quality ball bearing fans
- Standard direction airflow
- Ingress Protection is NEMA 12/ IP 55



## Air to Air Thermoelectric Cooling Unit (COLTECN)

Model	Cooling Capacity	Voltage	Stable Current	Dimensions		Weight		Ambient Tem. Range	
	(W)			(Vdc)	(A)	(mm)	(Inch)	(Kg)	(lb)
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 Cooling Unit (COLTECAP series)

Model	Cooling Capacity	Voltage	Stable Current	Dimensions		Weight		Ambient Tem. Range	
	(W)			(Vdc)	(A)	(mm)	(Inch)	(Kg)	(lb)
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 Cooling Unit (COLTECAL series)

Model	Cooling Capacity	Voltage	Stable Current	Dimensions		Weight		Ambient Tem. Range	
	(W)			(Vdc)	(A)	(mm)	(Inch)	(Kg)	(lb)
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 Cooling Unit (COLTECLL series)

Model	Cooling Capacity	Voltage	Stable Current	Dimensions		Weight		Ambient Tem. Range	
	(W)			(Vdc)	(A)	(mm)	(Inch)	(Kg)	(lb)
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

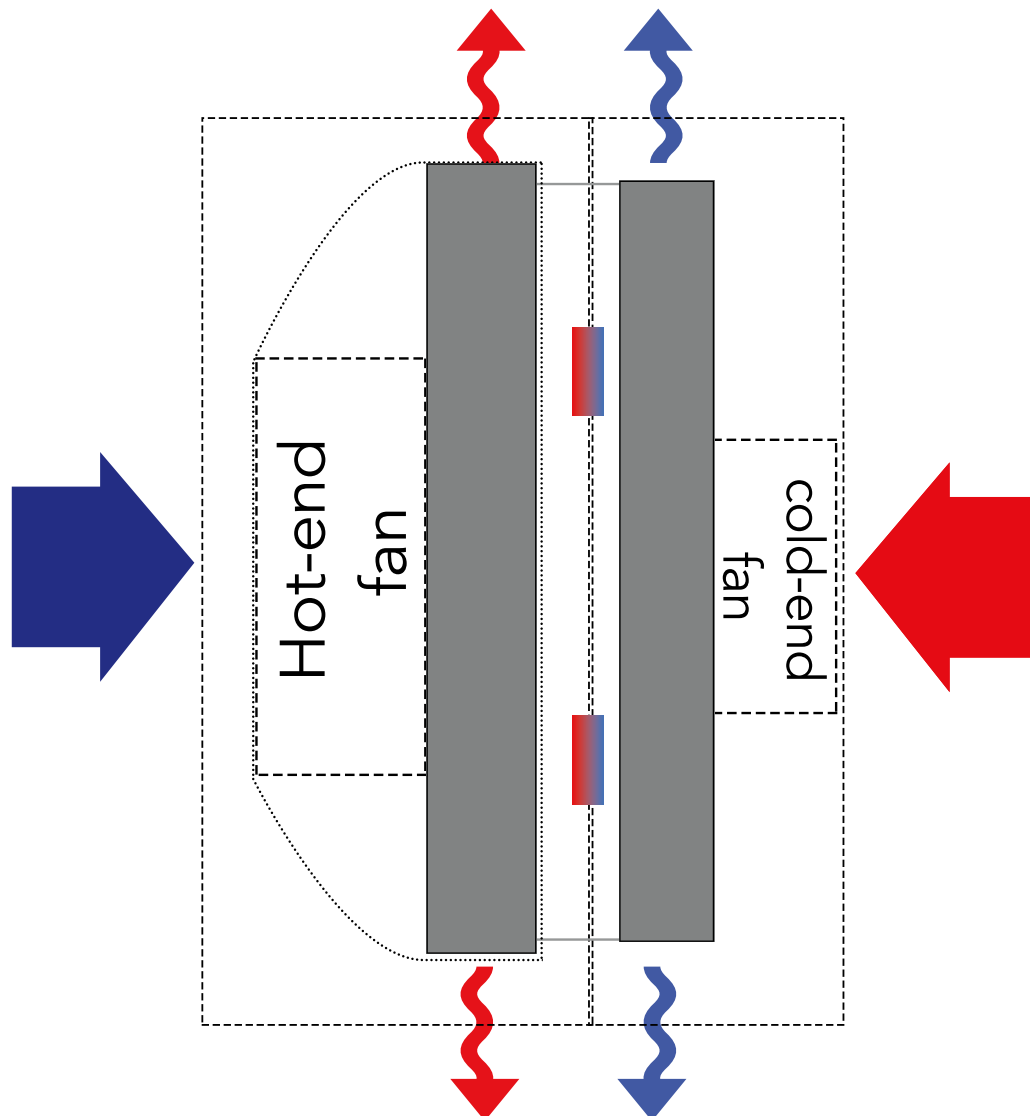
# ADVANTAGES

Thermoelectric Cooling Units 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.



# APPLICATION

Thermoelectric Cooling Units are used for the most demanding industries such as medical, laboratory instruments, aerospace, semiconductors, telecommunications equipment, industrial control panels 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 Cooling Unit lowers the temperature of an object below ambient temperature as well as stabilizing the temperature of objects above ambient temperature.

A Thermoelectric Cooling Unit 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 Cooling Unit**

(COLTECN series)

Telecommunication Battery Temperature Control, Industries Equipment Power Cabinet Cooling, etc.

## **Air to Plate Thermoelectric Cooling Unit**

(COLTECAP series)

Medical Devices, Instrument and Laboratory Test Equipment, Direct Contact Cooling Design, etc.

## **Air to Liquid Thermoelectric Cooling Unit**

(COLTECAL series)

Medical Hairdressing Devices, Laser Equipment, Equipment Requiring a Separate Cooling Device Application.

## **Liquid to Liquid Thermoelectric Cooling Unit**

(COLTECLL series)

LED Manufacturing Evaporating Systems, Analytic Instruments, etc.



# THERMOELECTRIC COOLING UNITS



# 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.



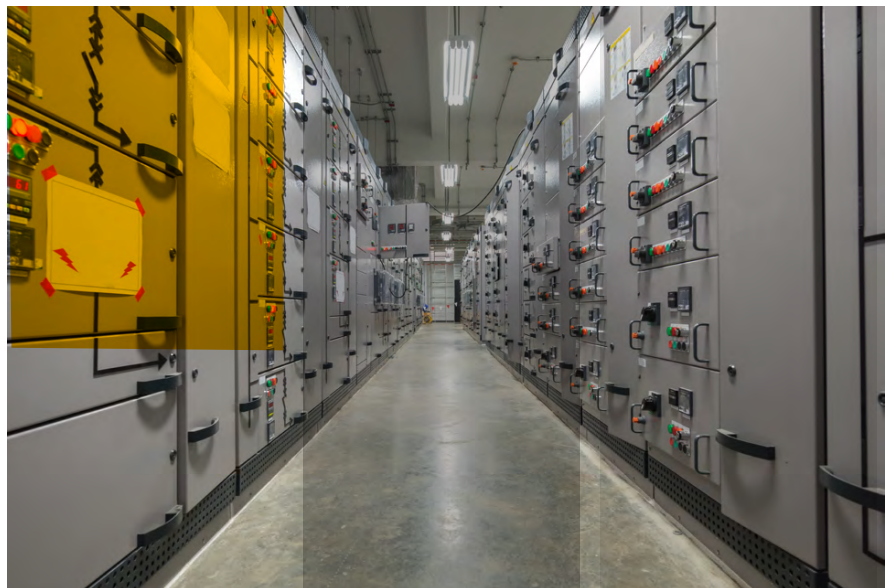
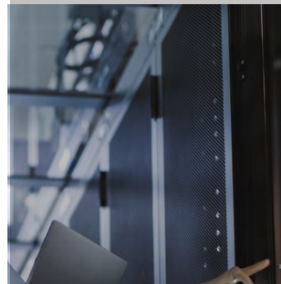
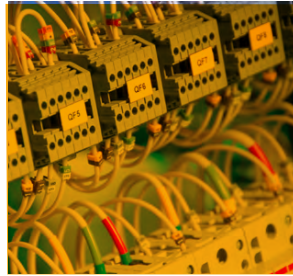
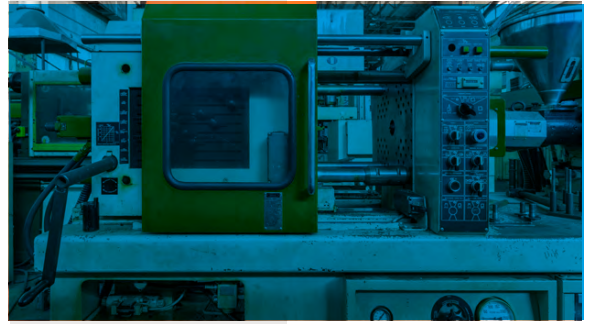
4. THE MANUFACTURER HEREBY DISCLAIMS ALL OTHER REPRESENTATIONS, CONDITIONS AND WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THOSE CONTAINED IN THE SALES OF GOODS ACT, ONTARIO, R.S.O. 1990, c. S.1. AND THE CIVIL CODE OF QUEBEC, CQLR CCQ-1991. THE MANUFACTURER SPECIFICALLY DISCLAIMS, INCLUDING BY WAY OF EXAMPLE AND NOT LIMITATION, THE IMPLIED WARRANTIES OF TITLE, MERCHANTABILITY, NON-INFRINGEMENT 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

# The Best Electrical Enclosure Protection



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