



Texa MIX

Air-Air Heat Exchangers

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Texa MIX

Air-Air Heat Exchangers

brenclosures.com.au/mix.htm



Texa MIX Features

- Installation either inside or outside the cabinet
- Optional temperature control thermostat (see accessories from page 114 onwards)
- Approvals - CE
- Materials
 - Mild steel powdercoated
- Surface finish - powdercoated
- Protection rating - IP54

The Texa MIX range are air-air heat exchangers with specific cooling output from 14W to 80kW. Maintenance is

minimised by using highly optimised heat exchange surface designed to reduce fouling.

Inclusions

All fixings required for assembly.

MIX Selection Guide - 115V

Catalogue No	Specific Cooling (W/K)	Power Supply (V/Ph/Hz)	Dimensions (mm)		
			Height	Width	Depth
TX-MIX14CX0A*	14	115/1/50-60	363	188	165
TX-MIX36CX0A*	36	115/1/50-60	771	336	93
TX-MIX50CX0A*	50	115/1/50-60	771	336	93
TX-MIX80CX0A*	80	115/1/50-60	1260	317	108

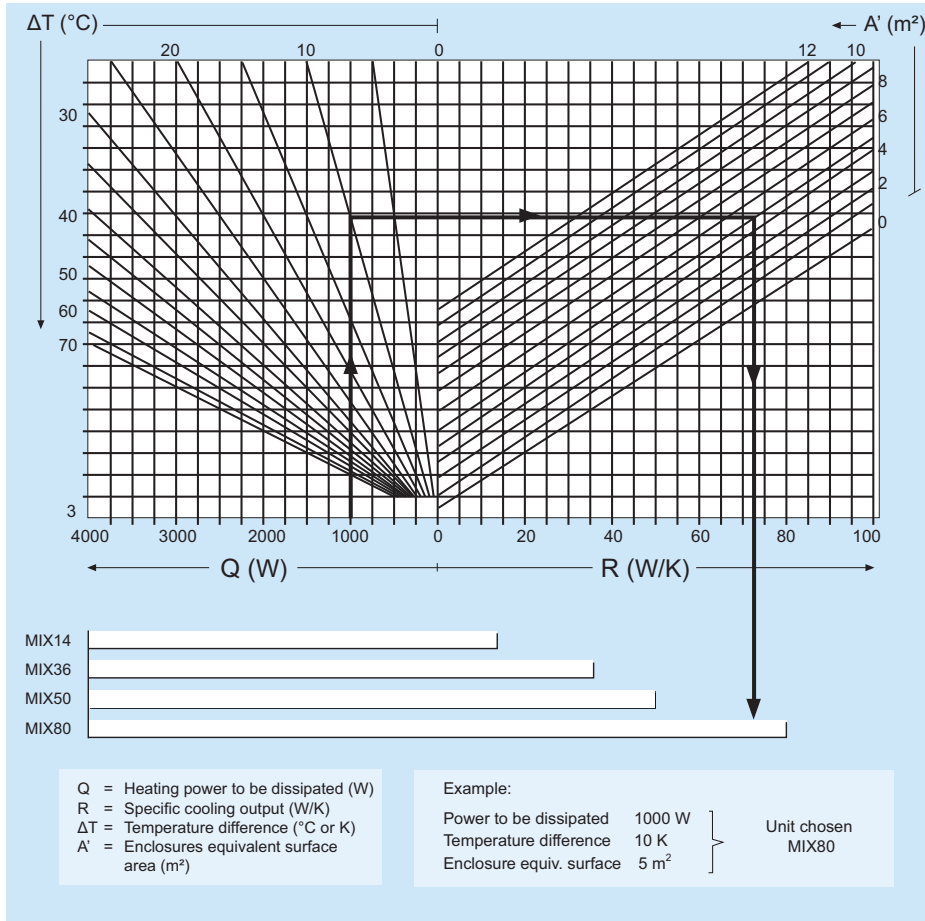
* Available on request

MIX Selection Guide - 240V

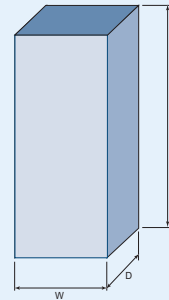
Catalogue No	Specific Cooling (W/K)	Power Supply (V/Ph/Hz)	Dimensions (mm)		
			Height	Width	Depth
TX-MIX14BX0A	14	230/1/50-60	363	188	165
TX-MIX36BX0A	36	230/1/50-60	771	336	93
TX-MIX50BX0A*	50	230/1/50-60	771	336	93
TX-MIX80BX0A	80	230/1/50-60	1260	317	108

* Available on request

Quick Selection Guide



Calculation of Equivalent Surface Area - A'



A_{FB} = Area front + Area back
 A_S = Area both sides
 A_R = Area roof

Total Area = $A_{FB} + A_S + A_R$

Equiv. Area, $A' = f_1 A_{FB} + f_1 A_S + f_2 A_R$

Where: -

f_1 = 0.9 if both walls are open
 = 0.7 if one wall is covered
 = 0.5 if both walls are covered
 f_2 = 1.4 if roof is uncovered
 = 0.7 if roof is covered

MIX Air-Air Heat Exchangers

Highly reliable, very little maintenance, easy to install, combined with an innovative design. These are some of the features of the Texa MIX series. It has been designed to meet the requirements of the most demanding customer.

A Wide Power Range

The range of specific cooling powers available goes from 14 to 80W/K, which covers the majority of requirements for air-air heat exchangers.

Assembly Flexibility

All the exchangers in the MIX series can be mounted inside or outside the panel. The panel features easy and safe wiring with electrical connections at either the front or the back to make installation a breeze. The holes that need to be drilled on the panel allow quick installation using the accessory kit provided.

Reduced and Simple Maintenance

The MIX exchangers feature exchange coils that prevent fouling by solid contaminants in the air, maintaining heat exchanger efficiency even under severe environmental conditions. This helps to minimise maintenance, but, if the unit does need to be maintained, both fans and coils are easy to remove.

Maximum Heat Disposal

By removing air from inside the enclosure at the top, using counter current flow and highly efficient exchange surfaces the maximum heat reduction can be achieved. Baffles also direct cool air to the bottom of the enclosure, and expel warm air upwards on the outside.

Optimum Enclosure Protection

As the internal and external flows of air are completely isolated from each other, and suitable gaskets are used, the enclosure can maintain an IP54 protection level.

An Efficient Design

All the MIX series heat exchangers are designed to minimise running costs, thanks to an optimised exchange surface. As always suitable devices should be used to protect against overloading.

Supply Voltage

Single-phase voltages of 230V or 115V are the standard voltages available for all models. All are supplied bi-frequency 50-60Hz. On request, DC or three-phase AC versions are also available.

Paint Finish

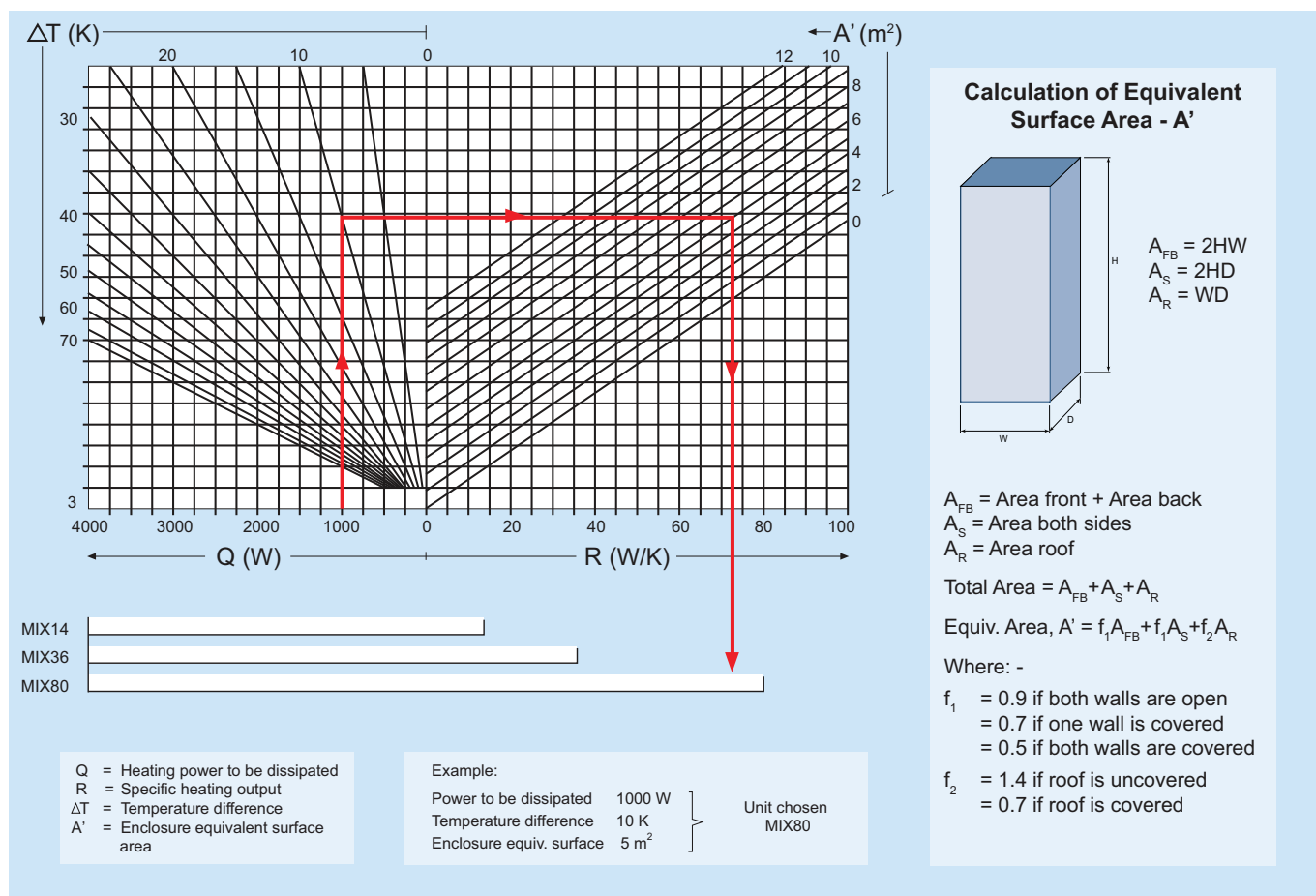
RAL 7032 ripple epoxy paint is the standard finish used on all MIX air-air heat exchangers. On request other colours and materials, such as stainless steel are also available.



Application Tips

- If ambient temperatures are much lower than the required enclosure internal temperature, MIX air-air exchangers are a great option. This is especially the case, if there are contaminants in the outside air, which must not get inside the enclosure. These contaminants can include emulsions, dust or chemical substances.
- When choosing an exchanger, maintain a safety margin of at least 10% on the rated power of the most difficult conditions.
- Seal the enclosure well. Cracks or openings will cause the cooling units capacity to drop considerably, and may cause condensation to form.
- Always install the exchanger in the highest possible position, so that the hottest air can be taken out from the enclosure. This is crucial to achieve the maximum yield possible from the exchanger.
- Arrange the electronic components inside the enclosure in such a way as to facilitate the flow of air. Do not obstruct the air inlet or outlet with components installed too close. Any components that have their own ventilation system must have a flow pattern which does not hinder the cooling units flow.
- The standard exchanger version does not have a temperature controlling device for inside the enclosure. If your equipment needs to work within a well defined temperature range, or if you just want to save energy, request the adjustable thermostat option.

Quick Selection Guide



Quick Selection Guide

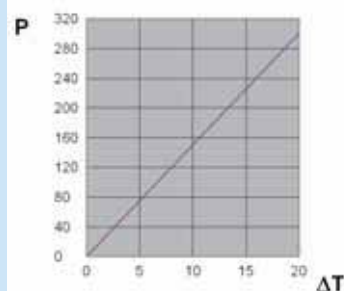
Specific Cooling Power W/K	14	36	80			
Dimensions mm	H	363	771	1260		
	W	188	316	317		
	D	165	93	108		
Power Supply V/f/Hz	230/1/50-60	115/1/50-60	230/1/50-60	115/1/50-60	230/1/50-60	115/1/50-60
Catalogue Number	TX-MIX14BX0A	TX-MIX14CX0A	TX-MIX36BX0A	TX-MIX36CX0A	TX-MIX80BX0A	TX-MIX80CX0A
Page	230	231	232			

MIX14

Specific Cooling Power 14W/K



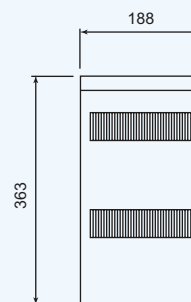
Performance Chart



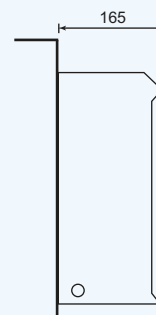
P = Cooling power (W)
 ΔT = Differential temperature

Characteristics	M.U.	TX-MIX14BX0A	TX-MIX14CX0A
Specific cooling power	W/K	14	14
Power supply	V ~ Hz	230 1~ 50-60	115 1~ 50-60
Width	mm	188	188
Height	mm	363	363
Depth	mm	165	165
Max. Current	A	0.5	0.96
Fuse T	A	1	2
Absorbed electric power	W	72	80
Duty cycle	-	100%	100%
External fan air flow	m ³ /h	280	280
Enclosure fan air flow	m ³ /h	280	280
Temperature limits	°C	-5 +55	-5 +55
Protection level EN60529 - enclosure side	-	IP54	IP54
Noise level	dB (A)	59	60
Weight	Kg	7	7
Conformity	-	CE	CE
Colour	-	RAL 7032 ripple	

Front Elevation



Side Elevation

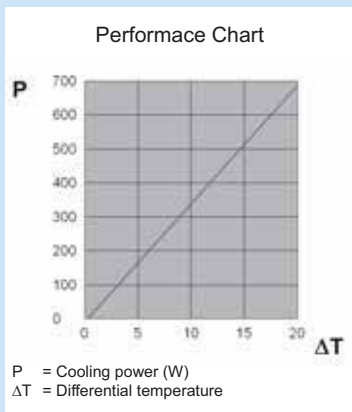


Accessories / Options

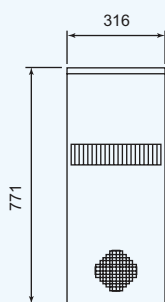
0-60°C thermostat, NO 10A	TX-AAFTO12
5-60°C thermostat, change-over contact 10A	TX-AAWTS10

MIX36

Specific Cooling Power 36 W/K



Front Elevation



Side Elevation



Characteristics	M.U.	TX-MIX36BX0A	TX-MIX36CX0A
Specific cooling power	W/K	36	36
Power supply	V ~ Hz	230 1~ 50-60	115 1~ 50-60
Width	mm	316	316
Height	mm	771	771
Depth	mm	93	93
Max. Current	A	0.64	1.12
Fuse T	A	1	2
Absorbed electric power	W	140	150
Duty cycle	-	100%	100%
External fan air flow	m ³ /h	570	570
Enclosure fan air flow	m ³ /h	570	570
Temperature limits	°C	-5 +55	-5 +55
Protection level EN60529 - enclosure side	-	IP54	IP54
Noise level	dB (A)	67	67
Weight	Kg	10	10
Conformity	-	CE	CE
Colour	-	RAL 7032 ripple	

Accessories / Options

0-60°C thermostat, NO 10A	TX-AAFTO12
5-60°C thermostat, change-over contact 10A	TX-AAWTS10

Non-metallic

General Purpose

Stainless Steel

Mining & Hazardous

Switchboard Building

Datacoms

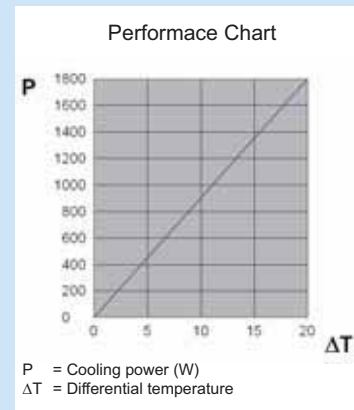
Climate Control

Technical Drawings

Enclosure Selection

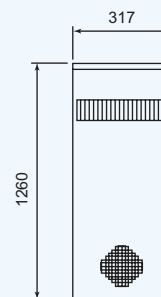
MIX80

Specific Cooling Power 80 W/K



Characteristics	M.U.	MIX80BX0A	MIX80CX0A
Specific cooling power	W/K	80	80
Power supply	V ~ Hz	230 1~ 50-60	115 1~ 50-60
Width	mm	317	317
Height	mm	1260	1260
Depth	mm	108	108
Max. Current	A	1,06	2,1
Fuse T	A	2	4
Absorbed electric power	W	240	255
Duty cycle	-	100%	100%
External fan air flow	m ³ /h	1050	1050
Enclosure fan air flow	m ³ /h	1050	1050
Temperature limits	°C	-5 +55	-5 +55
Protection level EN60529 - enclosure side	-	IP54	IP54
Noise level	dB (A)	75	75
Weight	Kg	17	17
Conformity	-	CE	CE
Colour	-	RAL 7032 ripple	

Front Elevation



Side Elevation



Accessories / Options

0-60°C thermostat, NO 10A	AAFT012
5-60°C thermostat, change-over contact 10A	AAWTS10
Stainless steel version	
Special paint on request	



ANCILLARY

TEXA MIX

TEXA MIX Air-Air Heat Exchangers

The Texa MIX range are air-air heat exchangers with specific cooling output from 14W to 80kW. Maintenance is minimised by using highly optimised heat exchange surface designed to reduce fouling.

A wide power range

A range of specific cooling powers from 14W to 80kW ensure that the vast majority of electrical enclosures can be cooled with a Texa MIX range air-air heat exchanger. Air is removed from the top of the enclosure, where it is at its hottest and expelled back in a low energy jet aimed at the bottom of the system. The ambient air flowrate is counter-current, so that cold air enters the bottom of the unit, and warm air exits the top. This optimizes the cooling performance.

Quick & easy to assemble

All the units can be mounted either inside or outside the enclosure with a template supplied showing where the enclosure needs to be drilled. Importantly, all assembly elements are included in the supply, so there are no hidden extras. The MIX series is designed for easy and safe wiring with electrical connections in the front and back to suit any application.

Reliability & minimal maintenance

The MIX exchangers feature heat transfer coils that prevent fouling by dust particles. This maintains the heat exchanger efficiency even under severe environment conditions. If the unit does need to be maintained, fans and coils have been designed to be easy to remove.

Protection

All internal and external air flow are kept separated inside the MIX heat exchanger, this allows them to maintain a rating of IP54 when installed with suitable gaskets.



Contact your local B&R office for details
www.brenclosures.com.au

TECHNICAL INFORMATION

MIX range air-air heat exchangers are available with specific cooling capacities from 14W to 80kW. They are also available in a wide range of power supplies. The table below gives information on the range available, as well as overall dimensions:

Specific Cooling Power (W)	Power Supply V/ph/Hz	Dimensions (mm)			Catalogue No
		Height	Width	Depth	
14	230/1/50-60	363	188	165	TX-MIX14BX0A
14	115/1/50-60	363	188	165	TX-MIX14CX0A
36	230/1/50-60	771	336	93	TX-MIX36BX0A
36	115/1/60-60	771	336	93	TX-MIX36CX0A
50	230/1/50-60	771	336	93	TX-MIX50BX0A
50	115/1/50-60	771	336	93	TX-MIX50CX0A
80	230/1/50-60	1260	317	108	TX-MIX80BX0A
80	115/1/60-60	1260	317	108	TX-MIX80CX0A



APPLICATION TIPS

- If the ambient temperatures are much lower than the required enclosure internal temperature, the air-air exchangers of the MIX series can be used. This is especially the case if there are contaminants in the outside air which must not get inside the enclosure. These contaminants can include emulsions, dust or chemical substances.
- When choosing the exchanger, maintain a safety margin of at least 10% considering the most difficult conditions the unit will need to work in.
- Seal the enclosure well. Cracks or openings will cause the cooling units capacity to drop considerably, and may cause excessive condensation to form.
- Always install the exchanger in the highest possible position, so that the hottest air can be taken out from the enclosure. This is fundamental to achieve the maximum yield possible from the exchanger.
- Arrange the electronic components inside the enclosure in such a way as to facilitate the flow of air. Do not obstruct the air inlet or outlet with components installed too close. Any components that have their own ventilation system must have a flow pattern which does not hinder the cooling units flow.
- The standard exchanger version does not have a temperature controlling device for inside the enclosure. If your equipment needs to work within a well defined temperature range, or if you just want to save energy, opt for the version featuring an adjustable thermostat.

ACCESSORIES GUIDE

Accessories available include spare filters and thermostats. The filters are available in the standard form and as a washable metal filter which can be useful for environments where there is a severe dust problem. Thermostats are available in 2 forms, a 10-60C, 10 amp with a change-over contact, and a 0-60C, 6 amp normally open.



SALES OFFICES

Queensland (Brisbane)
Ph 07 3714 1000

Queensland (Townsville)
Ph 07 4775 6255

New South Wales (Sydney)
Ph 02 9687 0077

New South Wales (Newcastle)
Ph 02 4961 4433

Victoria (Melbourne)
Ph 03 8588 8400

South Australia (Adelaide)
Ph 08 8243 1166

Western Australia (Perth)
Ph 08 9248 9744

Tasmania (Launceston)
Ph 03 6331 5545

Northern Territory (Darwin)
Ph 08 8947 0870