

M SERIES RANGE



HEAVY & SEVERE-DUTY RANGE

The Sigma 'M' Series heavy-duty industrial mains powered air conditioners have been designed to provide controlled space conditions for crane operator cabins, control rooms, switch rooms and other applications where heavy to severe shock loads, vibration and dust laden corrosive environments are experienced and the applications require a high cooling and heating capacity.

- MPV5 Horizontal Rooftop Packaged
- MPW5 Wall Mount Packaged
- MPF6MX10 Floor Mounted Upright Packaged
- MPR7 Rooftop Packaged
- MPR9 Rooftop Packaged
- MPR20 Rooftop Packaged
- MPR25 Rooftop Packaged



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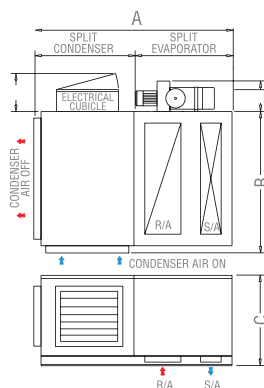
LEADING THERMAL MANAGEMENT SOLUTIONS

BENEFITS

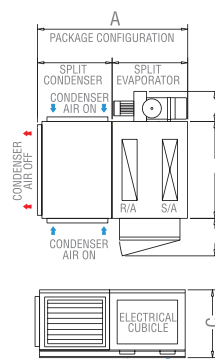
- World class after sales technical and service support
- High ambient operation (up to 65°C)
- Welded stainless steel construction designed for high vibration and corrosive environments
- Stainless steel washable return air filters (on selected models)
- High quality componentry suitable for severe environments
- Heavy-duty wide finned heat exchangers
- Standard stage filtration for cabin pressurisation
- Thermal overload circuit breakers on all motors
- Designed to meet all mining design standards
- Common components throughout the range
- Hinged access and louvered covers retained by catches
- TX Valve control and system isolation valves (on selected models)

OPTIONS

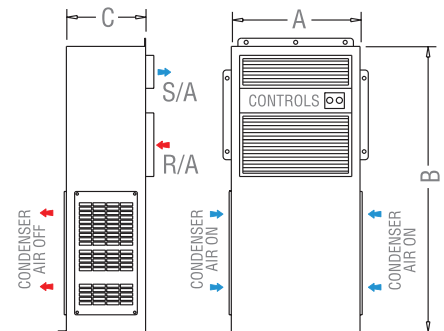
- All mining grade installation components
- Complete system design solutions
- Air purification and high efficiency filtration systems
- Chemical filtration
- Additional corrosion protection
- Self cleaning pre-cleaners
- R124 Refrigerant for high ambient (on selected models)
- H13 HEPA Fresh air filter to suit EB9P4X, FVV80 & FVV100MR1



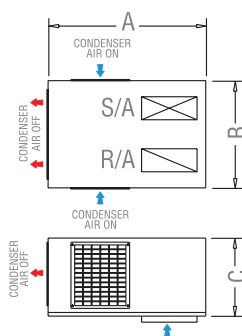
MPR20/ MPR25



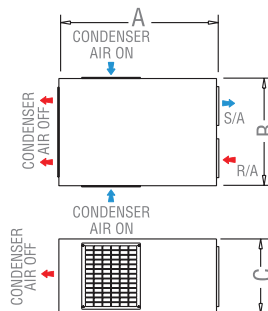
MPR7



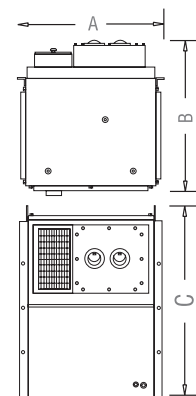
MPF6 Wall Mount Package System



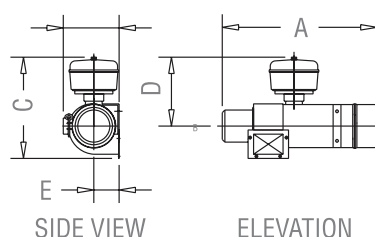
MPV5MX2 + MKRP3
Rooftop Package Unit



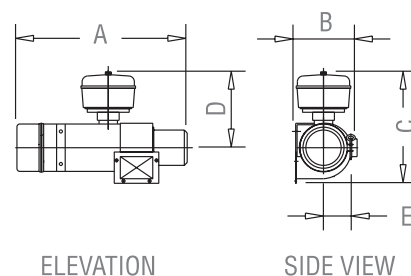
MPV5MX2 + MKWP1 Wall Mount
Package Unit



MPW5



FVV80 / FVV100M1 Pressurisers



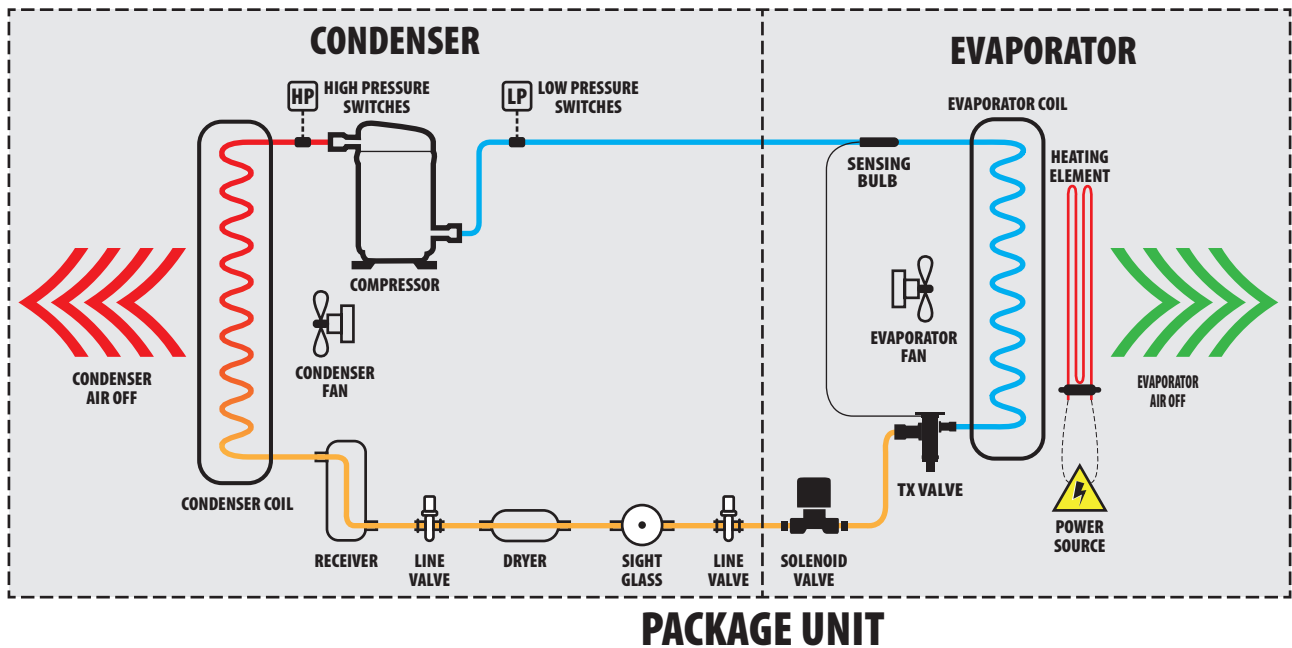
FVV50M1 Pressuriser



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REFRIGERATION SCHEMATICS



GENERAL MAINTENANCE SCHEDULE

3x **EVERY THREE MONTH OR 1200 HOURS** **1200Hr**



- Inspect Condenser coil



- Inspect Condenser fan & clean as required

6x **EVERY SIX MONTH OR 2400 HOURS** **2400Hr**

In addition to above



- Refrigerant Charge: Check gauge readings, if refrigerant shortage indicated, leak test system, repair leak and replace lost refrigerant.



- Check fan motor thoroughly, follow normal plant procedure. Ensure mounting bolts tight



- Clean the condenser coil. Make sure that excessive pressure is not used which may damage the coil



- Check cleanliness of evaporator coil, clean if required

12x **EVERY TWELVE MONTH OR 4800 HOURS** **4800Hr**

In addition to above



- Replace Filter Drier yearly or whenever system opened



- Drain and replace compressor oil every two years



- Carry out yearly service - check refrigerant level, pressures and general unit performance



- Check for blockage of condensate drains



- Check for any noise coming from supply & condenser fan assemblies. Clean, repair or replace as required

NOTE: All maintenance details provided are for general information only, this may vary according to the specific equipment/options. Contact SIGMA for more information.



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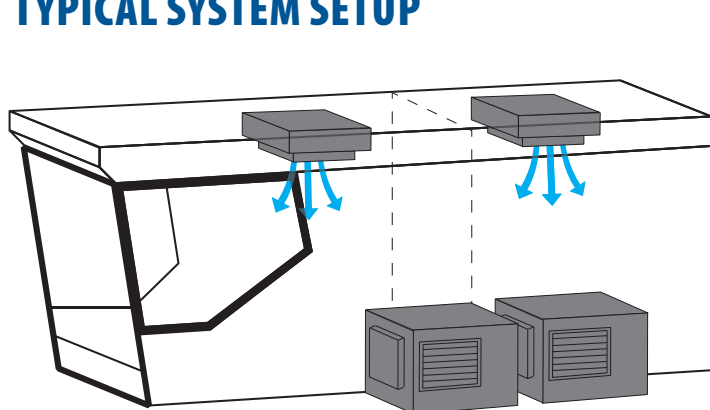
PRODUCT RANGE

Model No.	MPV5	MPW5MX1	MPF6MX10	MPR7	MPR9	MPR20	MPR25
Description	Horizontal Rooftop Packaged	Wall Mount Packaged with Heating	Wall Mount Packaged with Heating	Rooftop Packaged HVAC with Heating	Rooftop Packaged HVAC with Heating	Rooftop Packaged HVAC with Heating	Rooftop Packaged HVAC with Heating
Cooling	5.0 kW 17060 BTU	5.0 kW 17060 BTU	6.0 kW 20472 BTU	7.0 kW 23884 BTU	10.0 kW 34120 BTU	20.0 kW 68240 BTU	25.0 kW 85300 BTU
Heating Capacity	3.0 kW 10236 BTU	3.0 kW 10236 BTU	3.0 kW 10236 BTU	3.0 kW 10236 BTU	12.0 kW 40944 BTU	9.0 kW 30708 BTU	9.0 kW 30708 BTU
Fan Speeds	3	3	3	2	2 (man. control) / 3 (elec. control)	2	2
Air Flow	190 l/s 403 CFM	200 l/s 424 CFM	300 l/s 636 CFM	320 l/s 678 CFM	610 l/s 1293 CFM	900 l/s 1907 CFM	900 l/s 1907 CFM
Fresh Air	*50 l/s 106 CFM	*30 l/s 64 CFM	*50 l/s 106 CFM	80 l/s 170 CFM	*30 l/s 47 CFM	100 l/s 212 CFM	100 l/s 212 CFM
Power Supply	415 VAC 3Phase- 50Hz	415 VAC 3Phase- 50Hz	415 VAC 50Hz	415 VAC 3Phase- 50Hz	415 / 460 VAC 3Phase-50/60Hz	415 VAC 3Phase- 50Hz	415 VAC 3Phase- 50Hz
Current Draw	10 A	17 A	12 A	12 A	30 A	33 A	33 A
Refrigerant	R134a	R134a	R134a	R134a	R134a	R134a	R134a
Minimum Ambient Temperature	**6°C 42.8°F	**6°C 42.8°F	**6°C 42.8°F	**6°C 42.8°F	-10°C 14°F	**6°C 42.8°F	**6°C 42.8°F
Maximum Ambient Temperature	54°C 129°F	54°C 129°F	54°C 129°F	54°C 129°F	54°C 129°F	54°C 129°F	54°C 129°F
Weight (nominal)	150.0 kg 330.0 lbs	160.0 kg 353.0 lbs	295.0 kg 649.0 lbs	454.0 kg 998.8 lbs	457.0 kg 1005.4 lbs	760.0 kg 1672.0 lbs	760.0 kg 1672.0 lbs
Dimension (L x W x H) (A x B x C)	1000mm x 680mm x 495mm 39.4in x 26.8in x 19.5in	696mm x 665mm x 969mm 27.4in x 26.2in x 38.1in	1512mm x 1145mm x 970mm 59.5in x 45.1in x 38.2in	1490mm x 1250mm x 665mm 58.7in x 49.2in x 26.2in	1512mm x 1145mm x 980mm 59.5in x 45.1in x 28.6in	1920mm x 1670mm x 895mm 75.6in x 65.7in x 35.2in	1920mm x 1670mm x 895mm 75.6in x 65.7in x 35.2in

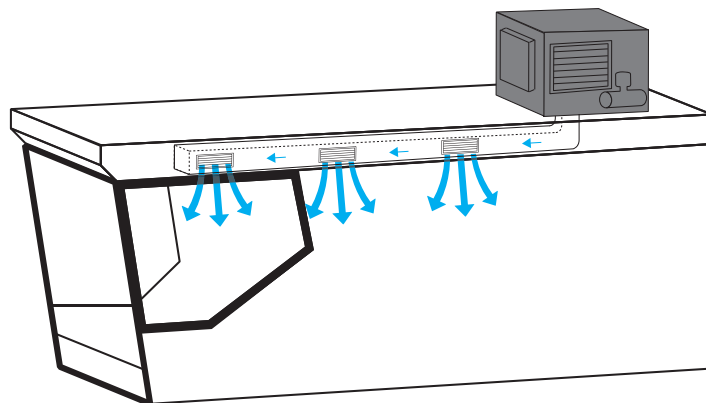
*Optional, MPR9 can have other pressuriser options

** with heating option selected -10°C / 14°F

TYPICAL SYSTEM SETUP



SPLIT TYPE ROOF MOUNTED EVAPORATORS
WITH DECK MOUNTED CONDENSER



ROOF MOUNTED PACKAGE

ALWAYS USE GENUINE SIGMA AUTHORISED PARTS ONLY



www.sigma-hvac.com

FOR MORE INFORMATION

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KNORR-BREMSE



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