

MHM · ACS SERIES · SELECTION & PERFORMANCE DATA

MHM Air Cooled Scroll Chiller

Packaged rooftop scroll chiller, 30–260 TR, R-410A, tandem compressors with 25% steps.

Rating conditions

Cooling capacity	30–260 TR
Refrigerant	R-410A
Power supply	415 V / 3 ph / 50 Hz
COP (AHRI)	3.1–3.4
Ambient rating	up to 46 °C
Warranty	18 months
Origin	Assembled in Bangladesh (Shenzhen MHI components)

Model range — nominal data

Model	Capacity (TR)	Capacity (kW)	Input power (kW)	Compressors	Chilled water flow (m³/h)	L × W × H (mm)	Weight (kg)
MHM-ACS-030	30	105	36.2	2 × scroll	18.1	2250 × 1100 × 2050	1180
MHM-ACS-060	60	211	71.8	4 × scroll	36.3	3400 × 2200 × 2250	2350
MHM-ACS-090	90	316	106.4	6 × scroll	54.4	4600 × 2200 × 2250	3320
MHM-ACS-120	120	422	142.1	8 × scroll	72.6	5800 × 2200 × 2300	4210
MHM-ACS-180	180	633	214.6	12 × scroll	108.9	8300 × 2200 × 2300	6150
MHM-ACS-260	260	914	311.0	16 × scroll	157.3	11400 × 2250 × 2350	8600

Derived performance figures

Model	COP / EER (kW/kW)	Specific power (kW/TR)	Design Δt at listed flow (°C)
MHM-ACS-030	2.90	1.21	5.0
MHM-ACS-060	2.94	1.20	5.0
MHM-ACS-090	2.97	1.18	5.0
MHM-ACS-120	2.97	1.18	5.0
MHM-ACS-180	2.95	1.19	5.0
MHM-ACS-260	2.94	1.20	5.0

Calculated from the nominal data above (1 TR = 3.517 kW; water Δt from $Q = \dot{m} \cdot c_p \cdot \Delta t$ with $c_p = 4.186 \text{ kJ/kg}\cdot\text{K}$; hydraulic power $\dot{W} = gQH$). Use them to compare models and check pipe/pump sizing; final selection is done by MHM at your actual conditions.

Selection notes

- Select capacity at the plant's design ambient (Dhaka 40–46 °C for air-cooled) and the leaving-water temperature the process needs — capacity falls about 1.5% per °C of higher ambient and 2–3% per °C of lower leaving water.
- Keep chilled-water Δt at 5 °C (flow 0.68 m³/h per TR) unless the coils are designed for a wider Δt; verify pressure drop at the chosen flow.
- Add 10% for future load only if a capacity step exists — an oversized chiller cycles at low load; two smaller machines usually run cheaper than one large one.
- Power supply 415 V / 3 ph / 50 Hz; specify a soft starter or VFD where the generator or transformer is marginal.

Need a selection at your conditions?

Email the duty point, water/air conditions and site constraints to sales@mhmmachineries.com — MHM returns a model selection with performance data, drawings and price within two working days.