

MHM · WCS SERIES · SELECTION & PERFORMANCE DATA

MHM Water Cooled Screw Chiller

Semi-hermetic twin-screw chiller, 80–850 TR, R-134a, for plants with cooling towers.

Rating conditions

Cooling capacity	80–850 TR
Refrigerant	R-134a
Power supply	415 V / 3 ph / 50 Hz
COP (full load)	5.5–6.1
Unloading	25–100% stepless
Warranty	18 months
Origin	Shenzhen MHI, China

Model range — nominal data

Model	Capacity (TR)	Capacity (kW)	Input power (kW)	Compressors	Condenser flow (m³/h)	L × W × H (mm)	Weight (kg)
MHM-WCS-080	80	281	52.0	1 × screw	60.5	3200 × 1250 × 1850	2650
MHM-WCS-150	150	527	96.8	1 × screw	113.4	3900 × 1450 × 2050	4300
MHM-WCS-250	250	879	160.2	2 × screw	189.1	4400 × 1750 × 2200	6800
MHM-WCS-400	400	1407	254.9	2 × screw	302.6	4900 × 1950 × 2350	9900
MHM-WCS-600	600	2110	380.3	2 × screw	453.9	5600 × 2100 × 2500	13800
MHM-WCS-850	850	2989	536.7	3 × screw	643.0	6400 × 2300 × 2650	19200

Derived performance figures

Model	COP / EER (kW/kW)	Specific power (kW/TR)
MHM-WCS-080	5.40	0.65
MHM-WCS-150	5.44	0.65
MHM-WCS-250	5.49	0.64
MHM-WCS-400	5.52	0.64
MHM-WCS-600	5.55	0.63
MHM-WCS-850	5.57	0.63

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.