

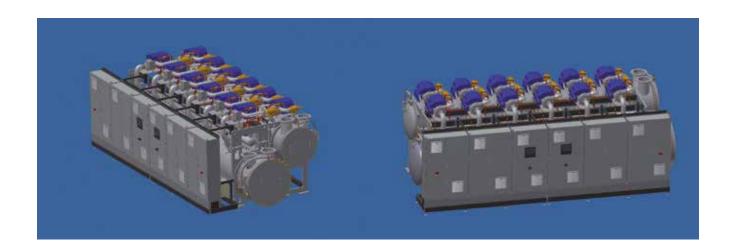
## Maximum performance in a compact, modular design

The advantages of the QUANTUM P series

QUANTUM chillers are particularly efficient, low-maintenance and reliable. A QUANTUM is oil-free, which facilitates an unusually compact machine design. The QUANTUM power series includes machine configurations that can accommodate up to 16 turbo compressors, for a total output of up to around 6.5 MW. Every QUANTUM Power chiller has a compact, modular design and can thus be easily configured to nearly any customer request. QUANTUM Power chillers are available with refrigerants R-134a and R-1234ze.

QUANTUM P feature	Advantage for the customer	Reason
MODULAR DESIGN	<ul> <li>Effective, fast service options on the chiller</li> <li>Can be flexibly adapted to a wide variety of customer requirements</li> <li>Easy transport and installation</li> </ul>	<ul> <li>Separable by means of flanges</li> <li>Can be dismantled into five modules:</li> <li>1. Switch cabinet</li> <li>2. Condenser</li> <li>3. Evaporator</li> <li>4. ECO</li> <li>5. Compressor frame</li> <li>Standard suspension</li> </ul>
COMPACT DESIGN	<ul><li>Low space requirement</li><li>Clear chiller design</li><li>Easy installation</li></ul>	Can be transported in a 40-foot-high cube container
UP TO 16 TURBO COMPRESSORS	Capacity range Can be precisely adapted Scalable as required Low operating costs Low noise emissions Low vibration High availability Extremely low start-up currents	<ul> <li>Modular design</li> <li>High efficiency = low energy loss = low noise emissions and vibration</li> <li>Critical components are designed redundantly</li> </ul>
CAPACITY RANGE 2,500 KW-APPROX. 6,500 KW	Applications for higher refrigeration demand: District cooling networks Centralised refrigeration (GTA or industry) Efficient in district cooling networks, resulting in considerably lower operating costs	<ul> <li>High energy efficiency, particularly in the megawatt range</li> <li>Compressor design allows full- and partial-load EER</li> <li>Turbo machine with minimal internal losses, high ESEER value</li> </ul>

· Oil-free compressor technology



## The QUANTUM P 660 - exemplary efficiency married to top performance

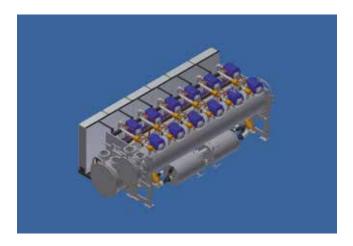
The QUANTUM P 660 chiller has a refrigeration capacity of up to approx. 6.5 MW at a 6–8 K temperature difference (inlet/outlet and spread) and impressive efficiency values: The EER is usually above 5.0.

The chiller is shipped in a 40-foot-high cube container, and all safety-relevant components are redundant. There are two infeeds; the line reactors are used as a service gangway. QUANTUM P 660 can be individually modified to customer requirements.

## Example: QUANTUM P 660 with 12 compressors

OVERALL WIDTH	3,508 mm (including the switch cabinet and hinges)
TRANSPORT WIDTH	• 2,310 mm (without the switch cabinet and hinges)
OVERALL LENGTH	• 7,283 mm
TOTAL TRANSPORT WEIGHT	• 28,800 kg (without refrigerant)
TOTAL TRANSPORT	• 31,100 kg

(with refrigerant)





WEIGHT