Product Factsheet KCTC-1 Data Centre



Features	Descriptions
General building facilities	 Purpose-built nine storey building designed for data centre facilities 4x main Passenger Lifts (each 1,000kg max loading capacity) 1x Cargo Lift (3,000kg max loading capacity) Building envelope and raised flooring are thermally insulated and moisture-resistant
Construction	 Elevated 109 metres ASML (Above Sea Mean Level) Floor loading: 5-7KN/m² Floor to floor height: 4.7m Raised floor height: 0.3-0.6m
Cooling system	 Water cooled chiller system: N+1 CRAC configuration: N+1 Cooling density of 500-1000W/sqm (with the ability to scale to higher specifications)
Power system	 Fully redundant power distribution systems with two diverse feeds Equipped with fully redundant UPS in 2N configuration Multiple generators to provide power with 18 hours backup fuel 4x Bus-duct risers to all floors in (1+1) configuration PDUs fitted with isolation transformers Earthing system and lightning protection systems installed
Advanced fire detection and suppression systems	 Fully networked monitored and integrated fire system (VESDA) to detect, notify and perform controlled shutdown. Facility protected by gaseous fire suppression and VESDA systems Pre-action sprinkler and smoke detection Fire-rated doors and partitions Gaseous suppression system in data centre areas 24x7 decentralised fire alarm monitoring system (DECAM) that links directly to an external fire monitoring agency
Security	 Contact-less card access systems to prevent unauthorised access Centralised rack-locking system available 24x7 closed circuit TV (CCTV) monitoring system with recording on all floors 24x7 physical security monitoring by qualified security guards on patrol Public address and emergency voice broadcasting systems
Environmental and climate control systems	 24x7 air-conditioning with redundant units (CRAC) 24x7 temperature and humidity control Environmental systems backed up by emergency generator power
Network redundancy	 2x separate network rooms and main distribution frame (MDF) rooms 2x separate communications risers Houses Singtel's regional infrastructure servers, back-up servers, network equipment and Internet core switches to ensure optimum network performance.



