



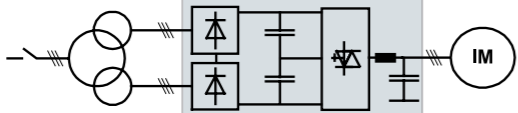
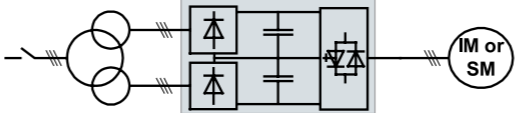
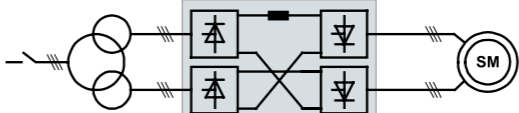

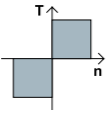

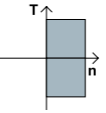
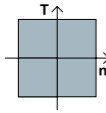


Medium Voltage AC Drives

Product	Drive ^{IT} ACS 1000	Drive ^{IT} ACS 6000	LCI	ACS 6000c
Type of Converter	VSI-NPC Voltage Source Inverter Neutral Point Clamped	VSI-NPC Voltage Source Inverter Neutral Point Clamped	LCI Load Commutated Inverter	Cycloconverter
Typical Applications	Pumps, Fans, Conveyors, Extruders Mixers, Compressors, Grinding Mills Suitable for retrofit of existing motors	Pumps, Fans, Conveyors, Extruders Compressors, Grinding Mills Marine Propulsion Rolling Mills, Mine Hoists	Compressors, Pumps, Fans Blast Furnace Blowers Pump Storage Plants	Marine Propulsion Rolling Mills, Mine Hoists
Typical Photo				
Typical System Diagram				
Converter Cooling	Air (A) / Water (W)	Water (W)	Air (A) / Water (W)	Water (W)
Power Range	A: 315kW–1.8MW W: 1.8–5MW	W: 3–27 MW	A: 2–31 MW W: 7–46 MW / higher on request	W: 14–27 MW
Input Section	Diodes: 12/24-pulse rectifier	Diodes: 12/24-pulse rectifier or IGCT: Active rectifier	Thyristors: 6/12/24-pulse rectifier	Thyristors: 6/12-pulse
Output Section	IGCTs: 6-pulse, 3-level VSI sinusoidal output	IGCTs: 6-pulse, 3-level VSI	Thyristors: 6/12-pulse inverter	
Output Voltage	2.3/3.3/4.0kV	3.0–3.3kV	2.1–6.4kV / higher on request	1.5/1.8kV
Maximum Output Frequency	66 Hz (82.5 Hz)	75 Hz (250 Hz)	60 Hz (120 Hz)	24/28 Hz
Field Weakening	> 45 Hz (max. 1:1.5)	> 6.25 Hz (max. 1:5)	Customized	6 Hz (max. 1:4)
Speed-Torque Quadrants				
Special Features & Benefits	<ul style="list-style-type: none"> * Constant network power factor over whole speed range * Sinusoidal output * DTC (Direct Torque Control) * Fuseless 	<ul style="list-style-type: none"> * Constant network power factor over whole speed range * Optimized pulse pattern to minimize network harmonics (with IGCT) * DTC (Direct Torque Control) * Multidrives with common DC bus * Fuseless 	<ul style="list-style-type: none"> * Soft start of large synchronous motors and generators * Fuseless 	<ul style="list-style-type: none"> * High torque at low speed * Overload capacity up to 150%/60s
Options	<ul style="list-style-type: none"> * Braking chopper * Synchronous bypass 	Braking chopper	Customized	Customized
Type of Motor	Induction motor	Induction motor and/or synchronous motor	Synchronous motor	Synchronous motor