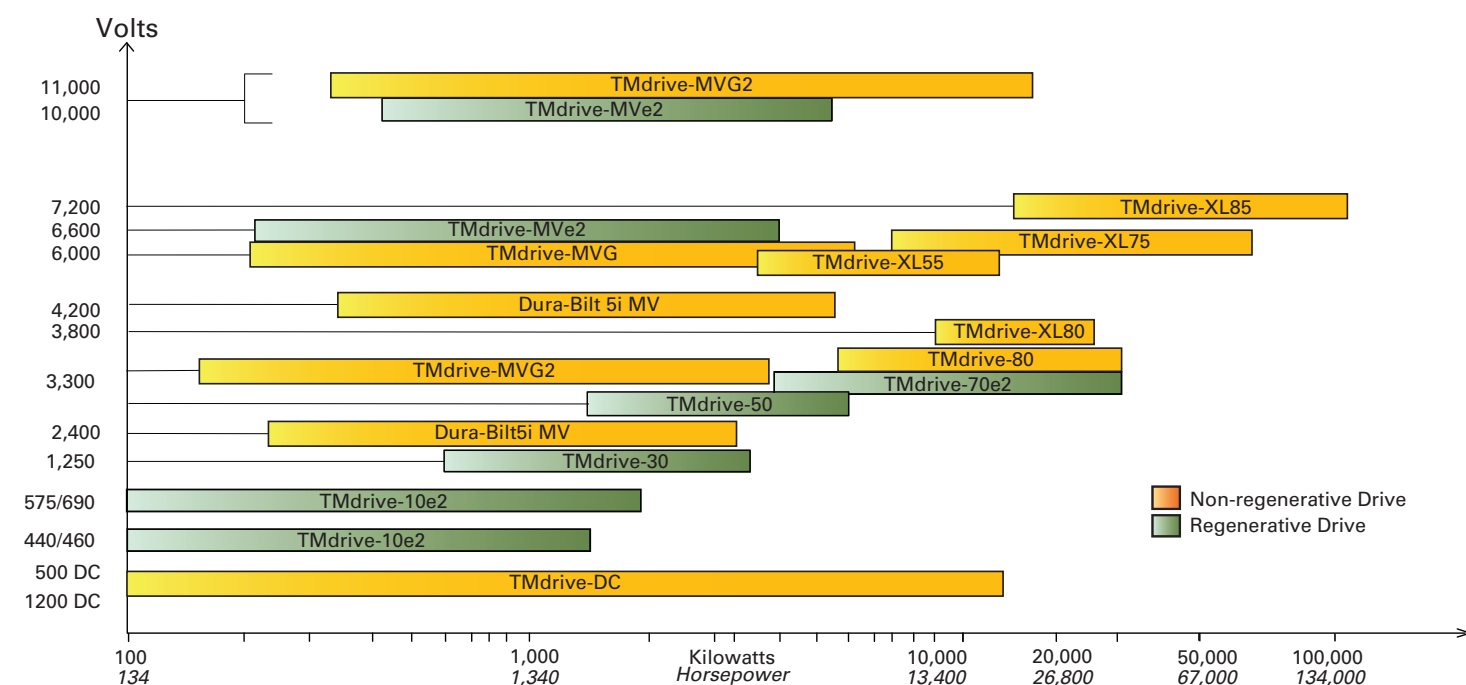


TMEiC Drives Offer Complete Coverage



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Low and Medium Voltage Drive Specifications

metals

cranes

mining

testing

oil & gas

renewable energy

power generation

cement

Product	LV AC Drive		MV AC Drive									DC Drive
	TMdrive-10e2 TMdrive-P/D10e2	TMdrive-30 TMdrive-P30	TMdrive-50 TMdrive-P/D50	TMdrive-70e2 TMdrive-P70e2	Dura-Bilt5i (only for North America)	TMdrive-MVe2	TMdrive-MVG2	TMdrive-XL55	TMdrive-XL75	TMdrive-XL80	TMdrive-XL85	TMdrive-DC (LEOPACK/ MELNARD)
Typical View												
Capacity	2040kVA/460 V 2750kVA/690 V	2000 kVA	3000 kVA	6000 kVA 9000 kVA	2240 kW/2.3 kV 3540 kW/3.3 kV 7460 kW/4.16 kV	3000 KVA/6.6 kV 5000 KVA /11 kV	3000 kVA/3.3 kV 6000 kVA/6.6 kV 10000 kVA/11 kV	8 MVA	20 MVA	15 MVA	30 MVA	210 kW/300 V 19200 kW/1200 V
Maximum Capacity	2040 kVA/460 V 2749 kVA/690 V	4000 kVA	6000 kVA (2x3000 kVA)	24 MVA (4x6 MVA) 36 MVA (4x9 MVA)	2238 kW/2.3 kV 3544 kW/3.3 kV 7457 kW/4.16 kV	3000 KVA/6.6 kV 5000 KVA/11 kV	5700 kVA/3.3 kV 11400 kVA/6.6 kV 19500 kVA/11 kV	16 MVA (2x8 MVA)	80 MVA (4x20 MVA)	30 MVA (2x15 MVA)	120 MVA (4x30 MVA)	210 kW/300 V 19200 kW/1200 V
Line-side Converter	Common converter with IGBT(P), diode(D). Hybrid diode and PWM option.	Common converter with IGBT (P), diode (D) or thyristor (T)	Common converter with IGBT (P), diode (D)	Common converter with IEGT (P)	24 pulse diode converter	Active IGBT, regenerative	Diode converter 18 pulse (3.3 kV) 18 or 36 pulse (6.6 kV) 54 pulse (10 kV) 30 pulse (11 kV)	36 pulse diode converter	36 pulse diode converter	12 or 24 pulse diode converter	36 pulse diode converter	Thyristor
Inverter	2 level PWM*1	3 level PWM-NPC*3	3 level PWM-NPC	3 level PWM-NPC	3 level PWM-NPC (2.3 kV) 5 level PWM (4.16 kV)	Multilevel PWM	Multilevel PWM	5 level PWM	5 level PWM	3 level PWM-NPC	5 level PWM	—
Device	IGBTs	IGBTs	IGBTs	IEGTs	IGBTs	IGBT	IGBTs	IGBTs	IEGTs	GCTs	GCTs	—
Cooling System	Heatpipe air cooled	Heatpipe air cooled	Water cooled	Water cooled	Forced air cooled	Forced Air Cooled	Forced air cooled	Water cooled	Water cooled	Water cooled	Water cooled	Forced air cooled
Output Voltage	460/575/690 V	1.25 kV	3.3 kV	3.3 kV	2.3/4.6 kV	6.6/11 kV	3.3/6.6/10/11 kV	6.6 kV	6 kV	3.8 kV	7.2 kV	440/750/900/1200 V
Max Output Freq.	200 Hz	120 Hz	60/90 Hz	60/90 Hz	60/120 Hz	60/50 Hz	60/120 Hz (3.3/6.6 kV) 60/72 Hz (10/11 kV)	60/250 Hz	60/200 Hz	60/100 Hz	60/200 Hz	DC
Speed Control	Resolver, Encoder, V/F*2 control, Sensorless	Encoder, Resolver, V/F control, Sensorless	Resolver, Encoder	Resolver, Encoder	Sensorless vector, V/F control	Vector control without speed feedback	Sensorless vector, V/F control	V/F control, Sensorless vector	V/F control, Sensorless vector	V/F control, Sensorless vector	V/F control, Sensorless vector	Resolver, Encoder
Motor Type	Induction Motor	Induction motor Synchronous motor	Induction motor Synchronous motor	Induction motor Synchronous motor	Induction motor Synchronous motor	Induction motor Synchronous motor	Induction motor Synchronous motor	Induction motor Synchronous motor	Induction motor Synchronous motor	Induction motor Synchronous motor	Synchronous motor	DC motor
Major Applications	Process Industries, Material Handling, Dynamometer	Metal Processing, Marine, Mining	Metal Processing, Marine, Mining	Metal Rolling Mills, Compressors, Utilities	Pumps, Fans, Blowers, Extruders, Mixers	Pumps, Fans, Blowers, Extruders, Mixers	Pumps, Fans, Blowers, Extruders, Mixers	Compressors, Pumps, Fans, Blowers, Extruders Mixers	Compressors, Pumps, Fans, Blowers	Compressors, Pumps, Fans, Blowers, Extruders, Mixers	Compressors	Various applications
Features	Max. 8 stages (trays)	Compact with heatpipe technology, Regen with IGBT/Thyristor	High efficiency, Clean AC power, Compact	High efficiency, Clean AC power, Compact	Clean AC power, No sensor required for most applications	Clean AC power, No sensor required for most applications	Clean AC power, No sensor required for most applications	Clean AC power, No sensor required for most applications	Clean AC power, No sensor required for most applications	Clean AC power, No sensor required for most applications	Higher efficiency and PF compared to LCI or Cycloconverter	Upgrade is possible by replacement
Circuit Diagram	 IGBT converter shown	 IGBT converter shown	 IGBT converter shown	 IGBT converter shown	 4.16 kV shown	 4.16 kV shown	 3.3 kV shown					 Non-regen. Regen.

* TMdrive-P10e2: IGBT converter
TMdrive-D10e2: Diode converter

*1 PWM: Pulse Width Modulation
*2 V/F: Voltage/Frequency

*3 NPC: Neutral Point Clamped