SERVO**STAR**™ CD SynqNet™

Description

The **CD SynqNet** is a SynqNet™ servo drive based on the field-proven range of SERVO**STAR**™ CD drives. The power stage is the same as that of the CD, while the control stage is a dedicated SynqNet™ design. The **CD SynqNet** is designed as a Torque drive, with torque command being provided at high servo update rates from the SynqNet™ controller. Extensive I/O support is provided, with both function-specific inputs, such as Limit Switches, Home and Brake, and numerous general purpose I/Os. The **CD SynqNet** provides divide-by-N capability, enabling it to be programmed to generate an output pulse every N counts of the drive's encoder counter register.

SynqNet™

SynqNet™ (**http://www.synqnet.org**) is a high performance, all-digital synchronous network designed for multi- axis motion control applications. The physical layer of SynqNet™ is based on IEEE 802.3 standards for 100BASE-TX, the physical layer of Ethernet, while the data link and application layers of SynqNet™ are specifically designed for motion control applications. The 100BASE-TX media system is based on specifications published in the ANSI TP-PMD physical media standard. The 100BASE- TX system operates over two pairs of wires, one pair for 'receive' data signals and the other pair for 'transmit' data signals.

Power Ratings

Identification	Output Continuous Current (RMS per phase)	Output Peak Current (RMS per phase)	AC Line Input Voltage (VAC$_{L-L}$ nominal)	DC Bus Voltage (nominal)
Lx 03 5x5	3 Amps	9 Amps (0.5 Sec)	115 - 1phase	160VDC
			230 - 1phase	320VDC
			3 phase, 110V per phase	160VDC
Lx 06 5x5	6 Amps	18 Amps (0.5 Sec)	115 - 1phase	160VDC
			230 - 1 phase	320VDC
			3 phase, 110V per phase	160VDC
Lx 10 5x5	10 Amps	20 Amps (2 sec)	3 phase, 110V per phase	160VDC
Lx 06 6x5	6 Amps	12 Amps (2 sec)	3 phase, 380V	540VDC
			3 phase, 480V	680VDC
Lx 10 6x5	10 Amps	18 Amp. (0.5 sec)	3 phase, 380V	540VDC
			3 phase, 480V	680VDC

Solutions by **Danaher Motion**

SERVOSTAR™ CD SynqNet™

Features

Feedback
- Incremental Encoder and Heidenhain EnDat® Sine Encoder. Other options include support for Resolver and Stegmann Hiperface®.
- Auxiliary encoder feedback, used for Dual Loop or Master / Slave operation.
- Commutation initialization without motion

SynqNet™
- Network bandwidth for torque updates up to 16kHz
- Remote diagnostics of motor drive performance
- Remote drive configuration and setup
- Real- time diagnostic programming/ data collection over SynqNet
- Support for multiple feedback and dual-loop servo control
- Automatic network configuration and integrity check
- Cabling over 100 Meters between each node
- Electrical isolation for robust noise immunity

Servo Control
- Fully digital current loop
- Advanced patented sinewave commutation technology provides smooth, precise low-speed control as well as high-speed performance
- Accurate torque control due to precision balanced current loops with closed loop sensors
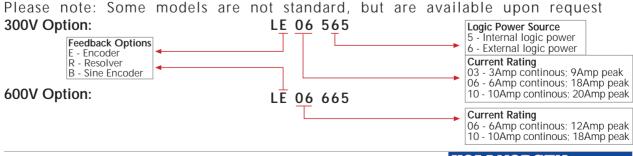- Patented torque angle control enhances motor performance

I/O
- 5V through 24V operation
- Dedicated Hardware enable, Positive and Negative Limit and Home inputs
- Brake Output via dry contact relay
- Eight general purpose opto-isolated inputs
- Four general purpose opto-isolated outputs
- Two bi-directional RS422 I/Os
- Fast Divide-by-N pulse output
- Two analog inputs

Robust Power Stage Options
- Self-protecting power modules
- Full protection against short circuit, over-voltage, under-voltage, motor and drive over-temperature, over-current and feedback loss
- Flexible current foldback protection

Ordering Information

Please note: Some models are not standard, but are available upon request

300V Option: LE 06 565

600V Option: LE 06 665

Feedback Options
E - Encoder
R - Resolver
B - Sine Encoder

Logic Power Source
5 - Internal logic power
6 - External logic power

Current Rating
03 - 3Amp continous; 9Amp peak
06 - 6Amp continous; 18Amp peak
10 - 10Amp continous; 20Amp peak

Current Rating
06 - 6Amp continous; 12Amp peak
10 - 10Amp continous; 18Amp peak

Solutions by **Danaher Motion**

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