

Line Filters for Regenerative VFD




Series LCR Torytrans filters are designed to connect between the network and the input frequency inverters (VFD) regenerative in applications where mechanical inertia of the load can be used to regenerate energy and return it to the network at the moment of braking, such as in lift motors (elevators, escalators, forklifts, cranes, etc ...).

Filter the PWM voltage waveform generated by the front inverter of the converter (AFE) adapting to sine wave voltage of the network. They considerably reduce the current ripple and the THD (I) factor of the wave reinjected into the network.

The LCR filters are composed of a line reactor LCR_A connected to the network and the sinusoidal filter LCR_B connected to the input of the regenerative drive VFD.

Technical characteristics

Motor rating	4 ÷ 30 kW (5,5 ÷ 40 CV)
Nominal current Filter	10 ÷ 75 A
Network voltage	3 x 400 V ± 20 V
Network frequency	50 ÷ 60 Hz
Switching frequency	2 ÷ 8 kHz
Insulation class	H (180°C)
Admissible overload	Permanent 1,07 I _N Transitory 1,5 I _N
Ambient temperature	40 °C
Protection degree	IP-20
Safety class	Class I 
High efficiency	Bobinado en cobre Núcleo de bajas pérdidas Condensadores MKP
Line Reactor	equipment LCR_A
Sinusoidal filter	equipment LCR_B
Standard	IEC / UNE-EN 60831-1 IEC / UNE-EN 60831-2 IEC/UNE-EN 61558-2-20



NET



LCR FILTER

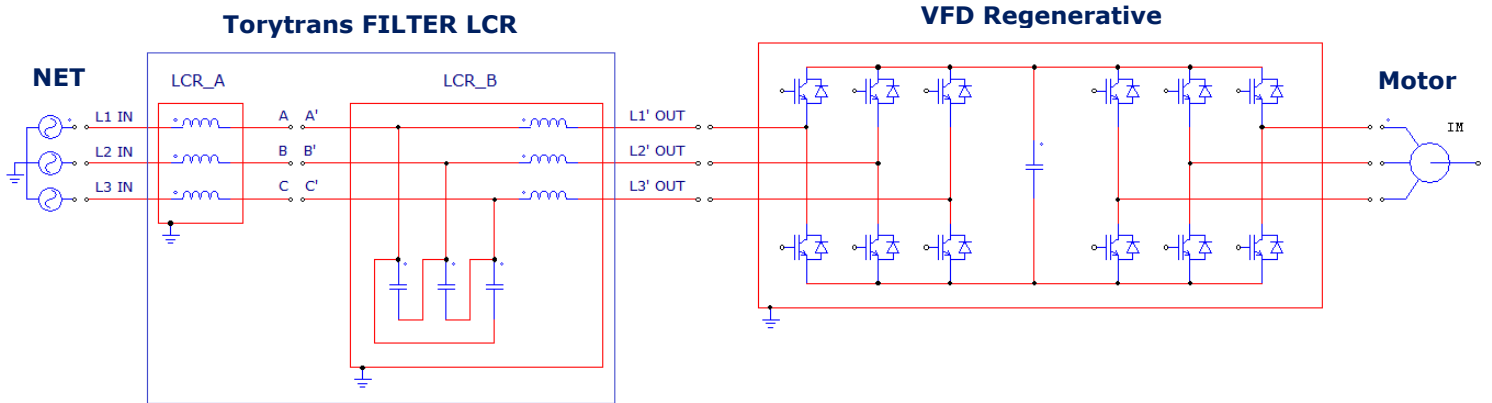


VFD
REGENERATIVE



MOTOR

Application diagram for the TORYTRANS filter **Series LCR**



Select the filter current according to the motor rating.

Motor rating		Current A	Reference	Dimensions mm							Weight kg
kW	CV			Equipment	A	B	C	D	E	Ø	
4	5,5	10	LCR010	LCR010A	125	80	155	100	60	5	4
				LCR010B	190	140	205	170	57	8	9
5,5	7,5	18	LCR018	LCR018A	155	85	185	130	57	8	6
				LCR018B	240	155	245	180	71	8	15
15	20	32	LCR032	LCR032A	190	90	205	170	62	8	9
				LCR032B	240	200	270	190	95	12	20
22	30	48	LCR048	LCR048A	190	110	220	170	90	8	10
				LCR048B	240	225	270	190	120	12	28
30	40	75	LCR075	LCR075A	240	120	270	180	81	8	19
				LCR075B	300	235	320	250	133	12	45

* All values show maximum dimensions.

* Other features, power, voltage, etc., on request.

* Torytrans reserves the right to modify the information in any time and without prior notice.

