

# SINE WAVE FILTER

[OUTPUT FILTER]

ELECTRO TAVAN CO.

TECHNOLOGY

QUALITY

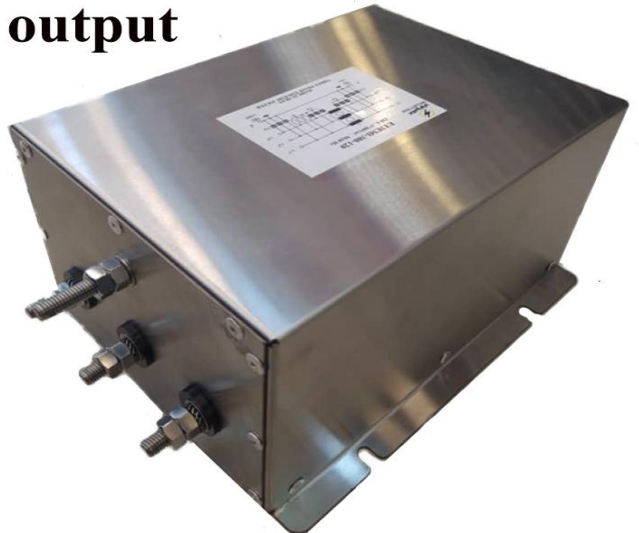
PERFORMANCE



# Sine wave filter for motor derives output

## Technical Specifications

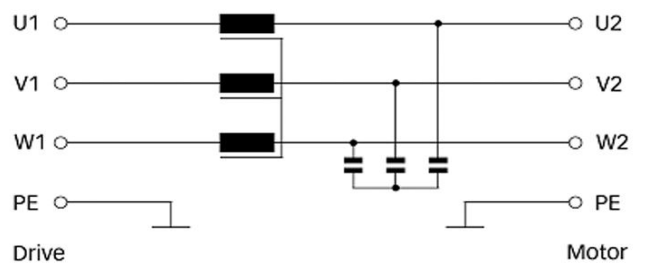
Nominal Voltage	3 x 380 / 400 VAC
Motor frequency	DC to 70 Hz
Switching frequency	4 & 3 Khz based on current
Rated current	
Residual ripple voltage	< 5%
Motor cable length	< 1000m
Impedance (UK)	8 to 10 % @ rated current
Protection degree	IP20
Over load capability	1.5 x rated current @ switching
Standards	EN 61800-5-1
Temprature range	-25 to +80 C
Insulation class	F (155 C)



## Applications

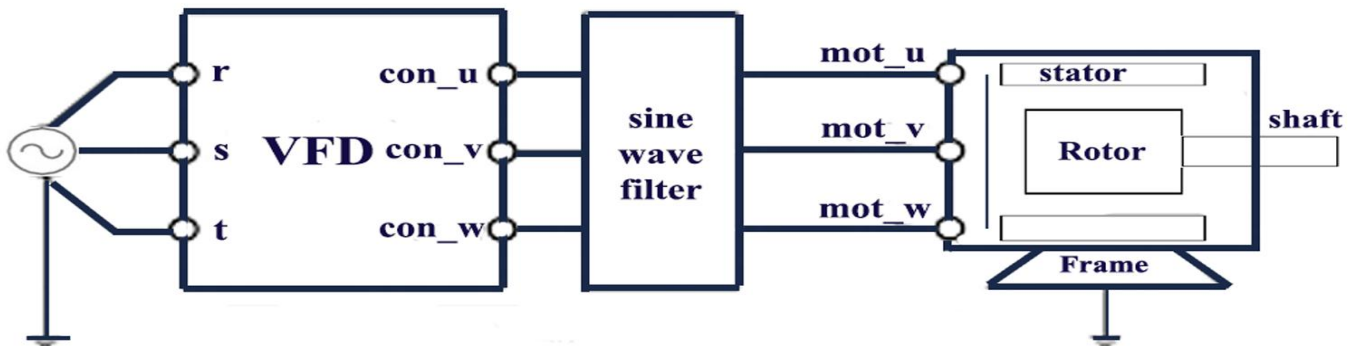
- Motor drive with long motor cable
- Motor drive with multiple motors in parallel
- Medium voltage applications
- Ventilators, conveyors, Pumps, HVAC installations,
- Compressors Elevators ,Cranes , wind power, UPS
- Retrofit installations with motor drives

## Electrical schematic

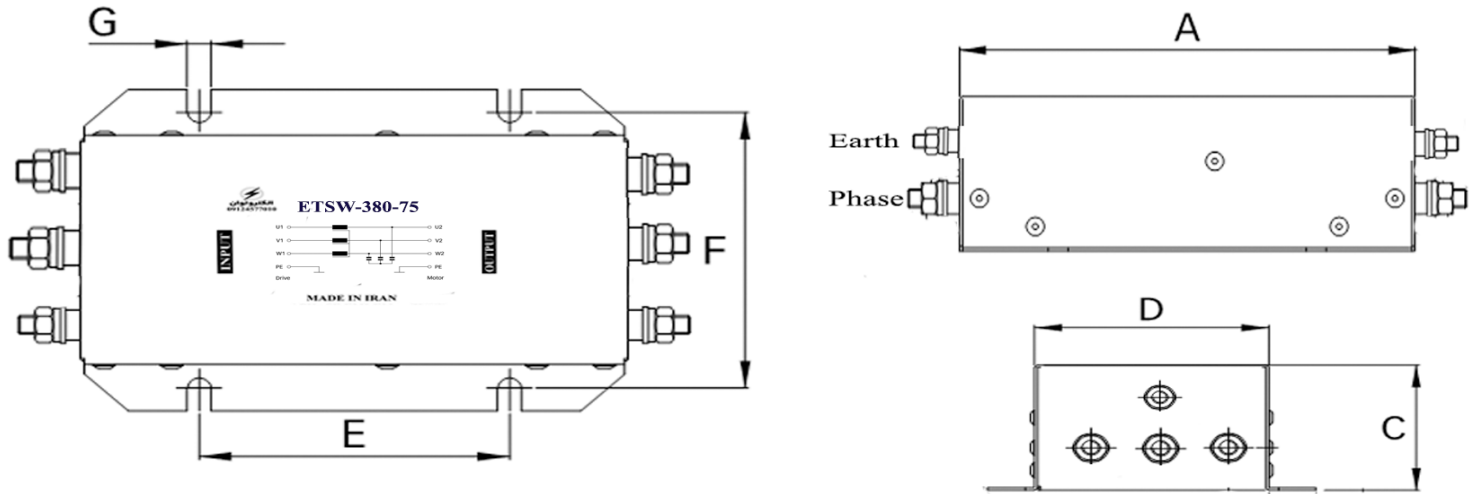


## Description

ETCO Series Sine Wave Filters convert the PWM output signal of motor drives into a smooth sine wave with low residual; Reduce the resonance phenomenon caused by distributed capacitance and inductance of the long cable (longer than 50 meters); Eliminate the excessive motor voltage caused by high dv/dt, Reduce noise of motor by filter application; Prolong motor life; Protecting the motor insulation; Increase transmission distance; With the application of this filter, normal motor can replace variable frequency motor.



## Mechanical Data and Overview



## Filter selection

FILTER	Rated current [A]	Drive power [Kw]	Nominal inductance [mH]	Nominal capacitance [uF]	Length [A] cm	Width [D] cm	Height [C] cm	Max cable length [m]	Min switching frequency [kHz]	Power loss [w]
ETSW-1.1-2.5	2.5	1.1	13	2.2	33	10	16.5	200	4	65
ETSW-2.2-4.5	4.5	2.2	11.2	4.7	33	10	16.5	200	4	65
ETSW-4-8	8	4	7.1	7.2	33	10	16.5	300	4	80
ETSW-5.5-10	10	5.5	3.1	10	33	10	16.5	500	4	89
ETSW-7.5-13	13	7.5	3.1	10	44	16	24.5	500	4	110
ETSW-11-18	18	11	2.4	10	44	16	24.5	600	4	114
ETSW-15-24	24	15	1.6	10	44	16	24.5	750	4	144
ETSW-18.5-32	32	18.5	1.6	10	44	16	24.5	750	4	162
ETSW-22-42	42	22	1.1	14.7	52	32	15.3	750	4	236
ETSW-30-60	60	30	0.85	30	52	32	15.3	750	4	279
ETSW-37-75	75	37	0.75	30	61	37	20.3	800	2	322
ETSW-45-90	90	45	0.5	20	61	37	20.3	800	2	393
ETSW-55-110	110	55	0.5	20	61	37	20.3	1000	2	447
ETSW-75-150	150	75	0.3	33	65	51	40	1000	2	595
ETSW-90-180	180	90	0.3	33	65	51	40	1000	2	670

