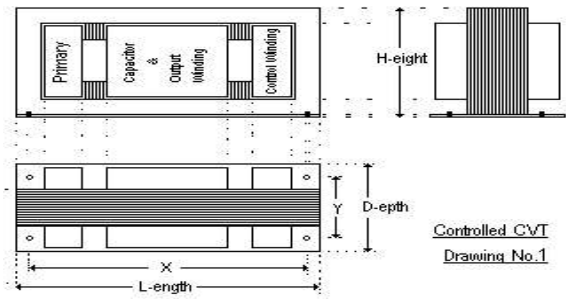


# Contactor / Relay Coil Driver

## ISOSTAB-PCD

(CVT based, passive Sine-wave Output)



### Features

- A.C. Contactor, Relays and solenoid *coil-driver*, having high starting currents,
- Proper Contactor Turn-On/Off against very large variations in Mains Input Supply Voltages,
- Sine wave o/p for low heating of contactor magnetics,
- Built in protection against input highline transients, noise, spikes,
- voltage Sag, as per The IEC 61000-4-11 and IEC 61000-4-34
- Proof against coil failure due to Long control cable capacitance,
- Proof against coil failure due to turn off transient,
- High reliability of a passive system,
- 100% full load burn-in test, 2 year warranty.

Parameter	Specification
AC Input Supply	230V Single-Phase OR 415V Phase to Phase OR as required
Input Voltage Range	1) Single-Phase, 230V input range ( 170 V to 300 V) 2) Phase to Phase 415 Volts input range (300 V to 500 V)
Input Frequency variation permitted	50 Hz. Or 60 Hz +/- 5%
Output VA Rating	25 VA to 250VA Continuous.
Onload Output Voltage Setting	230V or 415V AC, +/- 1.5 %,
multiple Outputs	Optional extra outputs can be provided, to power your control circuit.
Load regulation	Maximum on- load O/p volt is between (200V -230- 250 single phase input), & (347-415-435V for phase to phase input) for all rated input supply voltages, frequency and Ambient Temperature variations
Output Harmonic Distortion	On load ≤8% under all specified I/P & O/P conditions.
Voltage Sag	Contactor coils are held on at 50% of nominal input continuously
Output Hold up Time	Nominal full load conditions, Max.20% of supply cycle time, e.g. 4mSec at 50 Hz.
Input pulse withstand capability	1Kv for 100 micro seconds
Thermal protection	Optional
Temperature Coefficient	0.05%/deg.C
Operating Temperature	-10 TO +50 Deg.C
Storage Temperature	-20 TO +85 Deg.C
Humidity	95% RH at 40 Deg. C
Class of insulation	class 'F'
Isolation :Input to output and earth	2.5KV AC (1 min)
:Input to earth	2.5KV AC (1 min)
:output to earth	2.5KV AC (1 min)
Standard	As per IS 6297,as applicable to CVT transformers
Connector	Terminal block for input & output
Indication & Fuse	Input ON & Input Fuse

➤ Please turn over to check Dimensions, Applications, Connections & Ratings on reverse,

Problems of a standard contactor on/off circuit are illustrated in Fig.2.

- 1) The coil unregulated supply voltage going beyond recommended, during contactor on, can burn the coil,
- 2) The contactor coil is an inductive load, the switch –off transient can burn the coil,
- 3) Cable capacitance is in series with the contactor coil, and series resonance can occur in some conditions raising coil voltage to its destruction.
- 4) To avoid items (2) & (3) above an added capacitor in parallel is generally connected, as shown in Fig.2
- 5) Supply voltage Sags can momentarily turn off the contactor (chatter), interrupting a process, and may harm the contacts.

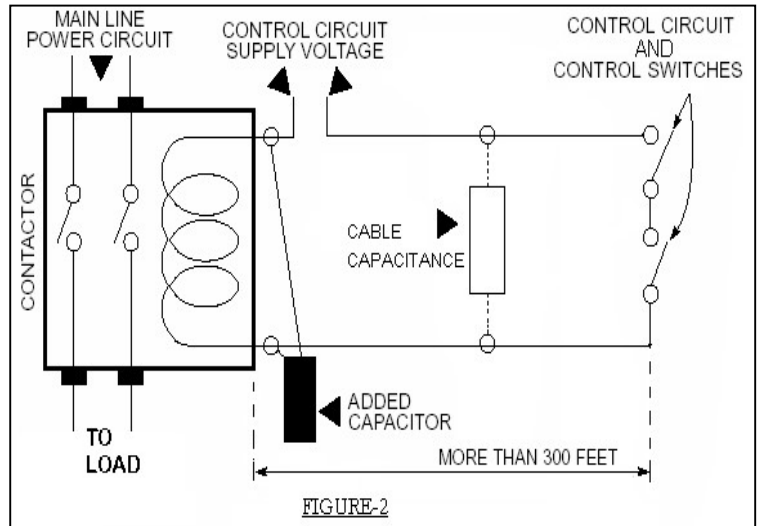


FIGURE-2

How to rectify above problems by Isostab-PCD coil driver is shown in Fig.1.

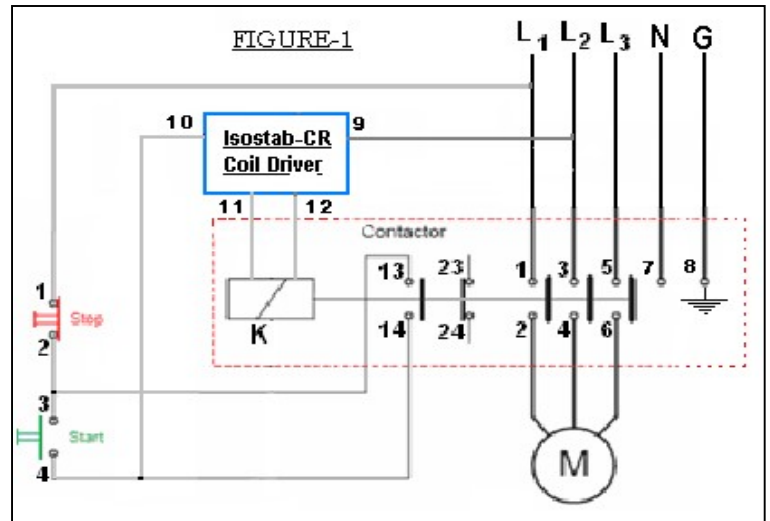


FIGURE-1

- 1) The contactor coil is *current driven* by our driver during turn on and in steady state; the rated coil voltage is maintained in spite of supply fluctuations,
- 2) Added capacitor (Fig.2) already exists inside the coil driver, to cancel the effect of long control connections and inductive switch-off transients.
- 3) The coil driver CVT has energy storage and can provide holding voltage to the coil, even during Supply blank out periods.
- 4) Isostab-CR provides steady coil voltages against supply sags of 50%, continuously.

Specifications and drawings are subject to change without notice, as they are continuously upgraded, confirm before ordering.

Model No.	Coil Turn-on VA	Coil Holding VA	Width 'W' in mm	Depth 'D' in mm	Height 'H' in mm	A in mm	B in mm	Weight in Kg
CD6	40	6						
CD12	80	12						
CD18	125	18						
CD25	180	25						
CD60	460	60						
CD100	900	100						
CD150	1350	150						
CD220	2500	220						

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Special units having multiple outputs and ratings can be supplied, with different types of enclosures and on open chassis.