HAMIAN FAN (HF Co.)

HRTC10
(Trip Circuit Supervisition Relay)

Features
Low burden
Trip circuit can be supervised with breaker open or closed
Mist ripping of breaker by accidental short circuit avoided

Application
The type TCSR trip circuit relay supervises the trip circuit of circuit breaker.
Initiating audible alarm and visual indication if the trip circuit fails or the mechanism dose not operate the unit is normal the unit picks up below 80% of rated voltage.
The relay consists of two units connected as shown in figure.
Under healthy conditions with the circuit breaker closed both units are energized. If the trip circuit becomes open or the supply fails, unit RL2 drops off and opens off and opens contact RL2-1 to deenergize unit RL1. When the circuit breaker is open the auxiliary switch shunts contact RL2-1 to hold in unit RL1. The units are delayed on drop off for a total of 400ms, to prevent a false alarm due to voltage dips caused by faults in other circuits or during a normal tripping operation.

Burden

	mA (Normal)	mA (max)	W (Normal)	W(max)
110VSD	95 mA	320 mA	1 W	4 W
125VCD	110 mA	360 mA	1.3 W	4.5 W
Maximum pilot loop resistance of alarm supply				400 Ω
Operating resetthing times 1.Typical operating times				>900 ms ≈ 1 sec

HRTC10

3pairs of electrically separate contacts
In any combination of normally open or closed

TCSR

High voltage withstand

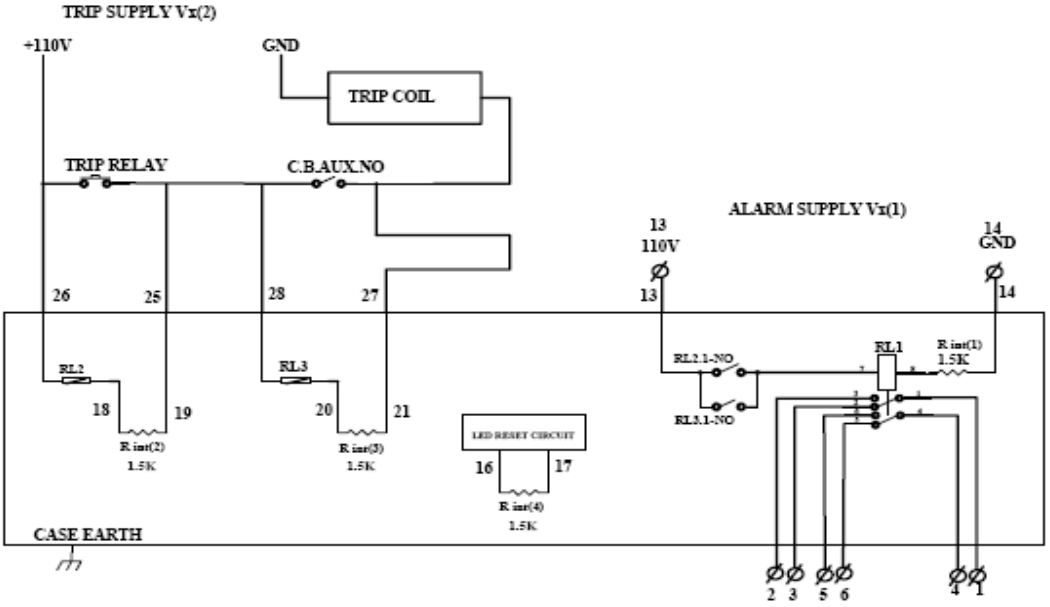
Dielectric withstand IEC 255-5	2kv rms for 1 minute between all terminals and case earth. 2kv rms for 1 minute between terminals of independent circuits, with terminals on each independent circuit connected together. 1 KV rms for 1 minute across open connects output.
High voltage impulse **IEC 255-5**	Three positive and three negative impulses of 5kv peak, 1.2/50µs, 0.5g between all terminals of the Same circuit (except output and all terminals connected together and case earth.
AC ripple on dc supply	The unit will withstand 12% ac ripple on the dc supply.
High frequency disturbance **IEC 255-22**	2.5kv peak between independent circuits and case. 1.0 kv peak across terminals the same circuit (except 2.0 metallic contacts).
EMC compliance **89/336/EEC**	Compliance to the European commission directive on EMC is claimed via the technical construction file rote.
EN5008-2 **EN5008-2**	Generic standards were used to establish conformity.

Atmospheric environment

Temperature	
IEC 255-6	storage and transit -25°C to 70°C Operating -25°C to 55°C
IEC 68-2-1	Cold
IEC 68-2-2	Dry heat
Humidity	
IEC 68-2-3	56 days at 93% RH and + 40°C
Enclosure protection	
IEC 529	IP50

Mechanical environment

Vibration	
IEC 255-21-1	Response class 1



Block of TCSR Relay HFCo.