

Technical Data for Track Circuit

(Track feed battery charger- Specification No RDSO/IRS / S 89 – 2013 Version 1.0)

(Channel Pins (For Bonding Track Circuiting Wires)- Specification No RDSO /IRS: S 17-75 Revision 3)

(Choke Coil For Signal Rail Track Circuits ON 25 KV 50 Hz Ac Electrified Section. (Tentative) Specification No RDSO /IRS: S 65 – 1983)

A. NON-RE: Typical Parameters of D.C Track Circuits

Type of TC	Type of Relay	Resistance of Track Relay (L= Length of the Track Circuit)	Cells at Feed end	PU Voltage Approx	PU Current Approx
DC TC for Non-RE	Non ACI shelf type	For L < 100 Mts. → 9 Ω	1 cell (2 V)	0.4 V	40 mA
		For L > 100 Mts. → 2.25Ω	1 cell (2 V)	0.2 V	80 mA
	Non ACI Plug in Type (QT2)	For L < 100 Mts. → 9 Ω	1 cell (2 V)	1.4 V	150 mA
		For L > 100 Mts. → 4 Ω	2 cells (4 V)	0.5 V	125 mA

B. RE AREA: Typical Parameters of DC Track Circuits

Type of TC	Type of Track Relay	Track Relay Resistance	Cells at Feed end	PU Voltage Approx	PU Current Approx
DC Single Rail Track circuit – AC RE Area	ACI Shelf type	9 Ω	1 cell (2 V)	0.68 V	72 mA
	ACI Plug in Type QTA2	9 Ω	2 cells up to < 100 Mtrs 3 cells > 100 Mtrs	1.4 V	140 mA
	ACI Plug in Type QBAT	9 Ω	2 cells up to < 100Mtrs. 3 cells > 100 Mtrs. to 450 Mtrs. 4 cells up to 750 Mtrs	1.75 V	175 mA

C. Maximum and Minimum excitation level for track relays

Subject	Under Conditions	Track Relay Voltage V _R
Minimum Excitation at Track Relay	Max leakage (R _B Minimum) & Minimum Battery voltage	<ul style="list-style-type: none"> Not less than 125% of rated PU voltage for all Track Relays except QBAT. Not less than 122% of rated PU voltage for QBAT
Maximum Excitation at Track Relay	Min Leakage (R _B Maximum), R _r Minimum and Fully charged Battery voltage	<ul style="list-style-type: none"> Not more than 250% of rated PU voltage for Shelf Type Track Relay Not more than 300% of rated PU voltage for Plug in Type Track Relay except QBAT Not more than 235% of rated PU voltage for QBAT
Dropping of Track Relay	Irrespective of R _B conditions, with the application of TSR=0.5 Ω	<ul style="list-style-type: none"> Not more than 85% of rated DA voltage