



Medium Voltage Drives

Total Care Plan

**National Integration &
Service Partner**



IS Systems Pty Limited

ABN: 67 003 553 151

Innovative Solutions for Electrical Engineering Applications



Total Care Plan

Delta and I S Systems offer a comprehensive total care plan to ensure maximum availability for Delta's Medium Voltage Drives (MVD).

The total care plan consists of the following services:

- Component replacement for aging components
- Provision of warm spares – no reforming of power cell capacitors required before use of spare cells
- Remote support 24/7/365 via Team Viewer and phone support
- Diagnostics and analysis using iba data acquisition system.
- Next flight service engineer availability.
- Drive performance and system operating performance reporting.
- Training services for engineers and operators.
- Annual drive inspections via formal auditing process.



Remote Support and Diagnostics

Remote support and diagnostics are provided using Team Viewer and iba data acquisition.

High speed trends are available on demand and historically capture all important system parameters.

Events are easily logged and analysed first time. As the majority of support is available remotely, any event can be analysed quickly and economically without the need for travel, accommodation or site allowance costs involved in providing the necessary support and assistance to ensure maximum drive availability.

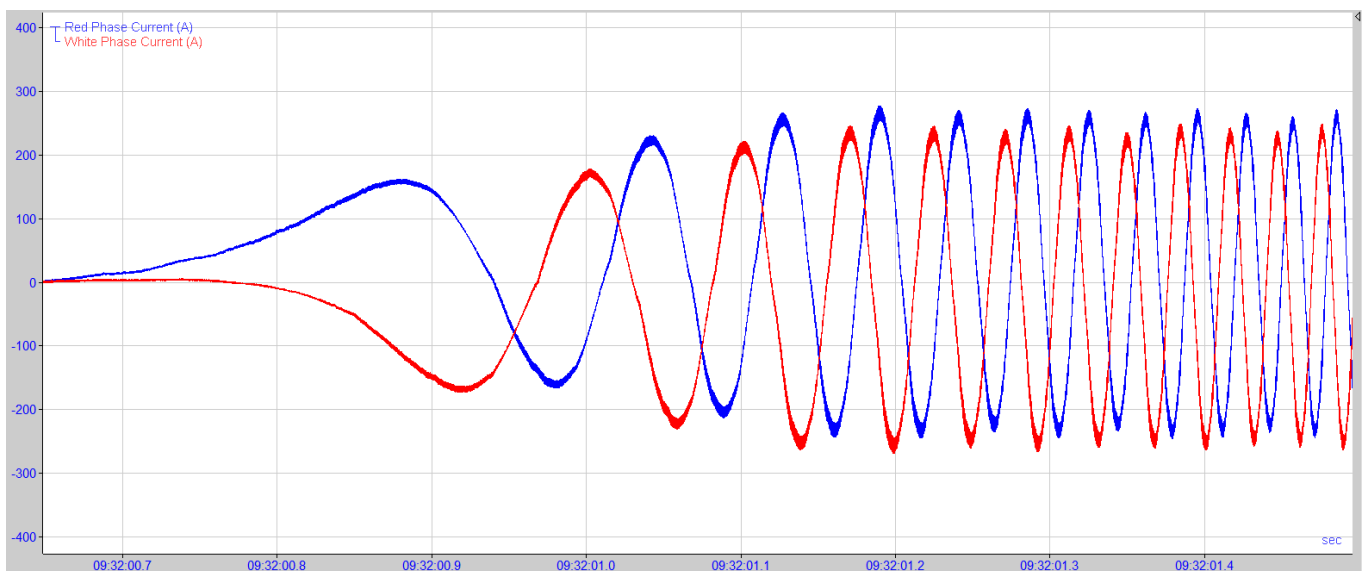


Figure 1 - Example trace analysis of system parameters

Major Component Inspection and Replacement Schedule

The components listed below require inspection and or replacement after the years specified since commissioning. The number of years may increase according to the drive utilisation and optimum operating conditions. Annual inspections are recommended to ensure the highest reliability and optimum performance.

Task	Time Since Commissioning (Years)																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Cooling																				
Cell Cabinet Filters	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Transformer Cabinet Filters	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Duty Cooling Fans	I	I	I	R	I	I	I	R	I	I	I	R	I	I	I	R	I	I	I	R
Redundant Cooling Fans	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
Main Controller Cooling Fan	I	I	I	R	I	I	I	R	I	I	I	R	I	I	I	R	I	I	I	R
Electrical Components																				
Cell DC Link Electrolytic Capacitor	I	I	I	I	I	I	I	I	I	R	I	I	I	I	I	I	I	I	I	I
Logic Controller Battery	I	R	I	R	I	R	I	R	I	R	I	R	I	R	I	R	I	R	I	R
Main Controller Printed Circuit Boards	I	I	I	I	I	I	I	I	I	R	I	I	I	I	I	I	I	I	I	I
Control Cabinet Indicators	I	I	I	I	I	I	I	R	I	I	I	I	I	I	I	R	I	I	I	I
Control Cabinet Fuses	I	I	I	I	I	I	I	R	I	I	I	I	I	I	I	R	I	I	I	I
Control Cabinet Circuit Breakers	I	I	I	I	I	I	I	I	I	R	I	I	I	I	I	I	I	I	I	I
Switching Power Supply	I	I	I	I	I	I	I	I	I	R	I	I	I	I	I	I	I	I	I	I
Control Cabinet Relays	I	I	I	I	I	I	I	I	I	R	I	I	I	I	I	I	I	I	I	I
Control Cabinet Push Buttons	I	I	I	I	I	I	I	I	I	R	I	I	I	I	I	I	I	I	I	I
Control Cabinet Air Pressure Switch	I	I	I	I	I	I	I	I	I	R	I	I	I	I	I	I	I	I	I	I
DC-UPS	I	I	I	I	I	I	I	R	I	I	I	I	I	I	I	R	I	I	I	I
Voltage Attenuation Boards	I	I	I	I	I	I	I	I	I	R	I	I	I	I	I	I	I	I	I	I
LEM Interface Board	I	I	I	I	I	I	I	R	I	I	I	I	I	I	I	R	I	I	I	I
Hall Effect Sensor	I	I	I	I	I	I	I	I	I	R	I	I	I	I	I	I	I	I	I	I
Neutral Grounding Resistance	I	I	I	I	I	I	I	I	I	R	I	I	I	I	I	I	I	I	I	I
Fibre Optics	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
Power and Control Cabling	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
Environmental																				
Cleanliness	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
Temperature	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
Humidity	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
Mechanical																				
Fastener Torque	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
Electrical Terminations	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
Corrosion	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
Upgrades																				
Hardware	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
Software	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
Measurement and Testing																				
Reforming of Spare Cell Capacitors	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Drive Performance	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I

I: Inspection required | R: Component replacement required | S: Routine service work required

Contact us

For more information of I S System's Total Care Plan for Delta's Medium Voltage Drive portfolio please contact us today to talk to your local representative.



**National Medium Voltage Drive
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