

TECHNICAL INSTRUCTION IP3PC05I	Issue 1 Page 1 out of 7
TESTING AND QUALITY CONTROL PLAN SOFTSTARTERS V5 SERIES	Date: 12 February 2010

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REVISIONS RECORD		
Issue	Date	Reason of Change
0	03-06-2008	First issue
1	12-02-2010	Included test report. Requested by LS

Made by:	Checked by:	Approved by:

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1.- Purpose

This document is intended to establish a guide to test the soft-starters V5 manufactured by POWER ELECTRONICS.

Operating voltage (mains)	400 V	
	690 V	

2.- Scope

This procedure is applied to each Soft-starter V5 Series manufactured and commercialised by POWER ELECTRONICS to LS.

3.- Definitions

Not applicable.

4.- Responsibilities

Not applicable.

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5. - Development Test

TEST DESCRIP.	OPERATION	CLASSI.	QUANTUM CHECK	COMMENTS	RESULT
SOFT-STARTER TEST	V5 PCB Test (E001)	Major	100%	Automatically test	PASSED
	Check the isolation in the softstarter with the following tests:			See the procedure IP04PC05I	PASSED
	Hight voltage Test	Major	100%		
	Isolation Test	Major	100%		
	Protective Connector Test	Major	100%	See annexe A.	PASSED
	Review all the points according to the internal test.	Major	100%		

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6.- Registers and Documentation

Not encoded Checklist Softstarter (Annexe A)

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7.- Annexe A

CHECK LIST SOFTSTARTER

Order No.	Reference	Serial No.

VISUAL INSPECTION

Tests	Expected Values	Result
Verification of the good condition of the chassis	No damages	
Verification of the right finished right of transformer	No damages	
Check that the welding of the transformer's resistor is correct	Welding is right	
Check the torque at the input screw of the thyristors	Correct Torque	
Check the torque at the output screw of the thyristors	Correct Torque	
Check the torque of the heatsink to the chassis	Correct Torque	
Check of the wires and wiring connections	Wiring Connections Correct	

ISOLATION TEST

Tests	Expected Values	Result
HIGH VOLTAGE TEST	GREEN LIGHT	
ISOLATION TEST	GREEN LIGHT	
PROTECTIVE CONDUCTOR TEST	GREEN LIGHT	

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FINAL TEST

Reviewed points	Expected Values	Result
Check the control wiring	OK	
Check the power wiring	OK	
Check the wiring connection	OK	
Measuring between the input and output terminals	L1-U = from 24K Ω to 2.5M Ω	L1-U = K Ω /M Ω
	L2-V = from 24K Ω to 2.5M Ω	L2-V = K Ω /M Ω
	L3-W = from 24K Ω to 2.5M Ω	L3-W = K Ω /M Ω
Measuring of the resistance between the terminals and the control board.	L1 red = 0 - 1 Ω	
	L1 red/white = 12 - 18 Ω	
	U yellow = 0 - 1 Ω	
	U yellow /white = 12 - 18 Ω	
	L2 blue = 0 - 1 Ω	
	L2 blue/white = 12 - 18 Ω	
	V grey = 0 - 1 Ω	
	V grey /white = 12 - 18 Ω	
	L3 green = 0 - 1 Ω	
	L3 green/white = 12 - 18 Ω	
	W brown = 0 - 1 Ω	
	W brown /white = 12 - 18 Ω	
Measurement of the resistance of the current transformer in parallel with the sensing resistor.	See table	L1:
	See table	L3:
Test the softstarter with lamps	Lights turn on according a ramp	
Test the operation of the softstarter in the following conditions	No load	See table
	Nominal load	See table
	Starting load	See table
	Measure of the drop of the voltage between the input--output on control connectors (<1.8V)	L1-U= V
		L2-V= V
		L3-W= V
Adjustments of the display	G3.14: set up 4 G3.15: set up 30 G4.6: set up 5	
Check the fan/s	Proper running	
Test of the softstarter during one hour to the nominal load	Without faults	

Signature and Date: