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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1. **GENERAL INFORMAYION :**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Serial No. |  |  | Rated Voltage | 57-130 Vph-ph eff  |
| Make |  | Aux. Voltage | 80 – 265 VAC/DC |
| ORDER NO. | RS 454 004 - AA | MODEL NO. | SPAF 340 C3 |
| Frequency |  60 Hz | VT Ratio | 132KV/115V |

1. **MECHANICAL CHECKS AND VISUAL INSPECTION:**

|  |  |  |
| --- | --- | --- |
| ITEM | DESCRIPTION | CHECKED |
| 1 | Inspect for physical damage / defects. |  |
| 2 | Check tightness of all connections. |  |
| 3 | Test Switch checked for correct function. |  |
| 4 | Watchdog contact.  |  |

ELECTRICAL TESTS: With relay energized condition

|  |  |  |
| --- | --- | --- |
| ITEM | DESCRIPTION | CHECKED |
| 1 | Measured auxiliary supply. |  |
| 2 | Clock set at local time. |  |
| 3 | Time maintained when auxiliary supply removed. |  |
| 5 | Relay healthy (green) LED working. |  |
| 6 | Trip (red) LED working. |  |

1. **OPERATING DC SUPPLY CURRENT:**

|  |  |  |  |
| --- | --- | --- | --- |
| DC Volt (V) | DC CurrentWithout Fault (mA) | DC CurrentDuring Fault (mA) | Calculated WATT (W) |
| 125VDC |  |  |  |

 ­ Burden < 3W DC & Max. Burden < 6W DC P92x Technical Data Sheet P92x / EN TD/ F22 ( Page 6/32 ).INPUTS AND OUTPUTS TESTS:**OUTPUT RELAYS CHECKS (With Relay Energized):**

|  |  |  |
| --- | --- | --- |
| **OUTPUT RELAYS** | **TERMINAL NO.** | **STATUS** |
| RL1 |  X2: 1 – 2  |  |
| RL2 | X2: 3 – 4  |  |
| RL3 | X1: 15 – 16  |  |
| RL4 | X1: 13 – 14 , 11 – 12  |  |
| RL5 | X2: 5 – 6  |  |
| RL6 | X2: 7 – 8 |  |
| RL7 | X2: 9 – 10 – 11  |  |
| RL8 | X2: 12 – 13 |  |
| RL9 | X2: 14 – 15 – 16  |  |

1. **FREQUENCY MEASUREMENT:**

|  |  |  |
| --- | --- | --- |
| Applied Frequency | Measured Frequency | %Error |
| 60.00 |  |  |
| 59.50 |  |  |
| 59.00 |  |  |
| 58.00 |  |  |

 Limit : ± 10 mHz P92x Technical Data Sheet P92x / EN TD/ F22 ( Page 26/32 ). 1. **UNDERFREQUENCY PROTECTION (81) PICK UP & DROP OFF :**

|  |  |  |
| --- | --- | --- |
| **STAGE** | **Frequency Set (Hz)** | **Actual Frequency –Hz** |
| PICK UP | DROP OFF |
| **STAGE -1** | 59.00 |  |  |
| **STAGE -2** | 58.00 |  |  |
| **STAGE -3** | 57.00 |  |  |
| **STAGE -4** | 56.00 |  |  |

 Limit : ± 10 mHz for operate , ± 50 mHz for reset P92x Technical Data Sheet P92x / EN TD/ F22 ( Page 26/32 ).1. **UNDERFREQUENCY PROTECTION (81) TIMING :**

|  |  |  |  |
| --- | --- | --- | --- |
| **STAGE** | **Frequency Set (Hz)** | **TIME Set** **(Sec)** | **Actual TIME –SEC** |
| Measured Time | ERROR |
| **STAGE -1** | 59.00 | 0.50 |  |  |
| **STAGE -2** | 58.00 | 1.00 |  |  |
| **STAGE -3** | 57.00 | 1.50 |  |  |
| **STAGE -4** | 56.00 | 2.00 |  |  |

 Limits : ± 2 % or 20 msec1. **VOLTAGE BLOCKING :**

|  |  |
| --- | --- |
| **Relay Setting****V (V)****FR (Hz)** | **MEASURED VALUES (V)** |
| PICK UP | RESET | ERROR FOR PICK UP |
| **60** |  |  |  |

 Limits : ± 2 % for Pickup Value |