***QuickSize***

***Generator Set Sizing***

**Project** Mini Project

**Customer** VTC

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***Generator Set***

**Model No.** 900ROZD4 **Gensets** 1

**Engine** 16V2000 G61 (Diesel)

**Alternator** 5M4044

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***Performance Summary***

**LN / LL Voltage** 219/380 volts **Altitude** 50 meters

**Frequency** 50 hertz **Ambient Temp.** 25 C

**Phase(s)** 3 phase

**Genset Rating @ 130C Rise** 808.00 kW

**Genset Derated Rating** 808.00 kW

**Total Running Power** 390.00 kW

**Percent of Available kW Used** 48.27 %

**Alternator Starting kVA** 2650.00 kVA @ 35% dip

**Peak Starting kVA** 913.70 kVA

**Percent of Available kVA Used** 34.48 %

**Maximum Voltage Dip** 13.64 %

**Maximum Frequency Dip** 3.94 % ( no restriction )

**Voltage THD** 0.00 % ( no restriction )

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***Informational***

**Program Version** 8.0.0

**Database Version** 1.6

**Project Created** December 22, 2020; 07:22:14 PM

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**Project Created By**

***QuickSize***

***Generator Load Profile***

**Project** Mini Project

**Customer** VTC

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***Generator Set***

**Model No.** 900ROZD4 **Gensets** 1

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***Load Profile***

**Run Run Run Start Start Volt Freq Volt (L-N)**

**Qty kW kVA pF kW kVA Dip Dip THD**

**Step #1 Load Step #1**

Light (Incandesent lighting)

1 0.00 0.00 ?.?? 0.00 0.00

Emergency Light and power (Floresent lighting with low distortion electronic ballast)

1 100.00 100.00 1.00 100.00 100.00

Fireman Lift (20.000 kW, 3 phase, code F, loaded motors, w/ 300% solid start starting)

Rated motor torque from full voltage starting = 24.9%

2 40.00 46.91 0.85 60.51 140.72

Fixed Fire Pump (20.000 kW, 3 phase, code F, loaded, fire pump motor, w/ wye-delta starting)

Rated motor torque from full voltage starting = 24.8%

1 20.00 23.45 0.85 38.07 88.53

Sprinkler Pump (40.000 kW, 3 phase, code F, loaded, fire pump motor, w/ wye-delta starting)

Rated motor torque from full voltage starting = 24.8%

1 40.00 48.20 0.83 66.92 180.86

Jockey Pump (5.000 kW, 3 phase, code H, loaded, fire pump motor, w/ A.T.L. starting)

Rated motor torque from full voltage starting = 74.6%

1 5.00 5.75 0.87 20.93 35.47

Passenger Lift (20.000 kW, 3 phase, code F, loaded motors, w/ 300% solid start starting)

Rated motor torque from full voltage starting = 24.9%

6 120.00 140.73 0.85 181.53 422.16

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Step Totals 325.00 353.87 0.92 467.95 913.70 13.64 3.94 0.0%/0.0%/0.0%

Cum. Totals 325.00 353.87 0.92

**Step #2 Load Step #2**

Fixed Fire Pump (20.000 kW, 3 phase, code F, unloaded, fire pump motor, w/ wye-delta starting)

1 20.00 23.45 0.85 24.74 88.53

Sprinkler Pump (40.000 kW, 3 phase, code F, unloaded, fire pump motor, w/ wye-delta starting)

1 40.00 48.20 0.83 43.50 180.86

Jockey Pump (5.000 kW, 3 phase, code H, unloaded, fire pump motor, w/ A.T.L. starting)

1 5.00 5.75 0.87 13.60 35.47

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Step Totals 65.00 77.38 0.84 81.84 304.52 7.90 0.12 0.0%/0.0%/0.0%

Cum. Totals 390.00 431.26 0.90

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Grand Totals 390.00 431.26 0.90 0.0%/0.0%/0.0%

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***Informational***

**Program Version** 8.0.0

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