

Electric Power Radiator Cooled Packaged Gen Set Engine Performance

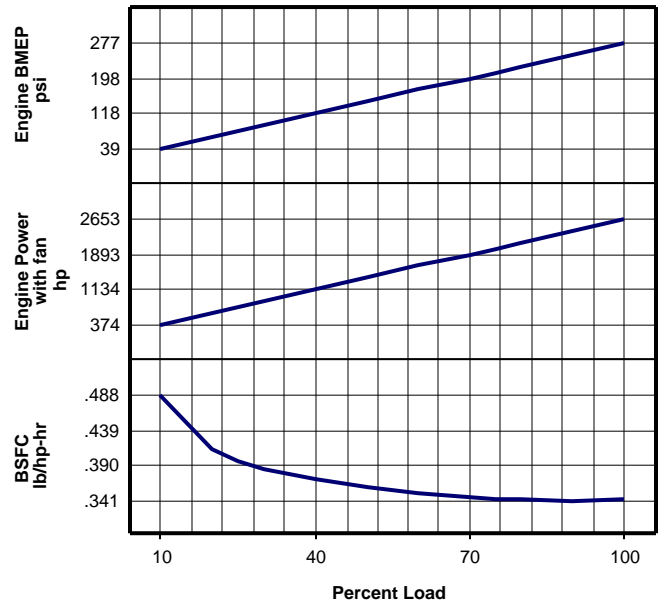
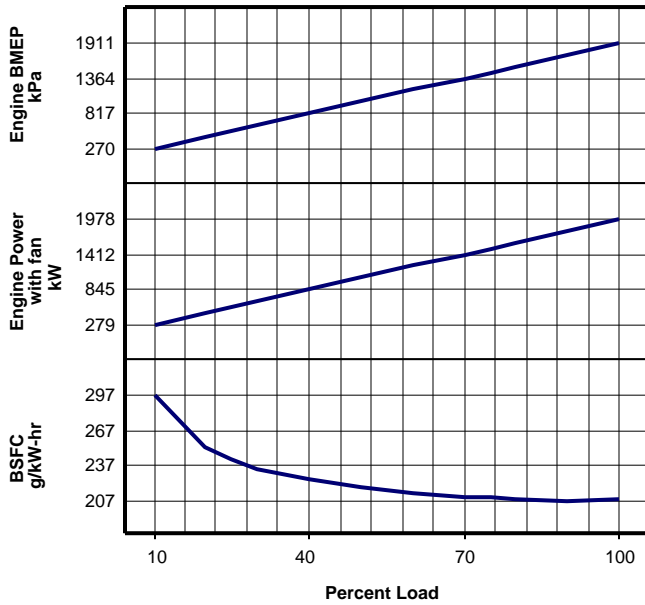
3516B DITA



1825 ekW/60 Hz/1800 RPM

PRIME RATING - DM9389-00

EMISSION CERTIFIED - Aftercooler Temperature 60°C (140°F)



| Gen Power ekW | Percent Load | Engine Power with fan kW | Engine BMEP kPa | BSFC g/kW-hr | Fuel Rate L/hr |
|---------------|--------------|--------------------------|-----------------|--------------|----------------|
| 1825 | 100 | 1978.0 | 1911 | 207.9 | 490.2 |
| 1643 | 90 | 1787.9 | 1727 | 207.0 | 441.2 |
| 1460 | 80 | 1599.2 | 1545 | 208.2 | 397.0 |
| 1369 | 75 | 1505.3 | 1454 | 209.2 | 375.3 |
| 1278 | 70 | 1411.1 | 1363 | 210.4 | 353.9 |
| 1095 | 60 | 1223.6 | 1182 | 213.7 | 311.8 |
| 913 | 50 | 1036.5 | 1001 | 218.6 | 270.1 |
| 730 | 40 | 851.9 | 823 | 225.2 | 228.7 |
| 548 | 30 | 665.8 | 643 | 234.5 | 186.1 |
| 456 | 25 | 571.5 | 552 | 241.6 | 164.6 |
| 365 | 20 | 475.7 | 460 | 251.8 | 142.8 |
| 183 | 10 | 279.0 | 270 | 296.8 | 98.7 |

| Gen Power ekW | Percent Load | Engine Power with fan hp | Engine BMEP psi | BSFC lb/hp-hr | Fuel Rate gph |
|---------------|--------------|--------------------------|-----------------|---------------|---------------|
| 1825 | 100 | 2652.5 | 277 | .342 | 129.5 |
| 1643 | 90 | 2397.6 | 250 | .340 | 116.6 |
| 1460 | 80 | 2144.6 | 224 | .342 | 104.9 |
| 1369 | 75 | 2018.6 | 211 | .344 | 99.1 |
| 1278 | 70 | 1892.3 | 198 | .346 | 93.5 |
| 1095 | 60 | 1640.9 | 171 | .351 | 82.4 |
| 913 | 50 | 1390.0 | 145 | .359 | 71.4 |
| 730 | 40 | 1142.4 | 119 | .370 | 60.4 |
| 548 | 30 | 892.9 | 93 | .386 | 49.2 |
| 456 | 25 | 766.4 | 80 | .397 | 43.5 |
| 365 | 20 | 637.9 | 67 | .414 | 37.7 |
| 183 | 10 | 374.1 | 39 | .488 | 26.1 |

| Gen Power ekW | Intake Manifold Temp °C | Intake Manifold Pressure kPa | Intake Air Flow m³/min | Exh Manifold Temp °C | Exh Stk Temp °C | Exh Gas Flow m³/min |
|---------------|-------------------------|------------------------------|------------------------|----------------------|-----------------|---------------------|
| 1825 | 81.8 | 244.3 | 163.90 | 638.2 | 471.2 | 419.70 |
| 1643 | 79.3 | 228.6 | 158.40 | 596.6 | 439.4 | 387.70 |
| 1460 | 76.6 | 211.6 | 152.10 | 562.9 | 414.8 | 358.40 |
| 1369 | 75.2 | 202.3 | 148.30 | 547.5 | 404.9 | 344.30 |
| 1278 | 73.8 | 192.3 | 144.20 | 533.0 | 396.4 | 330.30 |
| 1095 | 71.2 | 168.2 | 133.60 | 507.3 | 385.9 | 300.80 |
| 913 | 68.8 | 141.4 | 121.00 | 483.2 | 380.2 | 269.50 |
| 730 | 66.8 | 114.0 | 107.60 | 457.8 | 374.3 | 237.00 |
| 548 | 65.4 | 85.3 | 93.30 | 427.3 | 363.7 | 202.10 |
| 456 | 64.8 | 71.2 | 86.10 | 409.6 | 356.7 | 184.40 |
| 365 | 64.2 | 57.5 | 79.10 | 390.0 | 348.3 | 166.60 |
| 183 | 63.0 | 32.7 | 66.10 | 331.4 | 316.2 | 131.60 |

| Gen Power ekW | Intake Manifold Temp °F | Intake Manifold Pressure in-hg | Intake Air Flow cfm | Exh Manifold Temp °F | Exh Stk Temp °F | Exh Gas Flow cfm |
|---------------|-------------------------|--------------------------------|---------------------|----------------------|-----------------|------------------|
| 1825 | 179.2 | 72.3 | 5788.08 | 1180.8 | 880.2 | 14821.58 |
| 1643 | 174.7 | 67.7 | 5593.85 | 1105.9 | 822.9 | 13691.51 |
| 1460 | 169.9 | 62.7 | 5371.37 | 1045.2 | 778.6 | 12656.79 |
| 1369 | 167.4 | 59.9 | 5237.17 | 1017.5 | 760.8 | 12158.85 |
| 1278 | 164.8 | 56.9 | 5092.38 | 991.4 | 745.5 | 11664.45 |
| 1095 | 160.2 | 49.8 | 4718.04 | 945.1 | 726.6 | 10622.66 |
| 913 | 155.8 | 41.9 | 4273.08 | 901.8 | 716.4 | 9517.31 |
| 730 | 152.2 | 33.8 | 3799.86 | 856.0 | 705.7 | 8369.58 |
| 548 | 149.7 | 25.3 | 3294.86 | 801.1 | 686.7 | 7137.10 |
| 456 | 148.6 | 21.1 | 3040.60 | 769.3 | 674.1 | 6512.03 |
| 365 | 147.6 | 17.0 | 2793.39 | 734.0 | 658.9 | 5883.43 |
| 183 | 145.4 | 9.7 | 2334.30 | 628.5 | 601.2 | 4647.42 |

Heat Rejection Data

| Gen Power ekW | Percent Load | Rej to JW kW | Rej to Atmos kW | Rej to Exh kW | From Oil Clr kW |
|---------------|--------------|--------------|-----------------|---------------|-----------------|
| 1825 | 100 | 738.8 | 148.7 | 1859.0 | 260.3 |
| 1643 | 90 | 685.3 | 135.1 | 1657.0 | 234.3 |
| 1460 | 80 | 634.5 | 125.4 | 1488.0 | 210.8 |
| 1369 | 75 | 609.6 | 121.3 | 1409.0 | 199.3 |
| 1278 | 70 | 584.7 | 117.6 | 1332.0 | 187.9 |
| 1095 | 60 | 534.1 | 112.0 | 1188.0 | 165.5 |
| 913 | 50 | 481.7 | 107.0 | 1050.0 | 143.4 |
| 730 | 40 | 428.0 | 101.9 | 911.0 | 121.4 |
| 548 | 30 | 369.3 | 96.8 | 760.0 | 98.8 |
| 456 | 25 | 338.1 | 94.1 | 683.0 | 87.4 |
| 365 | 20 | 305.4 | 91.3 | 605.0 | 75.8 |
| 183 | 10 | 233.8 | 84.6 | 446.0 | 52.4 |

Heat Rejection Data

| Gen Power ekW | Percent Load | Rej to JW Btu/min | Rej to Atmos Btu/min | Rej to Exh Btu/min | From Oil Clr Btu/min |
|---------------|--------------|-------------------|----------------------|--------------------|----------------------|
| 1825 | 100 | 42015.5 | 8456.6 | 105721.1 | 14803.2 |
| 1643 | 90 | 38972.9 | 7683.1 | 94233.4 | 13324.6 |
| 1460 | 80 | 36083.9 | 7131.5 | 84622.4 | 11988.2 |
| 1369 | 75 | 34667.9 | 6898.3 | 80129.7 | 11334.2 |
| 1278 | 70 | 33251.8 | 6687.9 | 75750.7 | 10685.9 |
| 1095 | 60 | 30374.2 | 6369.4 | 67561.4 | 9412.0 |
| 913 | 50 | 27394.2 | 6085.1 | 59713.4 | 8155.1 |
| 730 | 40 | 24340.3 | 5795.0 | 51808.5 | 6904.0 |
| 548 | 30 | 21002.1 | 5505.0 | 43221.1 | 5618.7 |
| 456 | 25 | 19227.7 | 5351.5 | 38842.1 | 4970.4 |
| 365 | 20 | 17368.1 | 5192.2 | 34406.3 | 4310.7 |
| 183 | 10 | 13296.2 | 4811.2 | 25364.0 | 2980.0 |