

TAD1650VE



OFF ROAD AND STATIONARY



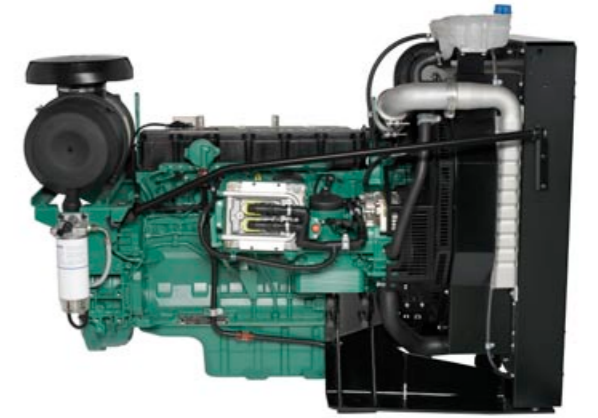
TAD950VE



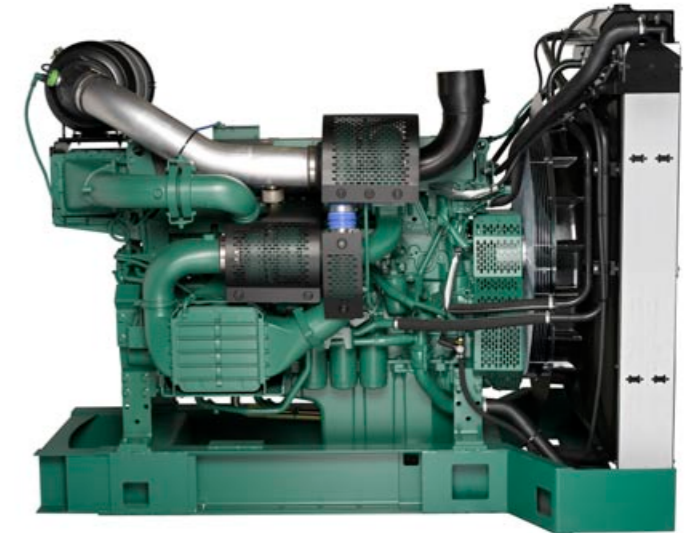
OFF-ROAD,
STATIONARY AND
POWER GENERATION

ENGINE RANGE

TAD734GE



ELECTRICAL POWER GENERATION



TWD1643GE

Industrial engines for off-road and stationary applications

Stage 1 and 2

| Engine | Type of Power ²⁾ | Maximum power | | | Peak torque | | Displ. litres | Length mm | Width mm | Height mm | Dry weight kg | Emission levels | |
|-----------|-----------------------------|---------------|-----|------|-------------|------|---------------|--------------------|--------------------|--------------------|--------------------|-----------------|----------|
| | | kW | hp | rpm | Nm | rpm | | | | | | EU Stage | EPA Tier |
| TAD720VE | ICFN | 122 | 166 | 1800 | 701 | 1500 | 7.2 | 1626 | 885 | 1582 | 920 ³⁾ | 1 | 1 |
| TAD620VE | IFN | 155 | 211 | 2500 | 700 | 1500 | 5.7 | 1034 | 610 | 906 | 570 | 2 | 2 |
| TAD720VE | IFN | 174 | 237 | 2300 | 854 | 1400 | 7.2 | 1172 | 630 | 975 | 680 | 2 | 2 |
| TAD721VE | IFN | 195 | 265 | 2300 | 954 | 1400 | 7.2 | 1172 | 630 | 975 | 680 | 2 | 2 |
| TAD722VE | IFN | 220 | 300 | 2300 | 1050 | 1400 | 7.2 | 1172 | 630 | 975 | 680 | 2 | 2 |
| TAD940VE | IFN | 190 | 258 | 2100 | 1251 | 1000 | 9.4 | 1312 | 902 | 1110 | 1015 | 2 | 2 |
| TAD941VE | IFN | 220 | 300 | 2100 | 1401 | 1200 | 9.4 | 1312 | 902 | 1110 | 1015 | 2 | 2 |
| TAD942VE | IFN | 250 | 340 | 2100 | 1617 | 1400 | 9.4 | 1312 | 902 | 1110 | 1015 | 2 | 2 |
| TAD943VE | IFN | 280 | 380 | 1900 | 1719 | 1400 | 9.4 | 1312 | 902 | 1110 | 1015 | 2 | 2 |
| TWD1240VE | ICFN | 294 | 400 | 1800 | 1900 | 1200 | 12.1 | 1407 | 854 | 1199 | 1270 | 2 | 2 |
| TWD1240VE | IFN | 310 | 422 | 2100 | 2000 | 1200 | 12.1 | 1407 | 854 | 1199 | 1647 ³⁾ | 2 | 2 |
| TAD1241VE | ICFN | 343 | 466 | 1800 | 2150 | 1300 | 12.1 | 1407 | 854 | 1199 | 1337 ⁴⁾ | 2 | 2 |
| TAD1242VE | ICFN | 383 | 521 | 1800 | 2250 | 1300 | 12.1 | 1407 | 854 | 1199 | 1337 ⁴⁾ | 2 | 2 |
| TAD1641VE | ICFN | 420 | 571 | 1800 | 2700 | 1200 | 16.1 | 2071 ¹⁾ | 1100 ¹⁾ | 1750 ¹⁾ | 1440 | 2 | 2 |
| TAD1642VE | ICFN | 494 | 672 | 1800 | 3150 | 1200 | 16.1 | 2071 ¹⁾ | 1100 ¹⁾ | 1750 ¹⁾ | 1440 | 2 | 2 |
| TAD1643VE | ICFN | 565 | 768 | 1900 | 3290 | 1200 | 16.1 | 2071 ¹⁾ | 1100 ¹⁾ | 1750 ¹⁾ | 1440 | 2 | 2 |

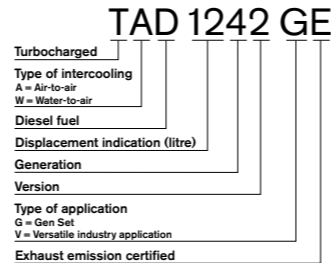
Stage 3

| Engine | Type of Power ²⁾ | Maximum power | | | Peak torque | | Displ. litres | Length mm | Width mm | Height mm | Dry weight kg | Emission levels | |
|-----------|-----------------------------|---------------|-----|------|-------------|------|---------------|-----------|----------|-----------|---------------|-----------------|----------|
| | | kW | hp | rpm | Nm | rpm | | | | | | EU Stage | EPA Tier |
| TAD650VE | IFN | 147 | 200 | 2300 | 750 | 1600 | 6.0 | 1074 | 674 | 991 | 565 | 3A | 3 |
| TAD660VE | IFN | 147 | 200 | 2300 | 800 | 1600 | 5.7 | 1074 | 674 | 991 | 565 | 3A | 3 |
| TAD750VE | IFN | 170 | 231 | 2300 | 952 | 1500 | 7.2 | 1190 | 697 | 1036 | 650 | 3A | 3 |
| TAD750VE | IFN | 181 | 246 | 2300 | 1050 | 1500 | 7.2 | 1190 | 697 | 1036 | 650 | 3A | 3 |
| TAD750VE | IFN | 200 | 272 | 2300 | 1050 | 1500 | 7.2 | 1190 | 697 | 1036 | 650 | 3A | 3 |
| TAD760VE | IFN | 181 | 246 | 2300 | 1100 | 1500 | 7.2 | 1190 | 697 | 1036 | 650 | 3A | 3 |
| TAD950VE | ICFN | 200 | 272 | 1900 | 1220 | 1500 | 9.4 | 1312 | 938 | 1110 | 1015 | 3A | 3 |
| TAD951VE | ICFN | 224 | 305 | 2100 | 1703 | 1200 | 9.4 | 1312 | 938 | 1110 | 1015 | 3A | 3 |
| TAD952VE | ICFN | 252 | 343 | 1900 | 1735 | 1300 | 9.4 | 1312 | 938 | 1110 | 1015 | 3A | 3 |
| TAD1250VE | ICFN | 259 | 352 | 1600 | 1760 | 1400 | 12.1 | 1407 | 854 | 1199 | 1270 | 3A | 3 |
| TAD1251VE | ICFN | 289 | 393 | 1800 | 1950 | 1200 | 12.1 | 1407 | 854 | 1199 | 1270 | 3A | 3 |
| TAD1252VE | ICFN | 313 | 426 | 1800 | 2100 | 1200 | 12.1 | 1407 | 854 | 1199 | 1270 | 3A | 3 |
| TAD1650VE | ICFN | 397 | 540 | 1800 | 2551 | 1400 | 16.1 | 1462 | 876 | 1330 | 1425 | 3A | 3 |

Engine performance according to ISO 3046, without fan

- 1) Engine including cooling system
- 2) For power definitions, refer to Sales Guide
- 3) Weight of complete Powerpac
- 4) Weight of engine with cooling system

| Power | Emission levels | | Legislation demanded from |
|------------|-----------------|----------|---------------------------|
| | EU Stage | EPA Tier | |
| 130-560 kW | 3A | 3 | 2006 |
| 75-130 kW | 3A | 3 | 2007 |
| >560 kW | N/A | 2 | 2007 |



Power generation engines 1500 rpm, 50Hz

| Engine | hp | Prime power | | | hp | Standby power | | | Generator efficiency (%) | Emission levels | |
|-----------|-----|-------------|-----|-----|-----|---------------|-----|-----|--------------------------|-----------------|----------|
| | | kWm | kWe | kVA | | kWm | kWe | kVA | | EU Stage | EPA Tier |
| TD520GE | 102 | 75 | 68 | 85 | 113 | 83 | 76 | 94 | 91% | 1 | 1 |
| TAD530GE | 102 | 75 | 68 | 85 | 113 | 83 | 76 | 94 | 91% | 2 | 2 |
| TAD531GE | 120 | 88 | 80 | 100 | 131 | 96 | 87 | 109 | 91% | 2 | 2 |
| TAD532GE | 154 | 113 | 104 | 130 | 169 | 124 | 114 | 143 | 92% | 2 | 2 |
| TD720GE | 154 | 113 | 104 | 130 | 169 | 124 | 114 | 143 | 92% | 1 | 1 |
| TAD730GE | 154 | 113 | 104 | 130 | 169 | 124 | 114 | 143 | 92% | 2 | 2 |
| TAD731GE | 180 | 132 | 121 | 152 | 197 | 145 | 133 | 167 | 92% | 2 | 2 |
| TAD732GE | 220 | 162 | 149 | 186 | 243 | 179 | 165 | 206 | 92% | 2 | 2 |
| TAD733GE | 243 | 179 | 165 | 206 | 268 | 197 | 181 | 227 | 92% | 2 | 2 |
| TAD734GE | 295 | 217 | 200 | 250 | 328 | 241 | 222 | 277 | 92% | 2 | 2 |
| TAD940GE | 328 | 241 | 222 | 277 | 360 | 265 | 244 | 305 | 92% | 2 | 2 |
| TAD941GE | 381 | 280 | 260 | 326 | 419 | 308 | 286 | 358 | 93% | 2 | 2 |
| TAD1240GE | 409 | 301 | 280 | 350 | 450 | 331 | 308 | 385 | 93% | 2 | 2 |
| TAD1241GE | 439 | 323 | 300 | 375 | 481 | 354 | 329 | 412 | 93% | 2 | 2 |
| TAD1242GE | 479 | 352 | 327 | 409 | 526 | 387 | 360 | 450 | 93% | 2 | 2 |
| TAD1640GE | 533 | 392 | 368 | 461 | 586 | 431 | 405 | 506 | 94% | 2 | 2 |
| TAD1641GE | 585 | 430 | 404 | 505 | 643 | 473 | 445 | 556 | 94% | 2 | 2 |
| TAD1642GE | 660 | 485 | 456 | 570 | 729 | 536 | 504 | 630 | 94% | 2 | 2 |
| TWD1643GE | 729 | 536 | 504 | 630 | 811 | 596 | 560 | 700 | 94% | 2 | 2 |

Power generation engines 1800 rpm, 60Hz

| Engine | hp | Prime power | | | hp | Standby power | | | Generator efficiency (%) | Emission levels | |
|-----------|-----|-------------|-----|-----|-----|---------------|-----|-----|--------------------------|-----------------|----------|
| | | kWm | kWe | kVA | | kWm | kWe | kVA | | EU Stage | EPA Tier |
| TD520GE | 105 | 77 | 70 | 88 | 116 | 85 | 77 | 97 | 91% | 1 | 1 |
| TAD530GE | 105 | 77 | 70 | 88 | 116 | 85 | 77 | 97 | 91% | 2 | 2 |
| TAD531GE | 125 | 92 | 84 | 105 | 137 | 101 | 92 | 115 | 91% | 2 | 2 |
| TAD532GE | 156 | 115 | 106 | 132 | 173 | 127 | 117 | 146 | 92% | 2 | 2 |
| TD720GE | 156 | 115 | 106 | 132 | 173 | 127 | 117 | 146 | 92% | 1 | 1 |
| TAD730GE | 156 | 115 | 106 | 132 | 173 | 127 | 117 | 146 | 92% | 2 | 2 |
| TAD731GE | 190 | 140 | 129 | 161 | 209 | 154 | 142 | 177 | 92% | 2 | 2 |
| TAD732GE | 243 | 179 | 165 | 206 | 268 | 197 | 181 | 227 | 92% | 2 | 2 |
| TAD733GE | 268 | 197 | 181 | 227 | 296 | 218 | 201 | 251 | 92% | 2 | 2 |
| TAD734GE | 299 | 220 | 202 | 253 | 336 | 247 | 227 | 284 | 92% | 2 | 2 |
| TAD940GE | 337 | 248 | 228 | 285 | 371 | 273 | 251 | 314 | 92% | 2 | 2 |
| TAD941GE | 403 | 296 | 275 | 344 | 443 | 326 | 303 | 379 | 93% | 2 | 2 |
| TAD1240GE | 408 | 300 | 279 | 349 | 449 | 330 | 307 | 384 | 93% | 2 | 2 |
| TAD1241GE | 479 | 352 | 327 | 409 | 526 | 387 | 360 | 450 | 93% | 2 | 2 |
| TAD1242GE | 532 | 391 | 364 | 455 | 585 | 430 | 400 | 500 | 93% | 2 | 2 |
| TAD1350GE | 333 | 245 | 228 | 285 | 366 | 269 | 250 | 313 | 93% | N/A | 3 |
| TAD1351GE | 400 | 294 | 273 | 342 | 439 | 323 | 300 | 375 | 93% | N/A | 3 |
| TAD1352GE | 468 | 344 | 320 | 400 | 511 | 376 | 350 | 437 | 93% | N/A | 3 |
| TAD1353GE | 532 | 391 | 364 | 455 | 585 | 430 | 400 | 500 | 93% | N/A | 3 |
| TAD1640GE | 585 | 430 | 404 | 505 | 651 | 479 | 450 | 563 | 94% | 2 | 2 |
| TAD1641GE | 660 | 485 | 456 | 570 | 743 | 546 | 513 | 642 | 94% | 2 | 2 |
| TAD1642GE | 724 | 532 | 500 | 625 | 796 | 585 | 550 | 687 | 94% | 2 | 2 |
| TWD1643GE | 796 | 585 | 550 | 687 | 876 | 644 | 605 | 757 | 94% | 2 | 2 |

Net engine performance acc. to ISO3046, BS5514, DIN6271 and in general SAEJ1349 net power

hp = horse power, net with fan = 1.36 x kWm

kWm = kiloWatt mechanical, net with fan

kWe = kiloWatt electrical = kWm x gen. eff.

kVA = kiloVoltAmpere calculations based on a 0.8 power factor = kWe / 0.8