# DEUTZ DRIVE

# THE NEW POWER PACK SERIES





### **FACTS**

#### **DEUTZ AUSTRALIA – OUR ORIGINS**

It all started with one great idea more than **150** years ago. Nicolaus August Otto discovered the principle of the **4-**stroke engine, thereby creating the basis for global motorisation and our mobile society. It was the same year when he started with Eugen Langen "N.A. Otto & Cie", the world's first engine factory - and the progenitor of today's DEUTZ AG.

Today, more than **800** sales and service partners provide our customers with support, **24** hours a day, **7** days a week, in **130** countries all over the world. **4,000** excellently trained and motivated DEUTZ employees provide you with support throughout the world at all times. Our state-of-the-art logistics centres boast around **80,000** parts and a sophisticated logistics system means that our spare parts can be promptly supplied to our customers and dealers around the world.

Since **1952**, supported by a large dealer network, **DEUTZ Australia Pty Ltd.** has been offering these technologies, service, and knowledge throughout Australia, New Zealand and the Pacific Islands.

As the leading engine company in Australia, we are proud to present to you our latest innovation - DEUTZ DRIVE, which has been customised and exclusively built for the Australian and New Zealand markets.





### **FACTS**

### **INNOVATIVE SOLUTIONS FOR ALL APPLICATIONS**

As an independent manufacturer, DEUTZ offers a wide range of the most successful diesel and gas engine systems in the world. The engine range from 12kW to 520kW covers all areas of mobile and stationary applications.



F4L912 mounted to an industrial pump

### "ENGINE TECHNOLOGY FOR TOMORROW"



### **CONCEPT**

#### WHAT IS DEUTZ DRIVE?

DEUTZ DRIVE is a new engine package that has been designed locally and specifically for the Australian and New Zealand market and conditions. This series includes the proven 912 and 914 air cooled engines, the 2011 air-oil cooled engines, and the 1013 water cooled engines to cover a wide range of applications.

DEUTZ can supply a **Base Engine** for general requirement and replacement, or a complete DEUTZ DRIVE turnkey **Power Pack** ready to install and run. The DEUTZ DRIVE is the perfect solution for reliable and fuel efficient motive power.

### "THE DRIVER OF YOUR SUCCESS"

#### THE BENEFITS

- Complete engine solutions for the majority of applications
- □ **Compact** designed engines with standardised components and exactly specified connection points
- Reduced installation work and cost allows a faster assembly time
- ☐ **Frameless** Power Pack solution offering customers maximum flexibility
- ☐ Flexible, modular, and simple system with a wide range of additional features
- **Long-life** engines with up to 3 years warranty
- Very economical thanks to low fuel consumption, long oil change intervals and low maintenance requirement



### CONCEPT

#### **BASE ENGINE**

Factory supplied scope:

- Mounted Engine Cooling System: Integrated or externally
- □ Senders and Sensors: Easy connection of the preferred engine control panel
- **Mounted Manifold Muffler:** Mounted to all natural aspirated engines
- **Mounted Air Cleaner:** All natural aspirated and water cooled engines
- **Engine Mounting:** All engines come with rigid or flexible mountings
- Belt and Fan Guarding: All air-oil cooled engines are supplied with belt and fan guarding

#### **DEUTZ DRIVE POWER PACK**

Locally designed and manufactured value added options:

- **Mounted Muffler:** Muffler, exhaust pipe, and mounting parts for all turbo charged engines
- ☐ Air Cleaner Mounting Kit: Bracket, pipework, and connection parts for all 914 and 2011 turbo versions
- **Belt and Fan Guarding:** Designed and manufactured according to AS4024 to cover the cooling fan and belts for all 912, 914, and 1013 engines

#### **DEUTZ DRIVE CUSTOMIZED OPTIONS**

Solutions to suit any application:

- ☐ **Engine Mounting:** Various flexible engine mounts
- Hydraulic Pump Drive
- **Engine Speed Control:** mechanical and electrical control
- Stub Shafts
- Engine Control Panels: Basic protection, industrial, irrigation, auto control panels with various functions
- ☐ First Fill Options: Recommended DEUTZ engine oil and coolant



# **AIR-OIL COOLED ENGINES**

### **2011 SERIES**

21.8 - 58.1 kW at 2800 rpm

- ☐ Air-Oil cooled engines with integrated cooling system
- 2 to 4 cylinder naturally aspirated and 4 cylinder turbo charged engines in inline arrangement
- ☐ **High reliability combined with durability** No corrosion or cavitation due to oil cooling and lubrication





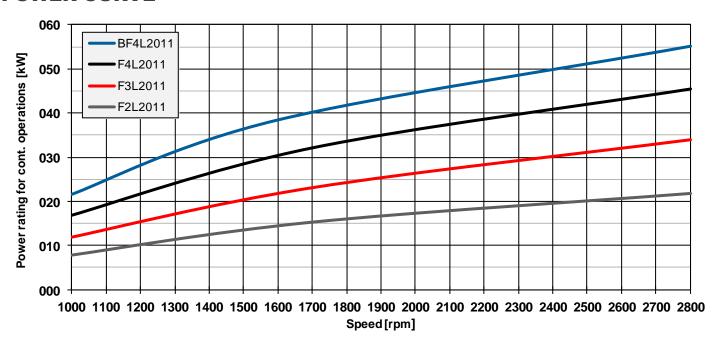
BF4L2011 DEUTZ DRIVE Power Pack

#### **ENGINE DATA**

| ENGINE  | F2L2011           | F2L2011 F3L2011   |                   | BF4L2011          |  |  |
|---|-------------------|-------------------|-------------------|-------------------|--|--|
| No. of cylinders                                  | 2                 | 3                 | 4                 | 4                 |  |  |
| Power rating for interm. operations <sup>1)</sup> | 22.5 kW   30.2 hp | 35.8 kW   48.0 hp | 47.8 kW   64.1 hp | 58.1 kW   77.9 hp |  |  |
| Power rating for cont. operations <sup>2)</sup>   | 21.8 kW   29.2 hp | 34.0 kW   45.6 hp | 45.5 kW   61.0 hp | 55.1 kW   73.9 hp |  |  |
| Max. nominal speed                                | 2800 rpm          | 2800 rpm          | 2800 rpm          | 2800 rpm          |  |  |
| Specific fuel consumption <sup>3)</sup>           | 220 g/kWh         | 218 g/kWh         | 214 g/kWh         | 205 g/kWh         |  |  |
| Adapter housing                                   | SAE 4             | SAE 4             | SAE 4             | SAE 4             |  |  |
| Flywheel  | SAE 8" / 10"      |  |  |

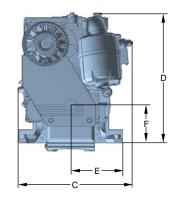
- For intermittent operations at max. nominal speed. According to ISO 3046-1 and without deduction of fan power For continuous operations at max. nominal speed. According to ISO 3046-1 and without deduction of fan power
- Best point consumption refers to diesel with a density of 0.835 kg/dm3 at 15°C

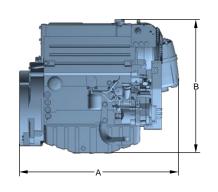
### **POWER CURVE**



| ENGINE | F2L2011 | F3L2011 | F4L2011 | BF4L2011 <sup>4)</sup> |  |  |
|--------|---------|---------|---------|------------------------|--|--|
| A      | 645 mm  | 756 mm  | 867 mm  | 777 mm                 |  |  |
| В      | 707 mm  | 701 mm  | 726 mm  | 718 mm                 |  |  |
| C      | 560 mm  | 560 mm  | 560 mm  | 534 mm                 |  |  |
| D      | 681 mm  | 681 mm  | 681 mm  | 674 mm                 |  |  |
| E      | 267 mm  | 267 mm  | 267 mm  | 267 mm                 |  |  |
| F      | 200 mm  | 200 mm  | 200 mm  | 200 mm                 |  |  |

<sup>4)</sup> Dimensions without mounted air cleaner and silencers







# **DEUTZ DRIVE**

# AIR COOLED ENGINES

912 SERIES

36.0 - 78.0 kW at 2300 rpm

- □ Compact air cooled engines with integrated cooling system
- □ 3 to 6 cylinder naturally aspirated engines in inline arrangement
- □ **Low maintenance costs** due to individual cylinder heads and no external cooling system





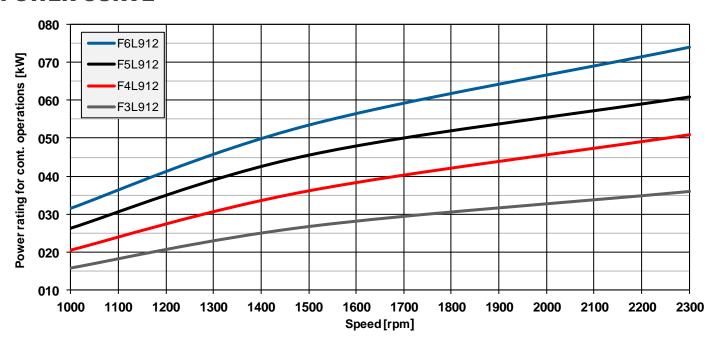
F3L912 DEUTZ DRIVE Power Pack

### **ENGINE DATA**

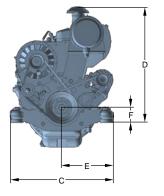
| ENGINE  | F3L912            | F4L912            | F5L912            | F6L912             |  |  |
|---|-------------------|-------------------|-------------------|--------------------|--|--|
| No. of cylinders                                  | 3                 | 4                 | 5                 | 6                  |  |  |
| Power rating for interm. operations <sup>1)</sup> | 38.0 kW   51.0 hp | 51.0 kW   68.4 hp | 65.0 kW   87.2 hp | 78.0 kW   104.6 hp |  |  |
| Power rating for cont. operations <sup>2)</sup>   | 36.0 kW   48.3 hp | 49.0 kW   65.7 hp | 61.0 kW   81.8 hp | 74.0 kW   99.2 hp  |  |  |
| Max. nominal speed                                | 2300 rpm          | 2300 rpm          | 2300 rpm          | 2300 rpm           |  |  |
| Specific fuel consumption <sup>3)</sup>           | 215 g/kWh         | 215 g/kWh         | 215 g/kWh         | 215 g/kWh          |  |  |
| Adapter housing                                   | SAE 3             | SAE 3             | SAE 3             | SAE 3              |  |  |
| Flywheel  | SAE 8" / 10"      | SAE 8" / 10"      | SAE 10" / 11.5"   | SAE 10" / 11.5"    |  |  |

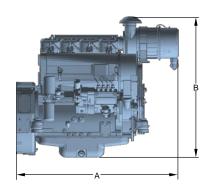
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- Best point consumption refers to diesel with a density of 0.835 kg/dm3 at 15°C

### **POWER CURVE**



| ENGINE | F3L912 | F4L912  | F5L912  | F6L912  |
|--------|--------|---------|---------|---------|
| A      | 944 mm | 1084 mm | 1237 mm | 1443 mm |
| В      | 939 mm | 939 mm  | 979 mm  | 949 mm  |
| C      | 690 mm | 690 mm  | 690 mm  | 690 mm  |
| D      | 774 mm | 774 mm  | 774 mm  | 774 mm  |
| E      | 345 mm | 345 mm  | 345 mm  | 345 mm  |
| F      | 100 mm | 100 mm  | 100 mm  | 100 mm  |







### **DEUTZ DRIVE**

### AIR COOLED ENGINES

914 SERIES

57.0 - 129.0 kW at 2300 rpm

- ☐ Compact air cooled engines with integrated cooling system
- 4 and 6 cylinder naturally aspirated and turbo charged engines in inline arrangement
- □ **Low maintenance costs** due to individual cylinder heads and no external cooling system



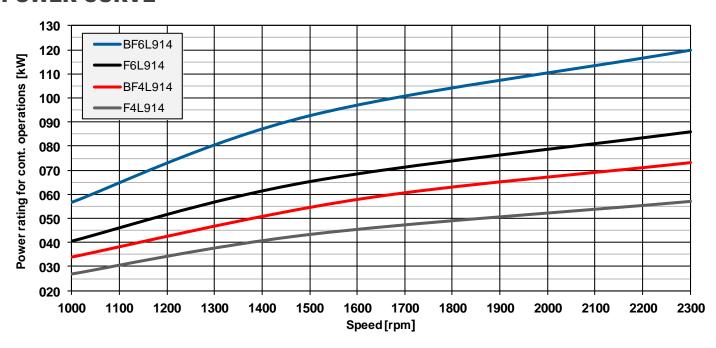
BF6L914 DEUTZ DRIVE Power Pack

#### **ENGINE DATA**

| ENGINE  | F4L914            | BF4L914            | F6L914             | BF6L914             |  |  |
|---|-------------------|--------------------|--------------------|---------------------|--|--|
| No. of cylinders                                  | 4                 | 4                  | 6                  | 6                   |  |  |
| Power rating for interm. operations <sup>1)</sup> | 60.0 kW   80.5 hp | 73.0 kW   97.9 hp  | 90.5 kW   121.4 hp | 129.0 kW   173.0 hp |  |  |
| Power rating for cont. operations <sup>2)</sup>   | 57.0 kW   76.4 hp | 78.0 kW   104.6 hp | 86.0 kW   115.3 hp | 120.0 kW   160.9 hp |  |  |
| Max. nominal speed                                | 2300 rpm          | 2300 rpm           | 2300 rpm           | 2300 rpm            |  |  |
| Specific fuel consumption <sup>3)</sup>           | 215 g/kWh         | 210 g/kWh          | 215 g/kWh          | 208 g/kWh           |  |  |
| Adapter housing                                   | SAE 3             | SAE 3              | SAE 3              | SAE 3               |  |  |
| Flywheel  | SAE 8" / 10"      | SAE 10" / 11.5"    | SAE 10" / 11.5"    | SAE 10" / 11.5"     |  |  |

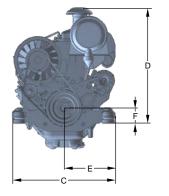
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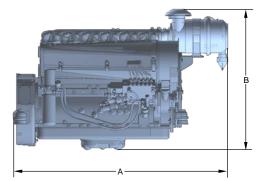
### **POWER CURVE**



| ENGINE | F4L914  | BF4L914 <sup>4)</sup> | F6L914  | BF6L914 <sup>4)</sup> |  |  |
|--------|---------|-----------------------|---------|-----------------------|--|--|
| A      | 1103 mm | 910 mm                | 1443 mm | 1319 mm               |  |  |
| В      | 939 mm  | 838 mm                | 949 mm  | 875 mm                |  |  |
| C      | 690 mm  | 690 mm                | 690 mm  | 708 mm                |  |  |
| D      | 774 mm  | 673 mm                | 774 mm  | 694 mm                |  |  |
| E      | 345 mm  | 345 mm                | 345 mm  | 345 mm                |  |  |
| F      | 100 mm  | 100 mm                | 100 mm  | 100 mm                |  |  |

Dimensions without mounted air cleaner and silencers







### WATER COOLED ENGINES

### **1013 SERIES**

86.0 - 165.0 kW at 2300 rpm

- Water cooled engines with externally mounted cooling system
- 4 and 6 cylinder turbo charged inline engines with charge air cooling option
- □ Reduced running and service costs due to wet cylinder liners and long oil change intervals



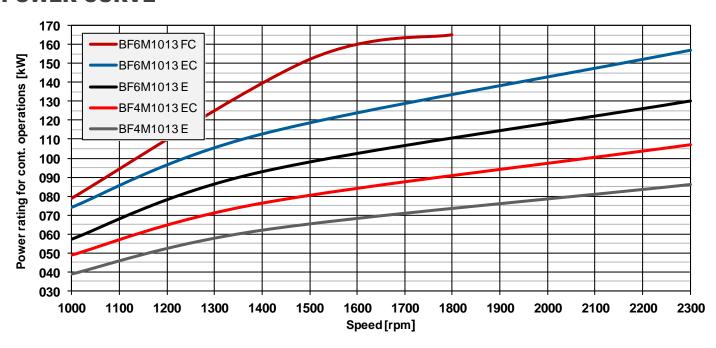
BF4M1013 EC DEUTZ DRIVE Power Pack

### **ENGINE DATA**

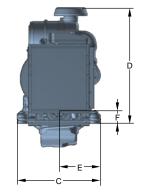
|   | •                     |                        |                        |                        |                        |  |
|---|-----------------------|------------------------|------------------------|------------------------|------------------------|--|
| ENGINE  | BF4M1013 E            | BF4M1013 EC            | BF6M1013 E             | BF6M1013 EC            | BF6M1013 FC            |  |
| No. of cylinders                                  | 4                     | 4                      | 6                      | 6                      | 6                      |  |
| Power rating for interm. operations <sup>1)</sup> | 90.0 kW  <br>120.1 hp | 115.0 kW  <br>154.2 hp | 137.0 kW  <br>183.7 hp | 165.0 kW  <br>221.3 hp | 175.0 kW  <br>234.7 hp |  |
| Power rating for cont. operations <sup>2)</sup>   | 86.0 kW  <br>115.3 hp | 107.0 kW  <br>143.5 hp | 130.0 kW  <br>174.3 hp | 157.0 kW  <br>210.5 hp | 165.0 kW  <br>221.3 hp |  |
| Max. nominal speed                                | 2300 rpm              | 2300 rpm               | 2300 rpm               | 2300 rpm               | 1800 rpm               |  |
| Specific fuel consumption <sup>3)</sup>           | 205 g/kWh             | 205 g/kWh              | 205 g/kWh              | 205 g/kWh              | 205 g/kWh              |  |
| Adapter housing                                   | SAE 3                 | SAE 3                  | SAE 3                  | SAE 3                  | SAE 3                  |  |
| Flywheel  | SAE 10" / 11.5"       | SAE 10" / 11.5"        | SAE 10" / 11.5"        | SAE 10" / 11.5"        | SAE 10" / 11.5"        |  |

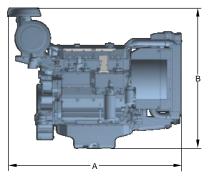
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- Best point consumption refers to diesel with a density of 0.835 kg/dm3 at 15°C

### **POWER CURVE**



| BF4M1013 E <sup>4</sup> | BF4M1013 EC <sup>4)</sup>                        | BF6M1013 E <sup>4)</sup>   | BF6M1013 EC <sup>4)</sup>  | BF6M1013 FC <sup>4)</sup>   |
|-------------------------|--|--|--|---|
| 1430 mm                 | 1547 mm  | 1712 mm  | 1881 mm  | 1881 mm   |
| 1151 mm                 | 1151 mm  | 1239 mm  | 1239 mm  | 1239 mm   |
| 690 mm                  | 732 mm   | 748 mm   | 873 mm   | 873 mm  |
| 956 mm                  | 956 mm   | 994 mm   | 994 mm   | 994 mm  |
| 345 mm                  | 345 mm   | 345 mm   | 345 mm   | 345 mm  |
| 100 mm                  | 100 mm   | 100 mm 100 mm  |  | 100 mm  |
|                         | 1430 mm<br>1151 mm<br>690 mm<br>956 mm<br>345 mm | 1430 mm 1547 mm  1151 mm 1151 mm  690 mm 732 mm  956 mm 956 mm  345 mm | 1430 mm       1547 mm       1712 mm         1151 mm       1151 mm       1239 mm         690 mm       732 mm       748 mm         956 mm       956 mm       994 mm         345 mm       345 mm       345 mm | 1430 mm       1547 mm       1712 mm       1881 mm         1151 mm       1151 mm       1239 mm       1239 mm         690 mm       732 mm       748 mm       873 mm         956 mm       994 mm       994 mm       994 mm         345 mm       345 mm       345 mm       345 mm |







# **OVERVIEW**

| Engine Type | Cooling<br>Medium | Power Rating for cont. Operations | Nominal<br>Speed | Mounted<br>Cooler | Mounted<br>Silencer | Mounted<br>Air<br>Cleaner | Guarding<br>(AS4024) | Flexible<br>Engine<br>Mounts | Rigid<br>Engine<br>Mounts | Hydraulic<br>Pump<br>Drive | Speed<br>Control | Stub Shaft | Protection<br>Panel | Industrial<br>Panel | Irrigation<br>Panel | First<br>Engine Fill |
|-------------|-------------------|-----------------------------------|------------------|-------------------|---------------------|---------------------------|----------------------|------------------------------|---------------------------|----------------------------|------------------|------------|---------------------|---------------------|---------------------|----------------------|
| F2L2011     | Air - Oil         | 21.8 kW                           | 2800 rpm         | <b>A</b>          | <b>A</b>            |                           | <b>A</b>             | 0                            | <b>A</b>                  | 0                          | 0                | 0          | 0                   | 0                   | 0                   | 0                    |
| F3L2011     | Air - Oil         | 34.0 kW                           | 2800 rpm         |                   |                     |                           |                      | 0                            |                           | 0                          | 0                | 0          | 0                   | 0                   | 0                   | 0                    |
| F4L2011     | Air - Oil         | 45.4 kW                           | 2800 rpm         | <b>A</b>          | <b>A</b>            |                           | <b>A</b>             | 0                            |                           | 0                          | 0                | 0          | 0                   | 0                   | 0                   | 0                    |
| BF4L2011    | Air - Oil         | 55.1 kW                           | 2800 rpm         |                   |                     |                           |                      | 0                            |                           | 0                          | 0                | 0          | 0                   | 0                   | 0                   | 0                    |
| F3L912      | Air               | 36.0 kW                           | 2300 rpm         |                   | <b>A</b>            |                           |                      |                              | 0                         | 0                          | 0                | 0          | 0                   | 0                   | 0                   | 0                    |
| F4L912      | Air               | 49.0 kW                           | 2300 rpm         |                   |                     |                           |                      |                              | 0                         | 0                          | 0                | 0          | 0                   | 0                   | 0                   | 0                    |
| F4L914      | Air               | 57.0 kW                           | 2300 rpm         |                   | <b>_</b>            |                           |                      | <b>A</b>                     | 0                         | 0                          | 0                | 0          | 0                   | 0                   | 0                   | 0                    |
| F5L912      | Air               | 61.0 kW                           | 2300 rpm         |                   |                     |                           |                      |                              | 0                         | 0                          | 0                | 0          | 0                   | 0                   | 0                   | 0                    |
| BF4L914     | Air               | 73.0 kW                           | 2300 rpm         |                   |                     |                           |                      | <b>A</b>                     | 0                         | 0                          | 0                | 0          | 0                   | 0                   | 0                   | 0                    |
| F6L912      | Air               | 74.0 kW                           | 2300 rpm         |                   |                     |                           |                      |                              | 0                         | 0                          | 0                | 0          | 0                   | 0                   | 0                   | 0                    |
| F6L914      | Air               | 86.0 kW                           | 2300 rpm         |                   | <b>A</b>            |                           |                      | <b>A</b>                     | 0                         | 0                          | 0                | 0          | 0                   | 0                   | 0                   | 0                    |
| BF6L914     | Air               | 120.0 kW                          | 2300 rpm         |                   |                     |                           |                      |                              | 0                         | 0                          | 0                | 0          | 0                   | 0                   | 0                   | 0                    |
| BF4M1013 E  | Water             | 86.0 kW                           | 2300 rpm         | <b>A</b>          |                     |                           |                      | <b>A</b>                     | 0                         | 0                          | 0                | 0          | 0                   | 0                   | 0                   | 0                    |
| BF4M1013 EC | Water             | 107.0 kW                          | 2300 rpm         |                   |                     |                           |                      | <b>A</b>                     | 0                         | 0                          | 0                | 0          | 0                   | 0                   | 0                   | 0                    |
| BF6M1013 E  | Water             | 130.0 kW                          | 2300 rpm         | <b>A</b>          |                     |                           |                      |                              | 0                         | 0                          | 0                | 0          | 0                   | 0                   | 0                   | 0                    |
| BF6M1013 EC | Water             | 157.0 kW                          | 2300 rpm         |                   |                     |                           |                      |                              | 0                         | 0                          | 0                | 0          | 0                   | 0                   | 0                   | 0                    |
| BF6M1013 FC | Water             | 165.0 kW                          | 1800 rpm         |                   |                     |                           |                      |                              | 0                         | 0                          | 0                | 0          | 0                   | 0                   | 0                   | 0                    |





BASE ENGINE

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