

# FPT INDUSTRIAL MARINE COMMERCIAL

Our efficiency. Your edge.



# FPT INDUSTRIAL MARINE COMMERCIAL

Our efficiency. Your edge. 2

FPT

### ABOUT FPT INDUSTRIAL

FPT Industrial is the Brand of CNH Industrial dedicated to the development, production, sale and assistance of powertrains for Marine, On Road, Off Road, and Power Generation applications.

The company employs over 8,000 people worldwide, within ten plants and seven R&D Centers. The FPT Industrial sales network consists of 73 dealers and more than 800 service centers around 100 countries. A wide product offering, including six engine ranges from 42 hp up to 1,000 hp, transmissions with maximum torque of 200 Nm up to 500 Nm, front and rear axles from 2 to 32 ton GAW (Gross Axle Weight). FPT Industrial offers the most complete Natural Gas engines line-up on the market for industrial applications, including engine ranges from 136 hp up to 460 hp. This extensive offer and a close focus on R&D activities make FPT Industrial a world leader in industrial powertrains.

We work for businesses serving other businesses, and we are committed to satisfy the requirements of both direct and final Customers.

We are proud to be an innovation-driven Company, that builds Customer advantage through continuous research and improvement, and creates value by leveraging this advantage.

Today FPT Industrial is one of the leading world players in engines, axles and transmissions for the Industrial sector, ranking among the first four manufacturers worldwide in the 2- to 20-liter Diesel engine segment.

FPT

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## THE WAVE OF INNOVATION

FPT Industrial's engines for pleasure and commercial boats stand out for superb quality, features and application versatility. They bring maximum and continuous specific power and torque at low revolutions. They achieve better efficiency in all sea conditions. They also boast an impressive durability.

A dramatic reduction of noise and vibrations combines power with sailing pleasure. Exhaust gas emissions have been cut down too, lowering environmental impact and complying with the most stringent legislation.

Our engineering experience has delivered a lightweight design, with low volume/power and weight/power ratios, for easier installation and superior performance.

### Superior Technology & Outstanding Advantages

### **Performance**

Maximum and continuous high specific power. High torque at low revs. Lightness (weight/power low ratios).

### Flexibility

Compactness (volume/power low ratios). Full range of accessories available. Wide range of emission and propulsion certifications. Keel cooling versions availability.

### **Low Environmental Impact**

Drastic reduction of exhaust emissions.

Low noise and vibrations.

### **Low Operating Costs**

Longer maintenance intervals costs.

Longer overhaul intervals

### **Marine Emission Regulations**

### IMO

| kW   | HP   | 2017 | 2018     | 2019    | 2020  | 2021  |
|------|------|------|----------|---------|-------|-------|
| >130 | >174 | Tier | II (Tier | III ECA | areas | only) |

The International Maritime Organization (IMO) regulates exhaust emissions on diesel engines above 130kW (174 hp). Engines used exclusively in emergency applications are exempt. IMO Tier III applies only when operating within a NOx Emission Control Area. The Tier III regulation is in effect for North America and US Caribbean Sea NOx ECA's for vessels built after January 1, 2016.

### ΕU

| kW     | HP     | 2017  | 2018               | 2019  | 2020    | 2021 |
|--------|--------|-------|--------------------|-------|---------|------|
| 19-299 | 25-401 | Stage | IIIA               |       | Stage V |      |
| >299   | >401   | :     | Stage III <i>A</i> |       | Stage   | V    |
| Plea   | sure   |       |                    | RCD 2 |         |      |

The Nonroad Mobile Machinery Directive regulates exhaust emissions from diesel engines installed on inland waterway vessels operating in the EU. The RCReational Craft Directive regulates noise and exhaust emissions from propulsion engines installed on rCReational craft operating in the EU.

### **US EPA**

| kW   | HP   | 2017 | 2018 | 2019   | 2020 | 2021 |
|------|------|------|------|--------|------|------|
| <600 | <805 |      |      | Tier 3 |      |      |
| ≥600 | ≥805 |      |      | Tier 4 |      |      |

The United States Environmental Protection Agency (EPA) regulates exhaust emissions from diesel engines installed on US flagged/registered marine vessels.

### **Marine Rating Classification**

### Full load reference conditions

| Reference                     | ISO 8665 |
|-------------------------------|----------|
| Ambient pressure (kPA):       | 100      |
| Ambient temperature (°C):     | 25       |
| Relative humidity (%):        | 30       |
| Fuel density (kg/dm³):        | 0.84     |
| Fuel calorific value (kJ/kg): | 42700    |
| Fuel temperature (°C):        | 40       |

### **Rating classification**

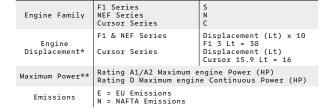
### Definition

| A1    | Short range fast ple-<br>asure service     | Limited to 10% of time<br>Cruising speed at engine rpm <90%<br>of calibration rated speed<br>300 h/y  |
|-------|--|---|
| A2/B1 | Long range pleasure/<br>commercial service | Limited to 10% of time<br>Cruising speed at engine rpm <90%<br>of calibration rated speed<br>1000 h/y |
| В     | Light duty                                 | Limited to 10% of time<br>Cruising speed at engine rpm <90%<br>of calibration rated speed<br>1500 h/y |
| С     | Medium duty                                | Limited to 25% of time<br>Cruising speed at engine rpm <90%<br>of calibration rated speed<br>3000 h/y |
| D     | Heavy duty                                 | up to 100% of time<br>unlimited h/y   |

### **Marine Engine Commercial Naming**



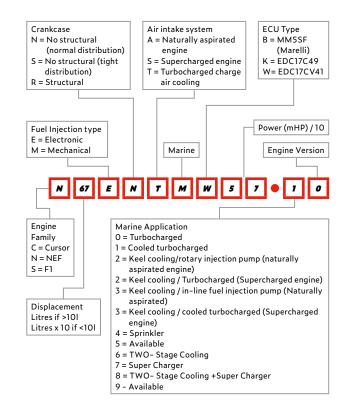
### Definition



- Displacement >10I Litres: Displacement <10I litres x 10
- Pleasure: Max engine Power (metric HP)

Commercial: Max engine Continuous Power (metric HP)

### **Marine Engine Technical Identification**





### **Engines Specifications**

| Engine model | Rating | w d      | шdх  | Dimensions*<br>(L**xWXH)<br>(mm) | Dry Weight<br>(kg) |
|--------------|--------|----------|------|----------------------------------|--------------------|
| S30 230 E    | B 1    | 29 175.5 | 3500 | 780 x 775 x 753                  | 330                |
| S30 230 E    | C 8    | 5 115.6  | 3500 | 780 x 775 x 753                  | 330                |
| N40 170**    | * C 1  | 25 170   | 2800 | 850 x 708 x 785                  | 490                |
| N40 170**    | * C 1  | 10 150   | 2800 | 850 x 708 x 785                  | 490                |
| N40 170**    | * C 7  | 4 100    | 2800 | 850 x 708 x 785                  | 490                |
| N40 170**    | * C 6  | 3 85     | 2800 | 850 x 708 x 785                  | 490                |
| N40 250 E    | B1 1   | 69 230   | 2800 | 850 x 708 x 785                  | 490                |
| N40 250 E    | B 1    | 47 200   | 2800 | 850 x 708 x 785                  | 490                |
| N40 250 E    | C 1    | 10 150   | 2800 | 850 x 708 x 785                  | 490                |
| N40 250 E    | C 7    | 4 100    | 2800 | 850 x 708 x 785                  | 490                |
| N45 100      | B 6    | 6.5 90   | 2800 | 811 x 700 x 836                  | 450                |
| N45 100      | D 6    | 3 85     | 2800 | 811 x 700 x 836                  | 450                |
| N60 400 E    | B1 2   | 72 370   | 3000 | 1072 x 739 x 778                 | 595                |
| N60 400 E    | B 2    | 42 330   | 3000 | 1072 x 739 x 778                 | 595                |
| N60 400 E    | C 1    | 98 270   | 3000 | 1072 x 739 x 778                 | 595                |
| N67 150      | В 9    | 9.5 135  | 2800 | 1052 x 705 x 910                 | 530                |
| N67 150      | D 9    | 2 125    | 2800 | 1052 x 705 x 910                 | 530                |
| N67 170**    | * D 1  | 25 170   | 2300 | 1089 x 724 x 788                 | 600                |
| N67 220      | C 1    | 32 180   | 2800 | 1072 x 749 x 800                 | 605                |
| N67 220      | D 1    | 10 150   | 2800 | 1072 x 749 x 800                 | 605                |
| N67 280      | B 1    | 91 260   | 2800 | 1072 x 749 x 800                 | 605                |
| N67 280      | C 1    | 69 230   | 2800 | 1072 x 749 x 800                 | 605                |
| N67 280      | D 1    | 32 180   | 2500 | 1072 x 749 x 800                 | 605                |

Dimensions can be changed according to engine options.
 Lenght at flywheel.
 WV Stage V Certification.

| Engine model | Rating | ΚW  | ф    | шфл  | Dimensions*<br>(L**xWxH)<br>(mm) | Dry Weight<br>(kg) |
|--------------|--------|-----|------|------|----------------------------------|--------------------|
| N67 450 N    | B1     | 309 | 420  | 3000 | 1089 x 724 x 788                 | 600                |
| N67 450 N    | В      | 272 | 370  | 3000 | 1089 x 724 x 788                 | 600                |
| N67 450 N    | С      | 257 | 350  | 3000 | 1089 x 724 x 788                 | 600                |
| N67 550      | B1     | 368 | 500  | 3200 | 1089 x 850 x 825                 | 721                |
| N67 550      | В      | 353 | 480  | 3200 | 1089 x 850 x 825                 | 721                |
| N67 570 EVO  | B1     | 390 | 530  | 3000 | 1089 x 847 x 825                 | 721                |
| N67 570 EVO  | В      | 357 | 485  | 3000 | 1089 x 847 x 825                 | 721                |
| C90 170***   | D      | 125 | 170  | 2000 | 1288 x 863 x 962                 | 950                |
| C90 380      | С      | 301 | 410  | 2000 | 1288 x 863 x 962                 | 940                |
| C90 380      | D      | 279 | 380  | 2000 | 1288 x 863 x 962                 | 940                |
| C90 620 E    | B1     | 426 | 580  | 2530 | 1288 x 868 x 962                 | 940                |
| C90 620 E    | B1     | 404 | 550  | 2530 | 1288 x 868 x 962                 | 940                |
| C90 620 E    | В      | 368 | 500  | 2530 | 1288 x 868 x 962                 | 940                |
| C90 620 E    | С      | 331 | 450  | 2530 | 1288 x 868 x 962                 | 940                |
| C13 500      | С      | 382 | 520  | 2000 | 1465 x 1000 x 1058               | 1345               |
| C13 500      | D      | 367 | 500  | 2000 | 1465 x 1000 x 1058               | 1345               |
| C13 825 E    | B1     | 551 | 750  | 2400 | 1465 x 1000 x 1058               | 1395               |
| C13 825 E    | В      | 478 | 650  | 2400 | 1465 x 1000 x 1058               | 1395               |
| C13 825 E    | С      | 441 | 600  | 2400 | 1465 x 1000 x 1058               | 1395               |
| C16 600      | D      | 441 | 600  | 1800 | 1465 x 1000 x 1160               | 1570               |
| C16 600      | D      | 404 | 550  | 1800 | 1465 x 1000 x 1160               | 1570               |
| C16 600      | D      | 368 | 500  | 1800 | 1465 x 1000 x 1160               | 1570               |
| C16 1000     | B1     | 735 | 1000 | 2300 | 1465 x 1136 x 1160               | 1640               |
| C16 1000     | В      | 662 | 900  | 2300 | 1465 x 1136 x 1160               | 1640               |
| C16 1000     | С      | 599 | 815  | 2300 | 1465 x 1136 x 1160               | 1640               |
| C16 1000     | С      | 551 | 750  | 2300 | 1465 x 1136 x 1160               | 1640               |
| C16 1000     | С      | 478 | 650  | 2300 | 1465 x 1136 x 1160               | 1640               |

### THE F1 SERIES





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### S30 230 E

4 Cyl. in line Arrangement: Total Displacement (L): 3,0

Maximum Power (kW (Hp) @ rpm):

Thermodynamic cycle:

Air handling: Valves per cylinder:

Cooling System:

**Direction of Rotation** (viewed facing flywheel):

Engine management: Injection System:

129 (175.5) @ 3.500

Diesel 4 stroke TCA

4 Liquid

Counterclockwise Electronic CR

### WEIGHT AND DIMENSIONS

| Dimensions* | (L**xWxH) | 780 | х | 775 | х | 753 | mm |
|-------------|-----------|-----|---|-----|---|-----|----|
| Dry Weight  |           |     |   |     |   | 330 | Kg |

\* Dimensions can be changed according to engine options \*\* Length at flywheel

| Rating | ΚW  | ф     | шфл  | g/kWh @ rpm<br>(Best Value) | RCD II |
|--------|-----|-------|------|-----------------------------|--------|
| В      | 129 | 175.5 | 3500 | 215 @ 2400                  | •      |
| С      | 85  | 115.6 | 3500 | 217 @ 2400                  | •      |

### **Air Handling**

TCA Turbocharged with aftercooler Turbocharged

NA Naturally Aspirated

### **Injection System**

Mechanical Common Rail EUI Electronic Unit Injector



# THE NEF SERIES



### N40 1701

Arrangement: Total Displacement (L):

Maximum Power (kW (Hp) @ rpm):

Thermodynamic cycle:

Air handling: Valves per cylinder: Cooling System:

Direction of Rotation

(viewed facing flywheel): Engine management:

Injection System:

4 Cyl. in line

3.9 125 (170) @ 2.800 Diesel 4 stroke

TCA 4

Liauid

Counterclockwise

Electronic

CR

### WEIGHT AND DIMENSIONS

| Dimensions* | (L**xWxH) | 850 | х | 708 | х | 785 | mm |
|-------------|-----------|-----|---|-----|---|-----|----|
| Dry Weight  |           |     |   |     |   | 490 | Kg |

- \* Dimensions can be changed according to engine options
- \*\* Length at flywheel

| Rating | Κ   | ф   | шdх  | g/kWh@rpm<br>(Best Value) | IWV V |
|--------|-----|-----|------|---------------------------|-------|
| С      | 125 | 170 | 2800 | 210 @ 2200                | •     |
| С      | 110 | 150 | 2800 | 216 @ 2200                | •     |
| С      | 74  | 100 | 2800 | 213 @ 1800                | •     |
| C      | 63  | 85  | 2800 | 224 @ 1900                | •     |

### Air Handling

TCA Turbocharged with aftercooler Turbocharged NA Naturally Aspirated

### Injection System

Mechanical Common Rail EUI Electronic Unit Injector

Keel-cooled versions are also available



### N40 250 E1

Arrangement:

Total Displacement (L):

Maximum Power (kW (Hp) @ rpm):

Thermodynamic cycle: Air handling:

Valves per cylinder: Cooling System:

Direction of Rotation

(viewed facing flywheel):

Engine management:

Injection System:

4 Cvl. in line

3.9

169 (230) @ 2.800 Diesel 4 stroke

> TCA 4 Liauid

Counterclockwise Electronic

CR

### WEIGHT AND DIMENSIONS

| Dimensions* | L**xWxH) | 850 | х | 708 | х | 785 | mm |
|-------------|----------|-----|---|-----|---|-----|----|
| Dry Weight  |          |     |   |     |   | 490 | Kg |

- \* Dimensions can be changed according to engine options
- \*\* Length at flywheel

| Rating | κ<br>M | ф   | шdх  | g/kWh @ rpm<br>(Best Value) | IMO II | RCD II |
|--------|--------|-----|------|-----------------------------|--------|--------|
| B1     | 169    | 230 | 2800 | 213 @ 2000                  | •      | •      |
| В      | 147    | 200 | 2800 | 214 @ 2550                  | -      | -      |
| С      | 110    | 150 | 2800 | 214 @ 2550                  | -      | •      |
| С      | 74     | 100 | 2800 | 213 @ 1800                  | -      | •      |

### Air Handling

TCA Turbocharged with aftercooler TC Turbocharged

NA Naturally Aspirated

### Injection System

Mechanical CR Common Rail

EUI Electronic Unit Injector

Keel-cooled versions are also available



### N45 100<sup>1</sup>

Arrangement: Total Displacement (L):

Maximum Power (kW (Hp) @ rpm):

Thermodynamic cycle: Air handling:

Valves per cylinder: Cooling System:

Direction of Rotation

(viewed facing flywheel): Engine management:

Injection System:

4 Cyl. in line

4.5

66.5 (90) @ 2.800

Diesel 4 stroke NA

NA 2 Liquid

Counterclockwise

Mechanical M

### WEIGHT AND DIMENSIONS

| Dimensions* | (L**xWxH) | 811 | х | 700 | х | 836 | mm |
|-------------|-----------|-----|---|-----|---|-----|----|
| Dry Weight  |           |     |   |     |   | 450 | Kg |

\* Dimensions can be changed according to engine options

<sup>\*\*</sup> Length at flywheel

| B 66.5 90 2800 228 @ 1800 | Rating | ΚW   | ф  | шdл  | g/kWh @ rpm<br>(Best Value) |
|---------------------------|--------|------|----|------|-----------------------------|
|                           |        | 66.5 | 90 | 2800 | 228 @ 1800                  |
|                           | D      | 63   | 85 | 2800 | 228 @ 1800                  |

### Air Handling

TCA Turbocharged with aftercooler TC Turbocharged NA Naturally Aspirated

### Injection System

M Mechanical CR Common Rail

EUI Electronic Unit Injector

 Keel-cooled versions are also available



### N60 400 E

Marine

Arrangement:

Total Displacement (L):

 $\label{eq:maximum Power (kW (Hp) @ rpm):} Maximum Power (kW (Hp) @ rpm):$ 

Thermodynamic cycle:

Air handling: Valves per cylinder: Cooling System:

Direction of Rotation

(viewed facing flywheel): Engine management:

Injection System:

6 Cyl. in line

5,9

272 (370) @ 3.000

Diesel 4 stroke

TAA 4 Liquid

Counterclockwise

Electronic

CR

### WEIGHT AND DIMENSIONS

| Dimensions* | (L**xWxH) | 1072 | х | 739 | х | 778 | mm |
|-------------|-----------|------|---|-----|---|-----|----|
| Dry Weight  |           |      |   |     |   | 595 | Kg |

\* Dimensions can be changed according to engine options

\*\* Length at flywheel

| Rating | κW  | ф   | крш  | g/kWh @ rpm<br>(Best Value) | IMO II | RCD II |
|--------|-----|-----|------|-----------------------------|--------|--------|
| B1     | 272 | 370 | 3000 | 208 @ 2250                  | •      | •      |
| В      | 242 | 330 | 3000 | 208 @ 2000                  | •      | •      |
| С      | 198 | 270 | 3000 | 208 @ 2000                  | •      | •      |

### Air Handling

TCA Turbocharged with aftercooler
TC Turbocharged

NA Naturally Aspirated

### **Injection System**

M Mechanical
CR Common Rail
EUI Electronic Unit Injector



### N67 150<sup>1</sup>

Arrangement: Total Displacement (L):

Maximum Power (kW (Hp) @ rpm):

Thermodynamic cycle: Air handling:

Valves per cylinder: Cooling System:

Direction of Rotation

(viewed facing flywheel): Engine management:

Injection System:

6 Cyl. in line

6.7

99.5 (135) @ 2.800

Diesel 4 stroke

NA 2 Liquid

Counterclockwise Mechanical

М

### WEIGHT AND DIMENSIONS

| Dimensions* | (L**xWxH) | 1052 | х | 705 | х | 910 | mm |
|-------------|-----------|------|---|-----|---|-----|----|
| Dry Weight  |           |      |   |     |   | 530 | Kg |

\* Dimensions can be changed according to engine options

<sup>\*\*</sup> Length at flywheel

| 6      |      |     |      | @ rpm<br>Value) |
|--------|------|-----|------|-----------------|
| Rating | ×    | ф   | ирш  | g/kWh<br>(Best  |
| В      | 99.5 | 135 | 2800 | 225 @ 1800      |
| D      | 92   | 125 | 2800 | 225 @ 1400      |

### Air Handling

TCA Turbocharged with aftercooler TC Turbocharged NA Naturally Aspirated

### Injection System

M Mechanical CR Common Rail

EUI Electronic Unit Injector
(1) Keel-cooled versions ar

) Keel-cooled versions are also available



### N67 1701

Arrangement:

Total Displacement (L):

 $\label{eq:maximum Power (kW (Hp) @ rpm):} Maximum Power (kW (Hp) @ rpm):$ 

Thermodynamic cycle: Air handling:

Valves per cylinder: Cooling System:

Direction of Rotation

(viewed facing flywheel): Engine management:

Injection System:

6 Cyl. in line

6.7

125 (170) @ 2.300 Diesel 4 stroke

TCA 4

4 Liquid

Counterclockwise

Electronic

CR

### WEIGHT AND DIMENSIONS

| Dimensions* | (L**xWxH) | 1052 | х | 705 | х | 910 | mm |
|-------------|-----------|------|---|-----|---|-----|----|
| Dry Weight  |           |      |   |     |   | 530 | Kg |

\* Dimensions can be changed according to engine options

\*\* Length at flywheel

| D      |          |          |      | 0 rpm<br>Value) |       |
|--------|----------|----------|------|-----------------|-------|
| lating | Μ        | <u>a</u> | E d  | /kWh<br>Best    | > >W. |
| ~      | <u> </u> | _        | н    | 6               | Н     |
| D      | 125      | 170      | 2300 | 216 @ 1800      | •     |

### Air Handling

TCA Turbocharged with aftercooler
TC Turbocharged

NA Naturally Aspirated

### Injection System

M Mechanical CR Common Rail

EUI Electronic Unit Injector

) Keel-cooled versions are also available



### N67 220

Arrangement: Total Displacement (L): 6.7

Maximum Power (kW (Hp) @ rpm):

Thermodynamic cycle: Air handling: Valves per cylinder:

Cooling System: Direction of Rotation

(viewed facing flywheel): Engine management:

Injection System:

6 Cvl. in line

132 (180) @ 2.800 Diesel 4 stroke

TC 2

Liauid

Counterclockwise Mechanical

### WEIGHT AND DIMENSIONS

| Dimensions* | (L**xWxH) | 1072 | х | 749 | х | 800 | mm |
|-------------|-----------|------|---|-----|---|-----|----|
| Dry Weight  |           |      |   |     |   | 605 | Kg |

\* Dimensions can be changed according to engine options

\*\* Length at flywheel

| Rating | ΚW  | ф   | шdх  | g/kWh @ rpm<br>(Best Value) |
|--------|-----|-----|------|-----------------------------|
| С      | 132 | 180 | 2800 | 211 @ 1800                  |
| D      | 110 | 150 | 2800 | 219 @ 2400                  |

### Air Handling

TCA Turbocharged with aftercooler Turbocharged NA Naturally Aspirated

### Injection System

Mechanical Common Rail EUI Electronic Unit Injector



### N67 2801

Arrangement:

Total Displacement (L):

Maximum Power (kW (Hp) @ rpm):

Thermodynamic cycle: Air handling:

Valves per cylinder: Cooling System:

Direction of Rotation

(viewed facing flywheel): Engine management:

Injection System:

6 Cvl. in line

6.7

191 (260) @ 2.800 Diesel 4 stroke

TCA 2 Liauid

Counterclockwise Mechanical

М

### WEIGHT AND DIMENSIONS

| Dimensions* | (L**xWxH) | 1072 | х | 749 | х | 800 | mm |
|-------------|-----------|------|---|-----|---|-----|----|
| Dry Weight  |           |      |   |     |   | 605 | Kg |

\* Dimensions can be changed according to engine options

\*\* Length at flywheel

| Rating | ×   | ф   | жbш  | g/kWh @ rpm<br>(Best Value) | IMO II |
|--------|-----|-----|------|-----------------------------|--------|
| В      | 191 | 260 | 2800 | 209 @ 1800                  | •      |
| С      | 169 | 230 | 2800 | 215 @ 2100                  | •      |
| D      | 132 | 180 | 2500 | 208 @ 2000                  | •      |

### Air Handling

TCA Turbocharged with aftercooler TC Turbocharged

NA Naturally Aspirated

### **Injection System**

Mechanical CR Common Rail EUI Electronic Unit Injector

Keel-cooled versions are also available



### N67 450 N<sup>1</sup>

Arrangement:

Total Displacement (L): Maximum Power (kW (Hp) @ rpm):

Thermodynamic cycle:

Air handling:

Valves per cylinder: Cooling System:

Direction of Rotation

(viewed facing flywheel):

WEIGHT AND DIMENSIONS

Engine management: Injection System:

6 Cyl. in line

6.7

309 (420) @ 3.000

Diesel 4 stroke

TCA

Liauid

Counterclockwise Electronic

CR

| Dimensions* | (L**xWxH) | 1089 | x | 724 | х | 788 | mm |
|-------------|-----------|------|---|-----|---|-----|----|
| Dry Weight  |           |      |   |     |   | 600 | Kg |

\* Dimensions can be changed according to engine options

\*\* Length at flywheel

| Rating | ΚW  | ф   | шdх  | g/kWh @ rpm<br>(Best Value) | IMO II | RCD II | EPA<br>Tier 3<br>Commercial | China GB II<br>(GB15097-2016 |
|--------|-----|-----|------|-----------------------------|--------|--------|-----------------------------|------------------------------|
| B1     | 309 | 420 | 3000 | 206 @ 2000                  | •      | •      | •                           | •                            |
| В      | 272 | 370 | 3000 | 206 @ 1800                  | •      | •      | •                           | •                            |
| С      | 257 | 350 | 3000 | 207 @ 1800                  | •      | •      | •                           | •                            |

### Air Handling

TCA Turbocharged with aftercooler Turbocharged NA Naturally Aspirated

### Injection System

Mechanical Common Rail

EUI Electronic Unit Injector

Keel-cooled versions are also available



### N67 550

Arrangement:

Total Displacement (L):

Maximum Power (kW (Hp) @ rpm):

Thermodynamic cycle:

Air handling: Valves per cylinder:

Cooling System: Direction of Rotation

(viewed facing flywheel): Engine management:

Injection System:

6 Cvl. in line

6.7

368 (500) @ 3.200

Diesel 4 stroke TCA

4 Liauid

Counterclockwise

Electronic CR

### WEIGHT AND DIMENSIONS

| Dimensions* | (L**xWxH) | 1089 | х | 850 | Х | 825 | mm |
|-------------|-----------|------|---|-----|---|-----|----|
| Dry Weight  |           |      |   |     |   | 721 | Kg |

\* Dimensions can be changed according to engine options

\*\* Length at flywheel

| Rating | κ<br>M | ф   | шdх  | g/kWh @ rpm<br>(Best Value) | IMO II | RCD II | EPA<br>Tier 3<br>Commercial | China GB II<br>(GB15097-2016 |
|--------|--------|-----|------|-----------------------------|--------|--------|-----------------------------|------------------------------|
| B1     | 368    | 500 | 3200 | 209 @ 1800                  | •      | •      | •                           | •                            |
| В      | 353    | 480 | 3200 | 209 @ 1800                  | •      | •      | •                           | •                            |

### Air Handling

TCA Turbocharged with aftercooler

TC Turbocharged NA Naturally Aspirated

### **Injection System**

Mechanical Common Rail EUI Electronic Unit Injector



 $\overline{\phantom{a}}$ 

30



Marine

Arrangement:

Total Displacement (L):

Maximum Power (kW (Hp) @ rpm): Thermodynamic cycle:

Air handling: Valves per cylinder:

Cooling System:

Direction of Rotation (viewed facing flywheel):

Engine management: Injection System:

6,7 390 (530) @ 3.000 Diesel 4 stroke TCA

6 Cyl. in line

Liquid

Counterclockwise Electronic

CR

### WEIGHT AND DIMENSIONS

| Dimensions* | (L**xWxH) | 1089 | х | 847 | х | 825 | mm |
|-------------|-----------|------|---|-----|---|-----|----|
| Dry Weight  |           |      |   |     |   | 721 | Kg |

\* Dimensions can be changed according to engine options \*\* Length at flywheel

| Rating | ΚW    | ф      | крш  | g/kWh @ rpm<br>(Best Value) | IMO II | RCD II | EPA<br>Tier 3<br>Commercial |
|--------|-------|--------|------|-----------------------------|--------|--------|-----------------------------|
| B1     | 390   | 530    | 3000 | 209 @ 1900                  | •      | •      | •                           |
| D      | 7 5 7 | // 0 5 | 7000 | 211 0 2700                  | _      | _      | _                           |

### Air Handling

TCA Turbocharged with aftercooler TC Turbocharged NA Naturally Aspirated

### **Injection System**

Mechanical Common Rail

EUI Electronic Unit Injector

Keel-cooled versions are also available





# THE CURSOR SERIES



### C90 170

Arrangement: Total Displacement (L):

Maximum Power (kW (Hp) @ rpm):

Thermodynamic cycle: Air handling:

Valves per cylinder: Cooling System:

Direction of Rotation

(viewed facing flywheel):

Engine management: Electronic Injection System: CR

6 Cvl. in line

8.7

125 (170) @ 2.000 Diesel 4 stroke

TCA Liauid

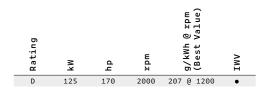
Counterclockwise

### WEIGHT AND DIMENSIONS

| Dimensions* | (L**xWxH) | 1288 | х | 863 | х | 962 | mm |
|-------------|-----------|------|---|-----|---|-----|----|
| Dry Weight  |           |      |   |     |   | 950 | Kg |

\* Dimensions can be changed according to engine options

\*\* Length at flywheel



### Air Handling

TCA Turbocharged with aftercooler Turbocharged

Naturally Aspirated

### Injection System

Mechanical Common Rail

EUI Electronic Unit Injector



### C90 3801

Arrangement:

Total Displacement (L):

Max Power (kW (Hp) @ rpm): Thermodynamic cycle:

Air handling:

Valves per cylinder: Cooling System:

Direction of Rotation (viewed facing flywheel):

Engine management:

Injection System:

6 Cvl. in line

8.7

301 (410) @ 2.000 Diesel 4 stroke

TCA

4 Liauid

Counterclockwise

Electronic

CR

### WEIGHT AND DIMENSIONS

| Dimensions* | (L**xWxH) | 1288 | х | 863 | х | 962 | m m |
|-------------|-----------|------|---|-----|---|-----|-----|
| Dry Weight  |           |      |   |     |   | 940 | Kg  |

\* Dimensions can be changed according to engine options

\*\* Length at flywheel

| Rating | ΚW  | ф   | z pm | g/kWh @ rpm<br>(Best Value) | IMO II | China GB I<br>(GB15097-2016) |
|--------|-----|-----|------|-----------------------------|--------|------------------------------|
| С      | 301 | 410 | 2000 | 203 @ 1800                  | •      | •                            |
| D      | 279 | 380 | 2000 | 206 @ 1800                  | •      | •                            |

### Air Handling

TCA Turbocharged with aftercooler TC Turbocharged

NA Naturally Aspirated

### **Injection System**

Mechanical Common Rail

EUI Electronic Unit Injector

Keel-cooled versions are also available



### C90 620 E

Arrangement: Total Displacement (L):

Maximum Power (kW (Hp) @ rpm):

Thermodynamic cycle: Air handling:

Valves per cylinder: Cooling System:

Direction of Rotation

(viewed facing flywheel):

Engine management:

Injection System:

6 Cvl. in line

8.7

426 (580) @ 2.530

Diesel 4 stroke

TCA 4 Liquid

Counterclockwise

Electronic

CR

### WEIGHT AND DIMENSIONS

| Dimensions* | (L**xWxH) | 1288 | х | 868 | х | 962 | mm |
|-------------|-----------|------|---|-----|---|-----|----|
| Dry Weight  |           |      |   |     |   | 940 | Kg |

\* Dimensions can be changed according to engine options

<sup>\*\*</sup> Length at flywheel

| Rating | ΚW  | ф   | шdх  | g/kWh @ rpm<br>(Best Value) | IMO II | RCD II | EPA<br>Tier 3<br>Commercial | China GB II<br>(GB15097-2016 |
|--------|-----|-----|------|-----------------------------|--------|--------|-----------------------------|------------------------------|
| B1     | 426 | 580 | 2530 | 213 @ 2200                  | •      | •      | •                           | -                            |
| B1     | 404 | 550 | 2530 | 209 @ 2200                  | •      | •      | •                           | •                            |
| В      | 368 | 500 | 2530 | 204 @ 2000                  | •      | •      | •                           | •                            |
| С      | 331 | 450 | 2530 | 202 @ 1800                  | •      | •      | •                           | •                            |

### Air Handling

TCA Turbocharged with aftercooler TC Turbocharged NA Naturally Aspirated

### Injection System

M Mechanical CR Common Rail

EUI Electronic Unit Injector



### C13 5001

Arrangement:

Total Displacement (L):

Max Power (kW (Hp) @ rpm):

Thermodynamic cycle:

Air handling:

Valves per cylinder: Cooling System:

Direction of Rotation

(viewed facing flywheel):

Engine management:

Injection System:

6 Cyl. in line

12,9

382 (520) @ 2.000

Diesel 4 stroke

4

Liquid

Counterclockwise

Electronic

EUI

### WEIGHT AND DIMENSIONS

| Dimensions* | (L**xWxH) | 1465 | х | 1000 | х | 1058 | m m |
|-------------|-----------|------|---|------|---|------|-----|
| Dry Weight  |           |      |   |      |   | 1345 | Kg  |

\* Dimensions can be changed according to engine options

\*\* Length at flywheel

| Rating | ΚW  | ф   | шdл  | g/kWh @ rpm<br>(Best Value) | IMO II |
|--------|-----|-----|------|-----------------------------|--------|
| С      | 382 | 520 | 2000 | 195 @ 1500                  | •      |
| D      | 367 | 500 | 2000 | 195 @ 1600                  | •      |

### Air Handling

TCA Turbocharged with aftercooler
TC Turbocharged

NA Naturally Aspirated

### **Injection System**

M Mechanical CR Common Rail

EUI Electronic Unit Injector

 Keel-cooled versions are also available



### C13 825 E

Arrangement:
Total Displacement (L):

Maximum Power (kW (Hp) @ rpm):

Thermodynamic cycle: Air handling:

Valves per cylinder: Cooling System:

Direction of Rotation

(viewed facing flywheel): Engine management:

Injection System:

6 Cyl. in line

12,9

551 (750) @ 2.400

Diesel 4 stroke TCA

4 Liquid

Counterclockwise

Electronic

EUI

### WEIGHT AND DIMENSIONS

| Dimensions* | (L**xWxH) | 1465 | х | 1000 | х | 1058 | mm |
|-------------|-----------|------|---|------|---|------|----|
| Dry Weight  |           |      |   |      |   | 1395 | Kg |

\* Dimensions can be changed according to engine options

\*\* Length at flywheel

| Rating | ΚW  | ф   | жbж  | g/kWh @ rpm<br>(Best Value) | IMO II | RCD II |
|--------|-----|-----|------|-----------------------------|--------|--------|
| B1     | 551 | 750 | 2400 | 198 @ 1900                  | •      | •      |
| В      | 478 | 650 | 2400 | 207 @ 1500                  | •      | •      |
| С      | 441 | 600 | 2400 | 207 @ 1500                  | •      | •      |

### Air Handling

TCA Turbocharged with aftercooler TC Turbocharged NA Naturally Aspirated

### **Injection System**

M Mechanical
CR Common Rail
EUI Electronic Unit Injector



### C16 600

Arrangement:

Total Displacement (L):

 $\label{eq:max-continuous-power} \mbox{Max Continuous Power (kW (Hp) @ rpm):}$ 

Thermodynamic cycle:

Air handling: Valves per cylinder:

Cooling System: Direction of Rotation

(viewed facing flywheel):

Engine management: Injection System: Diesel 4 stroke

15.9

6 Cyl. in line

441 (600) @ 1.800

4 Liquid

Counterclockwise Electronic

CR

### WEIGHT AND DIMENSIONS

| Dimensions* | (L**xWxH) | 1465 | х | 1000 | х | 1160 | mm |
|-------------|-----------|------|---|------|---|------|----|
| Dry Weight  |           |      |   |      |   | 1570 | Kg |

\* Dimensions can be changed according to engine options

\*\* Length at flywheel

| Rating | ΚW  | ф   | шdл  | g/kWh @ rpm<br>(Best Value) | IMO II | EPA<br>Tier 3<br>Commercial | China GB II<br>(GB15097-2016) |
|--------|-----|-----|------|-----------------------------|--------|-----------------------------|-------------------------------|
| D      | 441 | 600 | 1800 | 199 @ 1200                  | •      | •                           | •                             |
| D      | 404 | 550 | 1800 | 199 @ 1200                  | •      | -                           | •                             |
| D      | 368 | 500 | 1800 | 199 @ 1200                  | •      | •                           | •                             |

### Air Handling

TCA Turbocharged with aftercooler TC Turbocharged NA Naturally Aspirated

### **Injection System**

M Mechanical
CR Common Rail
EUI Electronic Unit Injector



### C16 1000

Arrangement: 6 Cyl. in line

Total Displacement (L): 15,9

Maximum Power (kW (Hp) @ rpm): 735 (1000) @ 2.300
Thermodynamic cycle: Diesel 4 stroke

Thermodynamic cycle: D
Air handling: T

TCA

Valves per cylinder: Cooling System: 4 Liquid

Direction of Rotation (viewed facing flywheel):

Counterclockwise

Engine management: Electronic

Injection System: CR

### WEIGHT AND DIMENSIONS

| Dimensions* | (L**xWxH) | 1465 | х | 1136 | х | 1160 | mm |
|-------------|-----------|------|---|------|---|------|----|
| Dry Weight  |           |      |   |      |   | 1640 | Kg |

\* Dimensions can be changed according to engine options

\*\* Length at flywheel

| Rating | ΚW  | ф    | шdя  | g/kWh @ rpm<br>(Best Value) | IMO II | RCD II | EPA<br>Tier 3<br>Commercial | China GB II<br>(GB15097-2016 |
|--------|-----|------|------|-----------------------------|--------|--------|-----------------------------|------------------------------|
| B1     | 735 | 1000 | 2300 | 205 @ 1700                  | •      | •      | •                           | •                            |
| В      | 662 | 900  | 2300 | 203 @ 1700                  | •      | •      | -                           | •                            |
| С      | 599 | 815  | 2300 | 203 @ 1700                  | •      | •      | •                           | •                            |
| С      | 551 | 750  | 2300 | 200 @ 1600                  | •      | •      | •                           | •                            |
| С      | 478 | 650  | 2300 | 208 @ 1600                  | •      | •      | •                           | •                            |

### **Air Handling**

TCA Turbocharged with aftercooler TC Turbocharged NA Naturally Aspirated

### **Injection System**

M Mechanical
CR Common Rail
EUI Electronic Unit Injector





### **Red Horizon**

FPT Industrial, in collaboration with two leading companies, NAVICO (SIMRAD) and ZF, is proud to introduce RED HORIZON: a "Premium" integrated system for engine/navigation monitoring and controls with state-of-the-art technologies.

### **Monitoring Systems**

### FPT 7" Premium Display Key Features

Based on SIMRAD technology, the FPT Premium 7" is a compact display, perfect for small-medium sportboats, dayboats, and center-consoles. Dedicated to monitoring engine data, the panel offers the chance to extend the display options on a wide range of navigation functions.

- Widescreen display with LED backlight
- Easy to use tablet-style touchscreen controls
- Wide range of engine data, alarm monitoring and options such as the on-board entertainment system control
- Multi Function Display option: fully featured chartplotter (C-MAP charts) with built-in GPS receiver, and monitoring of additional options\*, like radar, echosounder and autopilot
- Built-in wireless connectivity to a compatible smartphone or tablet, giving access to charts, radar and other functions from anywhere on board
- In addition to the 7-inch display the 9", 12" and 16" MFD sizes complete the FPT Premium Display series

### **Electronic Control Systems**

### Electronic Controls - FPT Premium Control Key Features

FPT uses ZF electronic propulsion control systems at the cutting edge of electronics technology, specifically matched for FPT engines

- The Premium electronic control is a powerful system that integrates the latest CAN bus technology in an innovative and compact control head, with an ergonomic lever and a user-friendly display where all functions can be easily selected
- With an easy plug-in installation, the "Premium" control provides complete governance of navigation offering bottom set up, start interlock, emergency reversal protection, engine synchronisation and optional features for docking or trolling
- Up to six control stations.

### Manoeuvring Systems - FPT Premium Joystick Key Features

Controlling engines, transmissions and thrusters simultaneously, the "Premium joystick" provides unbeatable ease of vessel control during manoeuvres. The "Premium joystick" offers the following main advantages: vessel control at low speed, easy manoeuvring in tight spaces, vessel positioning against wind and current

Main technical features:

- 12/24 V DC system
- CAN based joystick station, with one push button to take control and select functions
- CE certified Manoeuvring Control Unit
- CAN connection to "Premium control" processor
- Options:
- Hold Position
- · Interface with ZF Steer Command
- Up to six control stations

<sup>\*</sup> Devices provided by NAVICO (SIMRAD) network

### **Marine Engine Options**

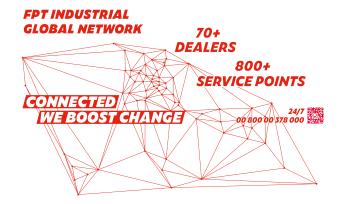
FPT Industrial offer a whole range of options to complete your engine:

- Suspensions (Silent block)
- · Electrical system 12V/24V
- · Insulated poles electrical system
- Uprated Alternators
- Front PTO
- Instruments kit
- Digital and analog panels
- · Water cooled or dry exhaust pipes
- Gearboxes
- Emission and Propulsion engine certification with several classification societies
- NMEA2000 Converter
- · Remote Control lever
- Red Horizon

Please contact your local distributor on our locator at fptindustrial.com to get more information.

### **FPT Industrial Global Network**

Marine



| NOTE | NOTE |
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# **NOTE**