

Certificate No:

**E-13861**

File No:

**822.21**

Job Id:

**262.1-017419-1**

## TYPE APPROVAL CERTIFICATE

### This is to certify:

#### That the Frequency Converter

with type designation(s)

**AC30 Series**

Issued to

**Parker Hannifin Manufacturing Limited**  
**West Sussex, United Kingdom**

is found to comply with

**Det Norske Veritas' Rules for Classification of Ships, High Speed & Light Craft and Det Norske Veritas' Offshore Standards**

### Application :

**Frequency Converter AC30 series for use onboard ships and mobile offshore units**

**Range: 1,1kW to 75 kW 380-480 VAC supply**

This Certificate is valid until **2018-12-31**.

Issued at **Høvik** on **2014-12-16**

DNV GL local station: **Southampton**

Approval Engineer: **Marta Alonso Pontes**

for **DNV GL**

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**Marit Laumann**  
**Head of Section**

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

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## Product description

Variable speed controller for asynchronous motor. Constant/Variable torque applications.

Ratings for 0 - 40°C operation (Normal Duty)			Ratings for 0 - 45°C operation (Heavy Duty)			Frame
kW	Output current [A]		kW	Output current [A]		
	400V	480V		400V	480V	
1,1	3,5	3,0	0,75	2,5	2,1	D
1,5	4,5	3,4	1,1	3,5	3,0	D
2,2	5,5	4,8	1,5	4,5	3,4	D
3	7,5	5,8	2,2	5,5	4,8	D
4	10	7,6	3	7,5	5,8	D
5,5	12	11	4	10	7,6	D
7,5	16	14	5,5	12	11	E
11	23	21	7,5	16	14	E
15	32	27	11	23	21	F
18,5	38	36	15	32	27	F
22	45	40	18	38	36	G
30	60	52	22	45	40	G
37	73	65	30	60	52	G
45	87	77	37	73	65	H
55	105	96	45	87	77	H
75	145	124	55	105	96	H

## Application/Limitation

Supply voltage range: 380-480VAC  
 Voltage variation: ±10%  
 Frequency range: 45-65 Hz  
 Temperature range in operation: 0-40°C (Normal duty) / 0-45°C (Heavy duty)  
 Temperature class: A  
 Vibration class: A  
 Humidity class: A  
 EMC class\*: IEC 61800-3  
 To be used on EMC class A locations

The AC30 drives must be regarded as a component. The actual installation shall be designed according to Parker AC30V User's Manual and according to the applicable DNV Rules for the actual application.

To be installed in an enclosure with an IP degree in accordance with DNV Rules w.r.t. location.

\*Convertes comply with IEC 61800-3 C2/C3 if fitted with EMC filter kit and limitation regarding maximum cable length. See Parker's AC30V series variable speed drive product manual.

## Type Approval documentation

[MCANO381/PONT/262.1-017419-J-22 dated 12 12 2014](#)

[MCANO381/PONT/262.1-017419-J-8 dated 22 10 2014](#)


## Tests carried out

Visual inspection, electrical power supply failure test, power supply variation test, vibration test, dry heat test, damp heat test, insulation test, light load and function test, rated current, temperature rise.

EMC: The following tests are in accordance with the IEC 601800-3 and CN 2.4: Electrical fast transient (Burst), electrical slow transient (Surge), conducted disturbances, electric discharge (ESD), radiated and conducted emission.

## Marking of product

Parker – Type designation – Power – Voltage



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### **Periodical assessment**

The scope of the periodical assessment is to verify that the conditions stipulated for the Type approval are complied with and that no alterations are made to the product design or choice of materials.

The main elements of the periodical assessment are:

- Inspection on factory samples, selected at random from the production line (where practicable)
- Results from Routine tests (RT) checked (if not available, tests according to RT to be carried out)
- Review of type approval documentation
- Review of possible change in design, materials and performance
- Ensuring traceability between manufacturer's product type marking and Type Approval Certificate.

Periodical assessment to be performed at least every second year.

END OF CERTIFICATE