

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Motor Starter**

with type designation(s)
PSE

Issued to

ABB AB
Västerås, Västmanlands Län, Sweden

is found to comply with

DNV GL rules for classification – Ships, offshore units, and high speed and light craft

Application :

Products approved by this certificate are accepted for installation on all vessels classed by DNV GL.

Rated voltage (V) 600 AC

Rated current (A) 18 - 370

Frequency (Hz) 50 - 60

Issued at **Høvik** on **2018-09-29**

This Certificate is valid until **2023-09-28**.

DNV GL local station: **Stockholm**

for **DNV GL**

Approval Engineer: **Nicolay Horn**

Marta Alonso Pontes
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.



Product description

Type	Rated operation voltage Ue (V)	Rated insulation voltage Ui (kV)	Rated operation current Ie (A)	Rated power at 400 V Pe (W)	Rated conditionals short-circuit current Iq (kA)
PSE 18	220 - 600	600	5.4 - 18	7.5	85* / 75**
PSE 25			7.5 - 25	11	
PSE 30			9 - 30	15	
PSE 37			11.1 - 37	18.5	
PSE 45			13.5 - 45	22	
PSE 60			18 - 60	30	
PSE 72			21.6 - 72	37	
PSE 85			25.5 - 85	45	
PSE 105			31.8 - 106	55	
PSE 142			42.9 - 143	75	
PSE 170			53.3 - 171	90	
PSE 210			63 - 210	110	
PSE 250			75 - 250	132	
PSE 300			96 - 300	160	
PSE 370			111 - 370	200	
PSE 210-600-70-1			63 - 210	110	
PSE 250-600-70-1			75 - 250	132	
PSE 300-600-70-1			96 - 300	160	
PSE 370-600-70-1			111 - 370	200	

* With fuse ** With circuit breaker

Type Approval documentation

Tests carried out

Type tests in accordance with IEC 60947-4-2. EMC Tests, Inclination test, Vibration test, Insulation resistance test, Damp heat test, Dry heat test, Low temperature test and high voltage test.

Marking of product

ABB – Type designation – Rated voltage – Rated current - Breaking capacity.

Periodical assessment

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

The main elements of the survey are:

- Inspection on factory samples, selected at random from the production line (where practicable)
- Results from Routines (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.

Survey to be performed at 2, 3.5 year and at renewal.

END OF CERTIFICATE