

High-efficiency radial fan

type: VR 63 S10 C1 U R 0630 LG360 MGG6

suction diameter	500 mm
impeller diameter	631 mm

Casing position: accord. instructions

- single inlet
- direct connection of the tubes on the suction side
- direct connection of the tubes on the pressure side
- drive by belts
- impeller supported on one side (overhung mounted)
- bearings on bearing pedestal

Note: For the conveyance of process gas without toxic, corrosive, abrasive and solid build up tendency and not for use in Ex-protected environments!

Note: For use on frequency converter only!

Note: fan only designed for an ambient temperature range of -10°C to 40°C

Given data:

volume flow	13000 Nm ³ /h
total pressure	25,00 mbar
density on normal condition	1,292 kg/Nm ³
height above sea level	200 m
atmospherical pressure	989,45 mbar

Calculated data:

volume flow	7,08 m ³ /s
total pressure	2500 Pa
operation density	0,659 kg/m ³
operation temperature	250 °C
max. operation temperature	280 °C
rotational speed	3061 1/min
max. rotational speed	3215 1/min
peripheral speed	101 m/s
efficiency	78 %
fan moment of inertia	2,0 kgm ²
power requirement at the shaft at 250°C	22,6 kW
start up time (direct)	2,9 s
start up time (star/delta)	13,2 s
sound pressure level outside the fan	90 dB(A)

Motor:

three phase squirrel cage motor with PTC	
size	225 S
rotational speed	1475 1/min
power	37,0 kW
voltage	400/690 V
frequency	50 Hz

In case of order, the customer has to supply the motor datasheets and drawings with the PO, if motor deviates from the motor assembled in previous orders. The motor will not be delivered to Pollrich for assembly and test run, but will be assembled by customer himself on site. The customer has been informed that therefore the Pollrich warranty terms do not apply.

Weight:

fan incl. accessories without motor	535 kg/pcs
motor	265 kg
insulation	75 kg
fan incl. motor	875 kg/pcs

Scope of supply

Design:

- as delivered under order number K1/12/2001517_0010

Casing:

- casing position: LG 360
- welded construction with stiffenings and suspension eyes
- welding seams at the outside continuously welded
- prepared for insulation
- not parted, with suction cover for impeller dismounting
- inspection flap
- condensate drain, sealed with plug
- inlet socket with drilled connection frame
- outlet socket with drilled connection frame
- shaft passage with gap, without special requirements to the tightness
- material: 1.0038 (RSt37-2)
- painting:
 - sandblast, SA 2 1/2
 - 1 comp zinc dust primer
 - zinc-pale silver grey (RAL 7001)
 - thickness of painting: approx. 70 µm
- with cooling disc (315 mm)
 - with cooling disc protection cover (galvanised perforated sheet metal)

Impeller:

- closed impeller with cover disc
- backward inclined, logarithmically curved blades
- all welding seams continuously welded
- hub with self-fastening screws screwed and fixed by braces
- dynamically balanced in two planes accord. DIN ISO 1940 T1 - G 6.3
- material: 1.8928 (N-A-XTRA 70) or equivalent
- additional blades at the impeller back wall
- painting:
 - sandblast, SA 2 1/2
 - 1 comp zinc dust primer
 - zinc-pale silver grey (RAL 7001)
 - thickness of painting: approx. 70 µm

Shaft and bearing:

- shaft with journal for hub and belt disk
- shaft material 1.0570 (St52-3N)
- anti-friction bearing in bearing casing
- bearing casing out of material GG20
- grease lubrication by lubrication nipples and grease quantity control
- bearing casing fixed on the buck by braces
- designed minimum durability of bearings L10 = 80000 h

Bearing support base:

- out of steel plates and profiles, welded construction, welded to casing and base frame
- material 1.0038 (RSt37-2)
- painting same as base frame

Base frame / Foot frame:

- out of profiles for casing, bearing buck and motor assembly
- material 1.0038 (RSt37-2)
- painting:

sandblast, SA 2 1/2
resin primer
resin primer
2 comp acryl (pure)-coating blue grey (RAL 7031)
thickness of painting: approx. 120 µm

Drive:

- by V-belt drive
 - incl. motor slide rails
 - with belt drive protection cover (galvanised sheet metal)

Testing standard:

- balancing limited to impeller accord. DIN ISO 1940 T1 - G 6.3
- mechanical test run with auxiliary motor, incl. vibration measurement, acc. Pollrich standard

Documentation carried out acc. Pollrich standard containing of:

- 2 sets paper version in English & 1 set on CD-Rom in English
- instead of CE marking a "Declaration of Incorporation" according to the EC - Machinery Directive 2006/42/EC, Annex II 1. B is in scope of supply.
- manufacturers certificate
- operating & maintenance manual
- drawing (digital version as PDF)
- balancing certificate
- fan details: fan curve and sound data
- lubrication schedule
- documentation of build in equipment depending on supplier: none