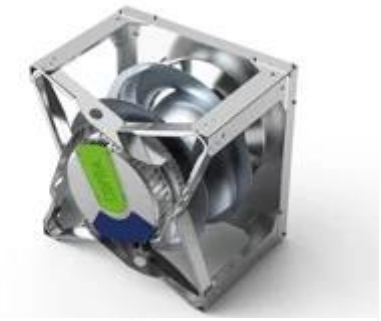
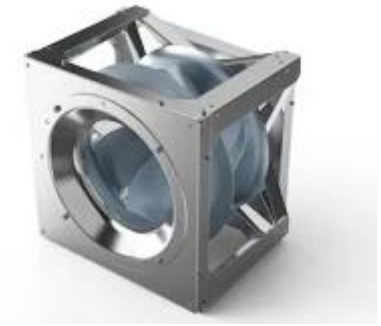
NICOTRA Gebhardt

Specification of: COPRA PA-C45-JM56-C0000





High-performance centrifugal fan COPRA PLUG with direct drive. With extremely flat, highly efficient motor-impeller unit with permanent magnet motor and integrated controller.
Extremely short compact built-in module with highest system efficiency. Specially designed motor impeller unit. Free from aerodynamic obstructions in the inflow area. Newly developed high performance impeller manufactured automatically from high strength aluminum , step welded, with 5 backward curved blades in profiled 3D design with true airfoil. balanced statically and dynamically according to DIN ISO 21940-11. System inlet cone made of galvanized sheet steel for

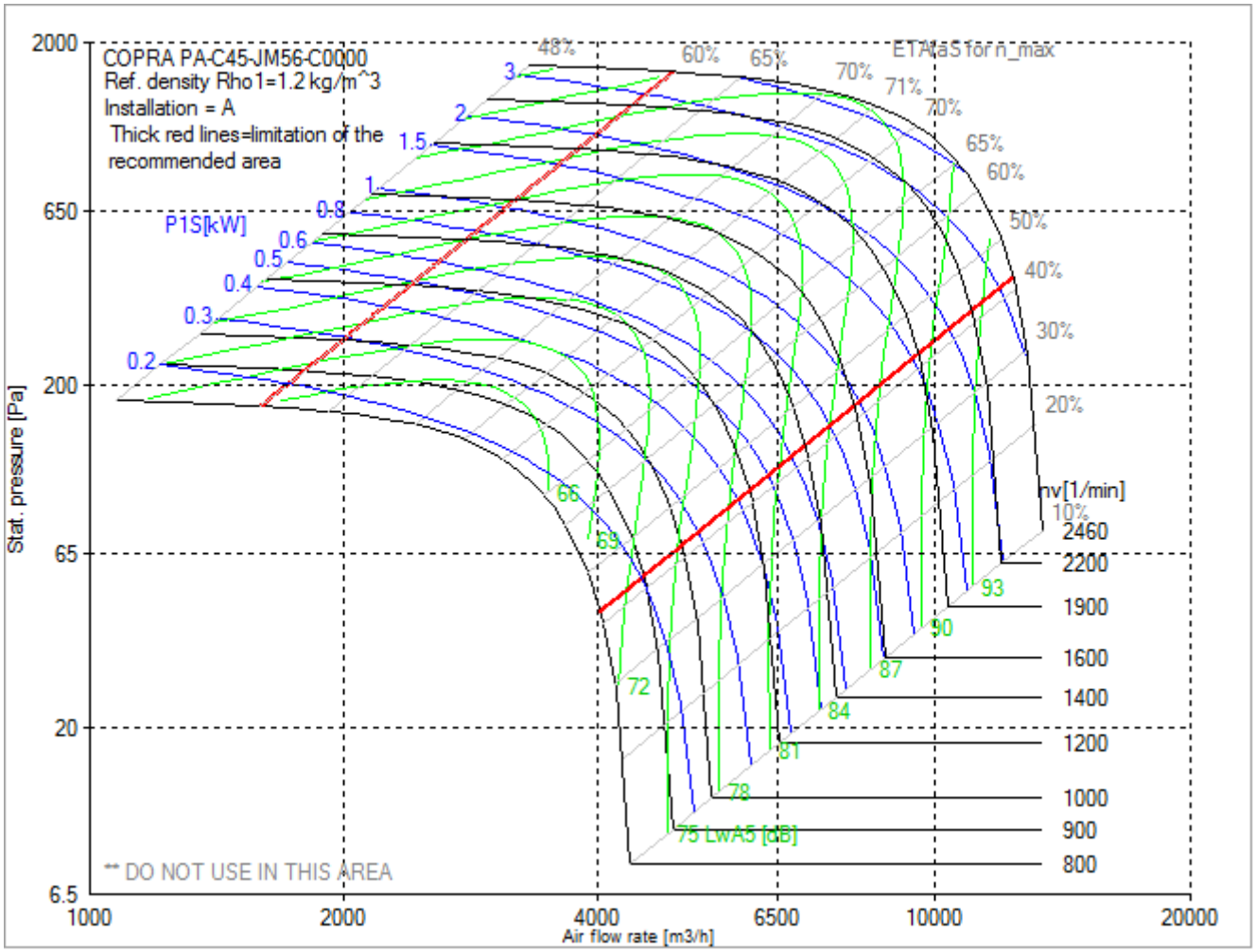
optimal inflow to the impeller, equipped with flow measuring device IMV as a standard feature. Extremely short internal rotor motor in highly efficient permanent magnet technology with integrated control electronics, in efficiency class IE6, functionally perfectly matched to the impeller. Continuous speed control of the Drive System by 0 ... 10 V analogue signal, or with Modbus RS485-compliant interface. Drive system complete with IP54 protection. Motor and inverter are UL recognized. Due to minimal losses and intelligent cooling concept, no additional motor cooling by air flow required. Magnets without the use of rare earths. Fan can be used in horizontal and vertical axis position. Performance data to DIN 24166 Class 1 (BS 848 Class "A")

Technical data of the fan: COPRA PA-C45-JM56-C0000

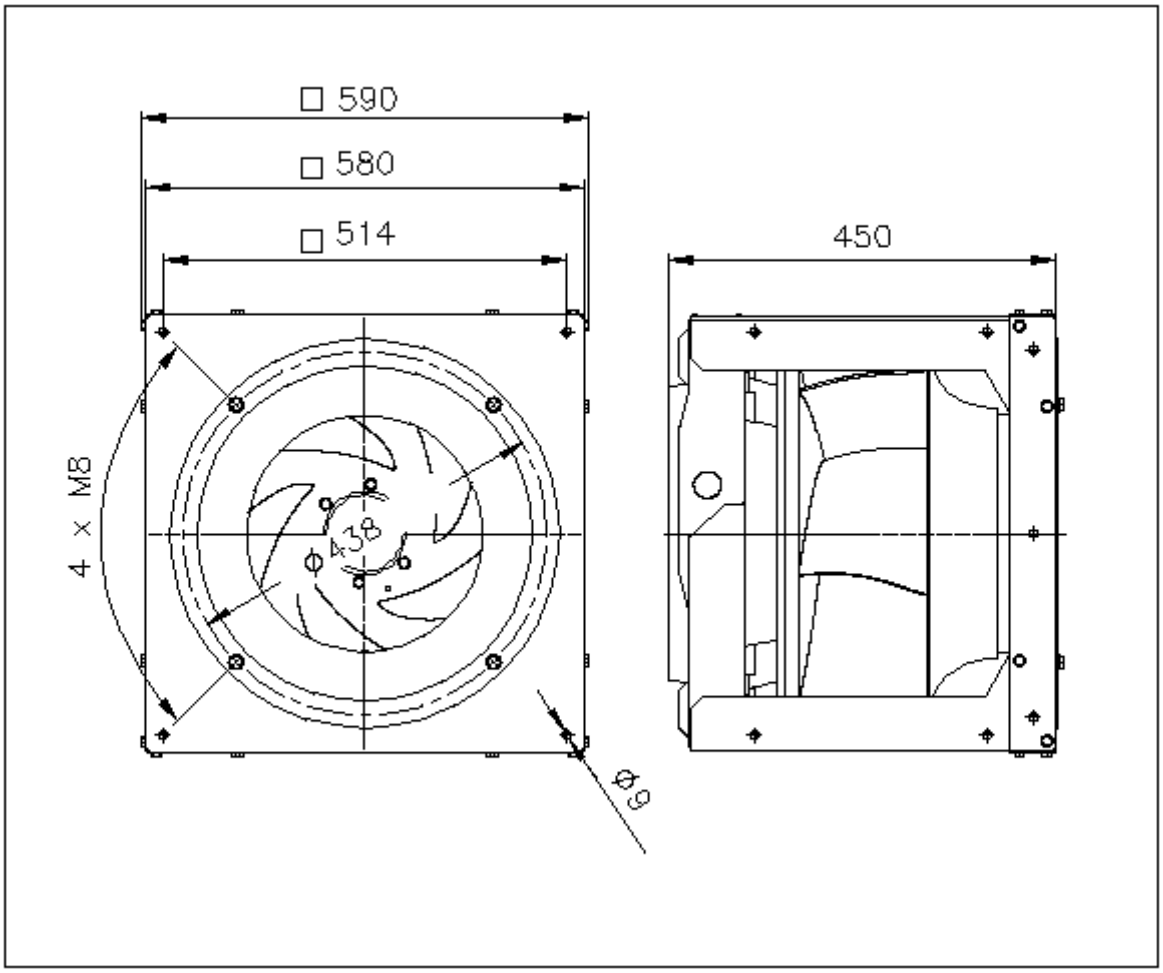
fulfills the ErP requirements 2015

Description	Value	Dimension
Installation acc. DIN 24163 Part 1	A	
Reference density (Rho1)	1.20	kg/m³
Medium temperature (t)	20	C
Fan weight	41	kg
Feed data		
Main's frequency (f_N)	50/60	Hz
Voltage (U_N)	3~ 380-480	V
Phases-Voltage-Frequency	3~400-50	V-Hz
Power (P_N)	0	kW
operational limits		
Max. fan speed (n_{vmax})	2460	min^{-1}
Max. absorbed power of the system (P_{maxS})	4.40	kW
max. current: Inverter out resp. control unit in (I_{max})	7.1	A
Temperature range for conveying medium (t_{min} ...t_{max})	-20...40	C
ErP-Data at best efficiency and density - kg/m^3		
measurement- / efficiency category	A / static	
design status of VSD	VSD is integrated	
overall efficiency (ETA_{opt})	73.7	%
achieved efficiency grade (N_{ist})	77.6	
required efficiency grade in 2013 / 2015 (N)	58 / 62	
Air flow rate (V_{opt})	8529	m³/h
pressure rise (dp_{opt})	1317	Pa
Fan speed (n_{vopt})	2460	min^{-1}
motor power input (P_{1opt})	4.24	kW
specific ratio (d_{dpopt})	1.013	

Fan curve to COPRA PA-C45-JM56-C0000

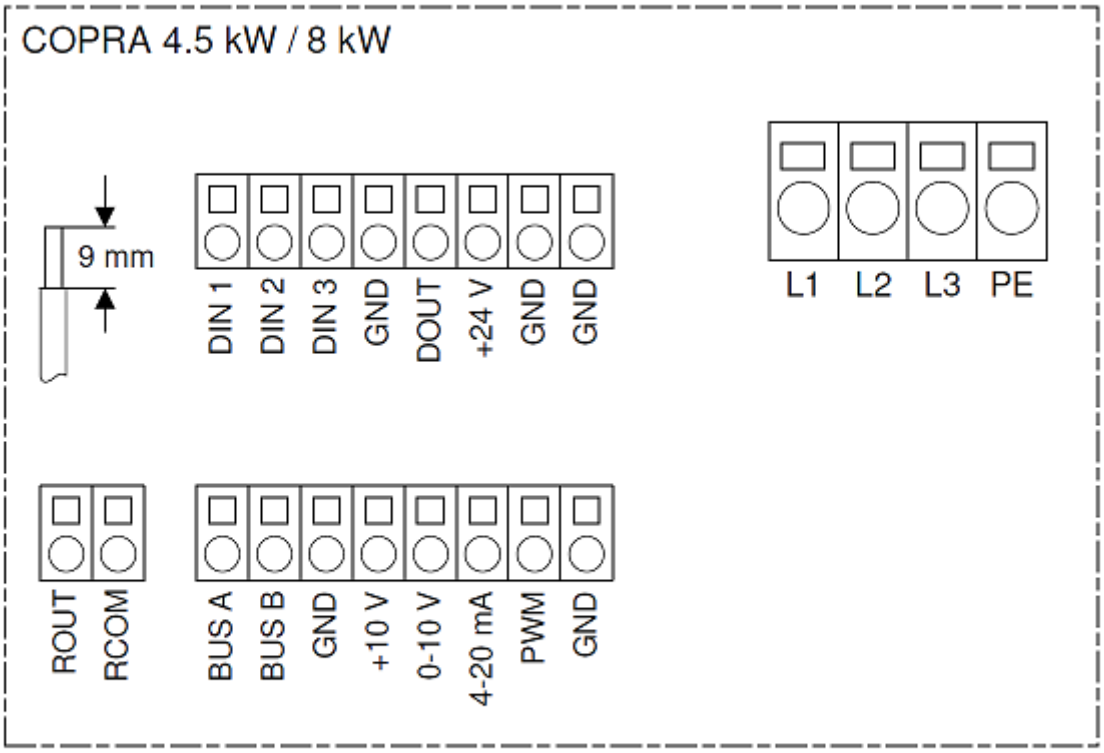


Dimensions to COPRA PA-C45-JM56-C0000



Rotation:	LG
Handing:	90

Wiring diagram of the fan COPRA PA-C45-JM56-C0000



Wiring diagram for connection to: mains - VSD - motor
Rotation: LG