

ABSTRAK
ANALISIS EFISIENSI MOTOR GB 301 2,3kV TIGA FASA
PADA PRILLING TOWER PUSRI III DI PT. PUPUK
SRIWIDJAJA PALEMBANG

(2024 : xv + 52 halaman + Daftar Pustaka + Lampiran)

Rifqi Emyr Shafa

062330310550

Jurusan Teknik Elektro

Program Studi Teknik Listrik

Politeknik Negeri Sriwijaya

Motor induksi tiga fasa merupakan salah satu peralatan listrik yang banyak digunakan di dunia industri karena memiliki konstruksi yang sederhana, keandalan yang tinggi, serta biaya perawatan yang relatif rendah. Pada PT Pupuk Sriwidjaja Palembang, Motor Induksi Tiga Fasa GB 301 digunakan sebagai penggerak Induced Draft Fan (ID Fan) pada Prilling Tower Pusri III yang berfungsi mensirkulasikan udara dingin untuk proses pembentukan butiran pupuk urea. Mengingat pentingnya peranan motor tersebut dalam proses produksi, maka diperlukan analisis terhadap nilai efisiensi motor untuk mengetahui tingkat kinerja dan kondisi operasinya.

Kata Kunci : Motor Induksi Tiga Fasa, Efisiensi Motor, Daya Input, Daya Output, Rugi-rugi Daya, Induced Draft Fan, Prilling Tower.

ABSTRACT
EFFICIENCY ANALYSIS OF A 2.3kV THREE-PHASE GB 301
MOTOR ON A PRILLING TOWER PUSRI III AT PT. PUPUK
SRIWIDJAJA PALEMBANG

(2026 : xv + 52 Pages + Bibliography + Attachment)

Rifqi Emyr Shafa

062330310550

DEPARTMENT OF ELECTRICAL ENGINEERING

ELECTRICAL ENGINEERING STUDY PROGRAM

SRIWIJAYA STATE POLYTECHNIC

Three-phase induction motors are one of the most widely used electrical devices in the industrial world due to their simple construction, high reliability, and relatively low maintenance costs. At PT Pupuk Sriwidjaja Palembang, a GB 301 Three-Phase Induction Motor drives the Induced Draft Fan (ID Fan) in the Prilling Tower Pusri III, which circulates cool air for the urea fertilizer granule formation process. Given the motor's critical role in the production process, an efficiency analysis is necessary to determine its performance and operating conditions.

Keywords: Three-Phase Induction Motor, Motor Efficiency, Input Power, Output Power, Power Losses, Induced Draft Fan, Prilling Tower.