Allen-Bradley
by ROCKWELL AUTOMATION

Catalog #: 20DC022A0EYNANANE

20D, 22 A at 11 kW, 400V AC Three-Phase, IP20/NEMA/UL 1, Ph II Ctrl - Expanded Cassette, Future Use, No HIM - Blank Plate, No Communication Module, W/ EMC Filt & ComModeChoke, Brake IGBT Installed, No Internal Brake Resistor, Size 1 Frame, Ph II CtI, No DriveLogix, English Documentation

Lifecycle status: **Fim do ciclo de vida**

Rockwell Automation announces that as of June 30, 2023, the 20D, 22 A at 11 kW, 400V AC Three-Phase, IP20/NEMA/UL 1, Ph II Ctrl - Expanded Cassette, Future Use, No HIM - Blank Plate, No Communication Module, W/ EMC Filt & ComModeChoke, Brake IGBT Installed, No Internal Brake Resistor, Size 1 Frame, Ph II CtI, No DriveLogix, English Documentation will be discontinued and no longer available for sale. Customers are encouraged to remove references to the affected product(s).

Discontinued Date:	June 30, 2023
Replacement Category:	Engineering Replacement
Produto de reposição:	PowerFlex 750 family [https://www.rockwellautomation.com/pt-br/products/details.PowerFlex 750 family.html]

Technical Specifications

Mechanical

Degree of protection (IP)	IP20
Shock	10 G peak for 11 ms duration (±1.0 ms)
PWM frequency	4 kHz @ 540V DC
Vibration	0.152 mm (0.006 in.) displacement, 1 G peak, 5.5 Hz

Electrical

Number of analogue outputs	2
Mains voltage	400 V
Integrated breaking resistance	No
Max. output voltage	932 V
Internal dynamic brake resistors	115 Ohm
DC bus overvoltage trip	810V DC @ 380/400V
DC nominal bus voltage	540V DC @ 380/400V

Brake IGBT	Brake IGBT installed
Internal communication module	No communication module
Fuse current rating	40 A @ 540V DC
Input voltage rating	400V AC, 3-phase, 50 Hz
Displacement power factor	0.98 across speed range
Output current, continuous	22 A @ 540V DC
Output current, 1 min	24.2 A @ 540V DC
Output current, 3 sec	33 A @ 540V DC
Circuit breaker current rating, max	80 A @ 400V AC, 3-phase
Motor circuit protector current rating, max	30 A @ 400V AC, 3-phase
Logic control ride-thru	0.25 seconds, drive not running
Brake resistor	No internal brake resistor
Input current rating	24 A @ 540V DC
Rated power rating	7.5 kW @ 540V DC, heavy duty
Documentation	English documentation
Carrier frequency	Drive rating: 4 kHz, settings: 2, 4, 6, 8, 10 kHz (6 kHz is for V/Hz operation only)
AC input overvoltage trip	600V AC @ 380/400V (six pulse, 3-phase)
Input power rating	14.3 kVA @ 400V AC, 3-phase
Electronic motor overload protection	Class 10 motor overload protection according to NEC article 430 and motor over-temperature protection according to NEC article 430.126 (A)(2). UL 508C file E59272
Dual element time delay fuse current rating	30…45 A @ 400V AC, 3-phase
Non-time delay fuse current rating	30…80 A @ 400V AC, 3-phase
Heat sink thermistor	Monitored by microprocessor overtemperature trip
Drive to motor power ratio, max	The drive to motor rating cannot exceed a 2:1 ratio
Stop modes	Multiple programmable stop modes including – Ramp, Coast, and Current Limit
Acceleration/deceleration	Independently programmable accel and decel times adjustable from 0 to 6553.5 in 0.1 second increments
Number of digital inputs	6
Number of digital outputs	2
Number of analogue inputs	3
Motor voltage, nom	383V @ 380…400V drive rating, 400V nominal line voltage

Human interface model	No HIM (no blank plastic inserted)
Additional configuration	Phase II control
Max. output frequency	400 Hz
Line voltage, nom	400V @ 380...400V drive rating, 383V nominal motor voltage
Mains frequency	50 Hz
Internal EMC filtering	With EMC filter & common mode choke
Watt loss	389 W @ 400V AC, 11 kW normal duty, 7.5 kW heavy duty
Feedback option	Future use
Drive full power range	383...528V @ 380...400V drive rating, 383V nominal motor voltage
Drive operating range	325...528V @ 380...400V drive rating, 383V nominal motor voltage
Torque regulation	Torque regulation - without feedback: ±5%, 600 rad/sec bandwidth
Enclosure type	IP20/NEMA/UL Type 1
Output current rating	22 amps, 11 kW normal duty, 7.5 kW heavy duty, frame 1
Control options	Phase II control, expanded cassette
Drive overcurrent trip	Software current limit: 105% of motor rated to 200% of drive rated current
Efficiency	97.5% at rated amps, nominal line volts
Speed control	Speed regulation - without feedback: 0.1% of base speed across 120:1 speed range, 120:1 operating range, 50 rad/sec bandwidth
Current limit capability	Independent motoring and regenerative power limits programmable to 800% of rated output current
Selectable motor control	Field oriented control with and without a feedback device and permanent magnet motor control
Input phases	Six-pulse, 3-phase input provides full rating for all drives, single-phase operation provides 50% of rated current
Control method	Induction motor and brushless motor: sine coded PWM with programmable carrier frequency, indirect self organized, field-oriented control, current-regulated, ratings apply to all drives, refer to the PowerFlex 700S Phase II control reference manual, public
Number of phases output	3
Number of phases input	3
Relative symmetric net voltage tolerance	10 %
Input frequency, max	400 Hz
Output frequency range	0 Hz

DC bus undervoltage trip	Adjustable
Output voltage range	0 to rated motor voltage
Power ride-thru	15 milliseconds at full load
S-curve time	Adjustable 0.5...4.0 seconds
Short circuit trip	Phase-to-phase on drive output
Ground fault trip	Phase-to-ground on drive output
Control logic noise immunity	Showering arc transients upto 1500V peak
Line transients	Up to 6000 volts peak per IEEE C62.41-1991
Intermittent overload	110% overload capability for up to 1 minute, 150% overload capability for up to 3 seconds
Short circuit current, max	Using recommended fuse or circuit breaker type: maximum short circuit current rating to match specified fuse/circuit breaker capability ≤200000 Amps
Encoder voltage supply	5V DC or 12V DC 320 mA/channel, 5V DC minimum high state voltage state of 0.4V DC, 12V DC minimum high state voltage of 7.0V DC, maximum low state voltage of 0.4V DC

Construction

Height, approx	336 mm
Depth, approx	200 mm
Width, approx	166.9 mm
Weight, approx	Drive: 7.03 kg

Environmental

Sound level	Frame 1: 59 dB @ 30 CFM fan speed
Altitude	1000 m (3300 ft.) maximum without derating
Degree of protection (NEMA)	1
Atmosphere	Drive must not be installed in an area where the ambient atmosphere contains volatile or corrosive gas, vapors, or dust, If the drive is not going to be installed for a period of time, it must be stored in an area where it will not be exposed to a corrosi
Operating temperature	50 °C @ 540V DC
Storage temperature	-40 °C
Relative humidity	5...95% noncondensing
Surrounding air temperature without derating	NEMA/UL Type 1: 0° to 40° C (32° to 104° F)