



DFS Series

Ready to use AC enclosed drives for industrial automation, pumping and HVAC/R



DFS Series

Pre-engineered enclosed drives

Nidec Drives has set the standards in motor control since 1973.

Nidec Drives AC drives deliver the ultimate in control and dynamic response of AC induction and permanent magnet motors.

Unidrive M600, Unidrive M700 series and F600 Pump Drives are now pre-engineered and packaged into robust, highly configurable Drive Free Standing (DFS) solutions. Save engineering cost, resource, and time through easy configuration of quality packaged drive systems that are highly adaptable for stand-alone applications, or ready to integrate into a broader system suite.

DFS is ready for fast deployment to minimize downtime in emergency situations, or short lead time project requirements.

No extra engineering required

- Easy to install Rittal modular enclosures that include, as standard: UL Type 12 filtered forced ventilation, main circuit breaker (35kA IC), fuses (UL), integrated medium impedance input line reactor, output load sharing chokes for DFS2 and DFS3 models, door mounted enhanced 3" programming keypad with RTC feature and Bluetooth capability, HD lifting eyes, and 4" H plinth base.
- Broad suite of option packages to meet various demanding applications and environments.
- Increased safety against arc-flash with provisioning for isolator sequestering.
- Compact design minimizes footprint.
- Serviceable design allows for fast and easy access to key components including fuses and drive modules. Frame 12 modules are mounted on nylon wheels and can be removed with optional pallet truck lifting kit and ramp for quick, safe, and easy servicing.
- Designing and building a high power drive cabinet takes immense engineering knowhow. Many companies don't have that expertise inhouse. But we do. And we've put it all into our DFS series.



This product comes with 5-year warranty as standard (installed drive only)



700 HP DFS1 shown

CFE Media - Plant Engineering product of the year (Electric Motors & Drives Category)

DFS Series

Ordering information

M600, M70x & F600 | 460 Vac | 3Phase Input and Output | 40°C | 104°F

Frame Size	Normal Duty 2 kHz		Heavy Duty 3 kHz	
	HP*	Amps	HP*	Amps
DFS1H4	150	184	125	157
DFS1K4	200	266	175	211
DFS1L4	250	320	200	270
DFS1M4	300	361	250	307
DFS1N4	350	437	300	377
DFS1P4	400	487	350	415
DFS1Q4	450	507	350	415
DFS1R4	500	608	350	461
DFS1S4	550	660	450	526
DFS1T4	600	755	475	581
DFS1U4	700	865	500	619
DFS2L4	500	608	450	513
DFS2M4	600	686	500	583
DFS2N4	700	830	600	716
DFS2Q4	850	963	700	789
DFS3N4	1000	1245	900	1075
DFS3P4	1150	1388	1000	1185
DFS3Q4	1250	1445	1000	1185

* Horsepower ratings reflect typical 4-pole 60 Hz motors.
For correct drive selection, use motor nameplate Amps.

Ratings

Power range: 150 – 1,250 HP

Supply voltage: 460 and 575 VAC

Motor current: 184 – 1,445 A

Easy to configure, ready to ship

- Simple to quote - Nidec Drives partners are equipped with an online configurator to build and quote solutions in minutes.
- Factory stocked complete systems to support emergency shipment (select sizes).
- Some configurations are available as normal stock items.

Check with the factory for current lead times.

Factory options

Drive:

- Unidrive M600, M700, M701, M702.
- F600 Pump Drive.

Environment:

- Air Cooled UL Type 12, UL Type 3R.
- Anti-condensation heaters.
- Interior lighting options.
- Plinth-base height options.

Supply:

- Trip options.
- Provisioning for top or bottom entry cabling.
- Active passive harmonic filter options, up to 400HP.

Operator controls:

- 7" HMI, pushbutton kits, pilot light kits, and Ethernet port with service outlet.
- Enclosure door handles and lock options.
- Absence of voltage tester for arc-flash safety precaution.

Motor:

- Dynamic braking options - E-stop, 10% ED.
- Blower motor starters (forced ventilation).

Additional:

- Empty 400 mm (15.7 in) wide bay with mounting panel for customer use.
- VFD I/O can be brought down to customer terminal strip.
- Incomer section isolation panel (sequestering for arc-flash protection).

DFS Series Dimensions

Dimensions



DFS1 up to 700 HP

450 HP Model Shown

DFS2 up to 700 HP

UL TYPE 12 | NEMA 12

Size	Width		Depth		Height	
	in	mm	in	mm	in	mm
DFS1	15.8	400	28.5	724	84	2,135
DFS1 ⁽¹⁾	39.1	1,000	23.8	605	85.9	2,180
DFS2	47.3	1,200	29 ⁽²⁾	724 ⁽³⁾	84	2,135
DFS3	78.9	1,800	29	724	84	2,135

UL TYPE 3R | NEMA 3R

Size	Width		Depth ⁽³⁾		Height	
	in	mm	in	mm	in	mm
DFS1	23.6	600	36.4	924	85	2,159

DFS1, DFS2, and DFS3 drive heatsinks are thru mounted. Depth dimension includes up to 4.6 in (117.5 mm) heatsink extension from cabinet back.

⁽¹⁾ DFS1 frame 12 configurations are totally enclosed. Applies to DFS1R, DFS1S, DFS1T, and DFS1U models

⁽²⁾ 855HP Normal Duty 55.1 in (1,400 mm)

⁽³⁾ Drive heatsink is thru mounted and covered with UL Type 3R shroud. Depth dimension includes 12.5 in (30 mm) heatsink shroud.

Select options may impact physical dimensions

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