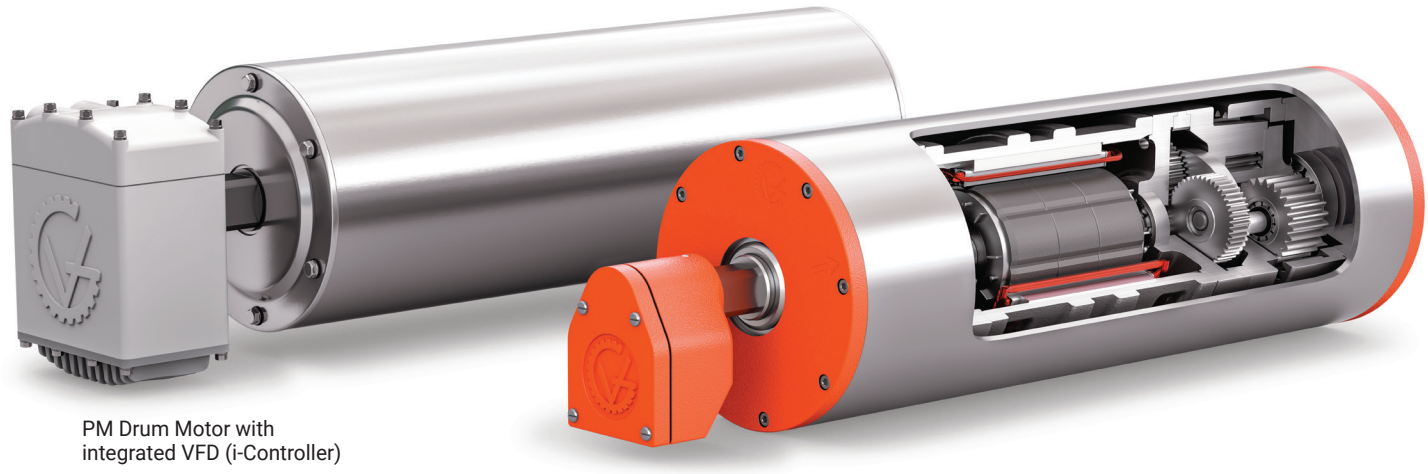
IntelliDrive® Series Drum Motors

The VDG IntelliDrive® is an internally powered conveyor belt drive with new permanent magnet (PM) motor technology. All components including the motor, gear reducer, and gears are enclosed inside the drum, delivering 40% increased efficiency, a wider range of belt speeds without loss of torque or belt-pull, and a significant increase in electric motor lifespan compared to a traditional external conveyor belt drive.

The rotor is self-induced by the permanent magnets, resulting in 60% higher electric motor torque compared to a traditional external drive. The IntelliDrive® Drum Motor requires a variable frequency device (VFD) to operate, either a remotely mounted VFD or the VDG i-Controller, which integrates the VFD inside the drum motor's electrical junction box for quick and easy setup. The IntelliDrive® enables onsite diagnostics, full motor indexing speed control, and communications with other automated plant equipment, with considerable savings from reduced energy and maintenance costs.



PM Drum Motor with integrated VFD (i-Controller)

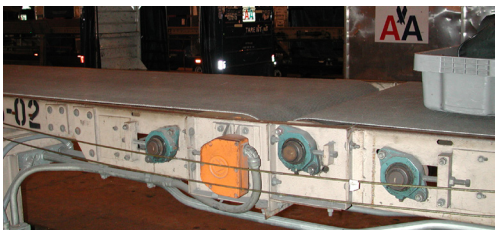
PM Drum Motor

IntelliDrive® (PM) Drum Motor Advantage:

- **PERMANENT MAGNET MOTOR TECHNOLOGY**
- **NO EXTERNAL MOVING DRIVE COMPONENTS**
- **40% INCREASED ELECTRICAL EFFICIENCY**
- **INCREASED ELECTRIC MOTOR LIFESPAN**
- **IP69K RATED ENCLOSURE**







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Made In USA

VDG Van der Graaf

IntelliDrive® Drum Motor Features & Options

DIAMETER *(inches)*	TORQUE *(ft-lbs)*	BELT SPEED RANGE *(ft/min)*	DRUM MOTOR *(TM)*
4.5	55	23 - 140	TM113
	27	83 - 500	
5.0	180	14 - 85	TM127
	55	46 - 274	
6.5	230	13 - 153	TM160
	95	31 - 368	

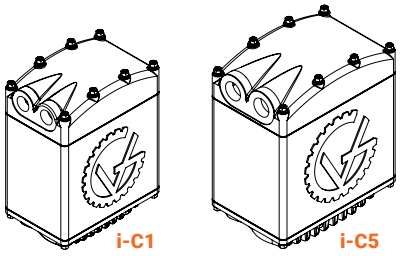
	STANDARD	OPTION
POWER CONNECTION	Junction Box,	Cable; Straight or Elbow, **VDG i-Controller**
ELECTRIC MOTOR*	Class F (155ºC) VFD rated, Inverter-duty VPI	Class H (180ºC) GV Thermal Overload Protection
VOLTAGE	480V 3 Phase	–
BACKSTOP	–	CW - Clockwise or CCW - Counter Clockwise
LAGGING	–	VDG patented IronGrip™ (TM160 and higher) Black Rubber, USDA/FDA Blue or White Nitrile Rubber: plain, diamond, or chevron pattern
DRUM PROFILE	–	V-Groove Drum Profiles for various belt manufacturers Profiled Sleeve (XP) for various belt manufacturers

***** All VDG premium-efficiency electric motors are manufactured in-house by VDG and undergo a **Vacuum Pressure Impregnation** (VPI) process, increasing the life of the electric motor.

VDG i-Controller:

Variable frequency drive (VFD) integrated inside the electric motor junction box, available in two standard models.

- ONBOARD DIAGNOSTICS
- PLC CAPABILITIES
- ETHERNET AND MODBUS READY
- IP69K ENCLOSURE RATING



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